

*Analytics*

**THE INTERNATIONAL HANDBOOK OF  
CULTURES OF PROFESSIONAL  
DEVELOPMENT FOR TEACHERS  
COMPARATIVE INTERNATIONAL ISSUES IN**

**Béatrice Boufoy-Bastick**

**COLLABORATION, REFLECTION  
MANAGEMENT AND POLICY**

**The International Handbook of Cultures of  
Professional Development for Teachers**

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**The International Handbook of Cultures of  
Professional Development for Teachers:  
Comparative international issues in  
Collaboration, Reflection,  
Management and Policy**

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The International handbook of cultures of professional development for teachers: comparative international issues in collaboration, reflection, management and policy / Beatrice Boufof-Bastick, editor.

p. cm. -- (Culture of education series)

Includes bibliographical references and index.

ISBN - 979-10-90365-02-5 (hbk.)

1. Educational anthropology – Handbooks, manuals, etc.
2. Teachers – Training – Handbooks, manuals, etc.
3. Education – curricula – Handbooks, manuals, etc.
4. Education – Study and teaching – Handbooks, manuals, etc. I. Boufof-Bastick, Béatrice. II. Series. III. Tchibofo, Guy, Series ed.

LC189.B68 2012  
306.43 – dc23

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# **P**REFACE

## **THE INTERNATIONAL HANDBOOK OF CULTURES OF PROFESSIONAL DEVELOPMENT FOR TEACHERS: COLLABORATION, REFLECTION, MANAGEMENT AND POLICY**

### **Introduction**

There are three volumes in this series of "Cultures of Education". Each volume of the trilogy focuses on a Culturometric framing of common international issues in cultures of education. Each volume is self-contained. However, the trilogy read in conjunction obviously gives a wider more complete understanding of successful Culturometric applications across world cultures of education.

This book is in part an international response to criticisms from the literature for Teachers Professional Development to become a more constructivist-based holistic endeavour that squarely addresses important positive attributes of teachers' professionalism that have been more difficult to objectively define and measure such as personal culture and commitment, professional flexibility and enactment of change; an endeavour which recognises and enhances that natural creative potential that makes teachers central change agents in the lives of their students and in the shaping

of society (Berry & Team, 2011; Creemers, Kyriakides, & Antoniou, 2012; Darling-Hammond & Lieberman, 2012; Darling-Hammond, 2010; Darling-Hammond, Bransford, LePage, Hammerness, & Duffy, 2007; Day & Sachs, 2005; Desimone, 2011, p. 69; Hargreaves & Fullan, 2012; Opfer & Pedder, 2011, p. 376; Pitsoe & Maila, 2012, p. 318; Sahlberg, 2011).

There is a growing body of recent literature that seeks to explain important aspects of Teacher Professional Development through the concept of teacher identity (Abednia, 2012; Anspal, Eisenschmidt, & Löfström, 2012; Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, 2012; Dusen & Otero, 2012; Hall, 2012; Karagiorgi, 2012; Lopes & Pereira, 2012; Nze & Ginestié, 2012; Skelton, 2012; Somerville & Rennie, 2012; Trent, 2012; Tryggvason, 2012; Wilkins, Busher, Kakos, Mohamed, & Smith, 2012).

On reviewing the literature on reasons for teacher attrition, Schaefer, Long and Clandinin, (2012) concluded that the conceptualisation of teachers' identities prioritising intentions, culture and context is one of the most fruitful approaches to teacher development. "Some recent conceptualizations consider early career teacher attrition as an identity-making process that involves a complex negotiation between individual and contextual factors." (p.106) This promising approach of using conceptualisations of teacher's identities in Teachers Professional Development is further supported in the conclusion of their review.

"This work on teacher identities offers a great deal of promise to ways we might come to understand beginning teacher attrition as a life-making process ....working from a narrative conceptualization of identity and school contexts offers a promising way to understand what sustains beginning teachers, and, in this way,

may offer the possibility of new insights about teacher education" (Schaefer, Long & Clandinin, 2012, p.118)

The new research philosophy of Culturometrics formalises this corpus on changing teachers' identities by objectively defining and measuring cultural identity (Boufoy-Bastick, 2003, 2007, 2008, 2010a, 2010b, 2010c, 2011, 2012). It is through that ontology this volume seeks to respond to criticisms of Teachers' Professional Development.

This book takes two substantial steps towards this major goal by (i) integrating applications of Teachers Professional Development as corresponding to an 'Embedded ability structure' of 'Reflection' within 'Collaboration' within 'Management and policy' and (ii) by reframing the processes of Teachers Professional Development as the alignment of 'values' in 'contexts' within 'congruent communication' – the Culturometric 'Committed Communication' framework.

'Committed Communication' is an approach within and consistent with the philosophy of constructivism relevant to the influence of stakeholders' values, attitudes and beliefs in the processes of research. This is relevant to all research simply because each stakeholder has his or her values and in all research there is at least one stakeholder – the researcher himself or herself. Thanks to the pioneering work of Rosenthal and Jacobson (1968) on how even subconscious expectation – also called the self-fulfilling prophecy – biases results, research methodology now routinely uses procedures to promote trustworthiness of the research outcome. These procedures include methods, such as random assignment and triple blindedness, that seek to protect the research **outcomes** from bias of stakeholders' values. Culturometrics adds some of its own new methods of excluding cultural bias – such as

Cultural Index regulators (Boufoy-Bastick, 2012). There has recently been much institutional emphasis promoting independence and evidence-based research in Education (Cook, Smith, & Tankersley, 2012; Marsh, 2005; Slavin, 2002) and at least one of our authors addresses these issues in their chapter. However, we need to be more critical of the fundamental assumptions of this 'evidence-based' and 'practice-based' research, look more closely particularly at 'values in context' and question why particular evidence is selected – whose facts are they – and question what is relevant to 'independence' – who determines what and who is biased (Black, 2001; Bridges, Smeyers, & Smith, 2009).

Hence, sensitivity to values and context is important for research validities – not only for consequential validities and face validities. We should be clear that Culturometrics uses alignment of stakeholders' 'values in context' to verify support for the research **process**, NOT for verifying all truths of the research outcomes. The Culturometric methods of qualifying and quantifying the verification of research communication by aligning stakeholders' cultural identities have not been done before and to this extent Culturometrics constitutes a new research philosophy.

The present volume frames common international issues in Teachers Professional Development, both for pre-service training and for in-service continuing professional development through the three-part Culturometric frame of 'Committed Communication'. These common issues are also categorised into three comprehensive and exhaustive concerns within the field of Teacher Professional Development. Each section of the book addresses one of these concerns. Section one addresses issues of teacher development in relation to Management and policy. Section two looks at how different types of Collaborations can and

do contribute to teachers' professional development, and Section 3 harnesses the powerful processes of Reflection that continue to contribute to the successes of formal professional development programmes in education throughout the world. This volume aims to add unity, practical utility and direction to the field by integrating these three areas of Teacher Professional Development within the three-part Culturometric framework of 'Committed Communication'.

## **1. Culturometric framework of 'Committed Communication'**

'Committed Communication' has three parts, viz. (i) Agreement of context, (ii) Alignment of values and (iii) Congruence of communication. The chapters in this volume illustrate multifarious aspects and applications of Teachers' Professional Development and can be viewed as parts of the committed communication process and as applications of the whole process. Viewing the chapters through this Culturometric lens (a) demonstrates how the reader can reframe different aspects of Teachers' Professional Development as parts of the committed communication process and (b) realise that the theory and practice of committed communication integrates the field of Teachers' Professional Development, (c) explain how and why these professional development processes are consistent and (d) demonstrate explicitly how the processes can be taught. Further, the objective measures offered by Culturometrics can be used to measure the improvements our teaching brings to the professional development of teachers.

Committed Communication is so called because the stakeholders in the communication process commit to aligning their cultural identities. Cultural identities are the values, attitudes, beliefs and intentions that we associate with a given context. Briefly, cultural identity is 'values in context' and these values are

communicated by displaying behaviours that signify the values. For example, a teacher's classroom practices in a given context would be teaching behaviours that communicate a teacher's identity in that context. The teacher might be a constructivist teacher or a transmission teacher in a particular context - anecdotally 'Teachers have to be okay inside because who they are is what they give'.

So the first thing we note is that cultural identity depends on the context. In the context of preparing students for a standardised knowledge and skills assessment, a teacher might, for example, take the '*Sage on stage*' identity values of transmission teaching in order to authoritatively train students in fast and accurate reproduction of facts and processes. However, in the different context of 'scaffolding' students' understanding the same teacher might assume the '*Guide on the side*' permissive constructivist identity values<sup>1</sup>. The Teacher's identity is traditionally given considerable importance in Teachers' Professional Programmes (Alsup, 2005; Connelly & Clandinin, 1999; O'Connor, 2008; Reio Jr., 2005a; Zembylas, 2005). Culturometrics' operational definition of Cultural Identity and of objective measurements of changes in cultural identities allow us to compare and track changes in teacher identities and so evaluate the on-going success of our professional development programmes.

We assume commitment because, within the given context, stakeholders – such as the teacher and the students - are committed to sharing each other's values, attitudes, beliefs and intentions. The chapters in this volume illustrate in different ways how the mutual success of the professional developments they

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<sup>1</sup> Compare Lev Vygotsky's 'Zone of proximal development' with -- Confucius "Every truth has four corners: as a teacher I give you one corner, and it is for you to find the other three." (Attributed).

report is reflected in this alignment of the stakeholders cultural identities – ‘alignment’ is more than mere tolerance, is a positive acceptance (Boufoy-Bastick, 2011, p. xxiii). We are saying that committed communication is a set of abilities that are fundamental to the success of teachers’ professional development and so need to be explicitly targeted in teachers’ professional development programmes. We do not have to reinvent the wheel to do this. Much of the Committed Communication model is already used implicitly in Teachers’ Professional Development Programmes and so educators will be familiar with its success. We are advocating explicit use of the theory and practical methods of the Culturometric ‘Committed Communication’ model to rapidly enhance these successes and we include related sources developed in areas outside of those traditionally used in Teacher Development Programmes that readers can innovatively incorporate for further success.

We now briefly describe the three parts of the committed communication process so teacher trainers can readily make these processes more explicit in their programmes and so that teachers themselves might consider targeting these processes as effective self-improvement aids. We will then show how this three-part alignment process is practically incorporated into the three integrated concerns of teachers’ professional development in each section of the book: Management and Policy, Collaboration and Reflection.

### ***1.1 Purpose and parts of committed communication***

The Culturometric theme of this volume is that successful professional development for teachers requires teacher competence in the Culturometric model of committed communication; whether in gaining professional expertise in collaboration, in reflection or in management and policy with

government and education administrators. Committed communication works by achieving a mutual affirmation of cultural identities, where cultural identity is simply defined as one's 'values in context'. This mutual affirmation of cultural identities results from successful alignment of stakeholders' 'values in context'. Without the agreed definition of context and the alignment of stakeholders' values within that context, applied professional development simply becomes a set of contested social practices in the sense of Pierre Bourdieu (Angus, 2004; Hardy, 2012).

There are three parts to the successful process of achieving committed communication vis. (i) Agreement of context, (ii) Alignment of values and (iii) Congruence of communication. Parts 1 and 2 are two steps in the process and Part 3 is a concurrent requirement: Step (i) is agreement on the context and Step (ii) is negotiating alignment of values; Both Step (i) and Step (ii) must happen within the environment of Part 3 which is the requirement that values stakeholders associate with the media of communication are consistent with their values that are being aligned. The meaning of Part 3 is that the processes of negotiation and of agreement require the teacher to also be aware of the values stakeholders attach to the media of communication and to ensure that the values of the media of communication are consistent with the values stakeholders are bringing to the negotiation and to the agreement (Goodman & Truss, 2004). Because of their different cultural identities, the teacher and the other stakeholders in the communication process can attach very different meanings to the same words, behaviours and intended policy outcomes i.e. the communication values are likely to be different for the different stakeholders. In the psychology of Neuro-linguistic Programming (NLP) this shift in the meaning of the communication behaviours from the teacher's perspective to the

perspective of the other stakeholders is referred to as 'calibration' (O'Connor & Seymour, 2011, pp. 52–53). There are NLP source books we can turn to that give simple step-by-step training instructions on observational techniques for improving calibration skills in our Teacher Professional Development Programmes (Gibson, 2011; Ready & Burton, 2010; Vaknin, 2011) and classic NLP guides in how teachers can align stakeholder's beliefs (Dilts, 1990).

## **2. Teachers' Professional Development: Embedded ability structure**

The three sections of this volume match the three-part embedded ability structure of Teachers' Professional Development.



Figure 1: Three-part embedded ability structure of Teachers' Professional Development

### **2.1 Reflection**

The professional development process, by which we become aware of values; of our own values, the values of others and the values that we and others associate with the communication behaviours, is 'Reflection'. From today's mature psychoanalytic perspective 'reflection' has established an august

reputation ... "We go through life reflecting on ourselves to a greater or lesser extent; and it is not only a psychoanalytic truism to think that the depth and extent of someone's capacity for such reflection might be a measure of their standing as a person" (Frosh, 2012, p. 4). To help us teach and practice reflection we can call on a venerable literature of reflection in the service of Teachers' Professional Development (Fogarty, 1994; Harris, Bruster, Peterson, & Shutt, 2010; Johnson, Mims-Cox, & Doyle-Nichols, 2009; Korthagen, Kim, & Greene, 2012; Larrivee & Cooper, 2005; Nash, 2011; O'Donnell, Reeve, & Smith, 2011; Russell & Korthagen, 1995). However, to collaborate with others, we need to change our values. To change our values with insight we need to employ Critical self-reflection. Critical self-reflection is the process of questioning one's own assumptions, presuppositions, and meaning perspectives. For help in practising the changing of our personal values we can also call on an extensive literature that uses critical self-reflection in Teachers' Professional Training (Brookfield, 1995; Mezirow, 1990; Newman, 1998; Rymes, 2009).

## **2.2 Collaboration**

When collaborating with an established group we also need to communicate our values to the group so they understand that our values are aligned with those of the group (Lieberman & Miller, 2008; Martin-Kniep, 2003). We shall see in our section 2 on Collaboration, that existing groups instigate formal processes to publicise the group's values, and to endorse 'approved' behaviours of communication through which members can signify their own aligned values. These communication behaviours are 'approved' because they signify values that are aligned with those of the group. What we learn from this is that to utilise collaborations in Teacher Professional Development we need to identify the categories of collaboration, such

as joining an existing top-down authoritative group or joining a bottom-up democratic group, or starting a peer-learning group, etc. as in Section 2, and then instigate the formal processes for the recognition, communication and alignment of values appropriate to those categories (Cramer, 2006; Friend & Cook, 2012; Hall & Simeral, 2008; Lassonde & Israel, 2009; Porter, 2008). Much work has already been done that shows us the importance of enculturating students into the values, attitudes, beliefs and intentions of their subject disciplines – particularly in mathematics, science and in music education (Barrett, 2011; Bishop, 1991; Mapana, 2011; Vat-Chromy, 2012; Yeotis, Klein, & Weaver, 2009). For further help and insight into practising and training these enculturation processes of cultural identity negotiation into the group’s values in context we can also call on the anthropological and socio-cultural literature delineating options for enculturation applied to education (Cano et al., 2012; Casanave & Li, 2008; Soth, 1981; Vat-Chromy, 2012)

### ***2.3 Management and Policy***

The most diverse forms of teacher collaboration are the substance of management and policy initiatives in the service of Teachers’ Professional Development. For example, teachers might be required to conform to some ‘improved’ government policy. A working group might be tasked with creating an educational ‘consensual policy’ – perhaps with some hidden political agenda – this is convincingly achieved with ‘best practice’ models that ignore the stringencies of diverse contexts. Chapter 33 from New Zealand is such an example. All processes comprising committed communication are then in play: Part 1- the boundary of the context can be negotiated to any degree of appropriateness by contrasting the values that determine what examples close to the boundary are in the context and which are out of the context. This is easier than it might appear because most stakeholders

compartmentalise their values to specific contexts and so a total belief makeover is avoided. The values defining appropriateness can similarly be iteratively determined. Part 2 – awareness of stakeholders' values and their alignment requires awareness of values and how to align them. Reflection and particularly critical reflection are needed for insight changes of values, attitudes, beliefs and intentions. However, cognitive insight often does not go deep enough to change stakeholders' values – an example would be the little effect that death warnings on cigarette packets have on cigarette smokers. Existing therapy processes, particularly brief therapy approaches, demonstrate how a teacher (therapist) can change the values of another stakeholder (patient) without dependence on insight (self-knowledge). Such methods, as applied for example in advertising, specifically target natural enculturation processes that can be productively used to align values within an agreed education context for management and policy applications in the service of Teachers' Professional Development. Part 3 – the values congruence of medium and message. The same processes of identifying stakeholders' values and their alignment are applied to ensuring that the stakeholders' values signified by the methods of communication are congruent with the values the stakeholders are currently bringing to negotiation. We must be prepared for the values associated with the communication process to change during the negotiation because the values stakeholders hold will be changing during the negotiation process and might not be the same as their finally aligned values.

Hence, for a communication to be acceptable during the negotiation its values need to lead acceptably on the stakeholders' current values (Youell & Youell, 2011, pp. 75–76). One advantage of the alignment process of Part 3 over alignment processes of Part 1

and 2 is that in Part 3 we have the option of aligning values, not by only changing values, but by also selecting communication behaviours signifying values that match those currently being negotiated by stakeholders.

The chapters of Section 3 present several Management and Policy examples of committed communication. What we see is success to the extent that the three parts of the committed communication model are in place. But often we can recognise that one or more of the three parts is missing and so the management and policy successes are correspondingly also only partial. Where else can we turn for help in practice and training in all three parts of committed communication for aligning cultural identities in such diverse applications of management and policy to Teacher's Professional Development?

#### ***2.4 Committed Communication applies Branding research to Teachers Professional Development***

The alignment of stakeholders' values is inherent to the discipline of branding; "A brand may be different in content for different types of users and their interests, but its ultimate meaning and value are dependent on users' agreement. Where there is no agreement among stakeholders, there is no brand content" (Meyers, 2006, p. 25). Similarly, misalignment has the opposite effect; "Because employees, customers, investors and communities increasingly enjoy open access to each other and to information about the brands and companies they choose, inconsistencies between corporate stated values and behaviours/actions, and inconsistencies in managing expectations across multiple stakeholder classes create unnecessary risks to good brand and business relationships." (Meyers, 2006, p. 30)

'Branding' in the world of business management now embraces the importance of aligned identity. The concept of 'organizational identity' has now resurfaced as 'organizational branding' (Arvidsson, 2006, p. 2) and the old bureaucratic management processes now govern by eliciting consensus of values by 'selling' or persuading their employees to adopt company values; as Adam Arvidsson writes it is ... "important to 'sell' the organization, its values and goals to employees, to make them embrace its culture and make it their own" (Arvidsson, 2006, p.3). Teachers' Professional Development can learn much from the processes of corporate branding by which corporations align the values of their employees, their customers and their other stakeholders – examples abound ..

"While corporate branding shared many techniques with previous corporate image work, the purpose was different. The corporate image tradition had tried to inscribe the corporation within an existing, national community, to show how it embraced and nurtured certain generally shared values. Corporate branding, on the other hand, was about constituting the corporation as a specific community, endowed with its own particular values, no longer subjected to the values of nation or family. The corporate image tradition sought to spread the values of the corporation to its public and to its employees. The assumption was that these values somehow preceded or transcended those of its employees. In corporate branding, on the other hand, the aim is increasingly to make employees produce the identity of the organization, and at the same time produce themselves as members of the organization. In developing their new corporate guidelines, Shell engaged employees in seminars and workshops in order to ensure that the resulting values 'came from below' and were actually representative of what employees thought about the organization. An additional benefit of thus engaging employees in reflecting

on the ethical dimensions of the corporation is that this gives them an opportunity to elaborate on their own relations to the corporation. At the same time as they produce the ethical values of the corporation they produce themselves as members of the corporation (Fomburn & Rindova, 2000). Indeed, an important aspect of corporate branding is to create an ambience that activates employees in particular ways, that puts their freedom to work in producing the social relations that make up the corporation and themselves as members of it." (Arvidsson, 2006, p. 85)

Nobel economics laureate Simon Anholt writes on national branding, which he refers to as a shorthand or a signpost for values (2009, p. 39) and compares the changing and interchange of international values between developing and developed countries, values that might well be reflected in our examples of international cultural compliance to global values of Education (Boufof-Bastick, 2011, p. xx):

"The irony in all this is that many of the values and assets which so many developing countries are in the process of discarding because they seem irrelevant to the struggle for modernization and growth, are precisely those values and assets which the 'first world' is finally beginning to value most: their respect for and closeness to traditional culture and values; their respect for and closeness to nature; strong family and societal cohesion; a real sense of the poetic in daily life; a respect for culture and learning. To put it brutally, many third-world countries run the risk of becoming trapped in the role of second-rate, second-world country, still chasing the dreams of modernity and prosperity which the first world is just now beginning to question. Instead of playing to their strengths as a 'niche offering', many emerging nations are still running a very twentieth-century race which, truthfully, only countries with large economics,

large armies and large populations could ever win." (Anholt, 2009, p.36).

We can understand how branding processes work within professional development to change teachers' identities by considering Kaled Hameide's description of how this branding works as a cultural identity in the fashion industry.

"If you have chosen a Gucci product over another brand, then Gucci has succeeded in utilizing its values as a luxury brand and created a unique mix of offerings at the brand level that is meaningful and relevant to you. It created a dream, an experience, or a story for the brand to which you relate and would like to belong. ... At the brand level, positioning is driven by identity, mainly by the brand's personality and what it means in terms of emotional values. The Gucci statement we've seen earlier demonstrates how Gucci positions itself not just on the basis of its unique and innovative designs (a product level element) but the perceived values from its Italian heritage and the lifestyle it depicts (a brand level element)." (Hameide, 2011, pp. 9, 11).

Branding equates to loyalty to a professional identity. Research is developing that investigates brand and co-brand alignment loyalty and this can be applied to changing teachers' professional ideals and loyalty to their new professional identities that will then emerge through classroom teaching practices that communicate their identities (Beckmann, 2005; Begemann, 2008; Bhalla, 2010; Blackett & Boad, 2000; Giudice, 2011; Lam, Ahearne, Hu, & Schillewaert, 2010).

Culturometrics shows us that this is the same emotional process - utilisation of values within identity - now harnessed for branding that has been

recognised as underpinning successful professional development for teachers. Culturometrics contributes to that process technology and gives us objective measurement methods for quantifying successful change in specific components of teacher identity (Boufooy-Bastick, forthcoming; O'Connor, 2008; Reio Jr., 2005; van Veen, Slegers, & van de Ven, 2005; Zembylas, 2005).

### **3. The Culturometric lens - Stakeholders negotiating their cultural identities**

One of the best ways that readers can get the maximum benefit from reading this book is probably to prioritise the chapters that resonate with their interests. Then to also consider these chapters through the Culturometric lens by relating the context, values and communications of the stakeholders with their own context, values and communications - compare similarities and differences, learn from the experiences of others, not by what was done, but by its cultural meanings to the stakeholders in the studies. More specifically, readers can understand their selected chapters from the Culturometric perspective of enabling successful negotiation for alignment/acceptance of stakeholders' cultural identities. Remember that Cultural Identity is defined as 'values in context' and look for the three actions needed for successful negotiation of alignment/acceptance, (i) definition of the context, (ii) definition of the values to be communicated and (iii) calibration of the values associated with the means of communication - screaming 'I love you' has a very different meaning from whispering 'I love you'. Alignment is preferred to mere acceptance or tolerance of cultural values between stakeholders. Tolerance is acceptance of risk corresponding to low negative or neutral benefit; whereas Alignment recognises positive mutual benefit.

Dynamics of Cultural Identities is studied using the philosophy and methods of Culturometrics. Culturometrics operationally defines 'Cultural Identity' as 'values in context' and has various methods for objectively measuring cultural identity in different contexts. It seeks to empower by its philosophy and methods that promote 'choice to change' one's cultural identity. Hence, its typology of groups is based on how easily people can change their criteria of their personal group membership. How easily could Juliet claim 'I am a Montague' or Romeo doff his name or declare 'I am a Capulet'. Membership by congenital criteria (race, sex, genetic disorders) is less flexible than various socially determined membership criteria (class, poverty, divorcee) which are less flexible than criteria for self-selected group membership (gang, graduate, customer). Enculturation into these groups is a negotiation of identity - a consensus of values in context. Successful research, such as presented in this book, is similarly this process of cultural identity negotiation - presenting evidence, within the authority of the scientific method, to influence values in context and hopefully change behaviour. The Culturometric methods are intentionally empowering in that they become objective, not through comparison with a questionable Norm group, but by calculations of self-reference. Culturometrics also empowers by vesting authenticity of cultural identity in the consensus of group members rather than in any external authority. More can be learnt about Culturometrics by visiting [www.Culturometrics.org](http://www.Culturometrics.org), from which this series of books on Cultures of Education can be freely downloaded.

#### **4. Cultural perspectives - Selected chapters**

The reader needs do only three things to benefit from this new Culturometric perspective of Teachers' Professional Development: Identify for themselves - (i) delimitations of the context, (ii) values, attitudes,

beliefs and intentions of the stakeholders; and (iii) values associated with the medium of communication by the stakeholders' cultures. Readers should do these three things to achieve new understandings of their selected case studies. Readers can then benefit personally by comparing with their own values in context - that is, within their own educational contexts comparing the above with their own Educational cultural identity and those of their own stakeholders. To facilitate these reader benefits, our authors have, to varying extents in each chapter, identified the stakeholders; their values, attitudes, beliefs and intentions within the research context; and the values associated by their cultures with the medium of communication. The authors have also noted where failure follows misalignment of cultural values and where success follows congruent communication and the alignment of cultural values. Some editorial comments on selected authors' references to success following agreement of context, alignment of cultural values within congruent communication from all three sections on the Cultures of Professional Development for Teachers in this book are now given to help clarify this new cultural perspective for the reader.

Having described each of the three embedded abilities that contribute to Teachers' Professional Development, we now overview selected chapters in a top-down fashion. To give the reader an overview of the complete committed communication process we start our first section with chapters that report on the full committed communication process applied to international issues of Management and Policy in Teachers Professional Development. We then focus on collaborative issues for the second section overviewing how collaboration contributes to the success of the professional development projects presented in selected chapters of Section 2. Finally, we abstract issues of reflection for our third section to review

selected papers on how reflection in committed communication contributes to success of the international issues of Teachers' Professional Development presented in Section 3.

#### ***4.1 Editorial comments on Management and Policy for Teachers Professional Development***

Chapters in our first section, Management and Policy, illustrate examples of shareholders aligning their cultural identities for successful outcomes. This section addresses all 3 parts of the committed communication process, namely two steps of agreeing the context and of negotiating alignment of values and the concurrent requisite of calibrating the stakeholder values implied by the media of communication. Each chapter in Section one focuses on one or more of these constituent processes; agreeing the context and/or negotiating alignment of shareholders' values and/or calibrating the consistency of media and shareholders' values. To learn more about these processes the reader can compare partial models and many examples of aligning cultural identities for successful outcomes in the current resurgent business management and policy literature on branding. These partial models and examples from the branding literature can be readily applied within the Culturometric perspective to further insights on the management and policy projects for the professional development of teachers reported in Section 1.

In our opening chapter, 'Comparative study of teaching content in teacher education programmes in Canada, Denmark, Finland and Singapore' Jens Rasmussen & Martin Bayer, both from universities in Denmark, study similarities and differences between four types of knowledge in the content of teacher education programmes in Canada, Finland, Singapore and Denmark; namely, scientific knowledge, scientific practice knowledge, professional knowledge, and

professional practice knowledge. They note that Canada, Finland and Singapore all score highly in international comparisons such as PISA, but that Denmark receives only average scores. The authors then relate the similarities and differences in these four types of knowledge in the content of teacher education programmes to this observation. Their findings can be explained from the Culturometric perspective of international comparisons being measures of cultural compliance to the global standard of cultural values; alignment equating to higher attainment (Boufooy-Bastick, 2011, p. xx). However, the authors note that Denmark is not culturally compliant but maintains its own cultural values of professional knowledge which embody its own philosophically based self-generated set of criteria for determining success or failure. In particular, the authors find that what distinguishes Denmark from the three countries that score high on the international testing is "Philosophically-based professional knowledge, much of which is of a normative character, forms an extensive part of the body of professional knowledge within the Danish teacher education". The chapter reports at the individual nation level, the parallels in lower attainments that result from unaligned cultural values at an individual student level (Boufooy-Bastick, 2003). Policies driven by national cultural values, rather than by global cultural values naturally result in lower national scores on international measures of cultural compliance. Here we are reminded of Anholt's warning that global cultural compliance buys higher attainment for cheap global employment at the cost of losing niche abilities based on "respect for and closeness to traditional culture and values" that are emerging as having higher global value (Anholt, 2009, p.36 quoted above).

Chapter two 'An investigation of early career teachers' integration of the principles of student social and

emotional wellbeing into their professional practice' by Frida Hristofski from southern Australia, presents a proposal for a study to explore how pre-service teachers take what they are supposed to have learnt about social and emotional wellbeing in pre-service education and how they apply it in their early years of teaching. The high aim is encouraging wellbeing policy adoption by beginning teachers. Culturometrics shows us the generality for successful policy adoption is that stakeholders must see the policy implementation as promoting acceptance of their own cultural identities – their values in context<sup>2</sup>. The positive impact of aligning policy values and purposes with those of the implementing teachers is demonstrated in chapter three, as also is the negative destructive outcomes that results from dissonance between policy values and teacher values. Haanna Haydar's excellent chapter 'Beginning Mathematics Teachers Face to Educational "Policies Dissonance": Whose Values at Stake?' makes a valuable contribution to the discussion on the culture of teacher professional development and how schools can effect change. The New York City Teaching Fellows program provides a wealth of data to study the planning, implementation, and impact of educational policies designed to radically change the long held habits and beliefs of teachers in the New York City schools. In particular this Chapter shows how the alignment in purposes among the various stakeholders - namely the teachers, leadership and students - provides beginning teachers with a favourable school climate in which to sharpen and improve their teaching practices and to seek continuous professional development. In contrast she also notes how a misalignment between beginning teachers' values and those of the school leadership builds constraints on teachers' practice and

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<sup>2</sup> A cultural story in illustration: The CNN reporter asked the Chief Rabbi his opinion of the 354-million-mile journey of the NASA rover to Mars to which he replied 'Is it good for the Jews?'

professional development and forces them to implement teaching practices that go against their own values and their views of students' learning needs. Then in Chapter four 'Digital Media Use for Candidate and Teacher Evaluation' our two authors from the USA, James Brescia and James Gentilucci, compare the usefulness of two novel videography technologies for managing more effective evaluation of teacher performance and we look to align the stakeholders' values in contexts that enable us to define and compare 'usefulness'.

In Chapter 5 Athina Sipitanou and Konstantina Kiriatzakou, both from Greece, describe for us the importance of values and contexts of Directors' management and policy in Greek Elementary Schools. In this chapter our authors explore the administrative methods of elementary school principals in Greece. This research on elementary school administration in Greece aims to bring into focus how the school administrators choose to run their institutions and the importance of those choices for the wider community. The contribution and originality of this study are related to two basic issues: The first one is the fact that it raises stakeholders' awareness of the importance of school management and of its impact on the smooth functioning of the school on students' performance and on parents' level of satisfaction. It thus points to the need for viewing school administration, not as a natural development of teaching – since those directors/administrators are actually experienced school teachers – but as a separate skill which requires appropriate training and relevant knowledge. The second important issue that makes this work original is the information it provides about school administration in Greece, the challenges it presents within the particular cultural context and its potential for further development. This study reveals that the conditions and values employed by the school

principals support a bureaucratic management process. The results of this study are in line with the general impression - supported by theoretical and empirical analyses - that the Greek educational system favours, and is based on, bureaucratic methods of administration, which leave little space to its stakeholders for initiative and participative collaboration. Evidently there is a great need to transform this paternalistic bureaucratic administration and create a more cooperative and supportive environment where administration, staff and other stakeholders could collaborate for the improvement of the education provided. Consequently, creating an organizational culture which leans more towards a human-centric administration in the schools requires a shift in the values and conditions that are at the core of the present administrative processes. Hopefully, such a shift can lead to substantial social and educational changes. The findings of the research presented in this chapter emphasise the importance to successful policy implementation, not only of values but also the contexts to which those values are specific. For different sets of values are preferred in different contexts - such as achieving the same behavioural outcomes in different schools. From the Culturometric perspective values are circumscribed by their context. The context gives meaning to the values. Hence, the context must be defined so that the shared values can have shared meaning in relation to the defined referents of the context. This is a more precise representation of the situated perspective adopted by proponents of 'knowledge in and for-practice' models of continuous professional development supported by the findings of Zita Lysaght which are reported in chapter 6 that follows. The importance of this context sensitivity is cited by Zita Lysaght through a teacher's comment in chapter 6 as : "...that's all well and good for teachers at those schools, but that won't work here with the kinds of

students we get at this school” (Thompson & William, 2007, p.18). School management in the Greek cultural context is commonly perceived as the upgrading of school teachers to a higher status. However, this chapter challenges this belief and manages to place the concept of school administration within a different frame. It remains to be seen whether this proposed change of view will be accepted and further adopted by policy makers in Greece as it has been in developed Anglophone countries, notably in the US.

In Chapter 8, Yonah Matemba and Lynne Grant, from West Scotland, present the opportunity of an informative Culturometric reframing of policy negotiation as negotiation of tolerance/alignment of stakeholders’ cultural identities. In this chapter the aspect of cultural identity specified is ‘religious identity’. In ‘Stakeholders and Educational Readjustment in Scotland’, Yonah Matemba and Lynne Grant examine curriculum reform for Religious Education in Scotland and argue that effective educational reform can only happen with a clear and open communication between government and other stakeholders; a committed communication that leaves all stakeholders feeling confident that their viewpoints are being respected and considered. Culturometrics restates these conditions as mutual tolerance of stakeholders’ cultural identities. ‘Tolerance’ is acceptance of a no/low risk condition (Boufooy-Bastick, 2011, p. xxiii). The authors express the process of negotiating tolerance of cultural/religious identity thus “to have a successful outcome in educational reform in RE, spaces must be created so that the various competing groups can express their distinctiveness without the danger of any of them crashing into each other’s spaces.” A more positive affirmation of cultural identity is a mutual ‘Alignment’ of stakeholders’ cultural identities which is negotiated by sharing

values within a defined context. The medium of negotiation is the “clear and open communication” achieved by communicative behaviours that are calibrated to be commensurate with the values they are communicating (O’Connor & Seymour, 2011, pp. 52–53). The authors address the tolerance of cultural identities by (i) noting the goal values situation “that the stakeholders are keen to promote a version of RE that is inclusive and educational in its intention” (ii) stressing the start values situation “that the values and attitudes that colour the socio-religious lifeworld of these stakeholders are influenced by different epistemological positions.” and (iii) by walking us through the interesting details of the values negotiation.

For successful policy implementation it is necessary that stakeholders’ values, attitudes and intentions be related to a commonly understood containing context. Marco Snoek’s research in the Netherlands, as reported in chapter 9, documents the impact of organizational climate in schools on the transfer of post-initial master studies. He found considerable misalignment between the intentions of different participants engaged in a post-initial Master’s program for teachers. This misalignment was related to mismatches in the contexts expected by the participants. Results showed that there was a major barrier to achieving the desired outcomes and facilitating the personal and professional behaviours that teachers in the schools employing these particular masters-graduate are called upon to internalize and put into practice. That major barrier, as demonstrated in this investigation, is a dichotomy between openness and transparency of what happens in the classroom and the attitudinal ‘status quo’ exemplified by the majority of teachers believing that their classrooms are their ‘castle’, inviolate and not to be entered by others. Similarly there was a misalignment

between accepting recommended changes to their teaching and their 'concept' of what good teaching entails being regarded as 'sacrosanct'. This misalignment was exhibited in the refusal to consider new knowledge and methods introduced by others. The reasons behind these behaviors almost certainly include fear of showing possible personal and or professional inadequacy and mis-construed interpretations of 'equality', when interventions or alternative suggestions are seen as the imposition of a 'hierarchical' order contrary to the norms of that particular society. These are barriers of misaligned values that would perhaps need further exploration. The teachers' decisions to move to another school suggest they believed a reformed more open approach was to be found within the teaching profession in their country. Marco Snoek recognises that the confusion of context arose from (i) contextual changes in the Master's programme that were not matched in the targeted schools, and (ii) contextual ambiguities arising from not preparing teachers for the definite context of a specific job profile, but instead focusing on a non-contextual 'teacher excellence' without specific relation to the specific contexts of system of job profiles that are used in many schools. Within the Culturometric perspective the findings and conclusions of this chapter may help to identify what qualities a school and its staff need to reflect in order to achieve greater transfer of training skills in both the Netherlands and the wider context.

The Irish/Polish comparative research results presented in chapter 10 'Integrated learning cultures and learning to teach: Norms, values and the next generation of teachers in two cultures' well represent the international contexts of this volume by being drawn from a wider nine-country comparison study commissioned by the national body for teaching and teacher education in Ireland. The authors, taking a

cultural perspective, consider that the concept of integrated professional learning cultures is central to understanding the review and reform of teacher education in both jurisdictions.

#### ***4.2 Editorial comments on Collaboration for Teachers' Professional Development***

Different categories of individual and group collaborative relationships contribute to teacher development, e.g. joining an existing top-down authoritative group such as perhaps employment in a religious college or joining a bottom-up democratic group such as perhaps a professional society, or starting a peer- learning group, or building learning communities (chapter 11), or teachers cooperating in communities of practice (chapter 18), etc. From the Culturometric perspective of section one, some of these educational relationships parallel business collaborations between companies, their employees and customers. They also utilise natural developmentally appropriate sociocultural and anthropological enculturation processes. In this section we look more closely at the systemic processes in group collaboration that further individuals' enculturation into the group. Processes of enculturation, for example enculturation into professional learning communities, act as allowable/authorised role-model values because they are commensurate with the values that are being negotiated as part of the participants' cultural identity inclusion. This is a higher order fractal parallel of the commensurate values of the medium and message in coherent interpersonal communication. Awareness of aligning one's values to those of the group is also facilitated by Reflection. This Culturometric lens also enables us to theorize and extend some of the well-resourced and specifically targeted brand enculturation processes being developed for successful use in business for our own educational purposes of

facilitating the enculturation of values supporting the advantages of professional educational collaborations in successful teacher development.

Marie Josée Berger and Renée Forgette-Giroux from Canada open Section 2 on Collaboration with their informative Chapter reporting on 'Building Professional Learning Communities'. We see that the social context of a formal group is best structured to serve the purpose of enculturating teachers into the group consensus of teacher identity, i.e. the consensus group values. The group values of the learning communities that are the subject of this chapter are 'experimentation', 'support', and 'inquiry'; "social context of a collaborative group in which the norms of experimentation, support, and inquiry prevail" (McLaughlin & Talbert, 2006). Our authors report that "This study focuses on professional learning communities as structures to facilitate the change of beliefs, practice, and relationship; the provision of support; the need for accountability." Our researchers define the context by giving referents to the groups shared values as "capacity of professional learning communities is built through professional development activities that occur in the schools and are directly linked with classroom practice." In using this type of collaboration for Teachers' Professional Development it would be effective to analyse the development of the group from the Culturometric perspective of negotiation for consensus of enculturation processes, e.g. at the meta-level of what processes of negotiation are allowed or encouraged as these should also model the values of the lower meta-level processes. Examples of these negotiation processes to facilitate teacher enculturation into the group and to strengthen consensus of the group's values given in this chapter are the three areas in which the authors say capacity in schools needs to be developed namely:

1. Collaborative decision making;
2. Development of knowledge and skills about instructional strategies and how to access and use data; and
3. Development of a culture of experimentation and informal accountability.

A reoccurring theme across countries is the non-alignment of traditional authoritarian values of 'lecture' type exposition with the bottom up enquiry values of teaching. This non-alignment seems to surface whenever traditional staff approaches or traditional students' knowledge transmission expectations are challenged by a more constructivist approach to teaching. The reaction of traditional teachers is an insecurity wrought by the questioning of their 'received' wisdom, the status of which has traditionally also justified their unquestionable class-control. The reaction of traditional students is the perception that they have lost official guidance and lost the security of being told what is 'true'. At this moment of time Teacher Training in Estonia is in process of making this transition of values. In chapter 12 on Developing Professional Cultures, Aurika Komsaare's well documented research guides us through the challenges currently being faced by changing the traditional values of teaching methods in Estonian teacher-training curricula. This chapter makes a contribution relevant to congruence of communication by looking at the range of teaching methods offered in the Estonian Teacher-Training Curricula. Aurika Komsaare compares the range of teaching methods to the content of the curricula to find why the expected change in teaching methods from traditional to constructivist is not working. We have seen that from a Culturometric perspective the medium of negotiating values, that is the communication values, needs to be commensurate with the values being communicated – the medium of communication must be value-

consistent with the message being communicated. This is part 3 of the Committed Communication process. However, Aurika notes a values-mismatch between the medium and message of communication on Estonian teacher development courses that prevents students from applying the course content. Instead of applying the message, the students teachers replicate the medium. In particular, the courses attempt to communicate the values of constructivist learning but they do so via transmission lectures rather than via constructive learning – as would be achieved through experiential education and enculturation pedagogies such as subjectivist teaching (Boufooy-Bastick, 2008). Hence, the trainee teachers do not have constructivist learning experiences to communicate in their own teaching and resort to replicating the transmission method that they did experience. In terms of cultural identity, they remain Transmission Teachers rather than becoming Constructivist Teachers.

In chapter 13 Janette Hughes and Sarah Tolley report on 'Developing Pre-Service Teachers' Values and Attitudes in Literacy', a collaborative mentoring project in Canada. Low attainment is the indicator, initiator and motivator for identifying and accommodating needs of individual students at risk. Individual programmes (IPs) are usually developed for such students, and where resources are available, IPs could effectively be developed to the advantage of all students. However, the form they take needs to be culturally sensitive –culturally literate - because the culture identity developed is particular to that of the school and to that of other hierarchical containing demographic groups. In particular, specific models – such as that of Lipton & Wellman, (2006) - are culturally specific and might not be as acceptable in more authoritarian cultures.

Chapter 14 considers the meanings of a 'mathematics identity'. As teachers we try to enculturate our students into our motivating subject-specific values. Of all curriculum subject pedagogies - including 'Music education' - perhaps, in this regard, it is from 'Mathematics Education' that currently we can learn the most and so we were very pleased to be able to include Regina Mistretta's contribution from the USA on Mathematics Teachers' Support of Parents: The Role of Inquiry. Generally, a purpose of teachers' professional development certainly is to improve student achievement. This chapter discusses failure of research based on perception issues. The same could occur based not on perception but rather on developmental issues. According to Prusaczyk (2011), teachers may be implementing a reform approach in varying ways because they are in transition. For example, the use of manipulatives may develop from the teacher modeling a solution with manipulatives, to giving instructions for how students should represent the solution with manipulatives, to allowing students to represent « what they think » with manipulatives. This progression has been witnessed as a developmental progression with teachers involved in long-term professional development designed to improve teacher content knowledge, pedagogy and also to reduce their math anxiety. The collaboration of parents, teachers and children traditionally has a wider cultural significance. Cooperation among teachers and parents aims to benefit students and it appears that the culture of education needs to evolve to include more academic opportunities at home. Tizard, Schofield, & Hewison (1982) found that getting extra help for reading at home had far greater impact on student learning than extra help that occurred within the class. The home practice was initiated by teachers who sent books home over a two year period. Schools are able to help parents get involved (Epstein & Salinas, 2004). By offering a program two times in

order to accommodate parents' schedules, by using interactive homework through National Network of Partnership Schools called Teachers Involve Parents in Schoolwork (TIPS), and by holding study sessions that included both parents and students working together, Epstein and Salinas were able to identify improvements in student achievement. However, one cannot expect fidelity of concept development without also including an element where teachers interact directly with parents. Having teachers interact directly with parents regarding home learning is different than sending students home with a homework assignment. This broadens the approach and the concept of teaching. It is therefore appropriate to analyse how teachers are making the transition from merely classroom-based instruction, to include home learning opportunities. In this new digital age of easy access to communication and easy access to information, cultures naturally evolve to take advantage of new opportunities. Whether or not the learning proceeds through electronic means, which is another way to interact with parents, our evolving culture seems to demand an evolution of the conceptualization of 'teacher'. This conceptualization is larger than the classroom and reaches further than the classroom. Helping teachers recognize that cultural adjustment and analysing their patterns of change in this process through the focus of 'values on context' can inform our future practices in teacher education.

Specifically, chapter 14 raises important questions for the meaning of 'mathematics identity' that can guide the ways we enculturate students into the identity of our curriculum subject. What are the values signified by 'inquiry' in mathematics? Does "to inform teacher practices" mean to influence the teachers' values of practice; that is to influence what teachers hope to attain by teaching communications that align students' values with their own values? If so, then their students

will need to be aware of the values that the teacher is trying to communicate and the teacher will need to choose practices for which the students' associated values are consistent with those they bring to the communication, i.e. teachers need to practise congruent communication. The students must also want the improved identity that the teaching practices offer. This 'wanting to be' is the root of motivation. Subjectivist teaching shows how we can use common social motivators of enculturation to ensure that students aspire to the cultural identity changes that the teacher is offering (Boufoy-Bastick, 2008). Involving parent-child collaboration – to Grade 8 - also requires aligning the formal maths culture ("Can we approach this in another way?") and the hidden maths culture (correct answers for gate-keeping summative assessment) with maths culture of the parents. This might require one-on-one teacher-parent work where the teachers are pluri-cultural as is the situation in this chapter. Regina Mistretta collected the "the reasons behind their actions" which is an excellent way to reveal the values that the actions were intended to promote. Analysis revealed a mismatch between the parents' values of mathematics and their perceived values of the school's mathematics. However, the parents gave priority to the values of the school's mathematics over their own values. The parents' statements implied that it was the school's mathematics values that they wanted their children to inculcate; statements reflective of "Mathematics today is taught differently than in my time. I don't want to confuse my child." Regina Mistretta concludes with our Culturometric theme that "Such investigations help align values, attitudes, and purpose of those involved in the learning community. I contribute the described professional development framework as a means towards using inquiry to align teachers' and parents' support of children's success in mathematics. For when all constituents work in collaboration, conditions

exist for both developmental and community learning.”

The three authors of chapter 15 'Missed Opportunities: The Importance of Stakeholders Sharing Purpose, Process and Product' are from the USA. Sheila Flihan, Kristi Fragnoli and Marcia Margolin note "the necessity for stakeholders to have shared purpose regarding instruction and knowledge construction in teacher education and professional development programs". This chapter shows that when the two steps of defining context and aligning values are missing then collaborative work is unlikely to succeed. The results of this research study thus suggest some challenges to the current perspective on information and communication technologies in Teachers' Professional Development. With the rapid increase in educational technology options, educators around the globe struggle to keep pace with the technologies available and school administrators seek personnel who are proficient technology users. Since today's pre-service teachers are 'digital natives,' we assume that they are more proficient in using technology than prior generations. However, the findings of this study might lead stakeholders to question the validity of assuming that young adults would be more proficient in the use of technology. Another possible result of these findings is that stakeholders might reconsider pre-service teachers' level of expertise and their comfort level when using technology applications in the classroom. The results from this study indicate that even digital natives might not utilize technology in the way intended, a finding that might not resonate well with administrators. As noted in this study, pre-service teachers did not think critically when using a wiki for problem solving; rather their participation was factual. This study also demonstrated a lack of collaboration when using wikis to solve problems. As stated by the authors, participants and stakeholders

need to have a shared understanding about the purpose of using specific technology.

Congruent with the chapter's title of 'Missed Opportunities' the authors noted that rather than focus on defining the context and aligning values of the cooperating partners, as would be necessary for a positive collaborative experience, "our students' tendency to focus on the quantity of information they contributed to the product rather than on the quality of information or the collaborative process of problem solving". In addition, and further, supporting the Culturometric situated meaning of values in the context, the authors found that common values of technology did not generalise to common purpose in different contexts – which they identified as "misalignment of purpose".

If we want the same communication technology (ICT) system to be used by different teachers in the different contexts of different schools then the values purported by the system need to match the values of the teachers in those different contexts. Teachers' take-up of the system will be proportional to how well they can express their identity through the system. In chapter 16, Renata Phelps and Anne Graham explore teacher professional development through the lens of Complexity Theory in 'The Technology Together story' in Australia. The authors use the constructs of Complexity theory to describe the enculturation problems of integrating the values of different schools and of different teacher user contexts with the uniform values of particular information and communication technology (ICT) systems.

Christina Gitsaki and Helen Donaghue from the United Arab Emirates collaborated with Ping Wang from China on chapter 18 describing the use of a community of practice for teacher professional development in the

United Arab Emirates. Their chapter is particularly relevant to the advantages of using explicit teaching of committed communication processes vs. implicit teaching of committed communication processes when utilising professional development models. The authors use a Community of Practice (CoP) professional development model to change teachers' previous beliefs about teaching, and improved classroom teaching strategies are expected to result from this change in teachers' beliefs. This was a challenging task as the 25 teachers came from different world cultures and the children had traditional Middle Eastern value expectations of learning that are different from those in the West where the CoP has been successfully implemented. Processes of Reflection and Discussion, Challenges and Negotiation lead to the Adoption, Adaptation or Abandonment of various teaching strategies in the different contexts of teacher and student expectations as teachers chose strategies that were aligned with their values and then tried to align these with the values of their students. We can see in this chapter how the successful strategies were the ones for which the teachers and students values were aligned. These results indicate the advantages of explicitly addressing, Agreement of context, Alignment of values and Congruence of communication values explicitly through the Culturometric model of Committed Communication, rather than only implicitly through traditional collaboration models like CoP. From our Culturometric framework we would expect even more effectiveness by explicitly using the CoP processes to address agreement of context, alignment of values and the congruence of the teaching strategy values among stakeholders rather than implementing these implicitly within the CoP professional development model.

In our last chapter of Section 2 Tara Concannon-Gibney from the US and Brian Murphy from Ireland

report significant insights from a case study of Irish Teachers of Reading in a school-based Professional Development programme. The chapter highlights the significance of culture in context. It elaborates the nature of professional knowing, professional change, and professional identities with reference to shifts in thinking and practices of the development of reading in schools. A key finding is the need to shift from a focus on the individual to a focus on the collective when it comes to professional learning. This chapter has the potential to answer significant questions about what constitutes an effective teacher professional development programme. The work is thoroughly grounded in research around comprehension strategy instruction and teacher's professional development. Findings provide concrete ways to structure professional development in order to address a glaring need for content.

In particular, teaching behaviours are the media through which teachers communicate their values to both their students and to their colleagues in collaborative professional development communities. Thus, in collaborative professional development groups we must pay attention to agreeing the context and to the co-requisite of calibrating the values that stakeholders associate with the means of communication. These are two of the significant insights from Tara Concannon-Gibney's and Brian Murphy's final chapter in our section of collaboration for Teachers Professional Development.

### ***4.3 Editorial comments on Reflection for Teachers' Professional Development***

"The concepts 'reflection' or 'reflective practice' are entrenched in the literature and discourses of teacher education and teachers' professional development" (Ottesen, 2007, p. 31). "Reflection is increasingly used as a means to support teacher professional

development” and from our international perspective reflection becomes essential for teachers to ascertain the more varied stakeholder beliefs present across modern multicultural educational contexts (Hoffman-Kipp, Artiles, & López-Torres, 2003, p. 248).

The plethora of approaches used for eliciting teacher values, attitudes, beliefs and intentions include concept maps that teachers are asked to draw to depict their understandings of pedagogical terms (McKeown, 2011), semi-structured interviews in which teachers are asked to recall specific classroom events and decisions (Kagan, 1992); a close analysis of the language teachers use to describe their thoughts and actions (Rymes, 2009); a co-operative controversy strategy (Hamrlich, 1997); Developing Portfolios in Education (Chetcuti, Buhagiar, & Cardona, 2011) (Johnson, Mims-Cox, & Doyle-Nichols, 2009) and Olga Bombardelli’s chapter 26 in this volume; journal writing (Holly, 1989; Nichols et al., 1997); the implementation of Progress Files (Clegg & Bradley, 2006); Teacher Research as a Way to Engage in Critical Reflection (Kraft, 2002); the use of metaphors and proverbs (Nichols, Tippins, & Wiesema, 1997); web-based Course Evaluation (Tucker, Jones, Straker, & Cole, 2003); critical incidents (Nott & Wellington, 1998); critical questioning by mentors (Harrison, Lawson, & Wortley, 2005); reflective feedback conversations (Brandt, 2008) and the ‘four-phase reflective cycle’ (Rodgers, 2002); among many others, such as the process of creating a life story as reported by Orit Bar in our chapter 23.

Teachers and teacher trainers inevitably develop a favourite method that they find works well for them. Personally I find that Concept Mapping works well in most formal training situations and can easily be targeted to different contexts of application and curriculum area (Çakmak, 2010; Lim, 2011; Greene,

Lubin, Slater, & Walden, 2012). For example, in one formal study on 'Reflection-Oriented Qualitative Approach in Beliefs Research' targeted to science teachers' beliefs in Turkey, Serhat Irez recounts

"a highly reflective probe and cognitive mapping technique were utilized in this study in order to unearth the participants' beliefs about the NOS (Nature of Science) and conceptualisations of science education. This approach provided the participants with opportunities to explore and reflect on their thinking. ... any study assessing individuals' beliefs about science should also include means and opportunities to promote reflection in order to achieve a complete understanding of individuals' beliefs. Reflection oriented approaches and strategies to foster pre-service science teachers' understandings of the NOS have been used by many researchers in science teacher education. These approaches have been based on the constructivist view of teaching and learning and argue that prospective teachers should be given opportunities to explore, discuss and reflect on their beliefs on the various aspects of the NOS across various contexts in order to achieve desired conceptual change." (pp. 18-19)

In particular Serhat Irez concludes

"that cognitive maps were very effective in starting the process of reflection. Therefore, researchers are encouraged to employ similar techniques and strategies that encourage participants to reflect on their thinking. Such techniques and strategies can be utilized from a growing body of activities and approaches suggested by researchers in order to achieve desired conceptual change by engaging prospective teachers with exploring and reflecting on their beliefs....Generating cognitive maps is a labour-intensive procedure. But when they are completed, they provide a graphical summary of each participant's belief system." (p.25).

Within the Culturometric model of committed communication, the purpose of all these approaches is to define context, evoke awareness of stakeholders' beliefs and align those beliefs within the ambit of the context. Alignment of teacher beliefs are called into action for professional developmental purposes as varied as drivers to motivate students, for improved administration of gifted programmes, to the integration of teachers' use of Information and Communications Technologies (ICT) (Prestridge, 2010; Schroth, 2006; Wiesman, 2012). However, alignment of beliefs first requires examination of one's own beliefs and those of other stakeholders. In her review of teacher Professional development publications in Teaching and Teacher Education over ten years (2000 to 2010) Beatrice Avalos summarises that "Teacher professional learning is a complex process, which requires cognitive and emotional involvement of teachers individually and collectively, the capacity and willingness to examine where each one stands in terms of convictions and beliefs and the perusal and enactment of appropriate alternatives for improvement or change." (Avalos, 2011, p. 10). Again, we do not have to 'reinvent the wheel' for we can find practical help on how to do this from research and teaching studies on the emotional involvement of teachers (Evans, 2002; Reio Jr., 2005; Zembylas, 2003a, 2003b).

Professional development requires attitude change and teachers' professional attitudes do change significantly over their in-service development. (Guskey, 2002; Lydon & King, 2009; Maskit, 2011; Polat, 2010; Sanger & Osguthorpe, 2011). Here we are saying that reflection can explicitly target these changes during teachers' professional development. Engeström's (1987) early work on conflicting value systems shows us that Teachers' Professional Development is likely to fail in contexts where stakeholders' beliefs are miss-

aligned. This is a result frequently replicated in studies on Teachers' Professional Development. For example, in their study on Teachers' Professional Development, Yamagata-Lynch and Haudenschild, (2009) report that "teachers perceived that their motivation and goals for participating in professional development were not in alignment with their school district and universities that designed and facilitated professional development activities. This misalignment contributed to various situational challenges that became obstacles for teachers to improve their classroom practices through curricular based interventions." (Yamagata-Lynch & Haudenschild, 2009, p. 507). This Culturometric requirement of alignment of cultural identities for successful Teachers' Professional Development is further supported by chapters in our section 3 on Reflection.

Though 'Reflection', 'Reflection-on-action' and 'Critical reflection' is widely used in Teacher Professional Development the literature has called for much improvement in the way it is taught and employed (Akbari, 2007; Atkinson, 2012; Hoffman-Kipp, Artiles, & López-Torres, 2003; Marcos & Tillema, 2006). In section 3 we go some way to resolve the lack of theoretical unity and practical focus in the professional utilisations of reflection that have been identified in the literature. In that section we see that the commonality of these methods that make an impact on Teachers' Professional Development is the increased awareness of stakeholders' values, attitudes, beliefs and intentions in a well delineated context that can lead to change and alignment.

Four authors from Canada open section 3 with chapter 20 on 'Predicting Success in Teacher Education'. Richard Butt, Nancy Grigg, Craig Loewen and Gerald McConaghy show how the use of reflection to develop flexibility in aligning values results in low rates of new

teacher attrition. In the USA up to 50% of newly trained teachers leave the profession within their first five years of teaching for which various causes are attributed (Keigher, 2010; Long et al., 2012; Schaefer, Long, & Clandinin, 2012). Our authors attribute these high levels of early career teacher attrition to miss-matches between the values of the new teacher and values that are expected of the teaching situation. In contrast, they attribute the relatively low initial dropout rates from their own teacher training to the 30-year systemic processes of deliberative collaborative professional reflection on values negotiation that make their pre-service teachers aware of the values that will be expected of them in the different educational contexts of their local employments. The authors recognise the various alignments of values made by the stakeholders in their successful teacher training programme:

“In regard to the differing values of stakeholders – the deliberative process attempts to make sure that we can identify which values are parallel (non-conflicting), which can become congruent through agreed choices of common activities which address them, and those which are authentically different/opposite/or conflicting.”  
(p. 490)

Our Culturometric theme is again illustrated by the authors report that their successful programme extensively uses Reflection processes in preparing their graduates to be flexible in making positive value alignments.

“We regard conflicting values in education manifest through paradoxes, dilemmas or antimonies as normal pressures that will always occur in education at any level including those experienced by the teacher in the classroom. So teachers and students in teacher education need to be able to live among and address these

tensions in healthy and productive ways.  
(p.490).

In her chapter 21 Alida Droppert also highlights the role of Reflection in expressing the conflicting values that teachers in higher education need to negotiate to become successful International Faculty in a Rural Midwestern Liberal Arts College in Iowa. Her chapter resonates with the realities of negotiating values of a faculty identity in similar employment contexts across the US. Her chapter clearly identifies the stakeholders and their motivations for aligning values. Interestingly it shows us that the American Institutional concept of diversity – employing pluri-social-cultural groups as a token for respecting diverse cultural values - is at odds with aligning of their values to the standards of the institution. These motivations are sometimes questionably ethical in being coercively based on the power differential between the institution and the employees who might get fired/sacked or at least feel they will not receive institutional rewards of promotion, tenure and other discretionary internal awards unless they adopt opposing 'academic' values of their institution. For example:

“Central College, Iowa recruits from this pool of global candidates seeking to appoint quality faculty members who will identify with its institutional goals, students’ interests, and contribute to the academic community through their service, teaching and research.” (p. 496)

This enculturation into the institution parallels the Company branding situations of Part 1 where we must consider the management structures that control the balance between bottom-up employee/faculty determination of institutional values and administrative top-down determination of institutional values. In academia this bipartisan weighting is further complicated by the change in identity, and values, of

faculty who are chosen to take on administrative responsibilities. This chapter illustrates the motivational influence on the current balance of values as “To teach for success the international faculty members have to demonstrate behaviors which connect and align their attitudes and values to reflect the goals of the college.” (p.497)

ESL teachers often teach students from a diversity of cultures and so might need to negotiate more varied established cultural values than would teachers whose classes comprise students with less diverse established cultural values. Chapter 22 brings together the reflections of 11 ESL teachers from four different language and cultural backgrounds, none of which were English. Using a qualitative analytical study – analysing nigh on 3,000 coded responses - Si Fan usefully describes for us how “focus groups support the construction of these ESL professional identities.” (p.526)

Chapter 24 follows the Culturometric theme in discussing the challenges of integrating Assessment for Learning (AfL) in teachers’ development programmes through the alignment of stakeholders values. The central aim of assessment for learning (AfL) is to actively engage students in assessment processes - including self-assessment, peer-assessment, and instructor-based assessment - throughout their learning in order to improve achievement, develop metacognition, and support motivated learning and positive student self-perceptions. However, our authors Youyi Sun, Christopher DeLuca and King Luu note that “Assessment is value-laden; it reflects the purposes and priorities of schooling in different contexts (Lingard, Mills, & Hayes, 2006). As with other classroom assessment processes, the use of AfL can only be understood by taking account of the social,

cultural, economic, and political contexts in which it operates (Gipps, 1999).” Previous results have shown a lack of success due in part to teacher misconceptions of AfL philosophy, theory, and practice resulting in a misalignment reflecting conflicting values, attitudes and purposes concerning assessment of educational administrators and classroom teachers. The authors note that the misalignment of stakeholder’ values and contexts responsible for lack of success, is often due to the top-down approach of traditional teacher education and they state ...

“Thus, in order to promote the integration and implementation of AfL in the classroom, it is crucial for stakeholders—teachers, students, and educational researchers and administrators to share common values, attitudes and purposes concerning AfL.” (p.556).

and so they conclude their chapter with the Culturometric recommendation

“Specifically, we call for research that explicitly examines teachers’ values, beliefs and perceptions about integrating AfL within systems that emphasize summative assessments and standardization. What we need as a research community is to establish and articulate frameworks for highlighting the values, attitudes and purposes regarding assessment of different stakeholders. Through such a program of research, we hope to make gains in teachers’ adoption of the spirit of AfL through aligning values of students, teachers, assessment experts and educational administrators.” (p.565).

Chapter 25 from the USA questions teacher goals in professional development. This is a particularly thought-provoking chapter from Chandra Orrill, Rachael Brown, Feiming Li and Sandra Geisler because it reports survey results of goal alignments and

outcomes. The authors report a study that attempted to determine how alignment of teachers' personal goals with the stated goals of a professional workshop, affected their satisfaction that the workshop had achieved its goals and had affected measurable attainment outcomes from the workshop. The survey instruments employed subjective satisfaction ratings, goal descriptions and objective pre-post attainment scores. Our authors used the goal descriptions to group their participants into three groups based on the pre-workshop level of agreement of their own participant goals with the goals of the workshop. At the end of the five-day workshop the 51 participants gave 5-point ratings of their satisfaction with the workshop's attainment of each of its 6 goals. Although this was an ambitious professional development study of goal alignment, the results relating pre-alignment of the two sets of goals with any workshop outputs failed to reach significance. As the authors say, this could be because of insufficient data (five or less expected observations per Chi-square cell); or it could have been because the workshop did not sufficiently deliver on its goals; or even that the workshop was successful in changing participants' expectation over the five days, which would have changed the participant-workshop goal alignment groups. An interesting aspect of satisfaction scores is that satisfaction with an event can be changed by changing the event and/or by changing personal expectation of the event. For example, the same meal is likely to be rated as more satisfying by a hungry person as compared to when the person is not hungry. Similarly, governments improve citizen satisfaction, not by necessarily improving their quality of life but by less expensively lowering citizen expectation, for example by reporting bad news about other countries – so we say "It's not so bad here after all. I rather live here than in ... the bad new countries". Hence, because subjective ratings confound ratings of the

objects with the respondents' unknown expectations, traditional comparisons of subjective ratings can be very misleading. Fortunately, Culturometrics has developed 'Cultural Index Regulators' especially to moderate cultural expectations that confound the traditional comparisons of subjective ratings and so now allow us to make more objective comparisons of subjective ratings across and within cultural groups (Boufooy-Bastick, 2012).

In section 3 we highlight the need to identify types of reflection and their roles in changing teachers' values, attitudes, beliefs and intentions. In Chapter 28 Andreas Ahrens and Jelena Zaščerinska analyse 'professional development' and assist us by relating it to the idea of 'conditions for development' within the context of cultural and educational globalization. Central to these considerations the authors also identify the influence of types of reflection on beliefs. In particular "Reflection on content and process enables change in a person's specific beliefs ...where reflection on assumptions or critical reflection creates conditions to change the fundamental system of beliefs. Value orientations, therefore, is an important factor for personal development (Kepalaite 2008: 85)."

Chapter 30 also widens our international understanding of initial teacher education programmes, this time by comparison with 46 initial teacher training programmes in Chile. Chilean researchers Mario Brun and J. Enrique Hinostroza studied Curricular and Pedagogical implementations of ICT Integration in developing a Quality Culture of Initial Teacher Education in 46 Chilean institutions as part of an international comparative study on ICT in Initial Teacher Training. This study, in common with the research of Chapters 15 and 16, resulted in some similar findings, for example, that the technology is

generally used by students for functional rather than for innovative applications. One has to ask, 'for most students does ICT come with a set of basic values that align with functionality and quantity of output rather than with innovation and quality of production?' The chapters in this volume referencing ICT in professional teacher development world-wide open a space for such reflection and Culturometric debate about the way in which the alignment of teachers' values in the ICT context within Initial Teacher Education is responding to the demands of today's society, for a more complex and integral vision of ICT adoption, for preparing teachers with higher levels of professional competence, and for enhancing the quality of Initial Teacher Training institutions.

Objectivities have been traditionally easier to research than Subjectivities such as Cultural Identities. But Subjectivities are generally more worthy of our understanding (Bottero, 2010). Hence, Culturometrics has developed several methods of objectively measuring our previously unmeasurable subjectivities (as explained in Boufoy-Bastick's forthcoming chapter entitled - Culturometrics: An Integrated Research Approach to Cultural Studies). In chapter 31 Angelika Paseka and Ilse Schritteser, from Germany and from Austria ask the basic question "Which kind of research is necessary to capture the specificity of teacher competences?" One could say that the meaning of their question and their frame for answering it tends more towards the cultural Germanic and Austrian roots of the Gestalts and Psychoanalysis than to the shrunken operational meanings of many modern measures. In answering this question, they analyse the blind spots produced in competence research and find that most teacher competence research resembles the man who lost his keys in the car park but searches for them under the street lamp – because it's easier. Their analysis reveals that large-scale assessment

designs adopt a pragmatic and reductionist line, emphasizing cognitive knowledge while underestimating ability to reflect and capacity to act. Something more is needed to know how our values, attitudes, beliefs and intentions work through reflection and unconscious 'knowing' to produce professional teachers who so successfully manage the continuous uncertainties of the classroom. In line with a major theme of our book the authors also conclude that "We need a wider lens of inquiry, which will help us to focus on further aspects of teaching and to grasp the creative moment in situations of uncertainty." (p.728)

For chapter 32, 'The Recognition of Learning Barriers in Teaching Practice', Agnieszka Szplit, one of our Polish researchers, has identified the values, attitudes, beliefs and intentions necessary to change the self-identity of EFL students from being poor language learners to being good language learners. Language students can create self-imposed barriers that limit their language performance. Agnieszka Szplit researches the role of reflection in clarifying the values, attitudes, beliefs and intentions contributing to such limitations that students subconsciously place on their identities as successful language learners. Her results show that reflection enabled individuals to analyse their feelings and understand the change in behaviour which results from these self-imposed barriers. Then, with considerable utility, using these diagnostic research results Agnieszka Szplit devised and tested teaching strategies that would help EFL students overcome these debilitating self-imposed barriers to more successful language learning.

Jill Parfitt and Gayle McIlraith close the section on Reflection with their report of a government-funded professional development support study for practicing teachers in New Zealand conducted by 'Team

Solutions'. 'Team Solutions' is a professional unit within the Faculty of Education at The University of Auckland. The name itself embodies the idea of aligned values as does their employment profile vis. "Team Solutions employ expert facilitators from various educational sectors who are knowledgeable, flexible, research informed, and adaptable to respond to the diverse needs of teachers." (p.757) To align themselves with the current values of their government funders they define themselves as being in a competitive business environment and espouse a National Framework of recommended behaviours which is an evidence-based best-practice 'one size fits all' approach that is still popular with educational administrations in some developing countries in contrast to other valued evidence showing that "Contextual Factors" are important and teachers are frustrated by one size fits all support (Schaefer, Long & Clandinin, 2012, pp.107, 111).

From the Culturometric perspective, the different contexts for these recommended behaviours are being ignored. Thus the recommendations become ungrounded 'political speech'. Technically, we intuitively agree with recommendations when they are consistent with our own experiences. The ungrounded 'political speech' of these 'context-free' recommendations consists of nominalisations and lost performatives – generalisations and metaphors - as described by the 'Milton model' in Neuro-linguistic Programming (Russell & Cohn, 2012). To make sense of such recommendations we substitute our own experience for the deleted information and so intuitively agree with the recommendations as the meaning we give to them is then consistent with our own experiences. These context-free recommendations are universally acceptable across different contexts because they can be satisfied by different behaviours in each context even though

those different behaviours might be contradictory when compared across contexts. Acceptance of the recommendations extends, via the acceptance of rewarding 'merit', to the acceptance of competitive funding to support those recommendations. With universal acceptance, Central government then universally promotes their valued behaviours with far less than universal funding. Competitive competition only funds those groups that have compliant behaviours as defined by government-approved evidence.

The neo-liberal political advantage of this approach was that in eschewing details of context all recommendations could be accepted by everyone from the perspective of their own context - even though different behaviours might be contradictorily across contexts. Selected behaviours can then be centrally promoted, or rejected, with minimal resources using statistical evaluation of centrally approved evidence defined by contestable funding contracts. That is, 'effective' comes to mean 'meeting the required outcomes of the contracted work'. The 'standards' are then predetermined by contractual expectations, e.g. the employment standards of the organisation to which teachers are contracted. In New Zealand from 2011, the Registered Teacher Criteria requires all teachers to demonstrate such 'competency' every three years (Registration Policy, 2012; Westerbeke, 2011). So we come full-circle from the beginning of the book, where we warn to "look more closely particularly at 'values in context' and question why particular evidence is selected - whose facts are they" (p. xiv) on a Culturometric journey to the end of our book; a journey through 21 countries and thirty-three research projects which showed us, to differing extents, how this can be better done for our Teachers Professional Development.

## **5. Acknowledgements**

We are indeed fortunate to have safe and vicarious access through these chapters to the extremely varied rich professional cultural experiences and insightful commentaries of these multilingual educationalists. For many authors English is not their first, or second or even third language; yet they have made considerable efforts to share the different cultural qualities of their educational experiences with our English readers. In mono-lingual environments one social function of language is to judge the educational level of the communicator and to - perhaps rashly - infer the same level to the content of their communication. For example, spoken French can be learnt without formal education, but written French is so different that it is a social marker of formal education. To generalise this inference to judge the quality of content communicated in a multilingual context - such as this book - is a gross limitation of culturally cosseted monolingual speakers. The editors considered seventy-two nascent research reports from central and peripheral world cultures which were ideally fitting expositions of comparative cultural perspectives on Teachers' Professional Development. However, this publication process does not offer what our Aussie colleagues call 'a level playing field'; particularly with regard to equal access to resources - internet access, time and support for research, access to the cultural capital of Standard English, etc. Hence, the thirty-three chapters in this handbook - each submitted to at least three peer-reviews for the different qualities of experiences presented - also stand for the authors of the thirty-nine chapters who did not have the resources to meet the numerous rigours and deadlines of this publication - we must thank them. It is to our advantage that we find ways of giving them a voice.

### 5.1 Who are the sixty-two authors who have contributed to this book?

Authors who successfully negotiated the selection and review processes are listed, with their affiliations, at the front of the book. Figure 1 shows the countries of the institutions with which our contributing authors are affiliated. The national representation of our contributing authors is much wider as, particularly in the English speaking world, universities often pride themselves on the diverse national origins of their faculty. This is a theme of chapter 21. An example is our author Dr. Matemba, from Malawi, (chapter 8 with Lynne Grant) whose affiliation is the School of Education at the University of the West of Scotland.

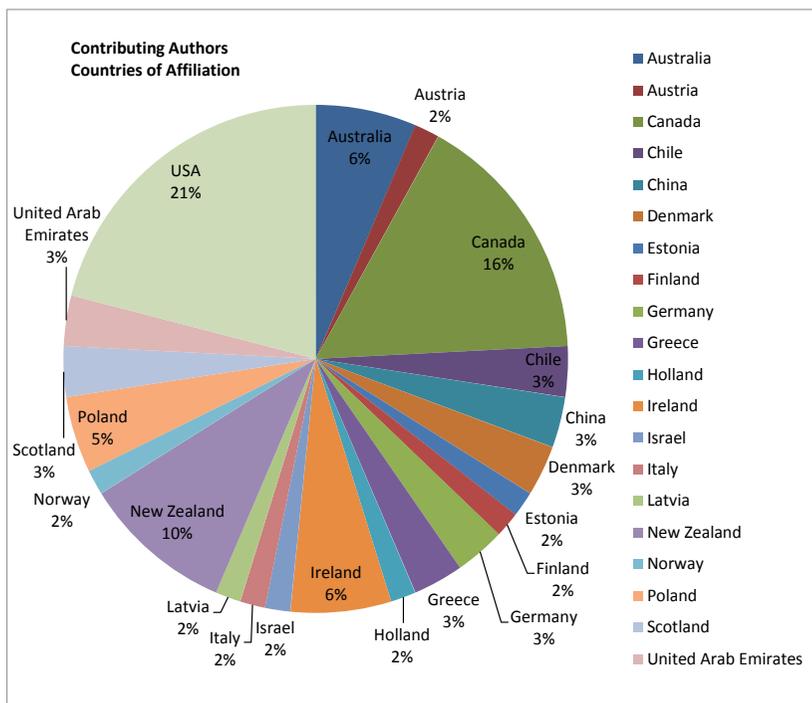


Figure 1: International affiliations of our contributing authors

Readers who would like this type of more intimate introduction to our authors will find brief BioPics listing such interesting background information from page 907 at the end of the book.

## **5.2 Who are the International Board of Associated Editors?**

Who are the forty-four international subject experts whose local and international knowledge and experience have guided the publication of this book? The members of the International Board of Associated Editors, including their affiliations are listed at the beginning of this book. The countries of their affiliations are illustrated in Figure 2 below.

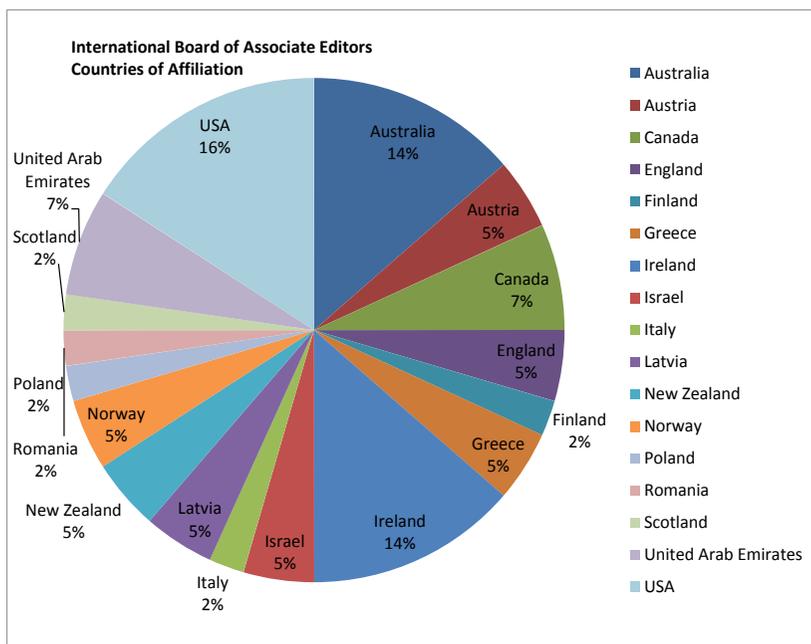


Figure 2: International affiliations of our Board of Associate Editors

Again, as with our contributing authors, and as befitting this International Handbook, the international

representation of our Associate Editors is much wider than the countries of their institutional affiliations.

For those readers who are interested in the amazing range of academic expertise that has been graciously and freely given by these stewards of the Academy, we direct you to their interesting, and often surprising, credentials from page 945, near the end of this book.

I would like to personally thank the in-house copy editors, my post-grad students who helped with the extensive editing chores, my colleagues worldwide for their local knowledge and cogent advice, and particularly my doctoral student Uta Rampersand who so accurately organised the initial internet communications on which the success of this extensive project has subsequently been built.

We must especially also thank our academic publisher, Analytrics, and our Series Editor Professor Guy Tchibozo, whose organisations have made this publication possible. Subsidised hardcopies of this book have also been made available at cost price for all researchers, education students, teachers, academics and specialist educationalists in our global academic community. These non-profit hardcopies are available from on-line bookstores and university bookshops worldwide. Electronic copies of the book, in colour, have also been made freely available for multiple download by courtesy of Analytrics. These copies can be conveniently electronically searched, quoted, cited and freely used under the 'non-commercial share alike Creative Commons world-wide usage'. This e-book can be downloaded freely from the resource pages of the publisher's website at:

<http://www.analytrics.org/Pages/EESENOtherEventsandResources.aspx>

Last, and perhaps foremost, we must thank you, our reader, whose interest has led you to this especially tailored book and new starting point for Teachers Professional Development. We trust as you now read this, that you can also move forward and use the Culturometric lens we give you to engender new visions of how you will enrich our world Cultures of Education.

Béatrice Boufoy-Bastick

Editor

### ***Abbreviations and acronyms***

- AfL - Assessment for Learning
- CoP - Community of Practice
- CSAUS - Cross-National Studies of Adult Understanding of Science
- EFL - English as a Foreign Language
- ESL - English as a Second Language
- ESOL - English for Speakers of Other Languages
- IAEP-II - International Assessment of Educational Progress
- IALS - International Adult Literacy Survey
- ICCS - International Civic and Citizenship Education Study
- ICT - Information and Communication Technology
- INES - International Indicators of Education Systems
- PIRLS - Progress In International Reading Literacy Study (e.g. PIRLS 2001, PIRLS 2006)
- PISA - Programme for International Student Assessment
- SPSE - Study on Performance Standards In Education
- TIMSS - Third International Mathematics and Science Study

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# SECTION 1

## COMPARATIVE CULTURAL ISSUES OF MANAGEMENT AND POLICY FOR TEACHERS PROFESSIONAL DEVELOPMENT

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# CHAPTER 1

## COMPARATIVE STUDY OF TEACHING CONTENT IN TEACHER EDUCATION PROGRAMMES IN CANADA, DENMARK, FINLAND AND SINGAPORE

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### **Abstract**

This study of content in teacher education programmes in Canada, Finland and Singapore all of which score highly in international comparisons such as PISA and Denmark which receives average scores aim of contributing to the existing body of research on teachers' knowledge base. It offers an empirical, comparative analysis based on preselected and further differentiated search and analysis categories. They build on a distinction between four types of knowledge: scientific knowledge, scientific practice knowledge, professional knowledge, and professional practice knowledge. The study does not offer proof of any clear difference between the Danish teacher education programmes and those found in the top-performing

countries. Differences can be found in certain areas, in other areas there are greater differences between the four individual countries. Professional knowledge comprises a significant proportion of the teaching content in the Top-3 countries as well as in Denmark. Teacher education programmes in each of the four countries are clearly professionally-oriented. Philosophically-based professional knowledge, much of which of normative character, forms an extensive part of the body of professional knowledge within the Danish teacher education programmes, which is not true of the programmes in the Top-3 countries. The teacher education programmes in Canada and Singapore employ evidence-based professional knowledge combining research-based and practice-based knowledge, meanwhile, in Denmark and Finland this type of knowledge for the most part solely references research.

## **Keywords**

Teacher education – content of teacher education – teachers’ knowledge base

## **Introduction**

This article presents the results of a comparative study of the content in teacher education programmes for primary and lower secondary teachers (years 1-9(10)) in Canada, Denmark, Finland and Singapore. First and foremost, the study is a comparison between teacher education programmes in, on the one hand, Canada, Finland and Singapore, all of which score highly in international comparisons such as PISA and TIMMS, and on the other hand Denmark, which receives average scores, but it also functions as a comparison between all four countries. The study covers the following subjects: educational theory (pedagogy), mathematics, and science.

In this study, we have included Canada, Finland and Singapore, i.e. three of the top-performing countries, and Denmark. Korea, which is among the top three in the PISA assessments, is not part of the study.

Singapore, which achieves a top placing in TIMMS is, however. The reason for this is that Singapore has attracted particular interest within the educational debate in Denmark.

In Canada, the compilation of teaching materials was carried out in the province of Ontario at the Faculty of Education, Ontario Institute for Studies in Education (OISE), University of Toronto, which is the largest and most prestigious provider of teacher education in the province. Of the four teacher education programmes offered, the one-year Bachelor of Education programme is the largest in terms of student population, and it is this programme which has been included in the study. In Denmark teacher education is decentralized but in accordance with common legislation. The study includes three programmes are located in a city, a large provincial town and a smaller provincial town respectively. In Finland we analyse the content of the teacher education programme at the Department of Teacher Education, Helsinki University. The department offers both the class teacher programme (Grade 1-6) and the subject teacher programme (Grade 7-12). These programmes are both included in the study. In Singapore all three programmes offered at the National Institute of Education (NIE): A four-year concurrent bachelor's degree programme, a two-year concurrent diploma degree programme and a three-year Postgraduate Diploma in Education aimed at students who already have a bachelor's degree but require an educational postgraduate qualification in order to teach at primary or secondary level are included in the study.

## **1. Theoretical framework and method**

### ***1.1. Variations and similarities***

The comparison of variations and similarities in the content of the selected subjects in the four teacher education programmes is conducted on the basis of a number of concepts, referred to here as search and analysis categories. The argument for applying search and analysis categories is that, while it may be possible to compile information about the teaching content in the teacher education programmes without employing such categories, it is only with the help of conceptual categories that it becomes possible to consider the similarities between the programmes. The comparisons of the teaching content in the selected teacher education programmes are conducted using a matrix with the four teacher education programmes which are the subject of the analysis placed along the horizontal axis and the standardised categories which are applied placed along the vertical axis. As a result, the comparisons are conducted at this conceptual or categorical level (Rose, 1991), (Sartori, 1984).

### ***1.2. Analysis of teaching content***

The analyses of teaching content are conducted as text analysis on the basis of preselected and further differentiated search and analysis categories. The material is analysed along two dimensions. The first dimension, which is used to analyse the material within each of the three subject areas, builds on a distinction between four types of knowledge: scientific knowledge, scientific practice knowledge, professional knowledge, and professional practice knowledge. The second dimension, which is only applied to the analysis in the mathematics and science subject areas, builds on a distinction between three categories of content, i.e. subject knowledge, subject didactic

knowledge, and knowledge about students. (Luhmann, 2002)(Rasmussen, Kruse, & Holm, 2007).

Scientific knowledge about education and teaching is knowledge about the educational system which is produced outside the educational system, with a different frame of reference than that employed by the educational system itself. Scientific knowledge is characterised by its distinction between true and false statements, an aspiration towards generalised or generalisable research results, the coordination of concepts which form the basis for observation and the range of conclusions by theory, and the application of specific and explicit methods.

In this study, we additionally distinguish between empirical scientific knowledge and analytic/theoretical scientific knowledge within the search and analysis category scientific knowledge. Empirical scientific knowledge can be generated through the application of either quantitative or qualitative methods. Analytic/theoretical scientific knowledge can be further divided into grand theory (philosophical, psychological, sociological etc.) and middle-range theories (e.g. Piaget's adaptation theory, learning theories, theories about social inequality etc.), a conceptual distinction with its roots in sociology, but here applied more broadly(Merton, 1968).

Scientific practice knowledge is knowledge the researcher and research community generates by itself and for itself concerning the research process. It typically comprises reflections on the theory of science, not least questions of an epistemological nature, as well as reflection on research methodology and its possible applications and limitations.

Professional knowledge about education and teaching is knowledge which is produced within the educational system about the educational system and for the

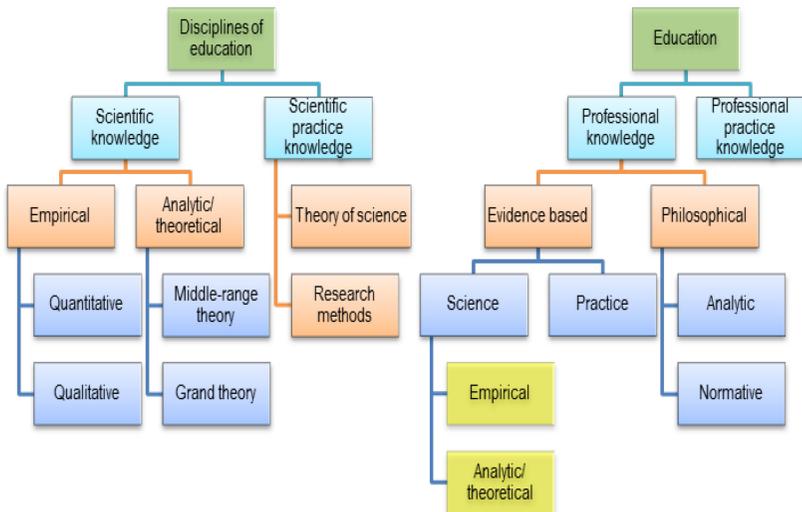
educational system, i.e. with the educational system's own frame of reference. Professional knowledge is characterised by its distinction between instructive and not-instructive statements regarding teachers' practice. As such, professional knowledge acts as the educational system's own way of correcting professional practice according to a self-generated set of criteria for determining success or failure. Professional knowledge is developed with the aim of solving concrete problems in local contexts and therefore mainly comprises context-specific knowledge. Its function is to explain practice in order to enable intervention aimed at improving practice.

The search and analysis category professional knowledge is further divided into evidence-based professional knowledge and philosophical professional knowledge. Evidence-based professional knowledge can refer to either research or experimental and developmental work and action research, while philosophical professional knowledge is characterised by offering normatively-based directions for practice. This distinction has its foundations in two different characteristics of professional knowledge: on one hand, professional knowledge can be based on more or less systematic descriptions of experiences from educational practice; on the other hand, professional knowledge can consist of ideas or ideals for successful practice. Evidence-based professional knowledge referencing research can additionally be distinguished dependent on the empirical or analytic/theoretical nature of this research, while philosophical professional knowledge can have either an analytic or a normative orientation.

Professional practice knowledge about education and teaching is the type of knowledge which practitioners generate by and for themselves with the goal of facilitating a more effectual practice. Professional

practice knowledge is characterised by a distinction between useful and not-useful knowledge, a distinction which combines two criteria for professional practice, namely if it 'works', and whether it does so in a reasonable manner, i.e. in a way which the practitioner finds acceptable in terms of e.g. ethical considerations. Professional practice knowledge is reflection on practice and, as such, experiential knowledge whose function is to contribute to an improvement of the concrete everyday educational practice. Professional practice knowledge is not subject to additional divisions.

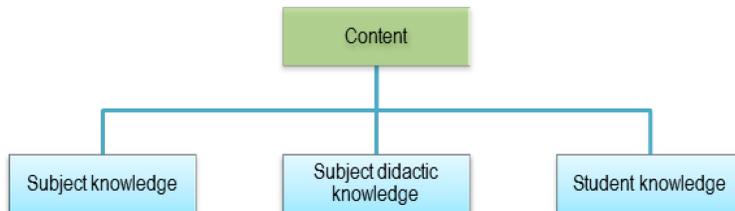
Figure 1: Overview of search and analysis categories for knowledge forms



We look to capture the content elements in mathematics and science using the second dimension concerning categories of content. A distinction is applied here between subject knowledge, subject didactic knowledge and knowledge about students, i.e. student knowledge.

- *Subject knowledge* (the subject's 'what') is the subject-specific knowledge which student teachers require in order to be able to teach a subject and to diagnose the difficulties pupils might have in learning a particular aspect of the subject.
- *Subject didactic knowledge* (the subject's 'why', 'how' and 'whereto') has to do with the knowledge about objectives and curricula (in general and more concretely), planning lessons, communication and teaching methods, and assessment (both internal and external).
- *Student knowledge* (the subject's who) includes developmental psychology (what can be expected at various age levels), learning theory (knowledge about human learning), and knowledge about social and cultural diversity (student diversity) (Tenorth, 1994), (Weinert & Helmke, 1997).

Figure 2: Overview of search and analysis categories for content



### **1.3. Validity and reliability**

In order to ensure the validity of the study of teaching content in the four teacher education programmes, i.e. ensure congruence between the objectives of the study and comparison and the actual findings, the study only includes content which can be found in publicly available curricula and syllabi, examination reports, lists of recommended literature and the like.

It is difficult in a study such as this one to ensure reliability, i.e. that the findings would be the same if the study was repeated. In order to ensure a certain

degree of reliability, we strove for a high degree of transparency in the compilation and analysis of the selected material. This was achieved by presenting the material in a bibliographical format (APA-standard) which makes it possible to find the same sources again such that descriptions and characterisations can be verified (Rasmussen, Bayer & Brodersen 2010).

## **2. Teaching content in the teacher education programmes in the four countries**

### **2.2. Ontario, Canada**

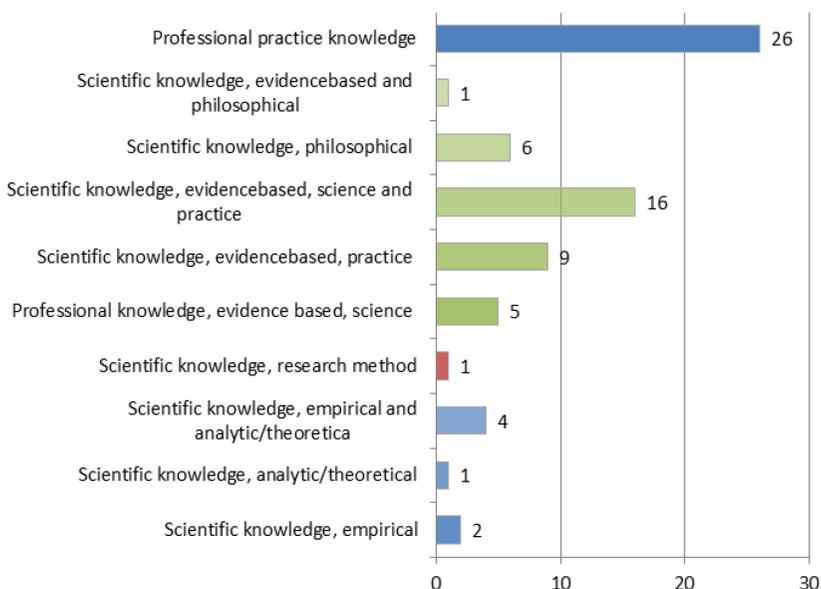
At the Ontario Institute for Studies in Education (OISE), literature is listed in the syllabi for all the subjects that form part of the programme for the Bachelor of Education, a total of 75 items. Of these, 71 have been identified and analysed. Five titles are used in more than one subject.

At the level of the four overall categories of knowledge, seven entries are categorised as scientific knowledge, one as scientific practice knowledge, 37 as professional knowledge, and 26 as professional practice knowledge. As such, professional knowledge comprises the largest share of entries, but professional practice knowledge also represents a significant proportion of the total number of entries. These two knowledge forms combined comprise a 63 of the 71 entries.

The modest number of entries within the categories of scientific knowledge and scientific practice knowledge deal with empirical research findings (2), analytic/theoretical knowledge (1), and findings based on a combination of empirical and analytic/theoretical research (4). In the category of scientific practice knowledge, there is one item concerning research methodology and none on the theory of science.

In terms of professional knowledge, the majority are evidence-based (30 entries). Of these, 16 refer to both research and practice, while five refer only to research and nine only to practice. Six items deal with normatively oriented philosophical professional knowledge and one refers to both evidence and philosophy. Professional practice knowledge comprises the second largest share of entries (26).

Figure 3: Ontario Institute for Studies in Education (OISE)



The teaching content of the Bachelor of Education focuses strongly on professional knowledge and professional practice knowledge. It would seem clear that an attempt to strike a balance between evidence-based professional knowledge and knowledge regarding what is possible in the classroom, i.e. professional practice knowledge, is central to the selection of the programme's teaching content. As a prerequisite for their admission to the programme, students have a four-year bachelor's degree, typically within two school subjects, and this explains why the

content is dominated by subject didactics. Furthermore, the teaching content in the programme is clearly aimed at developing the performativity of the teacher-to-be and at providing guidance in successful teaching strategies. There is a particular emphasis on teaching classes with high levels of student diversity in terms of ethnicity and culture.

### **2.3. Denmark**

At the three educational institutions included in the study, 373 items are reported from the subjects Educational Science, Psychology and General Didactics: of these, 199 have been identified and analysed. For the subjects Science and Technology and Physics/Chemistry, 48 out of a total of 181 items have been identified and analysed. For Mathematics, 52 out of 113 items have been included. As such, a total of 299 items have been analysed in this study.

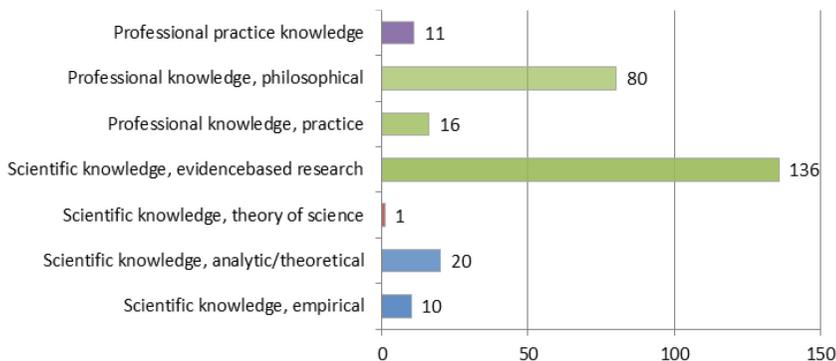
At the overall level, the content of the analysed material is divided between all four categories of knowledge: 30 entries are categorised as scientific knowledge, one as scientific practice knowledge, 249 as professional knowledge, and 11 as professional practice knowledge. Professional knowledge thereby comprised by far the largest proportion of items.

The 30 items within the category of scientific knowledge can be further distinguished between 20 entries based on analytic/theoretical research and ten entries based on empirical research. The single item belonging to the category of scientific practice knowledge concerns the theory of science.

The vast majority of items within the professional knowledge category are based on evidence-based research (141), while 25 refer only to practice. Philosophical professional knowledge is at the centre of 80 entries, 18 of which are both normatively and

analytically oriented, 22 purely analytic, and 40 entirely normative. Professional practice knowledge comprises 11 items.

Figure 4: Denmark



The analyses of teaching material in the Danish teacher education programmes show a strong focus on professional knowledge. Scientific knowledge features to a limited extent while professional practice knowledge is minimally represented and scientific practice knowledge virtually absent. A considerable proportion of the material is based on research. The large number of items included at the three educational institutions (677) is also worth noting and can be seen as evidence of the relative pedagogical freedom given to instructors.

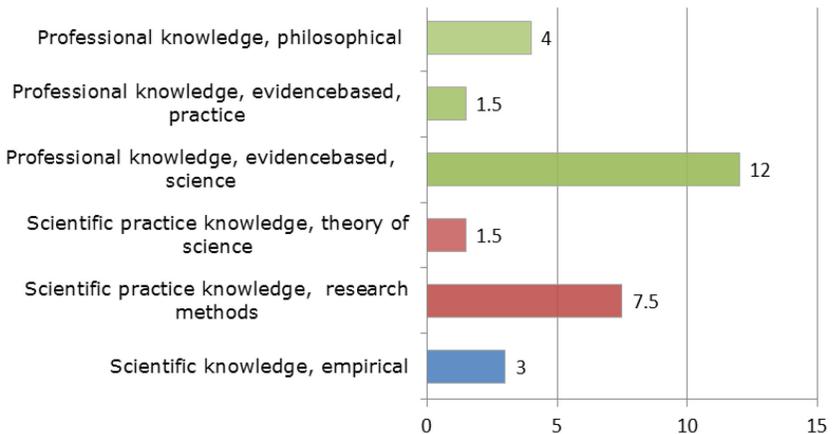
#### **2.4. Finland**

For the class teacher programme at the University of Helsinki (Grade 1-6), all compulsory items are included in the study (22). They are divided between just three of the four categories of knowledge: scientific knowledge, scientific practice knowledge, and professional knowledge. There are no examples of professional practice knowledge. At this overall level, three items are categorised as scientific knowledge, nine as scientific practice knowledge, and 16 as

professional knowledge. Six titles are used in more than one subject.

Scientific knowledge in the form of results of empirical research comprises the smallest category with three entries. The second largest category is scientific practice knowledge of which the majority deal with research methodology (7-8), the remainder concerning theory of science (1-2). However, professional knowledge comprises the largest proportion of teaching materials included in the Finnish class teacher education programme. 12 items are evidence-based referring to empirical and/or theoretical research (primarily theoretical). Four entries are categorised as philosophically oriented professional knowledge, three of which have a normative basis.

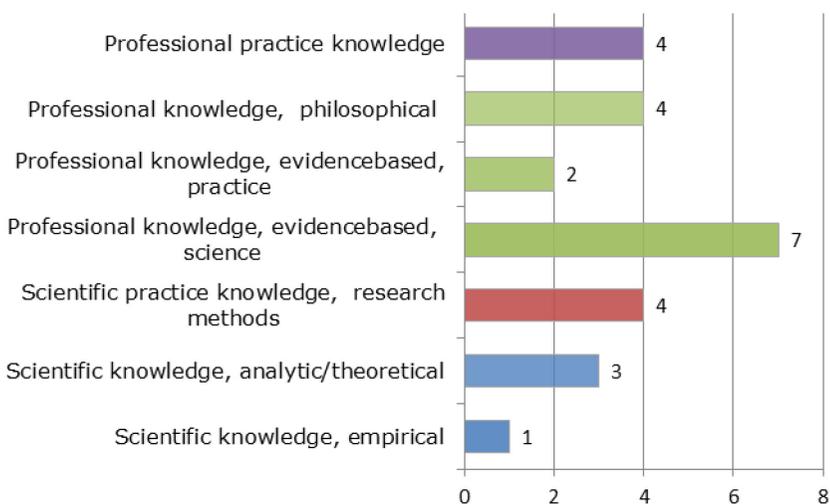
Figure 5: University of Helsinki, class teacher



For the subject teacher programme at the University of Helsinki (Grade 7-12), all compulsory items are again included in the study (25) and categorised according to the four overall categories of knowledge. Scientific knowledge includes four items, three of

which can be placed within the analytic/theoretical middle-range theory sub-category. Scientific practice knowledge comprises four items, all dealing with research methodology. Professional knowledge includes seven items which are evidence-based referring to primarily theoretical and/or empirical research, in addition to two items based on evidence from studies of practice. A further four items are philosophical professional knowledge with a normative foundation. Finally, four items can be categorised as professional practice knowledge.

Figure 6: University of Helsinki, subject teacher



Many of the items included in the subject teacher education programme are the same as those found within the class teacher programme. However, the subject teacher education programme does differ from the class teacher education programme in that it incorporates professional practice knowledge comprising material which provides inspiration for assessing teaching and language learning.

## 2.5. Singapore

For the teacher education programmes at the National Institute of Education (NIE), 13 items are reported of which 11 have been identified and analysed. The majority of these items fall within the category of evidence-based professional knowledge (10). The teaching materials within these subjects are to a large extent instructive and in some cases almost prescriptive in relation to educational practice. Most of the items are founded on evidence-based knowledge from research (3) and from experimental and development work (6). The only exception is teaching material regarding students with special needs which is both analytic and normative in its philosophical orientation (1). It is noteworthy that the normative basis is drawn from political-administrative declarations of intent regarding Singapore as an inclusive society.

Figure 7: National Institute of Education (NIE)



The educational theory and practice subjects in Singapore are characterised by a general focus on questions with a direct relevance for the decisions

teachers make when teaching: questions concerning e.g. planning lessons, classroom management and assessment. Meanwhile, relatively little attention is paid to e.g. questions concerning educational theory (Bildung) and other themes within the philosophy of education. When questions about goals and values are dealt with, it is primarily with reference to the country's current political priorities and only to a far lesser degree to the possible historical and philosophical foundations.

### **3. Comparison**

The study of differences and similarities in the teaching content of the teacher education programmes in the four countries has been conducted first and foremost as a comparison between on the one hand, the four top-performing countries Canada, Finland and Singapore, and on the other hand, Denmark. However, differences and similarities between the individual countries are also dealt with to the extent that they offer a contribution to a more nuanced overall picture.

#### ***3.1. Differences and similarities in terms of knowledge base***

The content in the selected subjects within the teacher education programmes in the four countries has been analysed on the basis of two theoretically-founded sets of categories. The first set of categories categorises teaching content in terms of different types of knowledge and has been applied to teaching materials in all three subject areas (educational theory and science, mathematics, and science). The second set of categories concerns the specific type of content and is applied to the mathematics and science subject areas.

### *3.1.1. Professionally-oriented knowledge*

As a broad observation, a significant amount of the teaching content in the teacher education programmes in each of the four countries can be classified as professional knowledge. For the teacher education programmes at OISE and the University of Helsinki, this is true of approximately half the entries analysed. The proportion of material falling within this category is even higher in Denmark and at NIE. Even though the teacher education programmes in the Top-3 countries are research-based and situated within a university environment, while the Danish teacher education programmes are development-based and situated at university colleges, the teaching content is in all cases clearly aimed at preparing students to enter the teaching profession and perform teaching work.

Only by further analysing the content of this professional knowledge do the differences between the four teacher education programmes become apparent. In order to do so, the category of professional knowledge has been further divided into the sub-categories of evidence-based professional knowledge and philosophical professional knowledge. *Evidence-based professional knowledge* is the type of knowledge which refers to the results of research or of action research and experimental and development work. *Philosophical professional knowledge* is characterised by providing normatively-based guidelines for practice.

### *3.1.2. Evidence-based professional knowledge*

At OISE, the great majority of items within the category of professional knowledge are categorised as evidence-based professional knowledge (30), while a smaller number deal with philosophical professional knowledge (6). In Helsinki, one finds a similar

distribution between evidence-based (12+9) and philosophical professional knowledge (4+4), especially in terms of the class teacher education programme. At NIE, evidence-based professional knowledge once again comprises the majority of entries (10), while only a single entry belongs within the sub-category of philosophical professional knowledge. Meanwhile, one finds a different pattern in the Danish teacher education programmes. As at NIE, professional knowledge comprises a considerable majority of the items, but the distribution between evidence-based and philosophically-oriented professional knowledge is quite different. In Denmark, evidence-based professional knowledge once again constitutes the largest proportion of the items classified as professional knowledge (106), but there are also a considerable number of items within the sub-category of philosophical professional knowledge (63). As such, the Danish teacher education programmes differ from those in the Top-3 countries by including a weighty share of philosophical professional knowledge.

The teacher education programmes in the four countries do not differ in terms of their employment of professional knowledge, but a clear difference can be observed between OISE and NIE on the one hand and Helsinki and Denmark on the other in terms of teaching content. This difference is that the first two programmes largely employ teaching material combining research-based knowledge with practical experiences and guidelines for practice, while the programmes in Denmark and Helsinki tend to keep these two elements separate to a much greater degree, and moreover, only utilise a small amount of teaching material which refers to practice. The latter is especially true of the Danish teacher education programmes. In this regard, the difference is not so much between Denmark and the Top-3 countries, but rather between the teacher education programmes in

Ontario and Singapore and those in Helsinki and Denmark.

### *3.1.3. Philosophically-oriented professional knowledge*

Philosophically-oriented professional knowledge comprises a substantial part of the content in the Danish teacher education programmes, which is not the case in the other three countries. While philosophically-oriented professional knowledge is employed in these countries, it is only to a much lesser extent than one finds in Denmark. A considerable amount of the philosophical professional knowledge employed in Denmark is of a normative nature. Meanwhile, this is not the case in the other countries where items belonging to the analytic-philosophical professional knowledge sub-category dominate. There is therefore a clear difference between the teaching content of the teacher education programmes in Denmark and the Top-3 countries in terms of philosophically-oriented professional knowledge.

### *3.1.4. Professional practice knowledge*

At OISE, a considerable number of items are included which can be classified as professional practice knowledge. No items are included within this category at NIE or in the class teacher education programme in Helsinki. The subject teacher education programme in Helsinki and the Danish teacher education programmes include only a modest number of items from the category of professional practice knowledge. On this point it is therefore OISE which stands out from the other countries' teacher education programmes.

### *3.1.5. Scientific knowledge*

Scientific knowledge is incorporated within the teacher education programmes in all four countries, although only to a limited extent at NIE. Of the other three countries, scientific knowledge is most predominant at the University of Helsinki and least at OISE with Denmark falling somewhere in between. The incorporation of the scientific results of empirical research is modest in all of the teacher education programmes studied. In terms of the results of analytic/theoretical research, a difference can be registered between the programmes at NIE, where this sub-category is not represented at all, and the programmes in the remaining three countries, where they are incorporated to a limited degree.

### *3.1.6. Scientific practice knowledge*

Scientific practice knowledge, i.e. research methodology and theory of science, is well represented in the teacher education programmes in Helsinki with items concerning research methodology, while this type of knowledge is absent from the teacher education programmes in the other countries.

This overall picture of the distribution of knowledge forms among the teaching materials employed in the four teacher education programmes also more or less applies to the distribution within the three subject areas analysed: i.e. educational theory and practice, mathematics, and science.

### *3.1.7. Mathematics and science*

In the subject areas mathematics and science, the teaching content has been further categorised according to whether it communicates subject knowledge, subject didactic knowledge and/or student

knowledge. Here there is a clear distinction between the Top-3 countries and Denmark in that the content of the subject areas mathematics and science in the Top-3 countries only deals with subject didactic knowledge, while in Denmark, both subject knowledge and subject didactic knowledge are incorporated.

The best explanation for this difference is how the different teacher education programmes are structured. The programmes in two of the Top-3 countries are consecutive (OISE and NIE). In consecutive education programmes, subject knowledge within mathematics and science has been acquired prior to commencing the teacher education programme. In Helsinki, even though there is talk of a concurrent teacher education programme, teaching of subject knowledge takes place within the various disciplines' respective departments, meaning that the Department of Teacher Education only concerns itself with the subject didactic aspects. This is not the case in Denmark where teacher education programmes are entirely concurrent. As a result, the teaching of school subjects includes both purely disciplinary content and a subject didactic content. Danish teacher education programmes therefore also use textbooks concerning subject knowledge, which also applies to a certain extent at NIE. The textbooks employed within mathematics in the Danish teacher education programmes are aimed at maths teachers, while those employed within science (Nature and Technology, Physics/Chemistry) are also used at upper secondary schools.

Student knowledge plays only a small part in the subject areas of mathematics and science and would therefore seem to belong within the educational theory and practice subjects, especially educational psychology and sociologically-oriented subjects such as School and Society (OISE), The Social, Historical

and Philosophical Foundations of Education (Helsinki) or Learning and Teaching in a Social Perspective (NIE).

### ***3.2. Differences and similarities in teaching content***

A closer study of content of items within the four types of knowledge does not reveal a clear pattern in terms of similarities and differences between the Top-3 countries and Denmark, or between each of the four countries.

#### *3.2.1. Scientific knowledge*

The teacher education programmes at OISE and in Denmark include the results of empirical research concerning increased student diversity within schools. This is a topic resulting from demographic changes, teaching of bilingual students, social diversity, poverty, children from socially disadvantaged backgrounds, and issues relating to educational opportunities and educational equality. The programmes also include scientific knowledge regarding individualisation and the development of children and young people within modern society.

The results of empirical research on teachers' work, the teaching profession and restructuring are likewise included, as are the results of subject didactic research in mathematics and science lessons.

#### *3.2.2. Scientific practice knowledge*

At the teacher education programmes at the University of Helsinki, a considerable number of items concerning research methodology are included – which is not the case in the other three countries. The goal is to provide aspiring teachers with the necessary

knowledge and expertise to be able to perform methodical and systematic analysis of their own teaching and to understand and relate to research results.

#### *3.2.4. Professional knowledge*

Professional knowledge covers a wide array of topics relevant to the teaching profession. Student diversity is a central theme, in particular how teachers can cope with this diversity and the resulting complexity. Issues covered here typically include: differentiated teaching; teaching students with special needs; ethnic minorities and refugees; gender, racial and cultural differences; special needs education; inclusion; intelligence; and classroom management. Another theme deals with the development of children and young people and the formation of their attitudes, their socialisation, and theories of learning. Teaching comprises a third theme within the category of evidence-based professional knowledge with topics including: (effective) teaching methods and their relevance in relation to different subjects and different students; the development and structure of positive learning environments; and assessment. Finally, one also finds themes such as school development and educational systems.

Within the realm of philosophically-oriented professional knowledge, particular attention is paid to educational theory (Bildung) topics, action competence and theories concerning democracy and democratic education, as well as recognition, care and the forming of relationships. This philosophical, normatively-oriented professional knowledge, which primarily assumes the form of reflections on educational theory, is a hallmark of the Danish teacher education programmes.

### *3.2.5. Professional practice knowledge*

Within the category of professional practice knowledge, one finds items passing on teachers' experiences with conducting courses of study in Danish and Mathematics; teaching of refugees; parent-teacher co-operation; and matters relating to information and confidentiality.

#### **Summary**

This comparative study does not offer proof of any clear difference between the Danish teacher education programmes and those found in the top-performing countries. While differences can be found in certain areas, in other areas there are greater differences between the four individual countries.

Professional knowledge comprises a significant proportion of the teaching content in the Top-3 countries as well as in Denmark. Teacher education programmes in each of the four countries are clearly professionally-oriented in this respect. Philosophically-based professional knowledge, much of which is normative in character, forms an extensive part of the body of professional knowledge within the Danish teacher education programmes, which is not true of the programmes in the Top-3 countries.

The teacher education programmes at OISE and NIE employ evidence-based professional knowledge referencing and combining research-based and practice-based knowledge. Meanwhile, in Denmark and at the University of Helsinki this type of knowledge for the most part solely references research. A similar difference applies in that the programmes at OISE and NIE more frequently employ literature combining research-based knowledge with practical guidance and experiences, while the programmes in Denmark and Helsinki keep these

knowledge forms separate and only incorporate experiences from practice to a limited degree.

The teacher education programme at OISE is distinguished from the programmes in the three remaining countries by including a number of items from the category professional practice knowledge. The teacher education programmes at NIE are distinguished by incorporating only to a very limited degree the results of empirical research and by the complete absence of the results of analytic/theoretical research. The main distinguishing feature of the teacher education programme at the University of Helsinki is the inclusion of literature on research methodology within the category of scientific practice knowledge.

There is a difference between the institutions offering consecutive programmes (OISE and NIE) and those offering concurrent programmes (Helsinki and Denmark) in terms of the content of the subjects taught within the areas of mathematics and science. In the consecutively organised teacher education programmes, teaching content consists entirely of subject didactics, while the concurrent programmes also cover subject knowledge within these disciplines. The Danish teacher education programmes incorporate both subject didactic literature and subject knowledge literature in the same courses, while the programme at the University of Helsinki keeps the two areas of knowledge separate in subject didactic courses and courses within the subjects held at their respective departments within the university.

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## **C**HAPTER 2

# **AN INVESTIGATION OF EARLY CAREER TEACHERS' INTEGRATION OF THE PRINCIPLES OF STUDENT SOCIAL AND EMOTIONAL WELLBEING INTO THEIR PROFESSIONAL PRACTICE**

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### **Abstract**

Social and emotional wellbeing has grown in importance in educational settings, with an increasing focus on promoting the wellbeing of all students. Promoting social and emotional wellbeing has become a priority as researchers have found that poor physical or mental health in children, including the presence of emotional or behavioural disorders, is associated with poor academic achievement. A systematic focus on social and emotional wellbeing in schools may have a variety of benefits and the literature suggests that there can be an association with more positive behaviour and academic performance. However, there

has been little research into how beginning teachers take what they may have learnt about social and emotional principles and apply it in their early years of teaching.

Recent developments indicate the inclusion of social and emotional wellbeing as a key concept is becoming firmly integrated into the Australian educational context, through educational policy and guidelines, school practices and mental health programs. However, the presence of such policies, practices and programs does not assure their adoption and use by early career teachers in school and classroom practice. For this reason, both policies and the underlying principles of social and emotional wellbeing require inclusion in teacher education and professional development for early career teachers.

This study proposes a mixed qualitative and quantitative methods approach to explore the extent to which early career teachers integrate the knowledge and principles of student social and emotional wellbeing into their practice. Questionnaires and interviews provide the means to compare and analyse reflections of early career teacher professional practice. In addition to broadening the very limited research area, this study proposes to provide important information regarding early career teachers' practices to teach and interact with students in a way that builds social and emotional wellbeing.

## **Introduction**

The issue of social and emotional wellbeing (SEW) has grown in importance in educational settings, with an increasing focus on promoting the wellbeing of all students (Weatherby-Fell and Vincent 2005, Ministerial Council on Education, Employment, Training and Youth Affairs, 2008). Promoting SEW has become a priority, as researchers have found poor physical or mental

health in children, including the presence of emotional or behavioural disorders, is associated with poorer academic achievement (Becker & Luthar, 2002, Spernak et al., 2006). In Australia, the inclusion of SEW as a key concept is becoming firmly integrated into the Australian educational context, through educational policy and guidelines, school practices and mental health promotion programs (Griffith and Cooper, 2005; Department of Health and Ageing, 2000; Vincent et al., 2005). Teachers are the nexus between policy and practice; and between school and students. Research (Moodie, 2008) also suggests that students benefit from teachers who interact with them in a way that builds SEW. This approach represents a focus on how to teach rather than what to teach. Although the connection between SEW and school success is well documented, there has been little research into how pre-service teachers attain knowledge of SEW, nor how early career teachers take what they may have learnt about SEW and apply it in their early years of teaching, through their teaching practices and interactions with students. This study will use a mixed methodology to investigate (a) pre-service teacher education and how it caters for SEW in preparing new teachers and (b) early career teachers' reflections on their preservice education and current experiences related to the knowledge, understanding and skills they have developed to support the SEW of their students in their early years of teaching.

## **1. Social and Emotional Wellbeing**

Social and emotional wellbeing is a component of overall wellbeing. Wellbeing is a generic, broad and all-encompassing term and is applicable to a wide range of educational and health -related environments (Weare, 2010). The term 'social and emotional wellbeing' incorporates the key concepts of mental health, emotional intelligence, social and emotional learning and resilience. Further to this understanding,

young people's SEW is influenced by a combination of individual and environmental factors, which may or may not be able to be modified. Miller and Daniel (2007) identify individual factors that may support or alternatively create adversity for an individual, such as one's temperament and family background, personal strengths, social and emotional skills, genetic or biological factors and physical health. Environmental factors may include family relationships, school and community experiences. According to NICE (2009) SEW more specifically relates to the positive paradigm that encompasses:

- Social wellbeing, the ability to have good relationships with others and to avoid disruptive behaviour, delinquency, violence or bullying.
- Emotional wellbeing, the ability to recognise and manage emotions to achieve happiness, confidence and not feel depressed or anxious.
- Psychological wellbeing, a feeling of autonomy and control over one's life, problem solving skills, and a sense of involvement with others.

### ***1.1. Mental Health***

Social and emotional wellbeing is closely connected to the term 'mental health'. There has been a recent paradigm shift in mental health from a negative to a positive approach. It is seen as a positive state, not just the absence of illness, reflecting a person's capacity to function well in society and lead a happy and productive life. The World Health Organisation (WHO) (2001) defines mental health as 'a state of wellbeing in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.'

Many people who work in education have an aversion to the term, mental health, assuming it is a

euphemism for mental illness and tend to associate it with mental illness such as depression, anxiety, schizophrenia, and their attendant stigma (Weare, 2010). The concept of SEW has been adopted to remove some of the apprehension aroused by the term mental health and because it has a positive and holistic connotation (Stafford et al., 2007).

## **1.2. Social and Emotional Learning**

More recently, attention has been given to the area of social and emotional learning (CASEL, 2009), social and emotional aspects of learning (DCSF, 2009) and emotional literacy (Antidote, 2003, Mauer & Brackett, 2004). Social and emotional learning researchers advocate the understanding of what the nature of social and emotional skills are and the development of programs intended to increase and reinforce such skills (Cohen, 1998, Elias, et al., 1997, Saarni 1988, 1997, 1999, Zins et al., 2001). Social and emotional learning is a process to attain skills for the promotion of social and emotional wellbeing (Elias & Weissberg, 2000).

### *1.2.1. Resilience*

Resilience is usually characterised in terms of the capacity to achieve positive outcomes despite adversity. In relation to SEW, resilience is the capacity that some people have that allows them to maintain or re-establish their SEW in the face of challenges to their wellbeing. There are different ways to look at resilience, either as an internal trait of a person and/or as something that is fostered by the right environment (Benard, 2004). The term '*resilience*' evolved from longitudinal population health studies (Luthar, Cicchetti & Becker, 2000) in which some participants did not develop the negative outcomes anticipated despite their exposure to risk factors such as adverse

life events or situations. Subsequent research into resilience has been concerned with understanding how individuals overcome adversity and why one individual may be more resilient than some of his/her peers who had negative outcomes (Bernard, 2004). One school of thought regarding resilience comes from Benard (2004) who emphasises that a student's ability to be able to cope with and overcome difficult times can depend on the importance of caring and connectedness in the environment, communicating high expectations for students, helping them to achieve their goals and fostering authentic participation of children and young people in the classroom and school.

### ***1.3. The Role of the School in Supporting the Social and Emotional Wellbeing of their Students***

A comprehensive and systematic approach to SEW in educational settings may contribute to improved behaviour, higher academic achievement and better health and social outcomes. Systematic social and emotional education should begin in preschool, continue through primary and high school and should be an integral component of the school curriculum (Elias et al., 1997, Collaborative for Academic Social and Emotional Learning, 2007b). While the research does not prove a definite cause-and-effect relationship, there is enough evidence to support the premise that such approaches can be associated with improvements in children's behaviour, academic achievement and health (Response Ability, 2007). Research indicates schools can influence social and emotional wellbeing via a range of approaches to promoting a healthy psycho-social environment (WHO, 2003).

#### ***1.4. The Role of Teachers in Promoting Social and Emotional Wellbeing***

Recent research indicates the quality of teachers and their teaching is the most important factors for student's outcomes (Organisation for Economic Co-operation and Development (OECD), 2005). Informed and caring teachers may make a significant contribution to student SEW. All teachers have a pastoral role to play and the positive impact of a caring teacher-student relationship on student SEW cannot be underestimated (Keeffe & Carrington, 2007). Teachers who demonstrate democratic interaction styles, take account of individual differences in their expectations of student behaviour, model a 'caring' attitude toward their own work and provide constructive feedback have positive effects on student SEW (Keeffe & Carrington, 2007). Teachers are instrumental in making their students feel that they belong, are cared for, valued and respected. Teachers' personalities and temperaments may also influence the environment through their relationship with their students, what they teach as well as how they teach. Teachers are well placed to recognise and identify a young person with mental health concerns and to assist the young person to get appropriate help. To assist in the process of early intervention and referral, teachers need to be informed about the more common mental health disorders that may affect children and young people under their care. Furthermore, teachers need to be aware of the process and protocols that their school has in place to ensure that students get the help they need (Keeffe & Carrington, 2007).

#### ***1.5. Social and Emotional Wellbeing in Pre-service Teacher Education***

The impact of SEW on academic outcomes and behaviour (Zins et al., 2004, Shriver & Durlak, 2005), raises the question of how teacher pre-service

education courses prepare early career teachers to contribute to and support SEW in their students. Social and emotional wellbeing is a cross-curricular issue, as are literacy, numeracy and information communication technologies. Developing skills that improve SEW do not exclusively belong to a particular learning or curriculum area such as English, maths, science or history, but they do underpin students' capacity to learn and succeed academically (Zin et al., 2004). Teachers are likely to promote student SEW in different ways depending upon the developmental stage of the children or young people they teach (that is, preschool, primary, or secondary) and learning area they are teaching in. Until recently, any explicit coverage of SEW in teacher education programs was frequently devolved to the health and personal development curriculum area.

Bernard et al., (2007) found teachers to be important contributors to students' SEW and advocated that SEW should become an integral part of initial teacher education and on-going teacher professional learning and development programs. Addressing SEW in pre-service education may help early career teachers to feel more confident about creating supportive environments, participating in whole-school programs and responding to young people.

In more recent times there has been a move internationally for the inclusion of SEW in teacher education (Zin et al., 2004, Centre for Social and Emotional Education, 2007, Collaborative for Academic Social and Emotional Learning, 2007a, Palomera et al., 2008, NICE, 2009). Palomera et al. (2008) reviewed numerous studies and proposed that in order to design pre-service teacher education, it would be necessary to understand the basic content and competency objectives which future teachers are to develop in their students. Incorporating the principles of SEW into

teacher education programs will serve as a basis for on-going teacher development. A study conducted by Weare and Gray (2003) recommended addressing SEW issues not only at school, but also at institutions involved in educating pre-service teachers. They found that education in SEW for new teachers proved effective in increasing their own emotional competency as a beginning professional. (Byron, 2001). A more systematic inclusion of social and emotional issues in teacher education is supported in Australia through a national program called Response Ability (Vincent et al., 2005). Introducing social and emotional concepts in pre-service education may assist graduates to be better prepared for the complexity of their roles in today's schools (Hazel & Vincent, 2005). Ideally, SEW should be integrated broadly across teacher education programs, being explored from different perspectives in a number of units, so that its fundamental contribution to learning can be reinforced (Vincent et al., 2005). In preparing teachers to enter the profession, an awareness of SEW should be promoted as an integral component of quality teaching practice. Consultation with teacher educators and pre-service teachers suggests that relevant issues should be introduced in foundation subjects, reinforced throughout the program and integrated into the student practicum (Kemp et al., 2007). Incorporation of sound SEW education at the pre-service level may enable teachers to be better prepared to create learning situations in the classroom that promote SEW.

## **2. Methodology and Methods**

The integration of the principles of student SEW into early career teachers' professional practice will be investigated via a variety of methods. Four types of triangulation have been proposed as a way of ensuring deeper understanding and legitimacy of the data. These include triangulation of *methods*; *sources*;

*analysts* and *theory/perspective*. A combination of document analysis, surveys and interviews (*methods*) will be employed across existing documentation, and samples of early career teachers (*sources*). Through examination of the data by the researcher and supervisors (*analysts*) and through different *theoretical/perspective* lenses, the key themes, which emerge, will reflect the trustworthiness of the central, core experiences of the phenomenon under investigations. This study aims to utilise a model of social research, which is informed by a mixed- method approach that includes quantitative and qualitative research data and methods in order to investigate the research questions. The flexibility of emergent design allows to make sense of what occurs through conducting semi-structured interviews. Participants will have the opportunity to respond more elaborately and in greater detail than is typically the case with quantitative methods. In sum, as teaching is a dynamic and highly complex profession, integrating different methods is likely to produce better results in terms of quality and scope as it encourages the probing of underlying issues assumed by mixed method.

### ***2.1. Stage 1: Representation of social and emotional wellbeing in state and/or national teaching standards for graduates***

***Research question:*** Are the principles of social and emotional wellbeing represented/reflected in the teaching standards of graduates?

***Method:*** Document analysis

***Data source:*** National Teaching Standards – graduate level.

Stage 1 of the study will involve a thorough examination of the professional teaching standards for

their congruence with principles of social and emotional wellbeing. The National Professional Standards for Teachers describe what teachers should know and be able to do at four levels of professional expertise: Graduate, Proficient, Highly Accomplished and Lead Teacher. The Graduate level of professional expertise will be examined in this study. The Standards make explicit, the knowledge, skills and dispositions required of teachers at each level. The Standards align with the *Melbourne Declaration on Educational Goals for Young Australians* (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008) and provide a platform for strategic action on teaching and learning policy at the national and state level.

The systematic exploration of the teaching standards, comparing the standards with the principles of social and emotional wellbeing will be undertaken as: (1) they serve as a core standard identifying what all teachers should know and be able to do; (2) they are used to focus teacher education programs on the knowledge and skills needed by teachers and; (3) they form the basis for assessing students in teacher education programs. It is intended that those standards that include explicit and implicit reference to the principles of social and emotional wellbeing, or that employ language used in definitions of key social and emotional wellbeing principles would be included.

## ***2.2. Stage 2: Identification of the teaching and learning of social and emotional wellbeing in the preservice teacher education curriculum***

**Research question:** What opportunities are provided in pre-service teacher education to become informed about social and emotional wellbeing?

**Data source:** Documents: Professional Teaching Standards documentation for accreditation, course

information booklets, program rationales and unit outlines.

Key Informants: Deans, Head of Programs and/or lecturers.

**Method:** A document analysis will be conducted to identify and contextualise social and emotional wellbeing theory and principles in pre-service teacher education courses. The data gathered will demonstrate teaching and learning of social and emotional wellbeing theory from tertiary institutions that offer teacher education courses. Such data will include: rationales and reports provided in accreditation documentation; official unit curriculum outlines that explicitly and implicitly address social and emotional wellbeing issues and professional placement outlines and policies. Other documents that provide data with reference to the rationale for teaching and learning in the education course, and desired outcomes of professional placements, will also be collected and analysed.

Key informant interviews are qualitative in-depth interviews with people who have been assigned responsibility for the accreditation of their institution's teacher education program. The purpose of the key informant interviews will be to collect additional information that may be required from the people who have first hand knowledge about the requirements of the teacher standards and the knowledge, skills and understanding of teacher education programs in their respective institution (UCLA Center for Health Policy Research, 2010).

### **2.3. Stage 3: On line Survey: Teaching and Learning of Social and Emotional Wellbeing**

**Research Question:** What are early career teacher's reflections on what they have been taught about social and emotional wellbeing?

**Data Source:** Early career teachers

**Method:** On line Survey Design

Surveys provide a way of gathering structured and unstructured data from respondents in a standardised way either as part of a structured interview or through self-completion. This study will request participants complete a statistically oriented online survey method questionnaire. The questionnaire will consist of a set of questions to establish and confirm similar patterns across a large group. At the completion of the survey, participants will be invited to indicate their expression of interest to further participate in the study to explore ideas, concepts and information that emerge from the survey.

#### **2.3.1. Question Structure**

Highly structured closed questions have been chosen to be included in the survey as they are more suitable for large scale surveys such as this. The survey will include demographic questions to identify characteristics such as age, gender, and geographic place of education, length of course, key learning area and teacher degree awarded. These questions will help to classify differences between early career teachers. Demographic data will assist in establishing a more accurate picture of the group, by better understanding the nature of early career teachers. In this survey the response format for closed questions range from a simple yes/no response, to an agree/disagree

alternative, to asking the respondent to choose one alternative from 3 or more response options.

### 2.3.2. Survey administration

The questionnaire will be administered via email to as many respondents as possible. It is expected that approximately 1000 surveys will be emailed out, with at least 300 teachers returning the completed survey. Interested participants will complete the informed consent form prior to their involvement. All participants who express an interest in participating in Stage 4 will be considered and the minimum sample size will be 30 cases.

### ***2.4. Stage 4: Focus groups with early career teachers about the implementation of social and emotional wellbeing in their professional practice***

**Research Question:** What do early career teachers do in their professional practice that supports social and emotional wellbeing?

**Data source:** Subset of early career teachers.

#### **Method:**

Focus groups are a form of group interviewing and rely on interaction within the group based on topics that are supplied by the researcher. The main purpose of focus group research is to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions about

1. the skills, knowledge and understanding of social and emotional wellbeing acquired during teacher education program and
2. the current practices that promote social and emotional wellbeing in students.

The benefits of focus group research include gaining insights into people's shared understandings of social and emotional wellbeing and the ways in which others influence early career teachers in a group situation. It is intended that the focus groups will meet face to face and will last approximately one and half hours each. Where possible, approximately six to ten respondents will make up each focus group and a possible 3-5 focus group interviews conducted.

***2.5. Stage 5: Semi- structured Interviews with early career teachers about the implementation of social and emotional wellbeing in their professional practice.***

**Research Question:** What personal, situational and systemic factors impact on the capacity of early career teachers to support social and emotional wellbeing in their students?

**Data source:** Subset of focus group

**Sample size:** 9-12 participants

**Method:** Semi – structured interviews

The purpose of using semi-structured interviews will be to capture early career teachers' reflections, views and stories. Semi-structured interview are the best means of ensuring that certain questions are consistently asked throughout the sample, but within the context of as normal a conversation as possible. In other words, the questions will not always be asked in quite the order as in the schedule.

**Conclusion**

Social and emotional wellbeing is a critical component of any child's growth and development.

Furthermore, there is significant research to suggest that promoting SEW in schools, using a comprehensive whole-school approach, can support more positive behaviour, learning and healthy outcomes for students. There is limited evidence however, to indicate what pre-service teachers learn about SEW, how they implement this knowledge and its impact on their roles in promoting the SEW of their students. This study will explore how pre-service teachers take what they are supposed to have learnt about SEW in pre-service education and how they apply it in their early years of teaching.

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## **C**HAPTER 3

# **BEGINNING MATHEMATICS TEACHERS FACE TO EDUCATIONAL 'POLICIES DISSONANCE': WHOSE VALUES AT STAKE?**

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### **Abstract**

This chapter reports on how beginning mathematics teachers, who were participating at the time of the study in the New York City Teaching Fellows (NYCTF) program, the largest Alternative Certification program in the U.S, viewed and were affected by city and state educational policies. We will share our findings by presenting a case study of one middle school mathematics teaching fellow.

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This material is based upon work supported by the National Science Foundation under Grant No. ESI-0333753. Any opinions, findings, and conclusions expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation (NSF).

model” were seen as affected by the policy context. Data confirmed what we call “policies dissonance” phenomenon and the narrowing of the mathematics curriculum. The role that the school context plays in shaping how beginning teachers receive, implement, filter and get impacted by educational policies is highlighted. In addition, we examine how values, attitudes and expectations of beginning teachers get compromised when faced with the mixed messages underlying this dissonance. They lean towards the school leadership’s interpretation of policies even if this conflicts with their own values and purposes. We also give an example of how the alignment of values among teachers and leadership, when accompanied with positive school support and clear shared purposes, impact beginning teachers’ practice and professional development.

## **Keywords**

Education Policy – Alternative Certification – Mathematics Teachers

## **Introduction**

“In terms of school policy, schools do look at the obvious: the test scores, they are also trying to impress the outsiders for their Quality Review<sup>1</sup>. Sometimes I feel that we are teaching just for the State exam, or just for some school project to look good for quality review...We need to start teaching according to student needs and not to impress others.” (Paulina (a pseudonym), Personal Interview, February, 2010).

The teacher above, like other new teachers in New York City finds herself at the crossroad of various educational policies and practices. She voices a conflict between what she believes is right and how the school

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<sup>1</sup> The NYCDOE Quality Review is a two- or three-day school visit to each New York City school. During the review, the external evaluator visits classrooms, talks with school leaders, and uses a rubric to evaluate how well the school is organized to educate its students.

interpretation of educational policies is shaping her teaching practice. In this paper we present Paulina's case in an attempt to better understand how beginning teachers receive, implement, filter and get impacted by educational policies; and how the alignment or misalignment in values, attitudes or purposes with students, school administration and educational policies impact their teaching decisions and practices.

### ***1.1. Entering the Profession: the Case of Paulina***

After eight years in investment banking, Paulina—a first generation American to immigrant parents—joined the New York City Teaching Fellows (NYCTF) program for a career change to teach mathematics in the NYC public schools. As part of the program's requirement, Paulina had to take six weeks of pre-service preparation during the summer of 2006, after which she received a transitional license and began teaching full-time in the fall of the same year. She spent the next two years taking graduate coursework in the evenings at a local partner university while teaching mathematics full-time to complete state requirements for permanent certification.

When she decided to go into teaching, what attracted her to the NYCTF program was the fact that she would get a full-time job all while working toward obtaining her master's degree. Paulina grew up in New York City and wanted to teach in the city where she feels that she relates to the students' experiences and identifies with some similarities with her own experience as a student: "My parents came from another country where they were raised in the villages with limited access to education. They never went to college."

Paulina doesn't think she got much out of the graduate courses. She admits that she needed her master's

degree to become certified but didn't have time to put extra time or effort and felt a disconnect between most of the courses and her immediate teaching needs. The experience of other teaching fellows with their graduate courses varied according to different university programs and sometime according to individual courses within the same program. There was however a universal tension between self-identifying more as a struggling beginning teacher and less as a graduate student.

For her first teaching year, Paulina got a job in a middle school in a working class neighborhood in New York City. According to the NYC Department of Education (2008), the school population is comprised of 3% Black, 71% Hispanic, 20% White and 6% Asian students. The student body includes 11% English language learners and 7% special education students. The school was recognized as part of numerous reform initiatives like America's Choice School Design reform model and iTeach/iLearn schools of NYC, which are schools committed to using instructional and informational technology to close the achievement gap.

In preparing for her first teaching appointment Paulina lived a state of anxiety, everything seemed unknown: her students, her lesson planning skills, her ability to manage the class:

I've been working on my lesson plans for the next two weeks of school. I probably won't sleep the night before. I'm thinking about what kind of students I'm going to have. Are they going to give me a hard time? Are they going to understand the way I'm teaching or are they going to be like, "What is this woman telling me?"

Paulina survived her first year. She overcame many obstacles and developed a good rapport with her students: "So I guess what I expected in the beginning didn't happen but I saw some major changes in my students that I was proud of." Her 7th graders were generally weak mathematically. They lacked the basic skills; many of them didn't even know their multiplication facts. "They were totally lost with long division or fractions."

Many of Paulina's students came from poor families. The school is in receipt of Title 1 funding with 71% eligibility; in American schools, "Title I is a federal program that provides assistance to schools and districts serving in areas with high concentrations of low-income students. Under the program, the federal government awards grants through state education agencies to school districts serving low-income students. Districts in turn distribute Title I funds to schools based on their concentrations of students in poverty" (US Department of Education, 2010). Paulina noted that many of her students "didn't even live with their parents. Their grandparents were raising them. I remember one of the students came up to me and told me how she hasn't seen her mother in two years, and her father lives somewhere else and her grandmother was raising her." In describing one of the students who she thought she failed to reach, Paulina remembered how she heard at the end of the year that he was involved with a street gang. "I felt like there were more cultural differences because a lot of the students came from a broken home. During advisory I had one girl telling me how her grandfather was smoking pot. I've never heard of that. Like how can your grandfather smoke pot in front of you? The school psychologist would act like oh, it's such a normal thing in this neighborhood. I was in shock."

Despite reporting the cultural and academic challenges of her students and the overwhelming demands of being a full-time beginning teacher and a full-time graduate student, Paulina considered her survival year as a success and still holds to this day a positive view about the support she got at the school. We will see how this year influenced her practice.

In her first-year school, Paulina was part of well-enacted school support system (Foote et al., 2011) which echo best practices recommended by the current reform trends in teachers' professional development (Liebermann & Miller, 2001; Villegas-Reimers, 2003); they are site-based, of an on-going duration, and grounded in teachers' practices and peer collaboration. This influence that Paulina had from the school context confirms what other researchers are finding:

By contrast, in other schools that served similar populations of students, we found alternative certification teachers who were equally exhausted, but positive about their teaching and their decision to pursue an alternative route. These teachers pointed to the help they received from the school leadership and their colleagues, and to the overall school climate. In these schools, the principal presented a clear vision for the school, books and materials were ample, the building was clean and well maintained even if old, and the interactions between teachers were positive and friendly. (Humphrey et al., 2008, p. 36)

This, as we will see later in the chapter, can be seen as an example of how an alignment of values and purposes among teachers and school leadership, when manifested in clear vision and positive support, produces a climate conducive for overcoming challenges and seeking professional growth.

## **1.2. Changing Schools**

However for her second year of teaching, Paulina still moved to another school closer to where she lived, a reason reported among the five first very important or extremely important factors in teachers' decision to move to another school according to Marvel, et al. (2006). The new school was located in another NYC diverse neighborhood in the same borough. However Paulina didn't experience the same cultural differences that she did at the first school:

So the students now at this school, it might be similar to my background but I think that the parents are a little more educated than my parents were. Because sometimes I'll call parents and I'll tell them your son took had a quiz on the greatest common factor and the least common multiple and, got a 75. "So the mother's like, oh but I went over everything with him. You had a question on GCF." My parents wouldn't be able to understand a GCF and LCM.

Paulina's teaching goals for the second year were still in the realm of "survival skills," (Kagan,1992) such as student discipline and motivation, individualizing instruction, assessment, and dealing with parents. "So this year I'm really focusing on my lessons and I want to find a way to have the students be more engaged. I want to work more in differentiating. I still find that to be so difficult. I don't know where to begin."

## **2. Background**

This case study report is part of the MetroMath study, a large, multi-layered research of teachers who have been recruited and trained to teach mathematics in hard-to-staff middle and secondary schools by the NYCTF Program. The macro level uses large-scale surveys of the 2006 and 2007 cohorts (approximately 300 each year). The primary data sources for the

micro study including Paulina's case study are regular interviews with eight Fellows and video observations of their teaching (about ten times per school year). The observation data is supplemented by post-observation reflections on the class written by the Fellows and post-observation interviews conducted by a researcher with the Fellows. The larger research examines a wide range of issues such as the supports for NYCTFs; implementation of "standards-based" policies for instruction; the nature of mathematics instruction in the classrooms of NYCTFs (e.g. response to student mathematical errors) social background differences between NYCTFs and their students.

Founded in 2000 to address "the most severe teacher shortage in New York's public school system in decades" (NYCTF, 2008) and "in response to changes in New York regulations regarding certification of teachers" (Boyd et al., 2008), the New York City Teaching Fellows (NYCTF) program provides teachers in NYC an alternative certification route.

According to the program's design, Teaching Fellows take six weeks of pre-service preparation during the summer, after which they receive transitional licenses and begin teaching full-time in the fall. They spend the next two years taking graduate coursework in the evenings at local partner universities while teaching in their certification area full-time to complete state requirements for permanent certification.

The program's scope and impact have grown tremendously since its inception. At the point of this research, the NYCTF program prepared more than a third of all new teachers for New York City schools; in 2006-07 approximately ten percent of all New York City teachers had begun their careers as Teaching Fellows (Boyd et al., 2008). It provided « nearly 12,000 new teachers to New York City schools from

2003 to 2008 » (Boyd et al., 2009). The scope is even greater in the case of mathematics teachers; in 2005, the program alone provided over 60% of all new math teachers entering the NYC public school system.

### **3. Policy and Practice**

In this section we look deeper on how NYCTFs, like Paulina, react to and get impacted by educational policies at two levels: school based policy (teaching with technology); and city based policy (workshop model).

#### ***3.1. School based policy: wiring teacher practice with technology***

As mentioned above Paulina's first school was part of an initiative committed to using instructional and informational technology to close the achievement gap. Paulina expressed that she was very impressed with the school because it was very high tech. "When I went to public school I didn't even have air conditioning. This school has central AC, all teachers use SMART Boards, each kid gets a laptop."

With time Paulina became more comfortable teaching with the technology: "Well, I do like technology a lot better. More students are getting engaged in the lessons. Before my lessons were more boring just using chart paper." She experienced how she could use the technology to expand her teaching tools and make her lessons more interactive. "With the SMART Board I can make it more interactive, like I did a lesson today where I rolled a die. We're teaching functions, so I wanted to show them what happens when you roll a die, what happens to the output value. And all the kids are like, 'Oh, that's so cool.'"

She also noticed that this might not be best for every student, such as in her lower functioning class. "A lot

of them liked it better when I was using the chart paper. They've actually told me, 'Oh, why do you have to use the SMART Board all the time?'"

Technology was not the shortcut for less work, according to Paulina. "You always have to have a plan B. Like what if the internet is out? There's more chances of things going wrong with technology, whereas if I just had my lesson planned on chart paper, what's gonna go wrong?" Other shortcomings came from the use of laptops by each student. Paulina didn't like the fact that some of the students didn't have flash drives or computers at home to refer to notes at home. She also felt that some students may learn better by writing: "Sometimes with the laptops, I feel like they're too slow in typing."

Paulina got the necessary support at school and a constructive message emphasizing the technology as a tool for learning, and this resonates with her observation above. In one of her weekly evaluation meetings with the assistant principal, he told her while commenting on a lesson of hers that he observed, "You are observer of learners looking for opportunities to advance their learning. You are missing some equipment and training on how to use the laptops..." He continued: "You forget about the laptops during the warm up [the introductory part of the lesson]." He then gives her some example from one colleague's instruction using the laptops and websites. At the end of her first year, Paulina became more comfortable and skilled at teaching with technology but still identified some of the skills that she wanted to develop, like the use of Geometer Sketchpad software and advanced features of the SMART Board.

This teaching practice with technology turns to influence Paulina in the way she views teaching in urban context. When asked about the characteristics

of effective math teachers in high-needs urban schools technology was her first answer: "They [urban teachers] definitely need to have some knowledge of technology because they get through to more students. They can differentiate more. You have different types of learners. The only way to get through to them is by incorporating technology."

Now after two years teaching at the second school, which is not part of the same technology initiative, students there don't have their individual laptops but Paulina has a SMART Board and uses it all the time. This modality of teaching became a permanent feature of her practice. She reflects: "Funny thing is, I don't think I can teach without it. I have become so dependent on it now."

Paulina's teaching with technology experience is powerful example of how a school policy affects beginning teachers' beliefs and practice. The gap in her experiences between the two schools also suggests how the school context affects the professional development and advancement of teachers with specific practices. The initiative in the first school provided the favorable conditions for alternatively certified placement stated by Humphrey (2008), specifically, a clear vision for the school, and ample materials. Comparing her experiences in both schools highlights the importance of aligning "purposes" in addition to values and attitudes. The strong vision as expressed and enacted in the first school reinforced the common values that Paulina shared with the school leadership and the other teachers but created also a favorable climate for the teaching with technology practice to sharpen and grow substantially more than in the other school.

### **3.2. City-based policy: workshop one way**

At the time of the study, teachers in New York City were mandated to use the workshop instructional model in all subjects since 2003-04 (Traub, 2003). The model was initially designed to promote interactive pedagogy and creative student learning and move away from didactic pedagogy, which is “organized through a set pattern of lecture, recitation, and seat work” (Gamoran, Secada, and Marrett, 2000).

Our survey data (Table 1) shows that in 2006 and 2007 almost seventy percent of the NYCTF reported using the workshop model consistently in more than half of their lessons.

Table 1: Survey Question: What is the approximate percentage of lessons in which you followed the workshop model

Percentage of lessons	76 to 100	51 to 75	26 to 50	10 to 25	Less than 10	Blank
You followed workshop model	35.3 %	32.3%	11.4%	10.2%	10.2%	0.6%

Paulina is one of the teachers who admitted in her first year interview that she believed in the workshop model as an effective model of mathematics instruction, and after one year she maintained this belief but with some reservations as we will show below; she still used it consistently because her schools mandated its implementation and monitored the implementation through their teacher evaluation systems. The way NYCTFs experienced pressure from their school administrations to implement the model varied is shown in Table 2.

Table 2: Teaching with the workshop model

	(a) The workshop model is an effective model of math instruction	(b) Your administration makes sure you teach with the workshop model	(c) Your administration makes sure students work in groups
Strongly Agree	11.97 %	22.75%	20.95%
Agree	34.73%	31.73%	43.11%
Neither Nor	24.55%	17.96%	17.96%
Disagree	17.36	13.17%	10.17%
Strongly Disagree	11.37	14.37%	7.78%
Blank	0 %	0%	0%

In reflecting on her first year of teaching, Paulina noticed difficulties in engaging her lower levels classes in group work: "They're just not interested. It is very hard to get their attention because they just hate math. Maybe it's better to have them in a more traditional classroom set-up." She follows immediately by affirming, "I do believe in the workshop model. Because even when I went to grad school it helped me a lot. You have to teach different kids in different ways. I don't think the workshop model maybe works for everyone."

Paulina's novice experience with the workshop model, along with her deep reflection on her practice, are guiding her to think about what can be described as "hybrid pedagogy" (Bernstein, 1990).

I don't know if the workshop model should be done every single day. Ideally I think that when students

are first introduced to a lesson, I think it should be more independent work. Students do need that extra practice on their own to see if they got it. Sometimes they don't feel like they're accountable for things because they might be part of a group but they don't do much.

Paulina's pedagogical observation won't get enacted into any structural modification in her classroom, at least not during her first years and as long as the school put high stakes on the implementation of the model. She believes she is restricted in a way as teacher by the school's policies and structures. "I mean you got to follow the workshop model. You can't really do whatever you like. Every teacher is restricted."

It is also interesting to see that the way the administration enforce the implementation of the model shaped the teacher's implementation of the model and the way she enacts it in her classroom. "They [administration] are looking for those three things. Student work in the classroom. Your agenda. And level of questioning."

This is not to suggest that the policy's effects are just negative but to more describe the dynamics of teachers' experience with policy implementation within the confines and the context of a school. In fact, we found elsewhere (Haydar, Vatuk & Angulo, 2009) that the influence of the workshop model at the school affected other classroom practices like Paulina's response to her students mathematical errors and in her case this resulted in a shift from teacher ownership to including more students in the correction process. The participatory nature and structure of the workshop model helped some of the teachers, especially in the schools where the model was

systemically emphasized, to delegate some of the correction role to students.

The above is an example on how the conflicts between beginning teachers' values and those of the school leadership might abort the teachers' emergent professional critical attitude and limit them, especially during their first years of teaching, to follow practices that embrace mainly the interpretation of the school leadership to certain educational policies regardless whether they view this as enhancing student learning or not.

## **Discussion**

This paper confirmed the importance of support for new alternatively certified teachers in urban areas. The support is seen as an essential factor affecting the retention of new teachers especially in high need areas. As Darling-Hammond wrote: "with 30% of new teachers leaving within 5 years (and more in urban area), the revolving door cannot be slowed until beginning teachers are better supported" (p.218)

In examining the crossroad of policy and practice in the case of Paulina and other NYCTFs we examined how policies at different levels interplay with teachers' classroom practices and how both the support and the lack of support affect teachers' educational views and practice. We also noted how the alignment in values, attitudes and purposes as well as how the misalignment in values, attitudes and purposes between beginning teachers and school leadership affects the beginning teachers' professional learning and development.

More specifically, by comparing Paulina's experience within two different school settings we were able to point to the clear role that the school context plays in shaping teachers' professional views, practice and

professional development. Paulina's case is an example of how "a good school context is the most pervasive contributor to positive outcomes for teachers. Thus, an effective alternative certification program should make the placement of its participants a primary focus." (Humphrey, 2008, p. 36) It was clear in her case that the school context played the decisive role in how she reacted to the phenomenon of "policies dissonance" (Haydar, 2008).

This comparison revealed also how the alignment in purposes among the various stakeholders: teachers, leadership and students provides beginning teachers a favorable school climate to sharpen and improve their teaching practices and seek continuous professional development. By analyzing Paulina's views and teaching with the workshop model we noticed how a misalignment between beginning teachers' values and those of the school leadership build constraints on teachers' practice and professional development and force them to implement teaching practices that go against their own values and their views of students' learning needs.

This chapter was limited to the analyses in examples of school-based and city wide policies, more studies that contrast this with effects of federal policies will help better understand the experiences of beginning alternatively certified teachers.

In conclusion, we agree with Rice (2008) that policy makers need to "identify and invest in policies, practices, and resources that will attract well-prepared teachers, make them more effective in their teaching assignments, and retain them in those positions over time. These policies may require substantial investments in professional development, strong leadership, and supportive working conditions." (p.162)

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## CHAPTER 4

# DIGITAL MEDIA USE FOR CANDIDATE AND TEACHER EVALUATION

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### **Abstract**

School principals and university supervisors have limited time available for observing classroom teachers or teacher credential candidates as these individuals practice their craft in K-12 schools. Consequently, data capture during classroom observations is often perfunctory and fails to provide the type of information that can lead to substantial improvement in teaching. Videotaping the instructional performance of teachers provides more meaningful data but fails to capture how students view and respond to various instructional methods. Consequently, an exploratory study was conducted to test the perceived usefulness of two novel videography technologies – first-person and time-lapse– for

teacher evaluation purposes. Twenty administrators-in-training viewed video data captured in three formats – traditional, first-person, and time-lapse – and reported their findings. Results indicate that traditional and time-lapse videography capture useful data about teacher performance, but first-person videography provides extremely valuable data about teacher performance from the student perspective. Recommendations based on the findings are presented and discussed.

## **Keywords**

Teacher evaluation, digital media, student perceptions

## **Introduction**

Instructional supervision is arguably the most important administrative responsibility of K-12 school principals, and teacher evaluation is the cornerstone of this duty. Without a well-designed and properly implemented teacher evaluation system, it is impossible to know if we have high quality teachers in our classrooms (Stronge & Tucker, 2003; Toch, 2008).

Unfortunately, the day-to-day demands of managing school facilities, allocating resources, scheduling classes, maintaining visibility at school events, as well as maintaining the physical security of students and staff consume inordinate amounts of time and limit school administrators' availability to conduct teacher observations (Andrews & Soder, 1987; Archer, 2004; Gentilucci & Muto, 2007; Hallinger, Bickman, & Davis, 1996). Consequently, data capture during observations is often reduced to completing a set of perfunctory behavioral checklists. When this data capture method is combined with the practice of hasty administrative "drive-by" classroom visits, administrators fail to collect and provide teachers with detail-rich data about their (teachers') instructional performance. Consequently, teachers are often given

marginally helpful evaluation commentary based on criterion-referenced rankings such as “exceeds expectations” or “needs improvement” on various domains of their instructional performance. Such data-poor feedback may satisfy contractual obligations for evaluation but rarely helps teachers improve the quality of their instructional skills (Toch, 2008).

To address this problem, the authors revisited the practice of using digital media (i.e., video recording or “videography”) to collect detail-rich data about teacher performance in the classroom. However, instead of relying on traditional videography, they used two innovative digital media technologies — first-person video and time-lapse video — to capture unique data about teacher performance. The first-person videography technique for teacher evaluation was developed by Dr. Louis Rosenberg and a team of engineering students at California Polytechnic State University, San Luis Obispo. It consists of mounting a tiny camera upon a ball cap that is worn by students during classroom lessons. The resulting video recording depicts more than the lesson itself—it also captures where students focus their attention during lessons. In this way, the camera and accompanying audio provide a “students’ eye view” of instruction, thereby providing principals and teachers with rich information about how students perceive the real-world instructional experience.

The second innovation, use of time-lapse videography, results in high-speed recordings of instructional activities and thereby makes it possible for principals to view entire lessons in a matter of minutes. Although it does not capture fine nuances of teacher performance, it enables principals to identify quickly how teachers use instructional time, how they move about the classroom, and how they interact with students. Both of these innovations extend the power

of traditional videography by addressing a number of its shortcomings.

First, traditional videography captures “bounded” data about teacher performance because it relies on a camera positioned at a fixed vantage point in the classroom, usually at the back of the room. It focuses mainly on the teacher and only indirectly records students’ responses to instruction. Consequently, it fails to capture the “naturalistic” environment of the classroom (Eckart & Gibson, 1993; Gentilucci, 2004), including information about where students are looking, when students are taking notes, what students are writing in their notes, when students are watching the teacher, and when student attention is drifting (Rosenberg & Gentilucci, 2007).

Conversely, first-person video technology is not controlled by a static camera or by an observer who records from a fixed location. Rather, it permits students situated in multiple locations to record data not only about the teacher but also about their peers and the whole classroom environment, thereby transcending the artificial boundaries imposed by fixed location/observer videography. The cameras worn by students capture more authentic data about teachers’ instruction and students’ responses and help teachers understand how engaged or disengaged students are during various instructional activities (e.g., lecture, demonstration, activity, or individual work).

Traditional videography also fails to provide information about students’ perspectives of teacher performance. This is problematic because it is not possible to create and sustain effective learning environments without first understanding how students, the ostensible “consumers” of education, perceive the instructional process (Becker, Geer, & Hughes, 1968; Gentilucci 2004; Gentilucci & Muto,

2007; Weinstein, 1983). Like all people, students attend to what interests them and generally ignore that which does not catch their attention. Continual measures (or observations) of where students focus (i.e., aim their camera) during lessons over multiple days reveal patterns of student attention. When this process is repeated with multiple students in a teacher's classroom, a set of actions (i.e., responses to instruction) termed "perspectives" begins to emerge. For example, when a number of students attend to a particular instructional method such as a demonstration and consistently fail to attend to another such as lecture, it is possible to infer that the students under observation generally hold the perspective that lectures are times to let attention wander. Analysis of perspectives provides valuable information for teachers and administrators about adjusting instructional practice to improve student engagement and learning (cf. Eckart & Gibson, 1993; Gentilucci, 2004; Struyk & McCoy, 1993; Zepeda, 2007).

Another major weakness of traditional videography is that it is often used as an "open-ended" data capture method. Observers generally start recording video at the outset of a lesson and stop when the lesson concludes. This method is inefficient because it captures everything that occurs within the boundary of the camera lens and records hours and hours of video that may include only short segments of actual teaching. Review of such video requires administrators to visually and mentally attend to long segments of mundane video footage, leaving open the possibility of attention lapses and failure to identify important patterns of teacher behavior as they attempt to capture information about minute-to-minute events they observe (Livingstone, 2001).

Time-lapse videography provides a solution for this problem. This technology involves using a video camera to capture a frame of video every  $n$ th second of elapsed time during a lesson. Thus, during a one hour lesson (i.e., 3,600 seconds), the video camera may only record every 10th second, compressing the lesson into six minutes of video. Time-lapse playback thereby provides a condensed, "high speed" representation of classroom lessons and makes certain behavioral patterns, especially ones that emerge slowly over long periods of time (e.g., teacher movement and interaction), more visually apparent and readily accessible for evaluation purposes (Rosenberg & Petersen 2008).

In sum, the authors posited that current teacher observation and evaluation processes, constrained by administrative time limitations and over-reliance on marginally informative data capture methods could be substantially improved using first-person and time-lapse videography. To that end, the authors designed a small scale exploratory study to test the accuracy of their suppositions.

## **1. Design and methodology**

Recall the central premise of this study: Teacher observation and evaluation, arguably the most important instructional supervision duties of school administrators, are frequently done poorly with considerable negative consequences for teachers and students. In response to this problem, the authors designed a study to compare the strengths and weaknesses of traditional, first-person, and time-lapse videography for capturing rich, authentic data for improving teacher evaluation purposes. Two research questions were developed to guide this investigation:

1. How do traditional, time-lapse, and first-person videography compare? That is, what unique information or perspectives are captured using each “lens”?
2. If, how, and to what extent do school administrators think first-person and time-lapse videography add value to data captured during teacher observation when compared with traditional videography?

### **1.1. Site selection**

Once the research questions were formulated, a form of purposeful sampling was used to select a single K-8 school for the study based in part on the willingness of the principal, teachers, and parents to grant access for the authors to capture video data in the classrooms. Lincoln School<sup>1</sup>, a private K-8 co-ed institution, is located on the Central Coast of California in an area known for its agricultural production, tourism, and natural beauty. The school is located in a predominantly mixed suburban/rural community where viniculture (e.g., wine grapes), light manufacturing, retail, and tourism form the basis of the local economy.

Lincoln School’s population reflects the demographics of its surrounding community and consists primarily of middle- and upper-middle class Caucasian students. The school also includes a small number of students from minority backgrounds and low- or moderate-income families (see Table 1 for demographic characteristics of study site).

After negotiations for site access were concluded with the site principal and district administrators, informed consent documents that explained the nature,

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<sup>1</sup> A pseudonym

purpose, goals of the study as well as a request for voluntary participation were distributed to parents, teachers, staff, and students. No school faculty or staff selected to opt out of the study, and all completed consent forms provided by the principal. Only one parent requested that her child be excluded from any video footage collected during the study, and accommodations were made by the school to comply with this request. All other parents and students completed and returned the consent forms and agreed to participate in the study. Once this process was complete, the authors met with school staff to determine the most effective and least disruptive method of collecting video data in each classroom.

### **1.2. Sample selection**

Even though all faculty and staff volunteered to participate in the study, not all teachers and students were selected for data collection. Again, purposeful sampling was used to select three grade level of students—primary, elementary, and middle school—because the authors wanted to test the effectiveness of the three videography data capture formats with students at different levels of social and academic maturation. Furthermore, the authors selected three teachers in these grade levels—a veteran teacher, a mid-career teacher, and neophyte teacher—so they could compare the usefulness of the data and findings for evaluating the instructional performance of each subgroup of teachers.

Table 1: Study Site Characteristics

Lincoln School Characteristics	N
Total Student Population	315
Ethnicity of Students	
Caucasian (%)	68
African-American (%)	2
Hispanic (%)	23

Asian (%)	5
Other (%)	2
English Learners (%)	5
Free/Reduced Price Meals (%)	15

Additionally, each grade level selected included English language learners and students with identified learning disabilities. See Table 2 for a description of additional characteristics of the study sample.

Table 2: Study Sample Characteristics (N = 73)

Characteristic	N
Number of Participants	73
Grade Levels of Participants	1 <sup>st</sup> , 5 <sup>th</sup> , 8 <sup>th</sup>
Gender of Participants	
Female (%)	52 %
Male (%)	48 %

### **1.3. Procedure**

Teachers and students at Lincoln School were briefed by the principal about the nature and purpose of the study, and all participants were given opportunities to ask questions. The principal then introduced the research assistants (i.e., engineering students) who would set up cameras and assist with technical matters during the video capture sessions. To ensure the “typicality” of the video footage (i.e., data not collected under artificial conditions), filming occurred on regular school days, during normal instructional hours, and at varied instructional times throughout each day. Class sessions during which guest speakers, exams, or other non-instructional activities occurred were excluded from data capture in order to ensure that only teaching activities were recorded.

Because first-person videography requires students to wear a ball cap with a camera, the authors and

participating teachers agreed to permit a number of students to wear the caps at different times during different days prior to the start of data collection. This was done without recording data in order to minimize early behavior differences generally observed when cameras or recording devices are introduced into a classroom (Bogdan & Bilken, 1998). As the novelty of wearing the ball caps tapered off, data capture began and continued on a weekly basis over the period of one academic term.

At the conclusion of the data collection phase of the study, the three types of video footage were transferred from tape to DVD format to make the data analysis process more expedient. The data were then reviewed by the authors and initial evaluations of the usefulness each videography format were made. The authors then presented the video data and an assessment rubric to a group of 20 administrators-in-training enrolled in the California Preliminary Administrative Services Credential<sup>2</sup> program at California Polytechnic State University San Luis Obispo.

The administrators-in-training had just completed an intensive graduate-level course in teacher supervision and evaluation. A significant portion of that course involved evaluating teacher performance vis-à-vis videotape analysis. These students were trained to use "wide- and narrow-lens" video assessment instruments to determine how well teachers from K-12 grade levels delivered instruction and managed their respective classrooms. The assessment instruments and ratings were carefully evaluated to ensure

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<sup>2</sup> The Preliminary Administrative Services Credential authorizes individuals to perform administrative duties in California's public K-12 schools.

consensus among findings reported by the group, and a high degree of inter-rater reliability was verified.

The administrators-in-training were asked to view video footage of the same classroom lessons displayed in the three different formats and then use the assessment rubric to rate the usefulness of each video format for evaluating the following seven characteristics of teachers' instructional performance<sup>3</sup>:

- 1) style of lesson presentation,
- 2) clarity of lesson presentation,
- 3) questioning skills of the teacher,
- 4) types of responses to students' answers,
- 5) management of classroom climate,
- 6) student engagement and participation, and
- 7) teacher movement and interaction.

The rubric was scored using a three-point scale where a rating of one equaled "least useful" and a rating of three equaled "most useful".

## **2. Findings**

The administrators-in-training each produced 21 subjective ratings—one for each of the three video formats across the seven different instructional characteristics. The data from all 20 administrators-in-training were then compiled and analyzed yielding a set of 21 mean values (M) and 21 standard error (SE) values. These values are reported in Table 3

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<sup>3</sup> These seven instructional behaviors were culled from multiple teacher assessment instruments because they include both "wide- and narrow-lens" observation perspectives (cf. Zepeda, 2007).

Table 3: Administrators-in-Training Ratings of Perceived Usefulness of Videography Formats (N = 20)

Characteristics of Instructional Performance	Traditional		Time-Lapse		First-Person	
	M	SE	M	SE	M	SE
1. Style of Lesson Presentation	2.06	0.21	1.63	0.18	<b>2.25</b>	<b>0.19</b>
2. Clarity of Lesson Presentation	2.20	0.17	1.21	0.10	<b>2.60</b>	<b>0.13</b>
3. Questioning Skills	<b>2.50</b>	<b>0.16</b>	1.00	0.00	2.28	0.14
4. Type of Response to Student Answers	2.44	0.16	1.13	0.13	<b>2.56</b>	<b>0.12</b>
5. Management of Classroom Climate	1.82	0.13	1.78	0.17	<b>2.71</b>	<b>0.14</b>
6. Student Engagement and Participation	1.81	0.14	1.71	0.17	<b>2.82</b>	<b>0.10</b>
7. Teacher Movement and Interaction	1.61	0.16	<b>2.83</b>	<b>0.12</b>	1.61	0.16

Note: Bold values displayed in shaded boxes denote respondents' choices of "most useful" videography format.

Looking first across the aggregated data for all seven characteristics, the authors discovered that, on average, administrators-in-training rated the first-person format most useful for authentic data capture. This format was followed next by the traditional format and last by the time-lapse format. Further analysis of the ratings revealed the perceived usefulness of each video format varied by the particular characteristic of instructional performance they was used to assess. Consequently, the authors disaggregated the data to determine which video format administrators-in-training perceived most effective for assessing each instructional characteristic.

When they compared the data on first-person and traditional video formats on a characteristic-by-characteristic basis, the authors found the perceived usefulness of the two formats to be similar for assessing five of the seven characteristics but

significantly different for assessing two (i.e., classroom climate and student engagement and participation), with first-person video rated significantly higher (i.e., more useful) than traditional video in both instances.

More specifically, with respect to assessing classroom climate, the data from the administrators-in-training strongly suggest the first-person format is perceived as a significantly more useful than either traditional or time-lapse video. In this instance, the mean usefulness rating for first-person video was 2.71 while the mean ratings for traditional and time-lapse video were 1.82 and 1.78, respectively. This difference in usefulness rating is reflected in Figure 1.

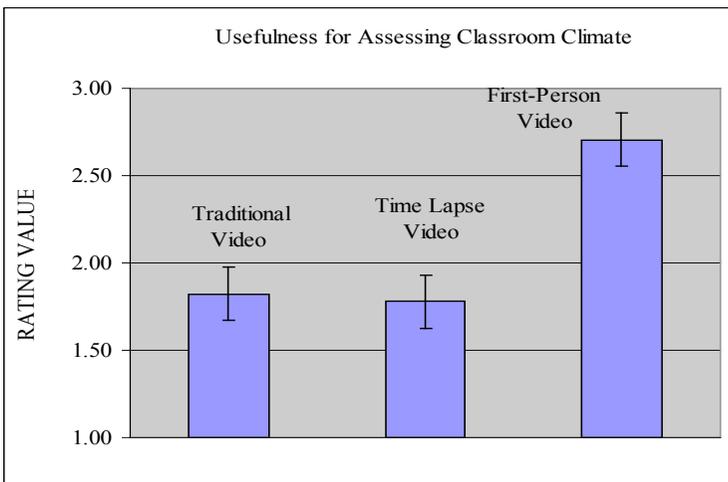


Figure 1: Administrators-in-training mean ratings of usefulness of videography formats for assessing classroom climate.

The data also strongly suggest the first-person video format is significantly more useful for assessing student engagement and participation in classroom lessons than either traditional video or time-lapse video. The mean usefulness rating for using first-person video for evaluating this characteristic was 2.82 while the mean ratings for traditional and time-

lapse video were 1.81 and 1.71, respectively. This perceived difference in usefulness is reflected in Figure 2.

Finally, when the authors compared the time-lapse format to first-person and traditional video formats on a characteristic-by-characteristic basis, they found that administrators-in-training rated the time-lapse format as less useful than the other two formats for assessing six of the seven characteristics. However, the time-lapse format was rated significantly more useful than first-person or traditional video formats for evaluating teacher movement and interaction during classroom lessons. The mean usefulness rating for the time-lapse format was 2.83 while the mean ratings for first-person and traditional video formats were both 1.61. This unique finding is displayed in Figure 3.

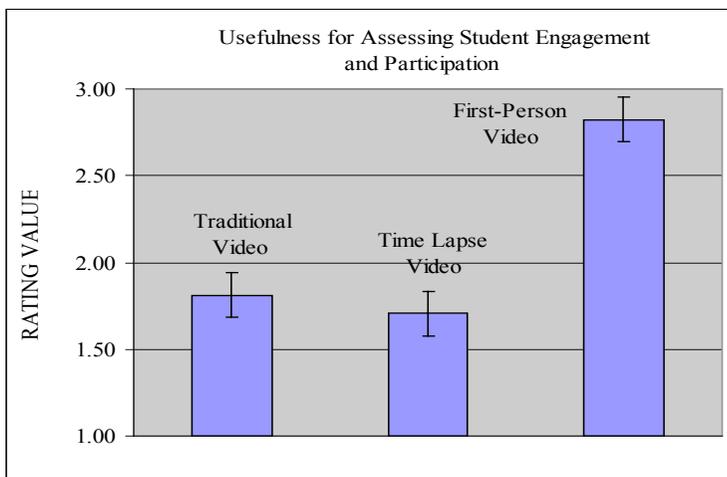


Figure 2. Administrators-in-training mean ratings of usefulness of videography formats for assessing student engagement and participation.

In sum, the results of this exploratory study highlight the potential benefits of using first-person videography for capturing authentic data about teachers' instructional performance. While more intrusive than

traditional videography (i.e., using head-mounted cameras), this novel video technology provides a unique view of teacher performance not available from other forms of data capture. For example, commonly used data capture methods (i.e., paper-based assessments, anecdotal note taking, and traditional videography) rely on the perspectives of outside observers (i.e., administrators) to determine levels of student engagement and reasons for student responses to various forms of instruction. Unlike first-person videography, these methods do not permit students themselves to provide direct information about their level of engagement during lessons. This is a key finding because the unique perspectives provided by students can help teachers and administrators design instructional interventions that are more useful and beneficial than those based solely on the assumptions of outside observers.

### **3. Discussion**

This study began by asking how traditional, time-lapse, and first-person videographies compare, and how and to what extent administrators and teachers think first-person, and time-lapse videographies add value to data captured during teacher observation. The first of these questions has already been discussed, and it is to the second question we now turn our attention.

The administrators-in-training indicated that both of the two experimental videography technologies were equivalent or superior to traditional videography when used to evaluate certain aspects of teachers' instructional performance. Most notably, first-person videography was perceived as being significantly more useful than traditional videography for evaluating classroom climate and student response to various instructional methods.

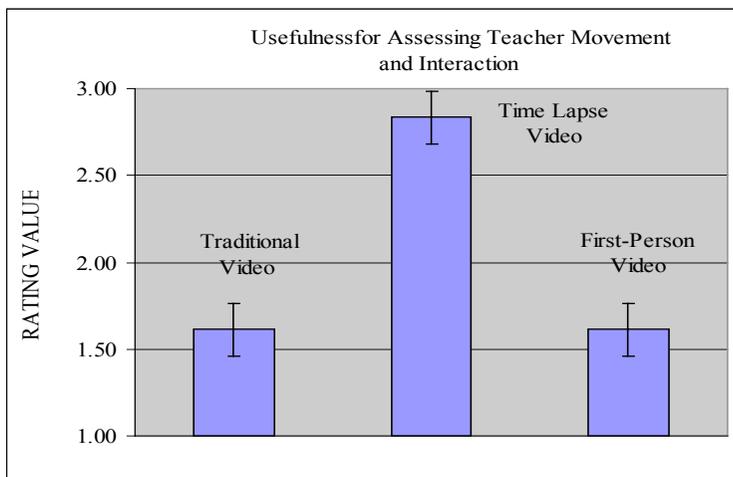


Figure 3. Administrators-in-training mean ratings of usefulness of videography formats for assessing teacher movement and interaction.

The administrators-in-training also reported that first-person videography was as useful as traditional videography for assessing the other five instructional characteristics addressed in this study (see Table 3). This makes logical sense because first-person videography captures the full content of the target lesson, just as traditional video does, but it also captures additional information that reflects student engagement and classroom climate. Because first-person videography appears to provide a net gain of observational data when compared with traditional videography, we posit that it should be viewed as a viable and valuable alternative for capturing data during teacher observations.

Time-lapse video, conversely, was perceived by the administrators-in-training as inferior to traditional videography for assessing six of the seven target characteristics (see Table 3) but significantly more useful than traditional videography for assessing teacher movement and interaction during lessons.

This is because the high-speed format of time-lapse videography reveals patterns of teacher (and student) behavior that are not illuminated by the traditional format. Therefore, we conclude that time-lapse videography should not be considered as a stand-alone alternative to traditional or first-person videography for overall data capture during classroom observation. However, we believe it may serve as a powerful supplement that adds value when assessing how teachers move about their classrooms and interact with students.

## **Conclusion**

This study began by discussing the usefulness of video data capture for teacher evaluation purposes. Some of the major impediments to widespread use of this technology are the amount of time required of busy school administrators to view hours of traditional video and the somewhat limited scope of information that can be gleaned from such video. In response, two novel videography technologies were field tested in a small-scale exploratory study to determine if and how they could ameliorate these impediments.

It is clear from the findings that the more promising of the two technologies is first-person videography. This method of data capture provides information not available from traditional videography—that is, a view of teacher performance and classroom experience from the perspective of students. Data gathered using this technology could greatly improve our understanding of how to improve teaching, and could lead to changes in how administrators use video data to coach teachers to greater levels of instructional performance. Therefore, we strongly suggest that this technology be broadly field tested in a variety of school settings to further assess its usefulness for enhancing teaching and learning in K-12 schools.

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## CHAPTER 5

### **DIRECTORS' MANAGEMENT AND POLICY IN THE GREEK ELEMENTARY SCHOOL**

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#### **Abstract**

The aim of this chapter is to discuss basic issues of management and leadership which have been presented through studies over the last three decades. The practical level is also analysed through research which investigates the ways in which elementary schools in Thessaloniki, Greece are run by the directors<sup>1</sup>. From the total of 181 directors of school units, 82 were given the questionnaire and it was completed by 65. The questionnaire, by means of a Likert attitude scale, elicited whether the 'ergocentric' or the 'humancentric' model of administration was used. The findings show that the principals of elementary schools

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<sup>1</sup> In this chapter, we are using the terms 'director', 'administrator' and 'principal' synonymously.

mainly use an 'ergocentric' model and that their gender did not influence which model was chosen. It also appears that there is a positive relation between the increase of age and the use of each model of administration. This chapter is addressed to the executives of the educational system, to the directors of school units of all educational levels, to the trainers of executives<sup>2</sup> of education, to students who do research on the administration of education, to students' parents and finally to teachers. It could also be of interest to the government and the ministry of education.

## **Keywords**

leadership-management-elementary school directors

## **Introduction**

Researchers, such as W.H. Squire (1987) and K.B. Everard (1982), tend to agree with the perception that organizations which offer services, also including the educational organizations, do not differ considerably from enterprises. They support that complete identification exists between speculative and educational organizations and that it will be useful for the managerial executives of education to comply with the principles of modern management.

At the same time, the challenges of the 21st century require a school which is flexible, capable of adapting competitively to changes and which creatively deals with new knowledge in the society of information. The growth of creativity, the undertaking of initiatives on the part of schoolteachers, the continuous improvement of human potential, the fulfilment of individual needs, the effective work of all, in the achievement of an efficient and competitive school, compose the future requirements on the part of the director.

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<sup>2</sup> We use the term 'executives' to mean people higher in administration.

## **1. Management**

Management is a fundamental factor for every organization and system because it provides the necessary mechanism for the organization to achieve its goals. Administration is a subject of scientific study and the practice of management has developed rapidly over the past 70 years and continues to evolve. The modern techniques of management support rational decision making, managing organizational processes and contribute decisively to the efficiency and competitiveness of businesses, thereby affecting the lives of people moving in and out of them. The organizations that provide facilities, such as educational organizations, are not very different from businesses, so it is useful for the heads of schools to practise the principles of modern management. The challenges of the 21st century demand a flexible school, capable of adapting competitively to changes and dealing creatively with the new knowledge in the environment of technology.

### ***1.1. Modern approaches to management***

Among the large number of definitions of the term 'management' there are certain common elements, such as: a) the existence of an organizational structure in which each member of the organization undertakes some role and b) the existence of aims and activities where the aims and objectives of organization should be absolutely comprehensible for the organization to operate. It is not easy to classify administrative actions into categories because all the actions are in a dynamic interdependence and interaction and constitute a total. Also, there is disagreement among the theorists as for the number and the classification of administrative duties or operations of the administrative executive.

In the 60s new theories appeared. The modern view stresses the integral relationship of an organization with its environment and it studies the interactions that take place. The following four theories were developed.

1. The systemic theory (with representatives D. Katz and R. Kahn) perceives the formal organization as an open system that maintains relations of interdependence with the exterior environment and tries to be in a situation of balance. The activity of each part of the system influences and is influenced by the other subsystems. A cycle of feedback from incoming and outgoing data is created, from the environment to the organization and vice versa through the process of feedback of the organization (Katz, & Kahn, 1978). The examination of problems should combine all basic variables and the important interactions between them. Using mathematical terminology, we can say that the behaviour of an individual in an organization is the interrelation of the role that the individual is called to play in the system and of his<sup>3</sup> personality. In effect, it is the equation: Behavior = (Role) X (Personality). The first applications of the system theory described the systemic manager as net-worker 'gardener' and developer who is characterized by soft, processual, intuitive and holistic thinking and who emphasizes cooperation instead of competition (Achouti, 2009).
2. The human resources approach (with the main representative C. Barnard) has a synthetic content, contrary to the previous models that are characterized by partiality. The basis of this theory is the complicated person whose motives vary and these motives are of different intensity at different stages in his career. According to Barnard (1948), an organization is mainly characterised by the various interactions among the individuals who compose the organization. The individual attempts to offer according to the objectives

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<sup>3</sup> For practical reasons we use the terms 'he' and 'his' when we are referring to directors and leaders.

of the organization that they serve, and their contribution becomes the source of satisfaction which can take an economical, ethical or even practical form (improvement of conditions of work etc). Barnard (1948) perceives the administrative effectiveness as an achievement of aims via synergistic actions and the administrative efficiency as the ability of the organization to function and to direct due to the satisfaction that it provides to its stakeholders. Ways in which an organization can direct its own situation of balance are the removal of those motives which do not keep pace with the objectives of the organization, or by sharing the material and social profits of the organization with its members. The human resources approach adopts some of the values of administration such as: a) offering occasions for social contacts, b) human and honest treatment, and c) attendance in the processes of decision-making (Pasiardis, 2004).

3. The Management by Objectives (M.B.O.) has as a principle that behavior is a result of planned in advance energies and gives emphasis to the continuous analysis of an action by aiming at the improvement of the individual and/or total work. It supports that the workers will be more effective in their work if they have the responsibility of their objectives in the establishment, always in relation with the aims of the institution, if they have autonomy in order to achieve their objectives and if they have the means in order to evaluate the achievement (Zeygaridis & Xirotiri-Koufidou, 1985).
4. The Total Quality Management (T.Q.M.) develops the collective effort and the consensus way of decision-making. The operation of the administration becomes more flexible with the attendance of representatives of the workers in the processes of administration and improvement of provided products or services (circles of quality). It is a model of administration aiming at the satisfaction of the customer and it is based not only on scientific analyses but also on the desire of each member of organization for continuous improvement (Koutouzis, 1999).

The model of open systems (in the frame of the modern approach) contributes to the acceptance that the educational organizations are open systems. These open systems are comprised of individual units which are in continuous interaction. There is not one unique way of organization and administration of school units, since the effectiveness of the school is an interrelation of circumstances and the particularity of the organization. The Management by Objectives offers values and tools of administration that modernize the substance of the systemic theory (theory of open systems) and which, when they are combined, are considered to provide a flexible and effective method for the improvement of education.

### ***1.2. Approaches to leadership***

There are several definitions suggested for the word "leadership". Indicatively, leadership is considered as the influence or art or process of influence of individuals thus, so that they work willingly for the achievement of common objectives (Koontz, 1982). According to this definition, leadership aims to influence the behaviour of members of the team, so that they work willingly and effectively. In other words, leadership is the art and the faculty of influence. Respectively, the leader of a team is the individual that attempts to guide the team and ensure the eagerness of his collaborators to work with zeal and confidence, that is to say he inspires the team to follow him. If the result is positive, the team corresponds positively to the guidance of the individual-leader, and so we can speak about a successful leader (Saitis, 2005).

Great Man" theories: [Great man theories](#) assume that the capacity for leadership is inherent – that great leaders are born not made. These theories often portray great leaders as heroic, mythic and destined to

rise to leadership when needed. The term "Great Man" was used because, at the time, leadership was primarily thought of as a male quality, especially in terms of military leadership (Readl, 1942 & Weber, 1947).

Trait theories: Similar in some ways to "Great Man" theories, [trait theories](#) assume that people inherit certain qualities and traits that make them better suited to leadership. Trait theories often identify particular personality or behavioural characteristics shared by leaders. If particular traits are key features of leadership, then how do we explain the fact that people who possess those qualities may not be leaders? This question is one of the difficulties encountered in using trait theories to explain leadership (Stodgil, 1974 and McCall & Lombardo, 1983).

Contingency theories: Contingency theories of leadership focus on particular variables related to the environment that might determine which particular style of leadership is best suited to the situation. According to this theory, no leadership style is best in all situations. Success depends upon a number of variables, including the leadership style, qualities of the followers and aspects of the situation (Morgan, 2007).

Situational theories: Situational theories propose that leaders choose the best course of action based upon situational variables. Different styles of leadership may be more appropriate for certain types of decision-making (Hersey & [Blanchard](#), 1977).

Behavioural theories: Behavioural theories of leadership are based upon the belief that great leaders are made, not born. Rooted in [behaviourism](#), this leadership theory focuses on the actions of leaders not

on mental qualities or internal states. According to this theory, people can learn to become leaders through teaching and observation (Boone & Kurtz, 1992).

**Participative Theories:** Participative leadership theories suggest that the ideal leadership style is one that takes the input of others into account. These leaders encourage participation and contributions from group members and help group members feel more needed and committed to the decision-making process. In participative theories, however, the leader retains the right to allow the input of others (Saitis, 2005).

**Transactional theories:** Transactional theories focus on the role of supervision, organization and group performance. These theories base leadership on a system of rewards and punishments. Managerial theories are often used in business; when employees are successful, they are rewarded; when they fail, they are reprimanded or punished (Kantas, 1998).

**Relationship theories:** Relationship theories, also known as transformational theories, focus upon the connections formed between leaders and followers. Transformational leaders motivate and inspire people by helping group members see the importance and higher good of the task. These leaders are focused on the performance of group members, but also want each person to fulfill his or her potential. Leaders with this style often have high ethical and moral standards (Bass, 1985).

According to the bibliography, three different styles of leadership that can be used by heads of teams or organizations exist:

- a) Authoritarian (autocratic). This style is used when leaders tell their employees what they want done and how they want it accomplished, without getting

the advice of their followers. Some of the appropriate conditions to use it are when the administrator has all the information to solve the problem, he is short on time, and employees are well motivated.

- b) Participative (democratic). This style involves the leader including one or more employees in the decision making process (determining what to do and how to do it). However, the leader maintains the final decision making authority. Using this style is not a sign of weakness; rather it is a sign of strength that employees will respect.
- c) Delegative (free reign). In this style, the leader allows the employees to make the decisions. However, the leader is still responsible for the decisions that are made. This is used when employees are able to analyze the situation and determine what needs to be done and how to do it (Saitis, 2005).

### *1.2.1. The effective leader*

In the last decades most research that concerns school rearrangement recognizes the important role of the director in the process of the qualitative change of the school. The current director-leader is expected to make decisions with facility, to provide and to share information, to create and develop networks of communication and relations, to have shared competences and to be accountable to the community. The role of the leader becomes more complex and demanding because of social and demographic conditions (such as immigrants, different social-economical backgrounds) that were imposed on schools by the post-modern society.

The role of the director-leader to create the ability of leadership in others requires the director to share competences. The delegation of responsibilities of

leadership leads stakeholders to deal with the school rearrangement at great length. In this way the school units correspond to the modern requirements of the social reality and of the governmental reforms. In contradiction to the traditional hierarchical perception of leadership, shared leadership depends on the collaboration which is based on confidence, on respect of experience and knowledge of the other and on the reciprocal interdependence for success (Slater, 2008).

The key for an effective leadership is collaboration and communication. Important dimensions and strategies of communication are research, thought, dialogue and actions for the resolution of problems. Basic communication faculties are listening, verbal and non verbal behaviour, openness and other faculties that concern the emotional intelligence (Lambert, 1998). Hudson and Glomb (1997) consider the resolution of problems, the synergistic planning, the spirit of conciliation-negotiation and the management of conflicts as effective communication faculties.

Keeping in mind that the effectiveness of a leading executive is related to the environment and the administrative position, we can categorize the dexterities that the leader should possess into the following three categories:

1. The collaborative ability. The head of a school unit should have knowledge of psychology in order to anticipate unpleasant situations and create a work environment that would contribute to the realization of the aims of the organization.
2. The professional faculty. The head should adjust his work so that he makes a good estimate of duties, responsibilities and problems, practices better monitoring regarding his collaborators and has the occasion for rational decision-making.

3. The faculty of perception. A leader does not only constitute the executive body but also the key factor in an organization (Saitis, 2005).

### **1.3. Relation of leadership and management**

A common finding is that leadership requires more than administrative capacity and includes direction, guidance and steering others towards an objective. Also, for each type of leadership there are advantages and disadvantages, consequently it cannot be argued with certainty which of all types of leadership is the best. In addition, there are factors such as the degree of power of the leader, the kind of work, the education level that influences managers to follow either one way of behaviour or the other. Bennis and Nanus (1985) referring to the difference between managers and leaders, stress that managers do "things right", while leaders "do the right things." Everard and his colleagues (Everard, Morris & Wilson, 2004) report that leadership is an integral part of administration while they present the differences of administration and leadership (see table 1).

Table 1: Differences between leadership and management inputs

<b>The leadership inputs</b>	<b>The management inputs</b>
the vision	the application
strategic subjects	functional subjects
the transformation	the transaction
the result	the meanings
the persons	the systems
making the correct things	making the things rightly

*Modified Source: Everard et al. (2004, p.23, table 2.3.)*

According to Everard (2004), leadership has a wider significance since it deals with the vision, the outcome

of events and the people while the administration focuses on the faithful implementation of decisions, on the operational issues of the organization, on the organization of the system and on doing things rightly, whereas leadership seeks to do the right things.

The main characteristics of the manager are the nomination from a superior body, the control which he practices, the focus on the observation of the rules and the processes, and on the use of power. The characteristics of a leader are his appointment among many others, the confidence that he inspires in the remaining individuals, the broadening of horizons and his emphasis in the future of the organization. The manager constitutes the institution of the formal leadership which directs the team, supported initially by the force that springs from the position that he possesses. The leader can constitute the institution of formal and informal leadership and practices influence mainly through mobilization, vision and the enthusiasm that he inspires in the remaining members of team.

#### ***1.4. Research into school administration and educational leadership***

In the 70s the studies of school administration in the USA and Europe were interested mainly in the characteristics of the efficient schools.<sup>4</sup> According to the research, five common points are: a) the powerful exercise of leadership, b) the emphasis on the educational objectives, c) the high expectations, d) the healthy and disciplined environment, and e) the frequent enhancement of school performance. These studies were inspired by the perception that the effectiveness of the school and educational changes

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<sup>4</sup> Efficient schools were considered the schools that had high records in the education of children of minorities, with low socio-economic origin.

are directed towards goals, in an administrative-managerial perception of the exercise of leadership and in the admission that a distinguishable linear relation of reason and result exists between distinct variables of the school process (Papanaooum, 1995). It becomes progressively acceptable that different factors intervene between the activities of the directors and the effects on the students and that the director's work is associated as much with elements of himself as an individual as with the particularities of each school.

Research connects the characteristics and the practices of directors with variables such as the repercussions for the teachers (indicators used were their degree of satisfaction from the work, their perceptions of the administration of school etc.), and also with variables concerning the various effects on the students (indicators used were their positive attitudes towards the school, the school record in basic dexterities (abilities), the regular study etc.). A team of researchers checks the repercussions that external factors (e.g., the hierarchical structure of educational system, the attitudes of parents, teachers etc.) could have for the practice of the directors. Another team of researchers investigates the relation between external factors and internal processes (e.g., which factors contribute to the professional satisfaction of directors) and a third team of researchers connects the perceptions or convictions of directors with their practices.

Research is focused on the description and comprehension of the role of the director. It prevailed that the perception of the role of the director is one-dimensional and the aim of this research was to discover the dimension - description that described him better. Within the course of research it was realized that the role of the director is

multidimensional. A team of researchers records either the total behaviour of the director or one only dimension of the practice of his work. A second team describes and interprets the role of the director in the school unit, in order to comprehend the school frame as a whole. (Dwyer, 1983).

In the '80s two main models concerning the exercise of leadership in the school appeared. According to studies, the effective leader is described as an exceptional rationalist and pragmatist who adopts suitable goals for the school and chooses the appropriate solutions, and if this is not effective, the leader proposes another solution related to the objective. The director of the school is the 'key' person for the effectiveness of the school. According to this model, the importance of the role of the director springs from his position. The second model, which emanates from research of case studies, stresses the cultural dimension of leadership and implies that leadership is considerably limited by cultural background. According to this model, the leader establishes the culture of the school. The aim of the research was to locate those skills that lead to the effective exercise of leadership and which could be improved through the suitable choice and education of directors. According to this model, not only do the directors have a leading role, especially in the secondary schools, but so do the teachers. Their exercise of leadership constitutes an important aspect of improvement of the schools.

The literature of the last two decades points towards two basic types of models of (educational) leadership:

- a) The transformational leadership model conceptualizes school leadership along a number of dimensions including building school vision, establishing commitment to agreed goals, providing intellectual

stimulation, offering individualized support and encouraging high expectations both on behalf of the principal and the school staff. This indicates that this model of school leadership focuses on the people involved-relationships -in particular- and requires an approach that seeks to transform staff feelings, attitudes and beliefs. The directors, with their decisions, can lead the school in a new direction as they send messages that reveal their expectations to the personnel and to the students.

- b) The instructional or pedagogical leadership model assumes that the critical focus for attention by school leaders should be the behaviour of the staff as they engage in activities directly affecting the quality of teaching and learning in the pursuit of enhanced pupil outcomes. Central to this is the need for leaders to think critically about how to develop a greater capacity to articulate specific educational values around the teacher (Gold, 2003).

### ***2.5. Duties of the school principals in Greece and their training***

In the school unit, the administration is implemented by the director, the assistant director and the teaching staff. The director of school has the responsibility for the smooth and efficient operation of the school unit. The co-ordination and the control of educational personnel are very important factors for the achievement of the aims of the school.

According to Official Journal of the Hellenic Republic 1340/2002, the director of the school unit is at the top of school community and he is the administrative and the scientific-pedagogic person in charge. His main work is:

- to shape the vision of the school community
- to undertake the role of instructor and mentor, mainly for the young teachers of the school unit, for which he constitutes a pedagogic model.

- to transform the school unit into a centre for the training and professional growth of teachers
- to collaborate on an equal basis with the teachers
- to coordinate the teachers' work, to inform them about the laws and the provisions and to make sure they are applied.
- to ensure the cohesion and the good collaboration between the teachers and to creatively develop the abilities of all personnel
- to collaborate with the parents, as well as with the school communities for the organisation of school life, and
- to confer with superior executives, the School Advisor, the Head and the Director of Education for the better implementation of the educational policy.

In reality, the work of the school director which takes place in the internal and exterior environment of school, is more administrative (e.g., bureaucratic energies, handling of human resources) and less pedagogic-instructive (e.g., guidance of teachers) content. This means that the effective exercise of his duties depends on his administrative experience and on his scientific training on management.

The director should take into consideration that the behavior of the school members is differentiated from time to time; it is influenced by various factors, such as the character, the age, the knowledge, motives etc. This implies that the handling of the human factor is the difficult task for the director. Saitis, Soyrtzis and Toyrtoyinis (1996) claim that the school principal faces various problems. Some of them are personal and for their solution, principals need human sympathy and care. Other problems are the competitiveness between the teaching staff; others are related to the behavior of the students, to the conditions of work etc.

Regarding the training of the executives of education there are some postgraduate programs at the Greek

university (e.g., 'Organisation and Administration of Education' at the University of Thessaly, 'Models of Planning and Administration of school units' at the University of the Aegean). Also the Ministry of Education, the Pedagogic Institute and OEPEK (Organisation for the training of Educators) occasionally organise training seminars for the executives of education. Recently the National Faculty of Public Administration was established and aims to train executives and familiarize the students with modern methods in public policy and management.

## **2. The study**

This section refers to the participants of the study, the data collection instrument and the data analysis procedures. Each of these issues will be dealt with in detail.

### ***2.1. The aim of the study***

In this paper we present the results of our empirical research collected from 65 elementary school principals. The aim of this study was to explore school principals' attitudes and the ways they run their schools. The definition of the way principals manage their school units is expected to contribute to the effort for a better and more efficient school and also to become a helpful instrument in the implementation of an educational programme for educational administrators. The second aim of the research was to examine if and how the demographic factors, such as age, gender and educational level affect the school administrators in the way they run their schools.

### ***2.2. Participants***

All the participants completed the questionnaire between March and June of 2009. From the 82 questionnaires which were distributed, 65 were

returned (79.2%). It was emphasized that anonymity would be kept. The statistical analysis of the data was carried out by making use of the SPSS software program for Windows Release 17.

### **2.3. Measurements**

The questionnaire consists of two parts. The first part involves statistical data concerning demographic characteristics and the employment status of the participants. The second part contains the questionnaire: "The Description of Supervisory Behavior" (Fleishman, 1953). This questionnaire consists of basic statements which are intended to investigate the way in which elementary school administrators manage their schools. Through the use of this research tool we hope that we can establish, to a satisfactory extent and with a satisfactory degree of reliability, how the principals administer their school units.

The questionnaire measures two relatively independent leadership dimensions, -"Consideration" (humancentric model) and "Initiative Structure" (ergocentric model).

Consideration: Twenty-eight items in the "Consideration" dimension reflect the "human relations" aspects of group leadership. The "Consideration" dimension is portrayed in the behaviour of the leader who acts in a warm and supporting way, promotes companionship and reciprocal confidence, respects the relations between himself and his subordinates as well as those towards each other. The leader is also interested in the prosperity of the members of his team and is characterized by a high degree of sociability, attendance, politeness and feeling of equality.

Initiative structure: Twenty items in the "Initiative Structure" dimension reflected the extent to which the leader defined or facilitated group interactions toward goal attainment. He does this by planning, communicating, scheduling, criticizing and trying out new ideas. The "Initiative Structure" dimension of administration describes the behaviour of the manager who organizes the work without consulting the staff, who plans his work in every detail and the methods of communication between himself and his team and insists on keeping the deadlines. Although these two dimensions have been found meaningful in the industrial situation, this research studies leadership behaviour in educational organizations. In each statement the subjects are called on to express their degree of agreement with its content, according to a five-point Likert scale.

Fleishman and his collaborators consider that the humancentric and ergocentric models are separate dimensions and that each director can be described by his answers in the two variables. Preliminary analysis showed that both scales (the 'consideration' scale and the 'initiative structure' scale) were reliable (all alpha values  $>.83$ ).

#### **2.4. Procedure**

A total of 65 principals of both gender participated in this research. They were randomly selected from schools of the Directorate of Primary Education of Western Thessaloniki, Greece. The sample is made up of 73.8% men and 26.1% women, reflecting the tendency for men to outnumber women in the school administration. 16.9% of the sample between 40 and 45, 43.07% between 45 and 50 and 24.6% of the participants range between 50 and 55 years of age.

Table 2: Distribution of participants according to age

<b>Age group</b>	<b>Frequency</b>
35 to 40	2 (3.1%)
40 to 45	11 (16.9%)
45 to 50	28 (43.1%)
50 to 55	16 (24.6%)
55 to 60	8 (12.3%)
Total	65 (100%)

The distribution of the participants by age shows that the entrants to educational management are mainly middle-aged teachers who have several years of experience in teaching. But do they have enough experience in management? Regarding their qualifications, 17.5% of the participants have a Masters degree and 35.3% hold a second degree and 7.9% of them have both a second and a Masters degree.

Table 3: Participants' background

<b>Educational level</b>	<b>Men</b>	<b>Women</b>	<b>Total</b>
Masters degree	6	5	11 (17.5%)
Second degree	18	5	23 (35.3%)
Masters degree & Second degree	3	2	5 (7.9%)

### 3. Results

The mean of the items mean was estimated for each scale and their frequencies are presented in Table 4.

Table 4: Leadership dimensions used by primary school principals

Leadership dimensions	Primary School Principals (n=65)	
	frequency	%
Consideration (humancentric model)	7	12.3
<i>Initiative Structure (ergocentric model)</i>	50	76.9
Both dimensions	8	13.8

Table 4 demonstrates that the majority of those questioned use the "Initiative Structure" (ergocentric model) dimension. Fifty (76.9%) principals use the initiative structure dimension, seven (12.3%) use the consideration dimension and eight (13.8%) use both dimensions.

A t-test for independent samples was used in order to investigate the second objective: how gender affects the way of administration. The results of the analysis can be seen in tables 5 and 6.

Table 5: Gender and leadership dimensions

<b>Leadership Dimensions</b>	<b>Sex</b>	<b>Number</b>	<b>Means</b>	<b>Standard Deviation</b>
Consideration (humancentric model)	Man	48	2.88	.26
	Woman	17	2.93	.28
Initiative Structure (ergocentric model)	Man	48	3.09	.49
	Woman	17	3.11	.38

Table 6: T-test concerning gender and the two dimensions

	<b>Levene's Test for Equality of Variances</b>		<b>t-test for Equality of Means</b>		
	F	Sig.	t	df	Sig.(2-tailed)
<b>Consideration</b>					
Equal variances assumed	1,161	,285	-,717	63	,476
Equal variances not assumed			-,695	26,626	,493
<b>Initiative structure</b>					
Equal variances assumed	,598	,442	-,156	63	,876
Equal variances not assumed			-,177	36,431	,860

As we can see in tables 5 and 6, the results from the t-test for independent samples indicate that gender did not influence the way that primary school principals administer their schools.

Next, we tested the age effect on leadership performance with Pearson correlation. We can see the results of the test in table 7.

Table 7: Pearson correlation measuring the age effect on leadership performance

		<b>AGE</b>	<b>Consideration</b>	<b>Initiative Structure</b>
Age	Pearson Correlation	1	,269*	,343**
	Sig. (2-tailed)		,030	,005
	N	65	65	65
Consideration	Pearson Correlation	,269*	1	,634**
	Sig. (2-tailed)	,030		,000
	N	65	65	65
Initiative Structure	Pearson Correlation	,343**	,634**	1
	Sig. (2-tailed)	,005	,000	
	N	65	65	65

As we can see in table 7, there is a statistically great degree of correlation between the age and the leadership models. The 'Initiative Structure' dimension is correlated to a statistically greater degree with age than the 'Consideration' dimension. Although the indicators of the correlation are statistically important, they oscillated between ,269 and ,343; this means that the length of the age effect in the leadership of the participants is somewhere in the middle.

Next, we separated the principals into three groups according to age. The first group includes principals aged between 30 and 45 (n=13), the second one, principals between 45 and 50 (n=28) and the third, principals from the age of 50 and up (n=24). As we can see in table 8, according to the Scheffe criteria (Multiple Comparisons Analysis-Post Hoc Tests), the

results indicate that age influences the way school administrators run their schools

Table 8: Post Hoc Tests- Multiple Comparisons testing the effects of age on leadership performance

<b>Dependent Variable</b>	<b>(I) AGE_CODE</b>	<b>(J) AGE_CODE</b>	<b>Mean Difference (I-J)</b>	<b>Sig.</b>
Consideration	Below 45	45 - 50	-,13420	,288
		Above 50	-,23511(*)	,030
	45 - 50	Below 45	,13420	,288
		Above 50	-,10091	,358
	Above 50	Below 45	,23511(*)	,030
		45 - 50	,10091	,358
Initiative Structure	Below 45	45 - 50	-,14403	,622
		Above 50	-,42590(*)	,024
	45 - 50	Below 45	,14403	,622
		Above 50	-,28187	,077
	Above 50	Below 45	,42590(*)	,024
		45 - 50	,28187	,077

In particular, as we can see in table 9, age influences to a statistically great extent the "Consideration" dimension. We observe that from the three age groups, the ones that differ in a statistically great degree are the group of below 45 and the group above 50. The same occurs with the principals who use the "Initiative Structure" dimension. In conclusion, it was found that the difference between the team below 45 and the team above 50 is statistically important for both types of administration. It seems that the above 50 group declares that it uses each type of administration more dominantly than the other age-related teams, especially with the team below 45.

To test for the educational level effect, two groups of directors according to their educational background were created. The first group includes directors who are graduates of the Pedagogical Academy and the second one directors with higher qualifications (holders of a Masters degree and/or a second degree). A t-test for independent samples was used to investigate the educational background on both two dimensions (see tables 9 and 10).

Table 9: The effects of educational background on leadership performance

Leadership Models	Educational Background	N	Means	Standard Deviation
Consideration	Pedagogical Academy Graduates	36	2,92	,28
	High qualifications	29	2,87	,24
Initiative Structure	Pedagogical Academy Graduates	36	3,15	,46
	High qualifications	29	3,03	,47

Table 10: Independent samples t-test for educational background and leadership performance

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig.(2-tailed)
<b>Consideration</b> Equal variances assumed	0,61	,805	-,766	63	,446
<b>Initiative structure</b> Equal variances assumed	0,01	,973	1,051	63	,297

As tables 9 and 10 show, the educational background influences the way of administration.

For the investigation of the effect of the previous experience in education and in a position of school principal a Pearson correlation was used (see table 11).

Table 11: The effect of the previous experience on the two dimensions

<b>Leadership Dimensions</b>	<b>Previous Experience in Education</b>	<b>Previous Experience in a position of school principal</b>
Consideration	,218 p=,018	,013 p=,919
Initiative Structure	,188 p=,134	,176 p=,1661

As we can see in table 1, the previous experience in education or in a position of school principal does not influence the leadership performance.

#### **4. Discussion**

The results of this particular research which took place among 65 primary principals in Thessaloniki, Greece, show that directors of elementary schools use, in their majority, the "Initiative Structure" (ergocentric model) dimension of administration. There aren't any significant differences between the two sexes. It also appears that there is a positive relation between the increase of age and the exercise of each way of administration.

Regarding the first objective of the research, that is, examining the way in which administration is exercised by the directors of school units of Primary

Education, we observe that substantially most participants administer using the "initiative structure" dimension. This is possibly due to the structure of the Greek educational system and more specifically to its administrative structure. The director is not only the direct hierarchical head of the educational and administrative personnel of a school unit but is also the educator in charge of the school. The duty of the school principal is to take all the necessary measures for the smooth operation of the school, to coordinate school life, to observe the laws, the circulars and the official guidelines and to apply the decisions of the school teachers. Consequently, the director mostly functions merely as an executor of the decisions taken in a traditional and bureaucratic way by his superiors (Saitis & Fegari, 1997 and Andreou, 1998).

The planning of an educational policy takes place in the superior hierarchical levels and from there it is channeled, with laws, presidential decrees, decisions and circulars to implementation in the schools of the country. The Ministry of Education determines the objectives of the educational policy, the structure of the educational system, the content of provided knowledge, the legal frame, the hours of operation and in general the total framework of education. This control of the educational process also constitutes the main factor that until now limits the exercise of an internal policy of the school unit. Consequently, it doesn't allow the director to be more flexible and to adopt a more human-centric model of administration.

According to Clarkson (1995), the survival and success of an organization depends on the ability of its managers to provide wealth, value and satisfaction to its stakeholders. Stakeholders in education are the government, the ministry of education, the teaching staff, the administrative and support personnel,

students and their parents, the local community and the teacher trainers.

A school director very often needs to negotiate with stakeholders of the school unit. Negotiations between leaders and followers require that followers accept their leader's legitimacy as an individual who has the right to convey and promote consensual values. Without this legitimacy, disagreements about values or ways of implementing value commitments are unlikely to be resolved (Eagley, 2005:3). Even if a director's behaviour is value oriented and authentic in the sense of being 'true to self and others, this alone may not secure a positive outcome because there are two sides in leadership since it arises as much in followers' reactions as in leader actions.

Given that the government is the most important source of funding for public education, the government should correspondingly be considered a definitive stakeholder and, hence, a stakeholder characterized by power, legitimacy and urgency. As such, the relationship established must take such characteristics into consideration. The structure of the educational administration in Greece is regulated by the government and the ministry of education and presupposes a bureaucratic model of administration based on the production of work and on the execution of tasks concerning governmental documents, a model which agrees with the way that directors of our research use to manage their school units. Studies in Greece revealed that principals' lack of freedom and autonomy and their position at the lower level of the hierarchy of the educational system make them obedient to system requirements and conflict situations. This 'obedience' leads them to develop a kind of partner leadership and techniques of persuasion with their teachers, in order to secure the smooth running of their school unit and to protect

themselves, their staff and students (Friderikou & Folerou-Tserouli, 1991).

However, with the effort of the government for the decentralization of the school unit from the direct influence of the ministry of education, the opportunity is given to the directors to develop their own policy with the participation of other stakeholders such as the parents and the local community.

Teaching and research staff should also be considered an important or definitive stakeholder given that they represent the core of professional production without which education and educational management are not able to operate appropriately. Teachers anticipate a principal who acts in a warm and supporting way, promotes companionship, respects them and is interested in the prosperity of the members of his team. They also want a director who can inspire them to a common vision for the school unit. Therefore, they wish to have a combination of two types of administration, the ergocentric and the humancentric way (Saitis, 2005).

Parents play a key role as educational stakeholders. Parents' primary objective is the assurance that their children will receive quality education, which will enable children to lead productive and rewarding lives as adults in a global society (Cotton & Wikelund, 2001). Parent involvement with their children's educational process through attending school functions, participating in the decision making process, encouraging students to manage their social and academic time wisely, and modeling desirable behaviour for their children represents a valuable resource for schools. Therefore, parents want and sometimes demand an open school and a principal who can collaborate with them. They want to participate in the decision-making process.

From research among university students in Greece, it is reported that the effective director of the school unit is a multidimensional person and a person that is characterized by readiness so that he can work under any circumstances. Specifically, the director should be communicative and collaborative. He should cultivate interpersonal relations with the people who belong to the area of his professional scope, such as teachers, students and the remaining personnel of the school unit. He should be a leader but he should also practice 'ethical' administration. He can achieve this with the objectivity that should characterize him. He should be sensitized toward students that have particular problems. He should allocate administrative faculty, have experience in administration and he should be knowledgeable about economic management (Stravakou, 2008:1).

Regarding the second objective of research, that is, the extent to which the various demographic characteristics affect administration is practised, it was found that the two sexes adopt a similar way of administration. Through practising administration, they are confronted with the expectations of others regarding the roles of the two sexes that derive from the relative stereotypes. The two different roles, that are considered relative for the understanding of the exercise of administration, are the leading and collective characteristics (Eagly, Wood & Diekmann, 2000). The leading characteristics which are attributed to men rather than women, describe a tendency of imposition, control, logic, determination and certainty. The collective characteristics, which are attributed to women rather than to men, concern the prosperity of the other. It is observed that women who possess administrative positions more and more adopt behaviour and ways of administration similar to the male administrative executives.

It is worth pointing out the low percentage of women in a managerial position. In total, from 181 directors of elementary school units in the Directorate of Primary Education of Western Thessaloniki of Greece, only 31 are women (17.1%) while the remainder 150 (82.8%) are men. As is supported by various studies, women do not have or are not given the opportunity to familiarize themselves with the bureaucracy through the distribution of responsibilities and duties. On the contrary, male directors or executives seek the help of men. It is also supported that the interest and the ambitions of female teachers for professional growth are directed mainly in becoming more effective in teaching rather than in administrative duties (Maragkoudaki, 1997). According to a study throughout Greece that took place in the school year of 2002-2003 with directors of school units of Elementary Education, the participants consider that family obligations, leading administrative competences, knowledge of legislation-scientific training and trade-union activity constitute important differences (between men and women) that lead men and not women to become directors (Raptis & Bitsilaki, 2007).

Research show that women often feel that they should adopt "male" behaviour in order to become acceptable in such positions (Shakeshaft, 1987) even if a lot of studies show that women in hierarchical positions are as good as their male colleagues and many times even better (Kantartzi, 2003).

Grace (1995) claims that women directors work and function in the frame of masculine hegemony. As time passed, confusion was created between the traditional masculine characteristics and those of leadership. As a result, the administration was usually considered as masculine territory. The efforts of women administrators to adapt their behavior to requirements

different from those of the traditional female role and the role of practising administration can create ways of administration that differ from those of men. Research that examines the combined effect of the roles of sex and administrative roles indicates a tendency of resemblance between men and women who practise the same organizational role.

Morrison (cited in Ball & Reay, 2000) found that the psychological profiles of women who succeed in positions of executive leadership may be more like those of their male counterparts than those of women, in general. Meta Kruger (1996:454) found in her research of 98 paired male and female headteachers in Holland that women were no different to their male counterparts in terms of "internal communication" and "personnel management". She also researched whether women were more involved with others and less task-oriented than men and found that they were not, leading to the conclusion that women in places of leadership hardly differ from their male colleagues in the way in which they experience power. Psychological studies support the view that, as women achieve power, qualities normally associated with femininity are modified (Ball & Reay, 2000).

However, the new situation requires management that has the flexibility of using practices which have been characterized by both the male and female way of administration. In the literature the androgyny model of administration is proposed. This term describes, besides the biological sex, the result of a manager combining the best characteristics of a male and female way of administration (Korabik & Ayman, 1989).

Concerning the rest of the demographic factors (age, years of previous experience in the particular profession, years of service in the position of director

and educational background), we observe that the demographic factor that influences the exercise of administration is age. We found that among the age-related groups of individuals that use the "Consideration" dimension of administration, the one that uses the "Consideration" type of exercise of administration most dominantly is the age group of above 50. The same happens also with the "Initiative Structure" dimension of administration. The above 50 group states that it uses this type of administration more dominantly than the other age-related groups. This possibly happens because these individuals have already developed a concrete model of administration which they have been applying in their work for many years and do not have the desire to change it or make certain modifications, contrary to the younger ones that may be more willing to change or experiment with different styles of leadership.

## **Conclusion**

From a more general view of the role of director of school units in the Greek literature but also from the present research, it appears that the administration of a school is a complex operation, not only at an ethical level but also at the level of daily exercise. There are possibilities for individual initiatives and choices. If and how these possibilities will be developed depends on the faculty of each director to extend his field of action and to make the correct choices, without remaining in stereotyped situations and behaviours.

It is an undeniable fact that the bureaucratic model of administration that is substantially imposed by the political leadership, helps neither in effective administration nor in the effectiveness of school units. Certainly, the selection of individuals who are asked to carry out such work, as well as their in-service training can contribute to their own effectiveness, even more if

they are accompanied by the convenient orientation for this position, the prospect of professional development, the powerful motives and the continuous support (Papanou, 1995). Such types of regulations do not appear to be enough for the essential upgrade of the work of the administration. The effectiveness of the director is not only the interrelation of his character and his education; it also depends on each school context. The administration of a school cannot be examined separately from the system of administration of Greek education, or from the other factors of the educational process, such as the teachers.

Consequently, the regulations for an effective director should include more extensive planning for the staffing in education, in combination with a more flexible and decentralized structure of administration. The autonomy of a school unit and its connection with the local society can constitute the motive for the director to be in the position to carry out his work by developing the central regulations depending on the particularity of his school.

However, in an under-construction administrative system the principals and the values should formulate. It needs a code of ethics and deontology of administration. In a more general frame, for the upgrade of educational administration in our country, the three areas below should be researched:

- a) The way that each executive of administration and mainly the director of a school unit practices his role.
- b) The opportunities we have in order to change the current situation.
- c) The proposals of teachers in order to improve the role of executives of education and mainly that of the director of the school aiming to upgrade the quality of the education provided.

An effective manager develops a network of stakeholders in order to ensure the implementation of his vision. Leadership by the school's key stakeholders is important for successful and beneficial collaboration and partnership working, which in turn brings other organizational benefits. The development of productive and supportive relationships and a shared understanding of the school's aims and purposes with key stakeholders, such as parents and the wider community can enable them to fully take up their role in the institution's work. A collaborative manager-director is essential for the evolution of the educational institution. Research aiming to investigate the collaboration among the stakeholders and the vision they have for their school, should be carried out.

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## **C**HAPTER 6

# **USING AN ACTIVITY SYSTEMS LENS TO FRAME TEACHER PROFESSIONAL DEVELOPMENT IN A SITE-BASED, TEACHER LEARNER COMMUNITY**

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### **Abstract**

It is argued that issues of globalization and lifelong learning challenge educators to forge partnerships and cross traditional 'community boundaries' in order to engage in collective knowledge generation (Tsui & Law, 2007). Using an activity systems framework (Engestrom, Engestrom, & Karkkain, 1995), this chapter describes a research project that provided site-based support for teachers in the use of formative assessment to improve teaching and learning in the Republic of Ireland. Key findings endorse the situative perspective adopted by proponents of knowledge- in-/for-practice' models of continuous professional development (CPD) (e.g., Cochran-Smith & Lytle, 1999) who hold that site-based teacher learning communities offer particularly rich environments in which to undertake CPD because of the immediacy of classroom contexts as focal points for

teachers' critical review and reflection. Moreover, video footage of classroom practice is presented as a unique artefact to focus teachers' learning because of the opportunity it offered to revisit the complexity of classroom life after the event, thereby affording participating teachers the opportunity "...to develop a different kind of knowledge for teaching – knowledge not of 'what to do next' but rather, knowledge of how to interpret and reflect on classroom practice" (Sherin, 2004: 14).

## **Keywords**

Site-Based Teacher Professional Development – Formative Assessment – Video

## **Introduction**

It is argued that issues of globalization and lifelong learning challenge educators to forge partnerships and cross traditional 'community boundaries' in order to engage in collective knowledge generation (Tsui & Law, 2007). According to Engestrom and Tuomi-Grohn (2003), such 'boundary-crossing', i.e., movement across and between 'boundary zones', offers participants the opportunity for shared dialogue about areas of common concern or interest and is frequently mediated by shared engagement with an agreed 'boundary tool' (e.g., a video vignette), that provides a focus for "... a group of actors with divergent viewpoints" (Star, 1989: 46).

Using an activity systems framework (Engestrom, Engestrom, & Karkkain, 1995), the chapter describes a research project, undertaken as part of a doctoral study during the academic year 2007-2008, that provided site-based support for teachers in the use of formative assessment to improve teaching and learning in the Republic of Ireland. Drawing on qualitative data from the study, the chapter foregrounds the deprivatisation of classroom practice

as central to teachers' learning and video as an artifact or boundary object that permeates the "hidden garden" of teachers' classrooms (Conway, 2002) and the "technical core" of classroom teaching (Elmore, 2000).

### **1.1. Organisation of Chapter**

The chapter is in three parts. The first traces some of the key developments in teacher professional development by way of contextualising current interest in teacher learning communities (TCL) as efficacious models of continuous professional development (CPD). The second part provides a brief narrative account of the research project undertaken and introduces an activity systems lens as a frame for analysing different forms of human praxis in context. The concluding section presents teachers' reflections on participation in the TLC, with particular reference to the role played by video in galvanising and sustaining their engagement.

## **2. Teacher Professional Development**

Teacher development has been defined as "...the professional growth a teacher achieves as a result of gaining increased experience and examining his or her teaching systematically" (Glatthorn, 1995: 4). While it is acknowledged that professional development programmes vary in terms of process and content (Reeves, McCall & MacGilchrist, 2001; Wilson & Berne, 1999), it is argued that most share the common purpose of affecting change in the "...professional practices, beliefs, and understandings of school persons toward an articulated end" (Griffin, 1983: 2), the most obvious end being the improvement of student learning (Guskey, 2002: 381). Research on teacher learning through participation in formal programmes of professional development, however, has highlighted serious challenges that this field faces,

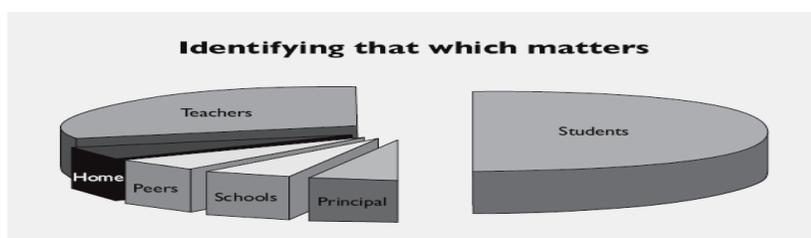
with some commentators suggesting that teacher professional development - as typically conceived and delivered - requires significant re-examination and revision (e.g., Borko, 2004; Elmore, 2004; Wiliam & Thompson, 2007). Remarks by Fullan (2006), reflecting on failed reform efforts in the US, capture the tone of researchers' concern:

Even reform efforts that had millions of dollars and political will behind them, along with focusing on many of the right strategies (standards, assessment aligned with standards, curriculum revision, plenty of professional development for teachers and principals and even professional learning communities) have failed to make much of an impact on the classroom.... What is going on here? We finally get jurisdiction to take the reform literature seriously and we still get halting reform efforts. (p. 11)

Indeed, these remarks belie expectations and beliefs commonly expressed in the literature about the centrality of teacher CPD for school improvement; the argument, as articulated, may be framed as follows. The success of school improvement and reform initiatives hinge, to a large degree, on the qualifications and effectiveness of teachers (Darling-Hammond, 2000; Tharp & Gallimore, 1988) because "...the single most important variable in the amount of progress that a student makes at school is the quality of the teacher..." (Hattie, 2005; 14). The best way to increase teacher effectiveness in the classroom is through regular, high quality, professional development (Hanushek, Kain & Rivkin, 1998; Killion, 1999). However, despite a range of professional development models and approaches (Guskey, 2000; 2002), traditionally, the professional development available to teachers has been "woefully inadequate" (Borko, 2004, p. 3) and "...flew in the face of what the

research says about what makes for effective professional development” (Wiliam, 2007: 4).

While it is beyond the scope of this chapter to unpack each element of this argument, it is noteworthy that recent years have witnessed a significant shift in focus from school improvement and school effectiveness to teacher improvement and effectiveness and, specifically, to the opportunities and challenges that lie ahead with regard to the design and implementation of an efficient and effective system of CPD for teachers. Moreover, conceptualisations of educational change, school improvement and the role of the teacher have been co-evolving, propelled, at least in part, by advances in technology that have empowered researchers to examine hierarchical, or nested, data structures, including those relating to school effectiveness and improvement, with great efficiency and reliability. In turn, the analysis of disaggregated and longitudinal school databases have yielded crucial information – not just in relation to between-school effects - but, more critically, in relation to the value-added element of schooling, attributable to individual teacher’s efforts, within schools, as shown in Figure 1.



*Figure 1: Factors Influencing Student Achievement*  
(Adapted from Hattie, 2005)

By decomposing the major sources of variance on student achievement – such as school leadership, school climate and culture, teachers, home and student’ attributes - researchers have uncovered a

number of notable patterns. Critical among them is the finding that variability in student achievement is "...far greater between classes within a school than between schools" (Hattie, 2005: 15); this finding effectively replaces the school with the teacher as the fulcrum of educational achievement, and shifts the focus from school improvement to teacher improvement, *ipso facto*, creating an increasing demand for effective teacher professional development programmes, that are sustainable and scalable.

In parallel, the manner in which the professional development of teachers is conceptualized has changed significantly in recent years, with one of the most significant changes being a shift from a technical "menu" approach - including single-session workshops, activities and techniques that focus on generic skill development - to an espousal of the principles of lifelong learning (Sugrue, Morgan, Devine & Raftery, 2001). Moreover, this is reflected in a change in terminology from talk of 'in-service' education to continuing professional development:

Continuing Professional Development (CPD) for teachers, as for other occupations, is increasingly placed in the context of lifelong learning by the international literature on social policy (e.g. OECD) and by the literature of educational research. On the one hand, or at one end of the spectrum, CPD could be viewed as a series of incremental 'upskilling' activities, tailored to the emergent requirements of educational systems, and carried out at intervals over the duration of a career in teaching. By contrast, it could mean something more visionary, holding more fruitful promise: an unprecedented enrichment of the daily environments of teaching and learning in schools and colleges, sustained through networks in which teachers are actively involved. (Hogan & Smith, 2006: 79)

In an attempt to capture more clearly the key elements that might constitute this revised model of CPD, Putnam and Borko (1997) undertook an in-depth review of what was being advocated by writers in the field of teacher professional development; four common themes emerged:

- An emphasis on the social-constructivist nature of teachers' learning;
- A commitment to a situated perspective aimed at exploiting the various school contexts in which teachers typically engage, in order to encourage colleagues to review and debate their practices routinely and develop their understanding and knowledge of, and about, teaching;
- An acknowledgement of the need to empower teachers by demonstrating respect for them as both consumers and creators of knowledge;
- A recognition of the importance of modelling the design and delivery of professional development opportunities so that it reflects what teachers are asked to create in their own classrooms, with their own students.

These "mantras" or "truisms", as Putnam and Borko (1997) refer to them, reflect many of the theories of professional development being espoused in the literature, such as Ball and Cohen's (1999) "practice-based" theory of professional development, for example. According to this theory, professional learning for teachers should emphasize long-term, active engagement, connections between teachers' work and their own students' learning, and opportunities to practice and apply what students learn in a real-world context. The emphasis is on a continuous cycle of exploration of new issues and problems, creating cognitive dissonance between existing practices and beliefs and emerging theories of learning, engaging in collaborative discussions, constructing new understandings and improving

professional practice. The importance of developing and sustaining conversations and activities, which encourage a critical and investigative stance towards teaching and learning, is a recurring theme in the literature (Ball & Cohen, 1999; Darling-Hammond & McLaughlin, 1995; Little, 1993; Loucks-Horsley & Stiegelbauer, 1991), as is the belief in the potential of learning environments for teachers that are more collaborative and 'centred in practice' (Cochran-Smith & Lytle, 1999a; 1999b; Little, 1993), both of which reflect an evolving understanding of the socio-constructivist nature of learning.

### ***2.1. Conceptions of Teacher Knowledge and Learning: Implications for Teacher Professional Development***

Cochran-Smith and Lytle (1999) have argued that a changing or emerging view of what counts as knowledge for teaching influences both the way teacher learning opportunities are conceived and how CPD is organised:

Within various change efforts, there are radically different views of what "knowing more" and "teaching better" mean. In other words, there are radically different conceptions of teacher learning, including varying images of knowledge; of professional practice; of the necessary and or potential relationships that exist between the two; of the intellectual, social, and organizational contexts that support teacher learning; and of the ways teacher learning is linked to educational change and the purposes of schooling. Different conceptions of teacher learning - although not always made explicit - lead to very different ideas about how to improve teacher education and professional development, how to bring about school and curricular change, and how to assess and license

teachers over the course of the professional life span. (p. 249)

Developing this argument, the authors distinguish between three prominent conceptions of teacher learning that drive reform intended to promote teacher learning: (i) knowledge-for-practice (formal knowledge often delivered to teachers by educational researchers/policy makers), (ii) knowledge-in-practice (understood as the practical, sometimes tacit, knowledge that is made explicit through reflection on best practice, and (iii) knowledge-of-practice, respectively. The latter, it is argued, "...unlike the first two... cannot be understood in terms of a universe of knowledge that divides formal knowledge, on the one hand, from practical knowledge, on the other" (p. 266). Rather, it is assumed that:

The knowledge teachers need to teach well is generated when teachers treat their own classrooms and schools as sites for intentional investigation at the same time that they treat the knowledge and theory produced by others as generative material for interrogation and interpretation. In this sense, teachers learn when they generate local knowledge of practice by working within the contexts of inquiry communities to theorize and construct their work and to connect it to larger social, cultural, and political issues. (Cochran-Smith & Lytle, 1999: 247)

Table 1 combines the work of Cochran-Smith and Lytle (1999) and Chin and Benne (1969) - specialists in change theory - to highlight the relationships between conceptualisations of teacher learning, professional development design and delivery, typologies of change and learning theory. To summarise the key messages of Table 1, it has been recorded that professional development programmes are frequently didactic rather than constructivist in nature; as a consequence

they "...pursue their goals by being directive with teachers in ways that they discourage teachers from being with children..." (Loveless, 1998: 188). In turn, this manifests in the perpetuation of a view of "...knowledge as facts and skills, teaching as telling, and learning as remembering..." (Thompson & Zeuilli, 1999: 353), ideas that run contrary to progressive theories of learning, and social constructivist principles, in particular.

Table 1 attempts to capture the nature of these changes, with reference to cognitive, social-constructivist and distributed learning perspectives. The importance increasingly attributed to these changes - both by researchers interested in student learning (e.g., Black & Wiliam, 2006; Gardner, 2006; James, 2006), and those interested in adult learning (e.g., Borko, 2004; James & Pedder, 2006; Lieberman & Pointer Mace, 2008; Thompson & Wiliam, 2007) - although not explored in this chapter due to limitations of space, are fully acknowledged.

Drawing on this framework, it is argued that TLCs, which ostensibly share a number of key characteristics (e.g., shared values and vision, collaborative culture, supportive and shared leadership), frequently differ in terms of their underlying assumptions about what constitutes teacher knowledge and professional practice and how these relate to teachers' work. For example, TLCs that aim to support the implementation of national policies (such as new curricula, pedagogical approaches or assessment strategies) may adopt a knowledge-*for*- practice approach and employ coaches or content area experts to work with school district groups of teachers. In contrast, TLCs that emphasise the development of knowledge-*in*-practice, it is argued, tend to engage with teachers in significantly different contexts and practices (e.g., facilitated

Table 1: Conceptualisations of Professional Development, Change Models and Learning Theory

<b>Interpretations of Teacher' Knowledge</b>		
<b><i>For Practice</i></b>	<b><i>In Practice</i></b>	<b><i>Of Practice</i></b>
<b>Associated Interpretations of the Nature of Knowledge</b>		
Empirically verifiable; generated and prescribed by others: "Teachers are knowledge users not generators".	Tacit, contingent, craft knowledge: "Teaching is a wise action in the midst of uncertain and changing situations".	All knowledge is contestable: Teachers generate knowledge by "...making their classrooms and schools sites for inquiry, connecting their work in schools to larger issues, and taking a critical perspective on the theory and research of others".
<b>Associated Conceptions of Professional Learning Opportunities</b>		
Traditional, empirical-rational (assuming the information/policy is uncontroversial); Power-coercive (if information/policy is mandated to ensure compliance); Teachers are rational beings requiring only that knowledge be transmitted; Often decontextualised, remote/off-site, yo-yo delivery reflecting the Balkanized, 'solo practice' of teachers in schools; single session or series focused on range of knowledge and skills teachers need to know/be able to use ( <i>disjointed, out of school in-service – education centers/hotels delivered by an expert</i> ).	Job-embedded, normative-reductive – teachers require an injection of new knowledge and the opportunity to conceptualise and make sense of it, in context/on-site = school-based; Demands critical reflection – both private (individual) and collective (group/staff collaboration); Teacher learning community – may be contrived and may require external scaffolding, initially; active participation in one's own re-education ( <i>In-school days, with/without 'expert' support</i> ); on-going/of set duration focused on "artefacts of teaching".	Normative-reductive within multiple contexts and multiple sources of information and data; Action-research, problem-based approach, practitioner-focused and led enquiry; part of a general, on-going commitment to inquiry and reflection and challenging the status quo. Professional Learning Community, frequently internally mediated by teacher leaders/experts = distributed leadership, capacity-building, school culture ( <i>on-going, self-started and sustaining; shared/collective responsibility for growth and learning</i> ).
<b>Associated Paradigms of Learning</b>		
<i>Cognitive perspective</i> : knowing is results from the individual construction of ever more powerful concepts or logical structures; learning is the acquisition of knowledge, skills and attitudes to be later adapted and applied; individual, solitary pursuit independent of context and intention – horizontal integration of new ideas, "bolt-on" new ideas and strategies to existing repertoire.	<i>Social-constructivist/sociocentric perspective</i> : interaction with others and resources are both the process and the product of learning = learning cannot be analysed without analyzing interactional systems; learning within a socio-cultural context = situated learning; vertical integration of new ideas - challenging and changing established beliefs and practices.	<i>Distributed cognitive and Social-constructivist perspectives</i> – as part of the liberal tradition – one is not seen as distinct from the other but complementary; learning is a process involving the individual <i>both</i> in active individual construction of knowledge and understanding as well as in enculturation into the practices of wider society.

teacher groups, dyads composed of teachers with varying levels of experience and expertise, and other kinds of collaborative arrangements that support teachers' working together to reflect in, and on, practice). Such communities espouse a very different paradigm of learning, as indicated in Table 1, that of social-constructivism which emphasises the co-creation of knowledge through social engagement and inquiry in non-hierarchical learning environments. Regarding TLCs that seek to develop knowledge for practice, the authors argue that:

From this perspective, new information is not necessarily expected to be used or applied to an immediate situation but may also shape the interpretive frameworks teachers develop to make judgments, theorize practice, and connect their efforts to larger efforts. Teacher research groups, action research groups, inquiry communities, and other school or cross-school collectives in which teachers and others conjoin their efforts to construct knowledge are the major kinds of TLCs that work from this set of assumptions. (Education Encyclopaedia, 2011)

While this categorisation of TLCs serves to highlight the impact that alternative views on what it means to 'know more' and 'teach better' might have on the configuration of TLCs, delineating communities in this way is not unproblematic. This is because it does not recognise, or at least does not highlight, that TLCs frequently juggle input from external/internal experts - not 'experts' in the traditional sense but people who has developed adaptive expertise (Hatano & Oura, 2003) that can be shared between and across learning contexts - with opportunities for participants to critically review shared pedagogical and content knowledge in context. Hence, one might argue that, TLCs do not always 'fit' neatly in one or other of the knowledge-for-, -of- or -in- frames.

Reflecting on teacher learning communities with which they have been involved over a number of decades, Lieberman and Miller (2008) categorise TLCs somewhat differently. They distinguish between what they describe as weak, strong-traditional and strong innovative/mature communities and suggest that the most advanced TLCs share some common, defining characteristics:

In these communities, there is "honest talk," the participants are capable of doing "knowledge work," they have the capacity to "go public," and they redefine (and improve) "the teacher role." (Meyer, 2009: 80)

These descriptors reflect the perspective advanced more than a decade previously by the same authors in relation to the conditions that optimise teacher learning in such communities:

Professional learning is most powerful, long-lasting and sustainable when it occurs as a result of one being a member of a group of colleagues who struggle together to plan for a given group of students, replacing the traditional isolation of teachers from one another." (Lieberman & Miller, 1999: 62)

Hence, the definition employed in the context of the study described in the next section of a teacher learning community as a small group of practitioners (4-6 members) who meet regularly (f2f or virtually - at least once a month), to share, critically review and reflect on their teaching and pedagogical knowledge (using agreed approaches and tools) and then use this learning to actively improve their practice for the benefit of the children whom they teach.

### **3. The Research Study through an Activity Systems Lens**

The chapter turns now to consider the research study, undertaken as part of doctoral work completed in 2009, that examined the potential of a teacher learning community, as a vehicle of professional development, to bring about changes in teachers' understanding and use of Assessment *for* Learning (AFL), in order to improve the reading competency of a cohort of children attending a designated disadvantaged, junior school, in the Republic of Ireland. The study in question involved collaboration between a state organisation in Ireland, the National Council for Curriculum and Assessment (NCCA), a designated disadvantaged junior school in the Republic of Ireland, and the researcher. Employing a partially mixed, concurrent, equal status, quantitative/qualitative design (Leech & Onwuegbuzie, 2007), the study investigated three research hypotheses pertaining to (1) children's reading achievement, (2) their motivation to read/employment of AFL strategies when reading and (3) teachers' knowledge, skills and attitudes of/to AFL. As employed in the study, the terms Assessment *for* Learning and formative assessment were used interchangeably to refer to "...any assessment for which the first priority in its design and practice is to serve the purpose of promoting pupils' learning..." (Black, Harrison, Lee, Marshall, & Wiliam, 2002: 1). During the 10-month, intervention period, teachers (n=4) of the intervention classes participated in monthly, site-based meetings of a teacher learning community, led by the researcher, that focused on the development of their knowledge and skills in relation to AFL. Between meetings of the TLC, teachers of the intervention group, (n=85 children), video-recorded their integration of AFL strategies and techniques when teaching reading; these vignettes were peer-reviewed at subsequent

meetings of the TLC. For a detailed account of the project, the reader is referred to Lysaght (2009).

### ***3.1. Applying an Activity Systems Frame to the Study***

According to Engestrom, Engestrom and Karkkained (1995: 320), an activity system may be defined as "...a complex and relatively enduring 'community of practice' that often takes the form of an institution" or, in this case, a site-based TLC. In turn, Kuutti (1996: 532) describes an activity systems framework as "... a philosophical framework for studying different forms of human praxis as developmental processes, both individual and social levels, interlinked at the same time". Hence, activity theory may be understood as a lens through which human learning processes and outcomes, through activity, may be examined, in context. As such, activity theory provides a conceptual frame to examine the social and contextual dynamics between people, who may represent different constituent groups, as they engage with each other, using a variety of tools and artefacts.

In addition to providing a conceptual frame for analysis, activity theory has developed a range of concepts (such as boundary zones, boundary crossing, brokers, artefacts...) to unpack key elements of communities of practice and describe how people negotiate their involvement within and across them. Moreover, it privileges an horizontal rather than hierarchical perspective on the development of expertise/expert knowledge, distributed within and across multiple/polycontextual learning contexts. As such, it offers multiple lenses through which to examine the learning of each participant/participant group.

In the interests of parsimony, a series of definitions of the key terms associated with an activity systems

frame are offered at this juncture rather than an exploration of the genesis and import of these ideas. For a fuller exploration of the topic, the reader is referred to Hatano and Oura (2003) and Tuomi-Grohn and Englestrom (2003).

Key terms associated with activity theory include:

1. Boundary Zones: "...a hybrid, polycontextual, multi-voiced and multi-scripted context... where it is possible to extend the object of each activity system and to create a shared object between them. In that way, the activity itself is reorganized, resulting in new opportunities for learning" (Tuomi-Gröhn & Engestrom, 2003: 5);
2. Boundaries: Edges of communities of practice or activity systems that highlight discontinuities, lines of distinctions between inside and outside, membership and non-membership, inclusion and exclusion;
3. Boundary objects: Objects that inhabits several intersecting social worlds and satisfy the informational requirements of each of them. Something that is "...plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites... objects that emerge overtime from the interactions between different communities –a tool used to join activities together...." (Star, 1989: 46);
4. Brokers: Participants who 'broker' boundaries between one community/activity system and another and transplant/transport new ideas/practices from one to the other;
5. Boundary crossing: Moving between and across different activity systems, thereby entering 'territories' that are unfamiliar to us and to which we do not automatically belong. Hence the need for routine 'cognitive retooling'.

Applying an activity systems lens to the Irish research study under review in this chapter, Figure 2 identifies the three activity systems or communities of practice that collaborated in the project as a 3rd level teaching/learning organisation (of which the author is a member), the host school and a national policy agency – the NCCA. The boundary zones are represented by numerals, with number 1 representing the site-based TLC. It was Star (1989) who conceived of the concept of ‘boundary crossing’ originally to signal movement, brokered by members of particular communities, across and between other learning contexts or zones. These zones are typically viewed as areas of potential conflict or competing discourses; hence, the need for someone to (a) broker the ‘crossing’ by initiating communication between the independent parties and (b) support ‘cognitive retooling’ by developing artefacts – such as diaries, video and/or lesson plans – that would be shared and fully understood within the boundary zone, but without the requirement for full understanding of the independent context of each party’s usage.

At an early stage in the design of the study, a decision was taken to complement what might be described as typical boundary tools – such as readings, handouts, lesson plans and exemplars – with video data, the rationale being that video data would provide ‘hard’ evidence of changes in teaching and learning practices, as sought by Meyer (2009) for example, to validate teachers’ self-reports of changes arising from their engagement in site-based CPD on, and trialling of, formative assessment. However, brokering by the researcher of video as the primary artifact or boundary object to support teachers’ implementation of AfL was also intended to ensure that the model of CPD offered supported teachers’ development of knowledge-*in-* and -*for-*practice, as advocated by Cochran-Smith and Lytle (2002).

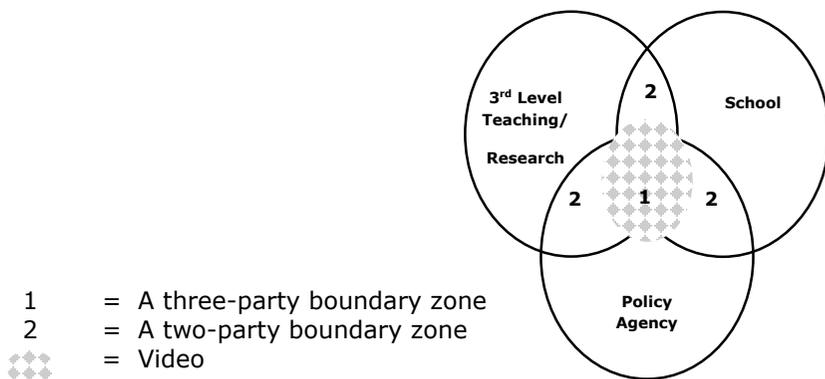


Figure 2: From Balkanisation to Boundary Crossing - Video as a Boundary Object

#### 4. Research Findings

As alluded to in the previous section, the study cited in this chapter investigated three research hypotheses: the first two pertained to changes in children's reading achievement and their motivation to read/employ AfL strategies when reading, respectively. Quantitative data analysed in respect of these two hypotheses are not reported in this section (these findings are detailed in Lysaght, 2009). Rather, the following data, derived from teachers' self-reports of their involvement in the TLC and their perceptions of its impact on their teaching and, in turn, children's learning, has been distilled from the overall data set collected in respect of the third research hypothesis investigated. A range of research instruments, including teachers' pre- and post-intervention assessment audit instruments, individual teacher's learning logs and a group analysis by participating teachers of their experience of involvement in the TLC, contributed to these data. For the purposes of this review, commentary is restricted to teachers' reflections on the CPD provided and value attributed to the use of video as a boundary object.

#### **4.1. Findings in Respect of the use of Video and the TLC as a Medium of site-based CPD**

Distilling the data, a number of findings emerged, three of which are highlighted here, due to restrictions in space. First, the data evidenced that video review, although prized as a medium of peer-review and critique, is not unchallenging. Indeed, teachers were initially very fearful of inviting colleagues to watch videos of their teaching, which is not altogether surprising given the “legendary autonomy” of Irish teachers (OECD, 1991) and the inevitable isolation of teaching in Ireland as elsewhere (Hindin, Morocco, Mott & Aguilar, 2007; Sugrue, 2004). However, as the following remarks from one teacher capture, this fear dissipated over time as the value of engagement in video-mediated, peer-review became apparent:

I began by being concerned about myself, being “watched” while I taught and being “criticized” (now I know it’s “critiqued” or reviewed).... The idea of others watching me teach and reviewing me was daunting. I became very at ease with the video and better able to hear what others were saying in review and while I did (and do) continue to have concerns about me they are more about fine-tuning and embedding... because I am trying for more children’s talk/involvement, more meaningful lessons for children, more self and peer assessment again in a meaningful (for the children) way.... The video and watching my colleagues was a great learning experience. I would love to continue to have time out of classroom to meet my colleagues and review and plan....

The second key finding to emerge was that the review of video, in what Lieberman & Miller (2008) refer to as a ‘mature’ TLC in which teachers engage in “honest talk”, fosters the development of reflective practice, adaptive expertise (Hatano & Oura, 2005) and an

understanding of contingency in teaching and learning. As expressed by another participating teacher:

The biggest support was the group experience – it was a genuine safe space for complete sharing and learning. Everyone put themselves out there to help, support and share both the good and the bad without egos or personalities getting in the way. The feedback received from my lessons shared made me continue to try different ideas – to adapt and refine what I was doing. I also liked getting the background information from *the researcher* – I found it really useful to look into my AfL files on feedback, questioning etc. to get ideas or to transfer my actual practice back to the theory and compare/contrast both.

Indeed, it seems that video analysis, coupled with access to other boundary objects such as research articles and period input from more knowledgeable members of the community (notably the researcher in the early stages) serves to ward against the ‘pooling of ignorance’ (de Volder, de Grave, & Gijslaers, 1985) or ‘skilled incompetence’ (Argris, 1986). However, it does not automatically engender critical review and debate, which Lieberman and Miller (2008) associate with strong innovative/mature TLCs.

The third finding related to the opportunity to deprivatise practice that critical review of video vignettes of teaching with colleagues who - to borrow a phrase from Lieberman and Miller (1999: 62) - “struggle together to plan for a given group of students” provides. As noted by another teacher in the project:

I can’t seem to over-emphasize the benefits of the Teacher Learning Communities. I’ve learned so much – both through others’ review of my practice and through reviewing others’ practice! I was initially terrified of showing the videos of

my lessons and worried that I would be unable to take the criticism (albeit constructive and supportive at all times!).

The heterogeneous group was great as everybody brought something different to the table and this was a great group for affirming, accepting, comforting. It was easy to review video with this group. No element of competition intruded.

## **Conclusion**

The comments, as reported, seem to endorse the situative perspective adopted by proponents of knowledge- *in-/-for-practice*' models of CPD (e.g., Cochran-Smith & Lytle, 1999) who hold that site-based, teacher learning communities offer particularly rich environments in which to undertake CPD because of the immediacy of classroom contexts as focal point for teachers' critical review and reflection. Moreover, video footage of classroom practice presented as a unique artefact to focus teachers' learning because of the opportunity it offered to revisit the complexity of classroom life after the event, thereby affording participating teachers the opportunity "...to develop a different kind of knowledge for teaching – knowledge not of 'what to do next' but rather, knowledge of how to interpret and reflect on classroom practice" (Sherin, 2004: 14).

It has been suggested that, at times, there is a tendency to over-sanitize research processes and findings and offer an "idealized version of method over the practical reality and content of research" (Thompson, Ponte, Paek, & Goe, 2004: 7). It is important to acknowledge, in this context, that this intervention was not unchallenging or unproblematic. There were times when the project faltered. Indeed, by way of conclusion to this chapter, two final

comments - both by the same teacher - are recorded that serve to reinforce the point made frequently in the research literature that "...if the teaching practices one is aiming to change are recurrent, central, and entrenched within everyday teaching and school culture, then teachers will need sustained support to change them" (Thompson & William, 2007: 15). Reflecting on the success of the project, it was remarked that "...the children in 2<sup>nd</sup> class this year have had a wonderful experience of reading and surely it must feed into their attitudes and understanding". However, this articulation of joy was countered with an expression of concern, not only in relation to the scalability of what had been achieved within the school but, more critically, about the feasibility of an AfL approach in general, despite all the evidence of its success:

I would love ideas about how the philosophy of AfL could be disseminated throughout the school. I wonder about how realistic it is to have AfL in an infant classroom. I know it has been done in England but in our particular environment ... I see difficulties.

In some ways, this comment runs contrary to expectations. For example, in light of their experiences with teachers in the Keeping Learning on Track programme in the US - a project that, in part, inspired the design of the Irish study - Thompson and William (2007: 18) pointed to the fact that when teachers heard colleagues recount stories of the success enjoyed, both by themselves and their students following the introduction of AfL strategies and techniques, these stories served as "existence proofs" that the changes required were both feasible and worthwhile, spurring teachers to experiment. As reported, the "existence proofs" thereby acted to counterpoint the common lament that That this kind

of lament was voiced by a teacher in this study, on foot of the successes reported by all of the teachers involved, highlights both the fragility of the change process and the need to ensure that the support teachers receive is sufficient to sustain their initial enthusiasm and belief in the intervention when the initial "bootstraps" of support (Thompson & William, 2007) have been removed and they must carry the mantle alone. This is very important if teachers are to feel sufficiently empowered to continue to prioritise and sustain the efforts made when faced with the inevitable challenges of the status quo within their schools, and more specifically, "...school cultures that do not easily align with the needs of sustained, school-embedded, collegial work with colleagues" (Thompson & William, 2007: 20).

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## CHAPTER 7

### **PROFESSIONAL DEVELOPMENT FOR LANGUAGE TEACHERS: RESPONSE TO A CHANGE IN LEARNING LANGUAGES POLICY**

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#### **Abstract**

Changing policy in learning languages in New Zealand has prompted a number of responses. The Ministry of Education's refocusing of the Learning Languages area of the New Zealand Curriculum 2007 to include the development of the intercultural language learner (Byram 1995), was accompanied by a lowering of the age at which learners were to be offered additional languages learning.

The change in policy created a demand to build capacity and capability for language teachers. One response was the Teacher Professional Development Languages (TPDL) programme for in-service teachers, some with very limited experience in the target teaching language. A further response to the change in policy was a Ministry-commissioned evaluation of the TPDL programme to investigate the impact on learning opportunities for students (Harvey, Conway, Richards & Roskvist 2009). This chapter draws on the data from teacher interviews and observations to consider the developing teacher capability in two areas: the influence of the teachers' TL proficiency on aspects of classroom practice, and the teachers' provision of opportunities to develop the intercultural language learner. Findings indicate limitations in teacher capability in both areas. There have been subsequent TPDL and Ministry responses to address limitations, thus building a stronger foundation for on-going professional development.

## **Keywords**

Changing policy - language learning – intercultural competence

## **Introduction**

The New Zealand government, like governments in other jurisdictions, is eager for their students to leave school equipped to meet the challenges of living in a rapidly changing environment of extensive local diversity and international connectivity. One response by the Ministry of Education has been a change in policy that raises the status of teaching and learning languages. In this chapter, we outline the change in policy and the resulting requirement to build capacity and capability of language teachers. We explore the literature related to two key areas of change, present findings from our study and highlight how areas of limitation are continuing to be addressed to strengthen the platform of professional development for language teachers.

## **1. Changing policy**

The New Zealand curriculum for English-medium schools has, for many years, included the learning of foreign languages (known in New Zealand as 'additional languages' i.e. additional to the learning of English and Māori, Māori being an official and indigenous language). Language teaching has been supported by ongoing Ministry of Education involvement and review. Ministry documents include curriculum guidelines as well as support materials for the teaching of Chinese, French, German, Japanese, Samoan and Spanish (see for example MoE 2003; MoE 1995; MoE 1999).

Until 2007, the New Zealand curriculum for schools had seven learning areas, and learning an additional language was part of the general Language area. After considerable research and development, the Ministry introduced the New Zealand Curriculum 2007 in which learning an additional language was separated out to form its own independent learning area. Communication became the core strand supported by two equally weighted strands directed at developing learners' cultural knowledge as well as language knowledge. As Newton, Yates, Shearn and Nowitzki state of the curriculum, "Culture is no longer an invisible or incidental presence in language learning, but instead is presented as a strand with equal status to that of language" (2010:1). This change in policy was accompanied by a new expectation that from 2010 additional languages would be offered to learners, not just at secondary school (learners aged 13-17 in Years 9-13), but also at intermediate school (11 and 12 year olds in Years 7 and 8). A key reason for the development was to "encourage students to participate more actively in New Zealand's diverse, multicultural society and in the international community" (Education Review Office 2009:3). New Zealand's population (currently 4.2 million) is made

up of 67.6% who (in the 2006 census) identified themselves as European, 14.6% Māori, 9.2% Asian and 6.9% Pacific Islanders. The main language spoken is English, with Māori (the next most common language) spoken by 4.1% of the population. However, 80.5% of the population speaks only one language (Statistics New Zealand n.d.). There is thus a need for New Zealanders to engage more in learning languages to be able to cross cultural boundaries and to take part in an international economic and social world. The policy change by the Ministry considerably raised the status of language learning and teaching in schools which, however, created new pressures. The offering of additional languages to a wider age group of learners necessitated building teacher capacity. As well, the explicit requirement for teachers to develop the intercultural learner by integrating the teaching of language and cultural knowledge resulted in the need to further develop teacher capability.

One response for increasing capacity and capability for in-service teachers was the Ministry establishment in 2006 of a regional language teacher professional development programme, the Teacher Professional Development Languages (TPDL) which expanded in 2007 to become nationwide. The one year, part-time programme is offered to qualified generalist teachers (those teaching learners aged 11-12 at intermediate school level) who have a keen interest in learning to teach an additional language. It is also for qualified secondary school teachers already teaching a language, but who lack formal language teaching instruction. While some of the teachers on TPDL have studied the target teaching language as a major or minor at university, others have had very limited TL experience. This means that many new language teachers are having to learn languages alongside or just a step ahead of their students.

To provide the maximum benefit for the range of course participants, the TPDL programme has three inter-related components. In the Language Study component teachers develop their knowledge of and proficiency in the TL, and those without advanced proficiency are required to study their target teaching language for a minimum of twelve weeks through study in a choice of courses run in local tertiary or community institutions. Participants who are unable to attend a local institution undertake distance tertiary study. Target languages catered for on the course are Chinese, French, German, Japanese, Spanish and more recently Samoan. Where possible, teachers are also encouraged to sit an internationally recognised language examination such as the Chinese Proficiency Test, or Spanish DELE. In the second component, Second Language Acquisition (SLA), teachers deepen their understanding of how languages are learned through their study in a university level paper delivered at four locations throughout the country. As part of the paper, participants examine the new curriculum document, The Generic Framework for Teaching and Learning Languages in English-medium Schools (Ministry of Education 2007b) with a focus on developing both learners' cultural knowledge (underpinned by the work of Byram 1995; Kramsch 1993 and Scarino 2008) and language knowledge (underpinned by Ellis's Principles of instructed second language learning 2005). As well, teachers study the specific language guideline documents for their target teaching language. The third component, In-School Support, gives teachers the opportunity to apply their developing knowledge in the classroom and be observed by course facilitators with follow-up lesson feedback and discussion.

The Ministry-sponsored TPDL programme has to date provided in excess of 200 language teachers which is starting to meet the new demand for capacity. Given

the development of teachers who may have limited TL proficiency, and the significant shift in the curriculum which necessitates a new intercultural teaching pedagogy, the question needs to be asked: How effective is the programme in building capability? Our chapter considers the developing capability of the TPD language teachers in two areas: the influence of teachers' level of TL proficiency on their teaching practice, and opportunities they provide to develop their learners' intercultural competence. We now briefly explore the literature in these two key areas.

## **2. Literature review**

A widely recognized essential component of effective teaching is teachers' subject knowledge (Gibbs & Holt 2003; MOE, n.d; Murdoch 1994; Pachler, Evans, & Lawes 2007; Shin 2008). A key component of teachers' subject knowledge, in the context of learning additional languages, is teachers' language proficiency, which, as defined by Bachman, is "knowledge competence or ability in the use of a language" (1990:16). Building teachers' language proficiency is a long-term investment, as it is well-known that learning a language is a developmental process (Crabbe 2005:2). The ability to use the language has been acknowledged as a powerful influence on teachers' professional confidence, especially for the non-native speaker teacher (Murdoch 1994) and an advanced facility with the TL is an essential characteristic of an effective language teacher (Shin 2008). Teachers' language proficiency has a direct impact on many areas of practice. Farrell and Richards (2007) suggest aspects of teaching that may be influenced by the teachers' ability in the TL include: Using language resources efficiently; Providing learners with appropriate language models; Offering corrective feedback; Using the TL to manage the class; Giving accurate explanations, Providing rich

language input and, importantly, Improvising and responding spontaneously to learners during the lesson.

The influence of TL proficiency on these aspects is supported by others. For example, Tsui (2003) notes that when using resources, teachers with less subject knowledge tend to be more prescriptive and closely follow the text book. She also notes that when giving corrective feedback, teachers with a greater degree of subject knowledge are "more likely to detect students' preconceptions and correct them, [and] to deal with students' difficulties ...[while] less knowledgeable teachers may reinforce misconceptions, incorrectly criticise students' correct answers and accept erroneous results" (2003:54). In addition, teachers need a high level of proficiency in the TL so they can use it confidently and accurately with their learners in the communicative classroom (Schulz 1999), thus providing a key source of rich language input. Teachers with advanced language proficiency also display flexibility, allowing them to adjust their language according to their learners' language proficiency (Chaudron 1998). Language flexibility also enables teachers to improvise and seize the teaching moment, responding to students' immediate needs to make learning memorable; as Tsui notes, language teachers with greater proficiency are able to "exploit opportunities for useful digressions" (2003:54). In conclusion, teachers' use of the target language in classrooms "almost ... certainly plays a crucial part in determining the success (or otherwise) of classroom second language (L2) learning" (Kim & Elder 2008:167).

As well as needing proficiency in the target teaching language, teachers must also have knowledge of the curriculum. In the context of the *New Zealand Curriculum 2007*, language teachers are being

required to re-focus and employ an integrated approach to the teaching of linguistic and intercultural competence. Although teaching culture has long been an integral part of language teaching classrooms, the way in which it is taught has undergone considerable change, moving from the study of 'high culture' to the 'culture studies' approach, and on to 'cultural practice' (Crozet, Liddicoat & Lo Bianco 1999). More recently, 'intercultural language teaching' aims to develop learner intercultural competence through "the learning of how language and culture connect in one's first and target language" (ibid 1999:11). There have been a number of approaches to clarify what it means to be interculturally competent, and in turn to suggest how teachers can provide opportunities for their learners to develop intercultural competence. Byram (1997) formulates a model of intercultural competence with five *savoirs*: Attitudes (which include values and beliefs); Knowledge (of self and others); Skills (for interpreting and relating); Skills (for discovering and interacting); Awareness (critical cultural awareness). Developing the *savoirs* is necessary for the interculturally competent language speaker to be able to negotiate across cultural boundaries. Sercu expands on Byram's model by suggesting that for learners to be successful with the five *savoirs* they also need to develop metacognitive strategies in order to "plan, direct and evaluate [their] own learning processes" (2004:77). Crozet and Liddicoat (1999) state that learners need to study the language and culture, make comparisons between their own and the target cultures, and explore differences to come to a deeper awareness of their own cultural boundaries. The process assists learners in gaining a better understanding about themselves and others, which may lead to positioning themselves in a comfortable 'third place' (Kramsch 1993) or 'third space' (Bhabha 1994, cited in Witte 2011), a new dimension between two cultures forming the basis for speakers to

understand and create new constructions. Elsen and St John (2007) suggest teachers encourage learners to reflect on their own culture through the eyes of others (*foreignise the familiar*) and to take opportunities beyond the classroom to personally interact with members of the target language community (*familiarise the foreign*). Although language teaching is increasingly interculturally informed, the conceptualisation of intercultural competence is still "relatively vague" (Witte & Harden 2011:1) and, as Scarino and Crichton (2008) and Morgan (2008) suggest, there is a continuing need for further exploration, research and discussion.

### **3. The study**

Following the three main policy changes in languages education in New Zealand (ie, new independent learning languages area in the curriculum, the paradigm shift to developing the intercultural language learner, and the offering of languages to a wider group of learners) the Ministry commissioned an evaluation of the TPDL programme in 2008. In this chapter we draw on data from the commissioned report, *Evaluation of teacher professional development languages (in Years 7–10) and the impact on language learning opportunities and outcomes for students* (Harvey, Conway, Richards & Roskvist 2009).

On the 2008 TPDL course we evaluated, 58 teachers were enrolled from a range of schools throughout New Zealand (city, rural, state, and independent). They were studying part-time on the programme as well as teaching full-time. Part of their teaching responsibilities was to teach an additional language to learners aged 10-14 (Years 7-10). The majority of teachers were teaching European languages (21 French, 21 Spanish and 5 German) with 5 teaching Chinese and 4 teaching Japanese (Thomson 2008).

Our study had a mixed methods approach to gather qualitative and quantitative data. Course participants were surveyed three times (n=25) over 2008. As well, there were seven volunteer case study teachers whom we interviewed three times using semi-structured interviews, enabling us to probe teacher understandings to gather their feelings, views and attitudes towards their professional development (Kervin, Vialle, Herrington & Okely 2006). In addition we observed the case study teachers three times teaching, and recorded teaching events using observations schedules and handwritten field notes.

To understand two areas of teachers' increasing capability (the influence of teachers' language proficiency on their classroom practice, and teachers' provision of opportunities to develop the intercultural language learner) we devised two analytical tools. The first tool explored observation data of teachers' practice in relation to their perceived proficiency in their target teaching language. The tool drew on aspects of teaching drawn from Farrell and Richards (2007) and others (eg. Chaudron 1998; Borg 2001; Ellis 2005; Kim & Elder 2008; McNamara 1991; Schulz 1999; Tsui 2003). The second tool was an Intercultural Language Learning (IcLL) framework with five key inter-related aspects in the development of language learners as intercultural speakers. The tool was underpinned by *The Generic Framework for Learning Languages* (Ministry of Education 2007b) as well as by the work of Byram 1995; Crozet and Liddicoat 1999; Elsen and St John 2006; Kramsch 1993; Liddicoat, Papademetre, Scarino and Kohler 2003; Sercu 2007.

#### **4. Findings**

We now consider the developing capability of the TPD language teachers in the two areas: the influence of

teachers' level of TL proficiency on their teaching practice, and the opportunities they provided to develop their learners' intercultural competence.

#### **4.1. TL proficiency and teaching practice**

Proficiency by nature is difficult to define as it is an open system and thus not easy to measure (Lantolf & Frawley 1988). Teachers' TL proficiency in the case of the TPDL participants was particularly difficult to measure, given their range of teaching languages, language learning experience and qualifications. As a result, we asked the seven case study teachers to rate their proficiency on a scale of 1-5 (beginners – bilingual). The teachers' perception of their own target language proficiency varied, with five placing themselves below intermediate (beginners and elementary) level and just two at advanced level. Reference to teachers' TL proficiency in this chapter thus refers to their perceived level rather than any external measure.

We analysed observation data with respect to seven aspects of language teaching: Exploitation of target language resources; Provision of appropriate language models; Provision of corrective feedback; Use of the TL to manage the class; Provision of accurate explanations; Provision of rich language input; Ability to improvise. The data revealed that all teachers, regardless of TL proficiency could manage the first four of the seven aspects, albeit with some variance in their level of effectiveness. For example, the teachers with lower levels of TL proficiency were able to correct basic grammar and pronunciation through 'listen and repeat,' while advanced teachers led students to a greater understanding of correct forms through questioning and corrective feedback. Teachers with a low level of proficiency were able to manage the class through simple phrases in the TL (eg. *Be quiet, Are*

*you ready, Begin, Well done*), while those teachers with a higher level of proficiency gave more complex instructions in the TL, eg. *Maintenant vous allez essayer de continuer sans parler un mot d'anglais* (Now you're going to try to continue without speaking a word of English).

With regard to the other three aspects of language teaching, a noticeable finding was that it was mainly the two teachers with a high level of TL who consistently provided accurate explanations, rich target language and who responded spontaneously to their learners. For example, one teacher with an advanced level of proficiency explained and elicited rules for language formations by code-switching to clarify German vocabulary items such as *gehen* (to go) and *fahren* (to go in a vehicle), and *essen* (to eat) and *fressen* (to eat like an animal). There was evidence of rich target language throughout the lessons by teachers' use of a wide range of TL structures and extended utterances. They also responded spontaneously in the TL to learners' questions, such as, "Miss, how do you say 'I'm scared' in French?" It must be noted however that the two teachers with the highest level of TL proficiency were teaching in secondary schools where learners had more hours of language learning per week. Thus there were more opportunities to use extended utterances and provide richer language input as the class made faster progress, in comparison with the other five lower level proficiency teachers who were working in intermediate schools. These findings on teachers' subject knowledge and influence on their teaching are elaborated on Richards, Conway, Roskvist and Harvey (forthcoming).

#### ***4.2. Teacher provision of opportunities to develop learner intercultural competence***

The IcLL framework we devised to analyse observation data on teacher provision of opportunities to develop learner intercultural competence had five inter-related domains (Richards, Conway, Roskvist & Harvey 2011): Make connections with known cultures; Compare and contrast cultural practices and make meaning; Link culture and language; Reflect on own culture through the eyes of others; Interact in a culturally competent way with TL community. Analysis of the twenty observed lessons over the year revealed that the seven case study teachers were operating to varying degrees in just the first three of the five domains of the IcLL framework: For example, one teacher made links with known cultures by asking learners about English fairy stories before they read and acted out parts in the TL fairy story. On another occasion, when comparing and contrasting transport, a teacher explored with learners the notion of punctuality in the target culture country and New Zealand. Another teacher made links between language and culture by noting the TL word for knickers in Spanish (bragas or calzones) varied depending on whether the speaker was in Spain or Mexico. She then compared this with the use of different vocabulary items (eg. fall and autumn) in USA and NZ. However, none of the teachers was observed providing any opportunities for learners to reflect on their own culture through the eyes of others, nor were there any observed opportunities for learners to interact in the TL community.

From the twenty post-lesson interviews with the teachers, it was clear that they were focussing almost exclusively on meeting linguistic aims. There were only two occasions where teachers had explicit cultural aims, and there was no explicit fusing of culture and language aims to develop the intercultural learners.

When we explored the strong focus on language aims, we noted that teachers constantly mentioned 'the Ellis principles' and how understanding these was helping them to know more about their learners. One teacher listed "Mr Ellis's principles" and went on to say, "It's so logical – why haven't they used them before!" In contrast, when discussing culture, two teachers acknowledged they had no real focus on developing the intercultural learner, but indicated they would try to do so in the future. However, these teachers' ideas for future integration tended towards a 'cultural studies' approach (for example studying the saints' days) with one teacher commenting "I don't know much about culture. I need to know more about this." Further elaboration on teachers' developing knowledge of language and culture is in Conway, Richards, Harvey & Roskvist (2010).

## **5. Discussion and on-going developments**

The full evaluation of the TPDL programme (Harvey, Conway, Richards & Roskvist 2009) reports on the successes of the programme in building capacity and capability, as well as suggesting further areas for consideration. As mentioned at the start of this chapter, we are concerned here with just two areas: the influence of the teachers' level of TL proficiency on their teaching practice, and the opportunities teachers provide to develop their learners' intercultural competence. We have described the limitations in teachers' classroom practice linked to their level of proficiency. In the absence of sufficient numbers of qualified teachers, engaging teachers with low TL proficiency but a keen interest in teaching language is just an initial response to policy change. The response goes some way to maintaining beginner interest in learning an additional language in schools, but is limited for both learners and teachers. To provide learners with a fully beneficial language learning

experience, teachers need to be qualified and sufficiently proficient in the target language. Increased TL proficiency will also have benefits for the teacher in the form of professional and personal satisfaction. We have also noted the significant limitations by all case teachers in implementing the *New Zealand Curriculum 2007's* paradigm shift to the integration of language and culture. The limitations were most noticeable in the areas of explicitly encouraging learners to view their world through the eyes of others and to cross cultural boundaries and interact appropriately in the target language. There was thus very limited success in delivering the full intent of the new curriculum.

With reference to the two areas of limitation above, the full report to the Ministry made three recommendations. Firstly, teachers who are new to the TL should have the opportunity to undertake initial language study before beginning TPDL and language teaching. Secondly, consideration should be given to funding teachers of Years 7-8 to learn the TL learning beyond TPDL until they reach an acceptable minimum level of proficiency, at least Intermediate. Thirdly, a set of principles on developing intercultural competence should be integrated into the TPDL programme.

Professional development opportunities for language teachers have been considerably furthered with respect to the above recommendations. The timely, formal, external evaluation of the TPDL programme to the Ministry was fruitful, supporting the TPDL director and staff in the directions they were moving. The TPDL director was cognisant of the need for further pre- and post-course support for teachers with low level TL proficiency. Pre-course, short-intensive language courses are available and more recently, for participants wanting to teach Japanese, a short intensive introduction to hiragana is now being offered

through the International Language Exchanges Pathway (IELP), see below. The TPDL director also recommended that the Ministry contract TPDL to provide teachers' ongoing language learning beyond the programme. While this is yet to eventuate, TPDL staff continue to encourage previous participants to pursue further language study and complete formal international language examinations as evidence of their increasing proficiency.

Recognising the need to support the shift in focus of the Learning Languages area of the *New Zealand Curriculum 2007*, the Ministry has published a significant report, *Intercultural Communicative Language Teaching: Implications for effective teaching and learning* (Newton, Yates, Shearn & Nowitzki 2010). This comprehensive document includes an evidence-based framework with six elaborated principles for effective Intercultural Communicative Language Teaching and Learning (iCLT), the inclusion of 'communicative' in the term iCLT reflecting the emphasis on communication in the New Zealand languages curriculum. The iCLT principles are now informing the TPDL programme as well as being promoted more widely. For example, the Ministry of Education national language advisors are embracing the principles and incorporating them when providing ongoing professional development to language teachers throughout New Zealand. Within the New Zealand context, there is increasing interest in the implementation of intercultural language teaching. Interpreting guiding principles is a subject of discussion in public forums, with exchanges between researchers and practitioners locally and internationally. In addition, there are local publications which include looking at developing the intercultural learner in both additional languages and in the ESOL context (see for example Newton 2009; Richards, Conway, Roskvist, & Harvey 2010).

A further response to the change in curriculum and the increased demand to develop language teachers has been the coordination of professional development programmes through a new, cohesive five-stage pathway (ILEP). The programmes are funded by the Ministry, along with donor government institutions from China, France, Germany, Japan and Spain (<http://www.ilep.ac.nz/>). The pathway supports schools and teachers to implement the Learning Languages area of the curriculum. As well, it consolidates professional learning and development to help schools sustain their learning languages programmes. TPDL is a key stage in the pathway to build teacher capability. Another significant means of developing capability is teacher opportunity for immersion experiences in the TL country. (For a full evaluation of the immersion experience, see Harvey, Roskvist, Corder & Stacey 2011). In 2011, the TPDL director, who works closely with language immersion providers, was able to offer the chance for 18 teachers of French who had completed TPDL to go on a 'Stage 2 TPDL' in Nouméa. The immersion experience offers teachers the opportunity to consolidate TPDL learning and develop further linguistic and intercultural competence.

## **Conclusion**

As a result of changes in the languages learning policy and the concomitant need for increased capacity and capability of teachers of additional languages in New Zealand schools, there has been on-going comprehensive professional development. Providing professional development for teachers with a keen interest in language, though not necessarily with high language proficiency, has begun to build the capacity. Our evidence shows that the seven case study teachers were able to manage some aspects of language teaching classroom practice and provide

their learners with an initial introduction to language learning. However, their management of the curriculum paradigm shift was somewhat hindered by the lack of intercultural language teaching principles, which resulted in limited teacher awareness of ways to implement the new fundamental shift. The subsequent publication of principles and the establishment of a cohesive pathway for language teachers have strengthened the foundation of the professional development platform. The challenge is to maintain the momentum through dialogue, review and further research. Our research involved teachers from only one cohort of one professional programme. The case study teachers provided in-depth insights into their developing practice at the time. However, there is a need now to investigate the current practice of recent TPDL graduates as well as a wider community of language teachers, especially in the area of intercultural language teaching. Dissemination of the new understandings gained will be important for the stakeholders in education so teachers, professional development providers, and policy makers are able to continue to re-shape language teaching in New Zealand to meet the needs of learners in the rapidly changing times.

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## CHAPTER 8

### STAKEHOLDERS AND EDUCATIONAL READJUSTMENT IN SCOTLAND

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#### **Abstract**

During the past two decades Scottish education has undergone two major reforms: first, the introduction of the '5-14' Curriculum in 1992 and the lately, the emergence of the '3-18' programme commonly known as 'Curriculum for Excellence' (CfE) in 2009 (Henderson, 2010). While reforms in other curricular areas are seen to have been satisfactory (Priestley and Humes 2010), things have not gone as smoothly as expected regarding developments in RE during these periods of reform. The present chapter examines how stakeholders have engaged with Religious Education (RE) reforms. It argues that effective educational reform can only happen with clear and open communication between

government and other stakeholders, and which leaves all stakeholders feeling confident that their viewpoints are being respected and considered.

## **Keywords**

Educational Reform; Stakeholders; Religious Education

## **Introduction**

Educational reform is a contested process made even more difficult by the complex needs and demands of key stakeholders (see Grindle, 2004), particularly in a curricular area such as Religious Education (RE) (Dunn & Morgan, 1999; Jackson, 2004). Using RE as an educational area of focus, this chapter interrogates the extent and quality of stakeholder engagement with educational reform in Scotland, an issue that until now has only received cursory attention in extant sources (Adams, 2003; Priestley, 2005). Data that informs this chapter was collected as part of a large study which investigated curriculum developments in Scottish RE from 1992 to the present (2011). In line with the protocols of Grounded Theory (Straus & Corbin, 1998), semi-structured interviews were conducted with key stakeholders (n26), which included parents, government officials, university lecturers, representatives of faith communities (Muslim, Catholic, Presbyterian and Jewish), leaders of professional organisations, teachers and headteachers. Issues emerging from the data were arranged and analysed thematically (Colaizzi, 1978). To preserve the anonymity of the study's participants all verbatim excerpts are replaced with non-identifiable codes.

## **1. Identifying the Stakeholders**

At the policy level, stakeholders in the area of RE in Scotland include, but not exclusively, the groups hereby noted. The government is one of the key stakeholders in RE. During the reforms of 1992 and 2009 the government has taken a liberal position on

educational matters including RE. This liberal and somewhat secular position on education has determined how RE is now conceptualised and taught mostly in non-denominational schools. Faith communities are the second set of key stakeholders whose particular views on RE are promoted through denominational schools they operate. Based on available official figures, in 2011 Scotland had 377 state funded faith schools distributed as follows: 373 Catholic (317 primaries and 56 secondaries), one Jewish primary and three nominal Episcopalian primaries (Scottish Government, 2011). Given the reality of multiculturalism in Scottish society, faith communities do accept some level of multi-faith approaches in the way RE is now offered in their schools.

Parents are the third type of key stakeholders also with a keen interest in RE. In many cases the views of Scottish parents represent an assortment of public opinion and perception about education, particularly the debate surrounding the efficacy of RE as a curricular subject. For instance, some parents support faith education, others prefer secular education and while others have an ambivalent 'midline' position with no clear preference neither for 'faith' nor 'secular' education. Finally, there are stakeholders who represent the views of professional groups such as ATRES (Association of Teachers of Religious Education in Scotland), GTCS (General Teaching Council for Scotland) and SJCRME (Scottish Joint Committee on Religious and Moral Education). These bodies are keen to promote a version of RE that is inclusive and educational in its intention.

It is necessary to stress that the values and attitudes that colour the socio-religious lifeworld of these stakeholders are influenced by different epistemological positions. In Scotland, perhaps as

elsewhere, stakeholder contestation of RE reform centres around several zones of divergence related to the contested aims of RE, here expressed by the following three questions: Should RE be only about the teaching of cognitive facts about religions (Smart, 1984)? Should it be about teaching for religious commitment (Baker, 2001)? Should it be about the teaching of religious knowledge as much as about religious commitment (von Brömssen & Olgaç, 2010)? These aims of RE are underpinned by three contrasting ideological positions—pluralism, inclusivism and exclusivism—each of which are at times set against each other in any attempt to implement or evaluate the subject in public education. Cultural identities

The pluralist position expresses the view that all religious and non-religious beliefs are in some sense potentially valid. It is a radical position that intends to move different beliefs, which are compatible with post-Enlightenment critical thinking, to a more central and universal phase. However, it should be noted that this position leaves out the distinctiveness of individual beliefs (Hobson & Edwards, 1999). The inclusivist position on the other hand hypothesizes that while one dominant religion, say Christianity, is seen as the perfect means of attaining salvation, the other religions can provide the means of gaining the right relationship with God and possibly even guaranteeing salvation (see also D' Costa, 1986). On its part, the exclusivist position assumes a conservative position on religious matters. Thus, proponents of this position argue for education in faith (commitment to a particular faith) as opposed to education in religion (knowledge and understanding about various religious traditions). For instance, the Christian exclusive model stresses the point that there is no salvation outside the Church and that the saving acts and workings of

God cannot be found in other religions (Hick & Hebblethwaite, 1980).

In Scotland, the ideological 'war' in RE is usually between a combined pluralist/inclusivist position ('liberal' stance) which usually is pitted against the exclusivist position (orthodox/conservative' stance). Regarding RE reform, religious conservatives (i.e. faith communities) tend to support the continuation of traditional approaches (i.e. confessionalism) for the subject while those holding liberal views (such as government officials and some parents) tend to prefer inclusive approaches of which the phenomenological (i.e. multi-faith) approach is the most common (Barnes, 2000). To a large degree, the educational reforms in Scottish RE during the past two decades have been underscored by liberal theories of education that generally call for the infusion of diverse perspectives in the curriculum. The main aim of this approach is to make citizens of the world by providing children with the ability and disposition to be able to reach agreements on matters of fact and actions through rational discussions with others from diverse ways of life and forms of culture (Boran, 2003). Liberal education also entails subjecting cultures and perceptions of reality to critical reflection (Nussbaum, 1997).

The liberal theories on education have found fertile in Scotland ground due in part to, (a) the Enlightenment movement of the 18th century, (b) the general fall in Church attendance throughout the modern period and (c) the widespread rise of secular ideas in various areas of culture and society (Field, 2001). The impact of these developments has been that the middle of the 20th century onwards most sections of Scottish society have questioned the relevance of the 'evangelical' approach to RE. In their comprehensive analysis of contemporary Scottish education, Bryce

and Humes observe that on the surface, the educational apparatus in Scotland 'consistently exhibits anti-Conservative tendencies ... [and that] the process of educational advancement reflects a kind of determined conservatism' (Bryce & Humes, 2008, p. 101). Hence, despite the rhetoric about reform in contemporary Scottish education, tradition has always dictated that educational experiment is 'attempted with the greatest caution' (Scotland, 1969, p. 275).

## **2. Spaces of Contest**

Based on the findings of the study that inform this chapter, a number of issues that underpin the spaces of contest regarding educational reforms in Scotland within RE can be explored. First, it is evident that while the government's push for a liberal-inclusivist framework in the political system and in education generally is welcomed, applying this framework to RE has been contentious. This situation is exemplified by the fact during the past two decades conservative and liberal impulses in society have been at odds with each other when it comes to RE reform.

Part of the problem is that in Scotland the government expressly desires to make RE more democratic and accessible to the various cultural and religious groups that make up today's society. For this reason, the government has been more receptive to the theories of liberal education to the extent that this thinking has engendered a new direction for RE. The problem the government faces in adopting this position essentially stems from the fact that neither liberalism nor multiculturalism ever occupy a secure ground of absolute impartiality owing to the impossibility of adjudicating any educational philosophy entirely without bias (Anderson, 2002). However, despite this criticism it must be acknowledged that by introducing non-confessional forms of RE the government has sincerely attempted to address the general question

around issues of citizenship and the recognition of minority rights within RE from a liberal-democratic perspective.

Representatives of the various Churches in the study explained that the new developments in RE have been ideologically problematic for Christian conservatives because in many ways, liberalism is seen as a threat to the influence that Christianity has had on the subject. Thus, Christian conservatives have been uncomfortable with the liberal settlement for RE because of the suspicion that this is an ideological imposition by secularists and humanists, the consequence of which would be the trivialisation of religion, a development that potentially can render RE irrelevant as a subject of study. They further reiterated that liberalism is not value free, and as such, if religion is to be 'decentred' to create space for non-religious views, then it means that a liberal form of RE will be actively promoting not neutrality but an alternative belief system. This apprehension is perhaps not entirely unfounded. One parent in the study, and a declared atheist, explained:

I am not happy about a particular religion or a set of religions being imposed and taught whatsoever in schools. Religion is a question of personal belief and faith doesn't actually have a place in wider public life. Rather, teaching people about what the different faiths are, how they work and the broader issues such as secular society, humanism and other things that promote moral behaviour within a classroom framework is what is needed for schools (Parent 1).

Christian conservatives in the study see the views expressed above as a typical example of a wider secular agenda against organised religion, something which many traditionalists oppose. From the responses

in this study, most Christian conservatives find the idea of Christianity being trivialised or replaced by non-religious beliefs unwelcome and a cause of great anxiety. Representatives of the Presbyterian community (a Protestant confession noted for its theologically inclusive character) in the study, explained that Churches are less keen on RE reform because of the fear that the new programme that would replace the confessional curriculum and thus in turn water-down the Christian influence on children.

The issue about religious identity and its implication for RE reform also featured prominently in the study. One of the major reasons why modern RE has remained a contested curricular area in Scotland is that religious groups see the subject as a way of promoting their particular identity, while those with a liberal view of education perhaps have little religious feeling for the subject. As a counter-measure, faith schools often see themselves as a site of resistance to the onslaught of post-modern secular forces against religion (Conroy, 2001). Many studies have explored the connection between religious identity, cultural change and RE. In these studies, religious identity is identified as an important marker which allows religious communities to draw on elements of their tradition and theology as a means of self-understanding and self-expression. Further, other studies see faith schools as another significant marker of identity for those parents who wish to preserve the religious identity of their children (Bertram-Troost, de Roos, & Miedema, 2009; Cohen-Zada, 2006).

The presented study has revealed interesting facts regarding the 'spaces of contest' related to issues of identity in Scottish RE around areas such as religious expression, schooling, Presbyterian 'loss' and Catholic 'gain' and, in general Christian dominance on the subject. Respondents sympathetic to Presbyterian

Churches feel that while Catholic schools use a separate and distinctly different RE curriculum, Presbyterian Churches no longer have such influence on education. For this reason some respondents sympathetic to the Presbyterian confession expressed the view that RE reforms have not recognised the significant contribution and continued importance of Presbyterian Christianity within Scotland. Those in support of this position further feel that their particular identity within Scottish education has been lost permanently. They blame this not only on recent educational reforms, but also on educational arrangements that have been in place in Scotland since the 1918 Catholic Church-State concordat. By this agreement, contained in the Education (Scotland) Act 1918, Church schools—in the main Catholic but also schools belonging to the Episcopalian Church—were brought into the state system of education but, *inter alia*, allowed to retain their distinct religious character in particular, the right for the Catholic Church to determine the nature and content of RE in its schools (Conroy, 2001; O'Hagan & Davis, 2007).

Respondents sympathetic to the views of Presbyterian Churches in this study further observed that the Presbyterian community gave in too much to the educational reforms that created the modern system of education in 1872 (Knox, 1953). For this reason they suggested that Presbyterian Churches should demand to be visibly recognised in education, as the Catholic Church currently is for having its own state funded schools. One RE teacher at a non-denominational school and a self-confessed Presbyterian queried:

.... Can something be written about what we do, to recognise our place in Scottish society and our pre-eminence amongst the population? I mean it does lead to a bizarre situation where I teach

about Islam, Hinduism, Judaism, general Christianity but I do not teach specifically about what the traditions of the Church of Scotland and the Presbyterian traditions within Scotland are. I feel that this is wrong (Teacher 4).

A related issue of identity is the perceived privileging of Christianity over other religions in RE in Scotland. During the latest reform (i.e. CfE) the issue of Christian privilege was contested by those who felt that Christian expression had been unfairly dominant in RE. Others argued that despite the much talked about historical significance of Christianity in Scotland's history and culture, in the present time Christianity is actually a new experience for children in the classroom owing to the fact many children do not have a home experience of Christianity. Those supporting this view argued that for this reason Christianity should be offered in the same way as other religions, for after all by definition it is one of the world religions. Representatives of other religious groups have argued that describing them as 'other' marginalised their identity to the periphery of the 'more' important Christian identity. In its response to the draft CfE documents, the Jewish community made clear the fact that the expression 'other world religions' in relation to Christianity only makes sense for Christian children and that it communicates *bias* to both the teacher and learner, and estranges Jewish children from their own heritage and identity (SCJC, 2008, pp. 2-3).

Consultation is an area that has been contested regarding RE reform in Scotland. The issue revolves around several points of disagreement. Government respondents in the research stated that consultation involved all relevant stakeholders during the process of reform in RE. A government official in the study stated:

In terms of consultation there is a list of groups that are always consulted. The Churches, parent bodies and also that the drafts of the curriculum are always circulated to all schools for comment... So, full consultation with the profession has been key to the development of RE (Education Official 2).

However, non-government stakeholders rejected the state's optimistic view and stated that consultation for both RE in the '5-14' and 'CfE' reforms was either absent or wholly ineffective. The study reveals that while stakeholders were generally in agreement that consultation in one form or another did take place with stakeholders during these reforms, they offered subtle perspectives on the issue. Regarding CfE reforms, while religious communities such as Judaism, the Catholic Church and Presbyterian Churches said that they were consulted; the Muslim community categorically said that it was left out of the consultation process. The representative of the Muslim community in the study explained that Muslims found out about consultation on RE reform quite by chance when some of its members stumbled upon the draft document on the internet. Only when the Muslim community responded to the draft document did the government contact the Muslim community leadership for some discussion on the reforms. In its response to this document, the Muslim community stated its disappointment for being left out in the development of the RE draft guidelines and therefore was merely making a response (see also SMPA, 2008).

Thus, in general respondents in the study were quick to point out that consultation with key stakeholders in CfE was patchy. They pointed out that the draft guidelines upon which CfE is now based are the work of a few commissioned writers. It was observed that the government through its agency, Education Scotland merely put the draft CfE outcomes on their

website with the assumption that interested stakeholders would respond to them. One respondent remarked:

Few parents are aware of the changes taking place in RE. The government always says it has consulted the parents but in reality it never does. I know this because I was a chairperson of parent council forum. Government sometimes says that we have given you this document to respond and given a week to do it. This is not consultation (Parent 2).

From this study, most of the respondents see the new RE curriculum as a top-down imposition. Stakeholders feel that they have not been given equal chance to shape the outcome of the consultation process. This view supports relevant literature which suggests that in Scotland a veneer of democratic consensus often disguises control of educational policymaking by professional and political elites (Humes & Bryce, 2001).

Related to the 5-14 reform, one of the key areas of contestation centred on a new policy, which for the first time, introduced a single curriculum for RE when previously (i.e. since 1918) the country has had two separate RE programmes, one for Catholic schools and other for non-denominational schools (SED, 1992). The Catholic Church felt strongly that the new policy of RE was insensitive to the particular needs of the Church and children of its adherents and thus rejected the 5-14 Curriculum in its entirety.

### **3. Stakeholder Re-engagement**

The contestation and eventual rejection of the 5-14 Curriculum in 1992 by the Catholic Church made the government realise the extent of its error in failing to engage such an important stakeholder in education.

By taking unilateral decisions on education without proper consultation with stakeholders the government was in effect contravening some of the terms of the 1918 Church-state concordat because, as we have already noted, by law the Catholic Church has a mandate to offer its own distinct curriculum including a catechetical form of RE (O'Hagan & Davis, 2007).

Returning to the issue about stakeholder re-engagement, it should be noted that following behind the scenes discussions between the Catholic Church and government officials, the government publically announced that the Church would be allowed to develop its own separate RE programme as part of the 5-14 Curriculum reform. After this process was completed, a new Catholic RE curriculum was produced in 1994; two years after the 5-14 RE programme had been in operation in non-denominational schools. When the new Catholic RE curriculum was announced in October 1994 it was evident the government had been kept abreast of its development. In the preface to that document, the following statement was captured:

These guidelines provide a coherent and progressive approach to religious education in Catholic schools. Archbishop Winning, president of the Catholic Education Commission, and the Secretary of State commend the document and invite schools to use it in the implementation of the Religious Education programme (SOCC, 1994, p. ii).

Reflecting on this development, evidently a separate Catholic RE curriculum in Scotland became possible because both the Church and government desired an amicable resolve to a sensitive and potentially explosive issue. In this process compromise was a key ingredient that helped to bring about a successful outcome. Regarding the more recent CfE reform, the

Catholic Church has been proactive in its engagement with educational reform in the area of RE. The Catholic Church's representative in the study explained:

... Now the difference this time around is that at the start of the reform process [i.e. of CfE] we went to the government and said: let us not make the same mistake and wait until the draft guidelines are published and then say we have a problem. We said; let us build on our needs from the very start. So from the very start there was need to have a particular provision for RE in Catholic schools...

The government has also been pleased with the Church's new attitude, noting:

The Catholic Church in Scotland tended to be reactive and not proactive. It's interesting that this time around the Church has become a little bit more pro-active regarding RE reform (Education official 1).

So far, it seems that a proactive strategy by the Church has had a positive impact on the process of educational reform process in the area of RE. While it is far too early to make an assessment of its overall efficacy, the strategy of stakeholders adopting a proactive rather a reactive approach is a plan that should be widely adopted because it is less corrosive particularly, regarding how stakeholders engage with reforms in a contested subject such as RE.

## **Conclusion**

This chapter has identified areas of stakeholder contestation related to educational reform in Scottish RE. It has demonstrated that reforming RE without adequate consultation with key stakeholders is not only unworkable but also divisive because those who feel marginalised by the changes routinely adopt a

defensive position against the new curricular initiatives these reforms engender. Evidently, RE is a unique and challenging subject that requires diplomatic skills to deal with its delicate nature and complex relationships to society. It is a subject which for most stakeholders epitomises their religious identity and to guarantee a successful outcome for any curriculum reform in this area, there is a need to create a positive 'space' for dialogue through negotiation, collaboration and compromise. Putting this differently, to have a successful outcome in educational reform in RE, spaces must be created so that the various competing groups can express their distinctiveness without the danger of any of them crashing into each other's spaces.

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## CHAPTER 9

# THE IMPACT OF ORGANIZATIONAL CLIMATE IN SCHOOLS ON THE TRANSFER OF POST-INITIAL MASTER STUDIES

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### **Abstract**

With a view to upgrade the teaching profession, much attention is given to Master's courses for teachers. As Master's courses require considerable investment in time and money, the question can be raised as to what extent the upgrading of teachers to Master's level will lead to improvement in teaching and learning in schools. This chapter presents the outcomes of a small scale study in which 7 teachers, who recently graduated from a Master's program in the Netherlands, were interviewed on the climate and conditions they experienced in their respective schools when seeking to apply their newly acquired knowledge, skills and professional attitudes in their daily work. This explorative study shows that teachers engaged

in a Master's program can meet considerable obstacles within the organizational culture of the school. There appears to be a considerable misalignment between the teachers engaged in the post-initial Master's program and their supervisors. While the teachers see the purpose of the Master's program both in private terms (personal development) and public terms (contributing to school development), they experience an organizational climate that leaves hardly any room for a wider public purpose, where they could use the competencies and skills they have developed outside the boundaries of their own classrooms.

## **Keywords**

Teacher development - Master's programs - training transfer - organizational climate

## **Introduction**

In European policies that aim to increase the quality of teachers, much attention is given to the upgrading of qualifications. The Bologna process has stimulated the development of a higher education area with qualifications at Bachelor's and Master's level. In response to the European Council's conclusions on 'Increasing the Quality of Teacher Education' (European Council 2007), many member states have started policies to raise the overall qualification level of teachers. However, the strategies that are used by member states vary. Some member states have decided to raise the minimum qualification level for teachers to Master's level. In other countries the initial qualification level for (part of the) teachers remains at Bachelor's level, while new post-initial courses are developed to create in-service opportunities for teachers to raise their qualification to Master's level. Although this second strategy, focusing on in-service Master's qualification programs, seems less ambitious than the first strategy aiming at ensuring a Master's qualification for all new teachers, the second strategy

is important as it focuses on the vast amount of teachers that already work in schools.

The ambition to increase the number of Master qualified teachers requires a considerable effort in time and money. In the Netherlands, the government has initiated a bursary system in which teachers can apply for financial support to follow an in-service Master's qualification course. This support covers both (part of) the annual study costs to a maximum of 3500 Euro and replacement costs for 160 hours per year with a maximum duration of three years (2010 figures). Until 2010 twenty thousand teachers applied for these study vouchers which involves an annual budget varying between 23 and 37 million Euro (Ministry of Education, Culture and Sciences 2011).

This raises the question whether this large sum of money is well spent: to what extent will the increase of Master teachers in schools lead to improvement in teaching and learning at schools.

The impact of training on the workplace has been an area of extensive research (Blume et al. 2010; Burke and Hutchins 2007; Baldwin and Ford 1988). However, this research on 'transfer of training' mainly focuses on training designs related to daily work procedures and with short duration and low intensity (Blume et al. 2010). Master qualification courses for teachers in school generally have a much longer duration and higher intensity (typically one day a week during two or three years part-time). Therefore the application of the outcomes of research on training transfer to the context of master qualification courses for teachers can be questioned and an explicit study on transfer of master studies to the workplace is justified.

## **1. The context of in-service master's programs in the Netherlands**

In the Netherlands, initial teacher education for teachers in primary and secondary education is provided by the universities for applied sciences ('hogescholen') at Bachelor's level (BEd). Teachers who wanted to upgrade their qualification could follow a postgraduate program at the universities for applied sciences. From 2006, these post graduate courses have been converted into in-service Master of Education (MEd) programs.

In 2007 a new Master's program was introduced: the MEd program *Learning and Innovation*, which prepares teachers to become an expert in teaching and learning and an innovator and change agent in school (Snoek and Teune 2006). This MEd program started at several institutions between 2007 - 2010. A second initiative to raise the qualification level of teachers was provided by the Dutch Institute for Masters in Education (NIME), in which the boards of a number of secondary schools are represented. In 2008 they initiated a tender for universities to offer a MSc/MA or MEd Master's program focusing on teaching, innovation, practice oriented research and collegial support (Snoek 2011). Both of these Master's programs focus on the one hand on the primary role of the teacher with respect to the learning of his/her pupils and on the other hand on the secondary role of the teacher that is connected to Hoyle's concept of extended professionalism (Hoyle and John 1995; Scheerens 2010; Snoek 2011). This implies that the purpose of the Master's program is twofold: a private purpose: contributing to the repertoire of the teacher within the context of his/her classroom and the learning of his/her pupils, and a public purpose: contributing to the school development as a whole, to collective innovation of learning and to supporting colleagues. However, this public purpose implies a change in the

general expectations towards teachers, as most teachers still operate within the confines of their own classrooms. The Master's program was intended to be a catalyst to change the isolated position of teachers, to increase the extended professionalism of teachers and to involve teachers more explicitly in school wide development processes.

## **2. Evaluation of training transfer**

As these Master's programs require substantial investments in terms of finances and personal effort, it is essential to evaluate their effectiveness. Kirkpatrick (1998) offers a training evaluation model with four levels: participant satisfaction, assessment of acquired knowledge and skills, application at the workplace and impact on the results and outcomes of the organization/company. Kirkpatrick's model emphasizes the actual aim of the training: to have an impact on the outcomes of a company or organization. However, most evaluation instruments focus on participant satisfaction (level 1) as the higher levels in Kirkpatrick's model are more complex to measure. Although Kirkpatrick's model might help to change the focus from participants' satisfaction to actual impact, the model has also been criticized for being too simple as the causal relations between the levels can be questioned and intervening variables that affect outcomes are not taken explicitly into account (Holton III 1996). In the literature on training transfer a wider perspective is used, based on Baldwin and Ford's model for training transfer (Baldwin and Ford 1988). In their model, transfer of training is defined as the extent to which the learning that results from a training experience transfers to the job and leads to meaningful change in work performance (Blume et al. 2010). Baldwin & Ford's model focuses on the third level of Kirkpatrick's model and provides more detail. In their model, three negotiating elements are

identified that have impact on the transfer of training and therefore on the impact of the training on the outcomes of a company or organization. Not only training design factors (e.g. objectives, methods and opportunities for practice) will have an impact on the actual application of learned competences or skills at the workplace, but also trainee characteristics and work environment factors play an essential role in the application at the workplace. Trainee characteristics deal with ability, skills and personality of the trainee, but also with their motivation to apply the learned competences and skills in their daily work. Work environment factors deal with characteristics of the work place and how the organizational culture invites trainees to apply the learned competences and skills in their daily routines. According to Bunch (2007), much of the effectiveness literature focuses on training design, content and evaluation, but there is 'little recognition of the entrenched values, beliefs, assumptions [at the workplace] that prevent effective training' (Bunch 2007, 145). Bunch emphasizes that positive change will require organizational support. Arthur et al (2003) emphasize 'environmental favourability' as 'the extent to which the transfer or work environment is supportive of the application of new skills and behaviours learned or acquired in training' (Arthur et al. 2003, 242).

### **3. Indicators of organizational climates that stimulate transfer of learning**

Indicators of an organizational climate that support positive transfer and that can be identified as predictive factors for positive transfer include (Rouiller and Goldstein 1993; Burke and Hutchins 2007; Baldwin and Ford 1988; Clarke 2002; Tracey and Tews 2005; Holton III, Bates, and Ruona 2000)

1. strategic alignment between the training program and the strategic direction of the organization,
2. cues that prompt trainees to use the learned knowledge or skills,
3. opportunities (or constraints) to use that learned knowledge or skills,
4. social support and feedback from supervisors and peers,
5. accountability for using the newly acquired knowledge, skills and attitudes and
6. cultural cues that have to do with the (implicit or explicit) importance that is given to training and professional development.

An elaboration of these indicators for an organizational climate that supports training transfer is given in table 1.

Table 1: Indicators for an organizational climate that supports training transfer

<b>Main indicators</b>	<b>Sub-indicators</b>	<b>Source</b>
Strategic alignment between the training program and the strategic direction of the organization		Burke and Hutchins 2007

<p>Situational cues that prompt trainees to use the learned knowledge, skills and attitudes</p>	<p>Work routines that emphasize the need to apply new knowledge and skills</p> <p>Recognition and reward systems and career paths</p> <p>Accountability for using the newly acquired knowledge, skills and attitudes</p>	<p>Baldwin and Ford 1988; Rouiller and Goldstein 1993</p>
<p>Opportunities (or constraints) to use the learned knowledge, attitude and skills</p>	<p>A reduced workload to practice new skills</p> <p>The time interval between training and opportunity to perform</p> <p>Match between training content and trainee's work role</p> <p>Available equipment</p> <p>Autonomy to adapt work procedures to newly acquired competences</p>	<p>Blume et al. 2010; Baldwin and Ford 1988; Clarke 2002; Lim and Morris 2006; Mikkelsen and Grønhaug 1999; Bartram et al. 1993</p>
<p>Support and feedback by peers and supervisors</p>	<p>Social support and expectations from supervisors</p> <p>Feedback of supervisors</p> <p>Involvement and participation of supervisors in training</p> <p>Discussions with supervisors on the outcomes of training</p> <p>Support from peers</p>	<p>Baldwin and Ford 1988; Clarke 2002; Tracey and Tews 2005</p>

<p>Cultural cues with respect to the importance of training and continuous learning as supported by behavioural norms</p>	<p>Voluntariness of training</p> <p>Training seen as an expense or an investment</p> <p>The position and focus of HRM within the organization</p>	
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### **3. Focus and methodology of this study**

#### **3.1. Context and relevance**

As stated in the introduction, the increase of Master teachers in Dutch schools aims to improve teaching and learning at schools. However, Tracey and Tews (2005) state that it would be *'unwise to implement new training programs if the work environment does not adequately prepare trainees for the learning process or support the use of newly acquired knowledge and skills on the job when trainees return to their jobs'* (p. 354).

Given the fact that in-service master courses for teachers require a considerable investment in time and money, a lack of transfer of learned competences to the daily practice in schools and therefore a lack of impact on teaching and learning in schools can be considered as waste of money and energy. From this perspective a closer look at transfer and conditions for transfer of in-service Master's programs is justified.

In this study we look more deeply into the opportunities and conditions for transfer that graduates of an in-service Master's qualification program experienced during and after their study. The context of this study is a Master's program offered by the Hogeschool van Amsterdam and supported by the

Dutch Institute for Masters in Education NIME. This Master's program started in February 2009 focussing on three key competences: entrepreneurship in teaching, research in teaching and learning and inspiring colleagues. Through these key competences the ambition of the schools was to develop teacher leaders. In January 2011 the first group of 7 participants graduated. This Master's program differs from other Master's programs as it has been initiated by school boards in secondary education. At the request of the school boards, the master course is not government funded. This creates a fundamental difference with other master programs. In the government-funded master programs the study is based on a contract between the participant and the teacher education institute, while the NIME-master is the result of a tri-partite contract between the participant, school board and the teacher education institute, guaranteeing the influence of the school on the content and quality of the program. As a consequence, the school boards have to cover the full fee and the costs for study leave (typically one day a week). Through this design, active involvement and engagement of the school board and the supervisor of the participant is built into the model. Given this design one might expect that the transfer of learned competences to the workplace is facilitated and supported by the school. On the other hand, the design requires new roles and relations between participants, schools, and tutors at the master programs to adapt to this new context. As a consequence, transfer of training might not be as self evident as the model seems to suggest.

To evaluate whether the model supports successful transfer of learned competences to the working place, a research study has been started looking at the experiences of graduates of the Master's program in

applying the learned competences to their daily work and in the factors that hindered or stimulated this.

In this article we will present the findings of the first phase of this study, focusing on the first graduates of the program. The aim of this phase study is to evaluate to what extent the indicators for an organizational climate that supports trainings transfer are also relevant for the context of a two years Master's course for teachers. As the indicators that have been identified in the previous paragraph have been validated mostly for short training designs (Blume et al. 2010) and in commercial sector organizations (Clarke 2002), it is necessary to investigate whether these indicators are also valid within the context of intensive two-year Master's programs in schools and to school organizations with a high number of autonomous (semi-) professionals, and to be open to new elements that might influence training transfer within this context.

Although the research population in the first phase is small, it can give a first indication of the effectiveness of the design of the Master's program in terms of transfer to the workplace and of essential factors influencing this transfer.

### **3.2. Research design**

The main research question for this study was: To what extent do the participants of the Master's program experience a supportive organizational climate that supports them to apply the learned competences within their school?

To answer this question, we need to take into account the three negotiating elements that influence transfer of training (Baldwin & Ford, 1988): the willingness and motivation of the participant to apply the learned competences to the working place (Egan, Yang, and

Bartlett 2004; Noe 1986), the design of the course with respect to the way in which it actively stimulates transfer, and the organizational climate of the school. This last factor was broken down in separate subcategories, using the indicators for an organizational climate that supports training transfer as presented in table 1. Although the focus of our study is on the organizational climate, we needed to take the other two factors into account, as they might influence the extent in which active transfer takes place.

Indicators for the success of transfer of the learned competences are new roles or positions that the participants take up in the school, their job satisfaction and their intention to leave their jobs (turnover intention) (Egan, Yang, and Bartlett 2004; Tett and Meyer 1993; Noe 1986).

The resulting research model is summarized in figure 1.

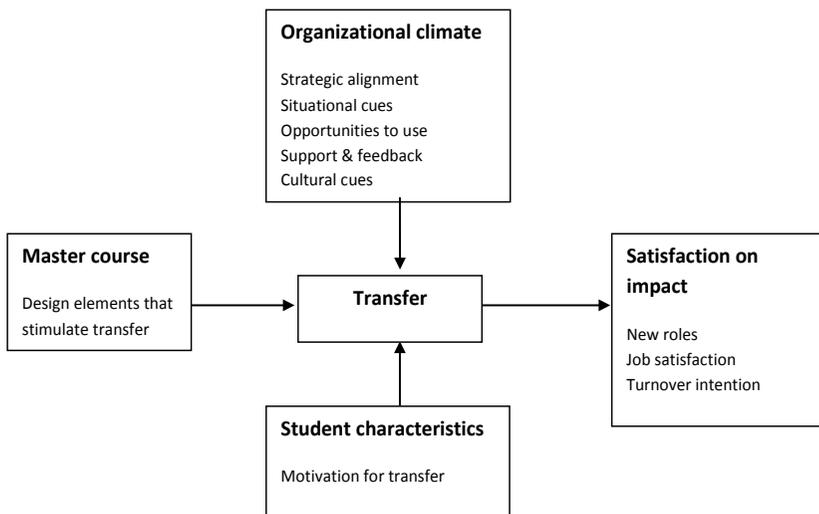


Figure 1: Research model

Most of the research studies on the impact of in-service training fail to look at Kirkpatrick's fourth level – the impact on student learning – (Van Veen et al 2010), and also this study is restricted to the first three levels of Kirkpatrick: satisfaction, (self) assessment of performance and application. Main input for the study are the perceptions of the graduates with respect to the extent in which they applied the three main competences of the Master's program in their daily work: entrepreneurship in their teaching, research in teaching and learning and inspiring colleagues. The actual impact of these three competences on student learning are not taken into account (apart from what the graduates report on this).

### ***3.3. Research methodology***

As the aim of the study is to verify to what extent the indicators for successful training transfers as listed in table 1 also apply to the context of a two years Master's course for teachers, and to identify a first indication of crucial elements in the organizational climate in schools that can help to improve the transfer of training outcome, we chose a qualitative design using semi-structured interviews. Through the use of semi-structures interviews it was possible to be open to new elements that might influence training transfer of Master's programs in schools. This fitted also with the small number of respondents. In the first phase of this study that is reported in this paper, we interviewed the graduated participants two months after graduation, so the participants could reflect on the full program and on transfer aspects both during the Master's course and after graduation.

The interviews were structured in such a way that the different elements of the research model (figure 1) were covered in the interview guideline. Each of the

interviews was recorded, typed out and analyzed by the interviewer, using the elements of the research design. The seven interviews were compared to draw general conclusions with respect to the extent in which the Master participants experience a supportive organizational climate that stimulates them to apply the learned competences within their school. In the second phase of this study, the participant interviews will be compared to the supervisor interviews to find similarities and differences in the perceptions of participants and supervisors.

Information on the program design was derived from the course documentation that was used in the accreditation process of the Master's program (Centrum voor Nascholing Amsterdam 2010).

## **4. Findings**

In this paragraph we will present the outcomes of the data collection, following the elements of the conceptual model.

### ***4.1. Design of the curriculum and planned transfer activities***

The curriculum focuses on three key competences: *innovation and entrepreneurship*, where the participants develop a deeper understanding in processes of teaching and learning, that can be used to innovate the teaching and learning process; *research*, where participants develop their research skills through practice oriented design research on a topic that is of relevance to the school; and *inspiration*, where participants are stimulated to develop their role and attitude as change agent within the school and to support colleagues in processes of innovation.

Candidates for the Master's courses needed to provide a letter of support from their school leader, indicating that the school leader considered the candidate as a talented teacher in the area of innovation and entrepreneurship, research and inspiration and that they would support the candidate in their study.

To stimulate transfer, their supervisors are invited once during the course, to join a lecture, to be informed about the design of the curriculum and invited to sign a symbolic tripartite contract, explicating the role of each partner in the contract. One of the conditions for the acceptance of the research theme of the participant is support from their supervisor, who has to confirm that the research theme is relevant to the school. The assignments connected to the lectures are designed in such a way that the participants are stimulated to elaborate on the topic from the perspective of their schools resulting in an essay or other type of product that can be shared with their supervisor and colleagues. Every semester ends with an integrative presentation on the main themes of the semester and participants are stimulated to use this presentation in their own school to inspire colleagues.

#### ***4.2. Participant motivation for transfer of learned competences***

In the interviews, all of the participants reported that their initial motivation was at a personal level: to reach a deeper understanding of their teaching and of the learning of their students. At the end of the course all participants were motivated to use the newly acquired competences within their teaching. All of them explicitly indicate their eagerness to share their knowledge with colleagues and to come to a more coherent teaching approach within their team or the school.

I realized that the things I heard during the master would be very interesting also for my colleagues. It opened up a whole new world which I was eager to discover. I wanted to share this: my colleagues had to know this...

#### ***4.3. Participant perceptions of the way in which the organizational climate supports transfer***

For most participants signing up for the Master's program was their own initiative. Only two participants were explicitly invited by their school leaders to subscribe to this master. Six of the participants received a more or less positive response. One participant did not receive a positive response as the program was not part of the formal portfolio of professional development activities that were supported by the school.

According to the participants, explicit policies concerning professional development hardly exist within their schools. In most cases participation in CPD programs is the individual initiative of teachers and a negotiation about costs is necessary.

No explicit expectations were expressed by their supervisors beforehand. Several participants mentioned that the lack of explicit expectations could be explained by the fact that the Master's program was brand new and the initial announcement of the program was rather vague. As a result both participants and school leaders had no clear image of what they could expect from teachers who had done this Master's program.

The opportunities for participants at the Master's program to use the newly developed competences have largely been created by the participants themselves. All participants see ample opportunities to use their new competences in the micro-context of their classroom and their work with pupils. They

indicate that they have developed a stronger awareness towards individual needs of pupils and that they are motivated to use the outcomes of their research to improve their teaching or to develop their curriculum. Three participants have been engaged in projects or new roles where they are challenged to use their new abilities. They indicate that through these new roles their school leaders have created opportunities where they are challenged to apply their new knowledge.

All participants indicate that they try to use their new knowledge to inspire and challenge colleagues, but four indicate that this is not always welcomed within school cultures which are suspicious towards excellence.

But there are also colleagues who were negative from the start. "Ridiculous, it costs lots of money, lessons are skipped, what does it have ...?". One colleagues remarked "What can I learn from you?". Some people just don't want to learn. And I can understand why: They are just afraid. They have got their position now and are afraid to loose it.

Six indicate that they lack the formal position that gives them the recognition they feel that they deserve. Four participants indicate that they feel that they have to fight for recognition by school leaders by sending their essays, publications etc. One participants expresses the fear that after graduation it is 'back to normal' again.

I have the feeling that I have to fight not to sink back into oblivion. After graduation I have the feeling "damn I'm all on my own". Everything goes back to normal, like nothing has happened. We've had our party, finished! But that may not happen, that can't be allowed. That is a waste of money, energy, time and expertise!

Two participants indicate that the lack of recognition is partly due to the fact that the Master's program does not fit in the regular structure of teacher profiles within the school.

*My supervisor doesn't know the content of the study that I do. It isn't connected to a concrete task or role within the school, like a school counselor or special needs teacher. These roles are clear. But this course has a completely different content. I think that also the management is struggling with it: what kind of position do they have to give someone who has done a program like this.*

Although all participants acknowledge that recognition within the school, either by colleagues or school leaders, is slowly growing, they do not have the feeling that they are held accountable for using their newly acquired competences. Only two of the participants that have new roles within their school feel that school leader and colleagues have new expectations towards their performance.

All participants, except one, were facilitated to follow the course: the school paid the course fee and gave them study time. The study leave was used to reduce the number of teaching hours, providing the opportunity to join course activities and to work on course assignments, but hardly left time for deliberate practice within the school.

All participants indicate that they have a large amount of autonomy when it comes to their lessons. In other areas, their autonomy is much more limited.

In and around my classes I have a large autonomy. But in areas outside this, I have very little autonomy. I really want that to be bigger. I still get every year an overview: "This is what you have to do". I'm done with that. I want more professional freedom.

They can take initiatives concerning school or team wide activities, but it is not part of their job description. As a result three participants indicate that they hardly have the time to initiate initiatives that fit to their newly developed competences. One participant indicates that there is no time and opportunity for her to sit and discuss issues with colleagues.

What I actually need is more time with colleagues. When you know that we don't even have a weekly meeting moment, you can understand that most has to be done in the corridors and time in between classes.

The three participants that have indicated that they have gained new roles within the school, indicate that they have autonomy to initiate things that go beyond their teaching role. One participant indicated that she searched for new roles outside the school context as she didn't get the recognition within her school.

I prefer to put my energy in things where I can get that recognition and where I am valued. Like the professional association for vocational teachers. And next week I will contribute to a national management conference for vocational education. That is nice to do.

A large part of the interview focused on the discussions, expectations, support, feedback and active involvement from the school leader. Although most participants tried to inform their supervisors on the themes they worked on in essays and research, the number of discussions that resulted from these input{s} was limited. Little initiative came from school leaders and mostly discussions did not get a follow-up.

I had asked whether they wanted to read it, but I got a evasive answer all the time: "if it is not too long... Is it useful for me ...". These kind of

remarks doesn't give you the feeling "Wohh, this is what they have been waiting for!"

Only one participant indicated that she had several discussions and that her input was used by the school leader.

According to the participants, none of their school leaders had expressed any explicit expectations towards their performance. Six participants indicated that they received no feedback. Only one received explicit feedback.

I did get recognition. When I gave a presentation to parents, he said "well done". In personal meetings and performance evaluations he gives me detailed feedback on positive things and on what I can improve. And that is useful for me. He could see my growth, that I could look at the organization with more distance. [...] I don't see myself as a leader in the frontlights, but he tells me "You should do that more often".

Only three school leaders showed their active interest by attending a course sessions where all school leaders were invited and only two school leaders attended the graduation ceremony.

With respect to contact and support from colleagues, involvement often depends on personal relations and on the culture in school. Five participants indicate that they have had frequent discussions with colleagues on elements of their study, on essays they wrote or on the research they did within the school.

Two indicate a lack of opportunities to discuss and share theories and research. Participants on a Master's program can also encounter hostile reactions from colleagues. Two participants give examples of such hostile reactions.

I once had the opportunity for 4 – 5 minutes to tell something about my research. And to ask whether they wanted to co-operate. That gave an immediate negative response. They said: "No, I don't want that, you are not allowed to come into my classes". They considered it as very threatening. One colleague said that I had not to interfere with her lessons. The result was that she started a kind of offensive towards me.

Three participants indicate that they received no support from colleagues. Other were more positive with respect to the support they received from colleagues, in terms of support in editing final texts, willingness to take over lessons, to use questionnaires and collect data in their lessons or in being a sounding boards. One participant mentioned that support was hindered through a lack of formal position.

The organizational structure is such that you are either a teacher or you are part of the management. Management is not something that I want to do. If they would organize it in a different way, I could have a different, better role. What I do now, is giving advice on my own initiative, unasked for. And then you often get a response "who are you as a teacher to tell us ..."

All participant experience renewed expectations from their colleagues, as they expect new theory based contributions and ideas.

They expect a kind of educational opinion from me grounded in academic theory and research. When I make a point during a meeting, they accept it. When I say it, they think that it will probably be valid.

Some participants do not feel confident yet with this role.

It is just like your colleagues see you differently. Like you have become some kind of authority. But at the same time it feels uncomfortable that they give you a role, of which I am not always sure that I am able play that role.

Most participants do not receive feedback from colleagues and indicate that this is a sensitive issue within their schools. Some have received feedback on essays or on their role within the school.

During the experiment, we had reflection moments every two weeks. During those sessions I sometimes was corrected by my colleagues: No ..., we had agreed that we would do it together.” Then I already had figured out how we should do it, what the plan should be, without consulting and involving them. I had to adjust things in this way, a couple of times. By listening to colleagues. I have learned from that.

#### ***4.4. Participant satisfaction of their role and position in schools***

Although all participants indicate that they are happy in their jobs, six of them identify elements that they miss within their school, ranging from opportunities to further develop and implement the outcomes of their research, a culture in which they are challenged by their colleagues, a more professional school organization, a stronger position as a teacher in processes of school development, involvement in school based teacher education, to a formal position and acknowledgement through a higher salary scale.

This dissatisfaction can be recognized in the intention to change jobs. Three indicate that they might change jobs when there is an interesting opportunity and four are actively keeping their eyes open for other jobs. Six of them indicate that next to a task as a regular teacher, a new job needs to include a stronger

involvement in coaching colleagues, supporting teams or educating new or beginning teachers. Most participants fear that their development stops after ending the Master's course and that they will fall back in old routines. For four participants, the lack of recognition within the school is a strong motivator to look for another position.

## **5. Discussion**

The findings show that in the design of the course attention was paid to activities and assignments that stimulated the transfer of newly acquired competences to the workplace. However, the contact of the course leaders with supervisors at the workplace was limited and the participants were used as the linking pin. The underlying assumption was that supervisors at the workplace were active partners in the decision for joining the course. In this first run of the course, the responses from the participants proved this assumption to be wrong.

The initial motivation of the participants was on a personal level, to deepen their understanding of teaching and learning and to be challenged at an intellectual level again. Their motivation for transfer was mainly focused on applying newly acquired competences at the level of their own teaching and their own classes. However, during the course they developed a strong motivation to a wider application of their knowledge towards their colleagues and towards the school as a whole. This was based on a stronger understanding of organizational issues and a desire to share their knowledge with colleagues.

With respect to the organizational climate, all participants indicate that there was no strategic alignment between the aims of the participants, the aims of the school and the aims of the course. Partly

this was caused by the lack of a clear profile of the course and partly by the lack of professional development policies within the school. According to graduates, situational cues were mostly restricted to the challenges that participants experience in teaching pupils. Only in three cases new cues were introduced through the involvement in new tasks within school that challenged them to use new competences. The participants experienced the formal recognition of their new competences and qualities as very limited.

The participants were given time for study leave. However, the participants did not recognize this as time to try and practice the new competences at the workplace. They reported especially a lack of time and opportunities to discuss, share and exchange with colleagues.

Most participants report a lack of recognition, involvement, expectations, support, and feedback from their supervisors. Few supervisors were interested in their work, and in most cases participants indicated that they had to fight for attention and recognition. Only three participants got new roles during the course which extended their teaching role and which allowed and invited them to use the newly acquired competences outside their classrooms.

The participants indicate several cultural factors that limit their opportunities to apply the new competences within their school. The vision and policies with respect to professional development seems weakly developed within six of the seven schools. Within the schools there doesn't seem to be a culture where critical feedback between colleagues is appreciated. As the schools are characterized by a strong culture of equality, engagement in school development seems to be restricted to formal leadership positions, hindering informal leadership based on personal qualities.

As a result, all participants feel that the competences that they have developed during the course - entrepreneurship in teaching, research in teaching and learning and inspiring colleagues - are not sufficiently recognized within their school. They indicate that they wish to enrich their daily work with activities that enables them to share their knowledge with colleagues and to contribute to school development. Therefore, more than half of the participants are looking for other job opportunities, either in schools that have a more open culture and offer space for informal leadership or in other educational institutions like teacher education institutes where they can share their expertise with student teachers.

Overall, the participants experience a lack of a supportive organizational climate within their schools and they feel unsupported in their attempts to transfer their new competences within their school. According to the graduates, this lack of support has partly to do with a lack of explicit school policies on professional development, a lack of commitment of supervisors towards the professional development of their teachers and a school culture that does not support informal leadership based on professional excellence. This acknowledges the factors that influence transfer of training that are known from transfer studies in other areas and listed in table 1.

This explorative study shows that within its limited design, focusing on the first cohort of a new Master's program, teachers engaged in this Master's program meet considerable obstacles within the organizational culture of the school. If they want to earn recognition outside the formal hierarchy of the school, they need to fight these barriers. If these barriers prove too strong, they might decide to change jobs and apply for a position at another school. On the one hand, this implies a waste of money for their school, while on the

other hand it creates opportunities for schools who have a more open climate that recognizes teacher excellence and that can attract these teachers. However the first phase of this study does not yet answer the question whether such schools exist in the Netherlands and how these schools have become more open.

Given the insight that the responses of the graduates gave during the interviews, the indicators for an organizational climate that supports training transfer as listed in table 1, seem to apply also to the context of an in-service Master's program for teachers. Except from the 'availability of equipment', all indicators of table 1 were considered as problematic to one or more graduates. At the same time all responses could be connected to one of the indicators of table 1. Therefore we can conclude that the conceptual framework from theories of transfer of training from table 1 can be used in next phases of the research project, both in terms of evaluating the impact of Master's programs and in finding levers within the program design and the embedding of the Master's program within the school, to increase that impact.

## **Conclusion**

As indicated above, the design of this study was limited, focusing on the first cohort of graduates of a new Master's program. In next phases of the research study, the supervisors of the graduates will be included to get a more balanced and two-sided perspective on the use of master competences at the work place. The study will be extended by including next cohorts of graduates, to compensate for side-effects connected to the first run of the program.

Nevertheless, the outcomes of this study can lead to some preliminary conclusions on conditions for

transfer in the context of in-service Master's programs.

Several participants indicate that the preparation before the start of the course was insufficient. As the Master's program was new, initial alignment between program aims and the strategic agenda of the school could not be made beforehand. This could have been remedied in the course of the program as the focus and competences connected to this Master's program become much clearer. However, we can conclude that the course co-ordinators were too optimistic in their expectations with respect to the commitment of school leaders towards the aims and purposes of the course and only limited attention was given to involving school leaders in the design and aims of the Master's program.

Another problematic aspect of the course was that the course did not prepare for an existing teacher profile within the school. Participants indicated that other Master's programs have much clearer profiles: Master's courses that give a qualification for teaching in upper secondary school or Master's programs focusing on special educational needs or remedial teaching. School leaders and colleagues have clear and explicit ideas what competences are connected to these Master's programs and what role teachers can have after graduation. However, this study cannot give any evidence whether this assumption is true, as such Master's programs were not included in this study. However, the Master's program in this research study had a much less explicit profile as it did not prepare teachers for a specific job profile, but focused on 'teacher excellence' without specific relation to the system of job profiles that are used in many schools. This hindered participants in clarifying their position and competences. This might be closely connected to the organizational structure and culture in many

schools. School organizations in the Netherlands are egalitarian in nature as there is no formal hierarchy between teachers. Hierarchy is connected to formal organizational structures and responsibilities of team leaders and school leaders. This leaves little room for informal leadership for teachers, based on their professional quality and competences.

The study shows within the limited set of participants the implications of a misalignment between intentions of different participants, between the original purpose of school boards in starting this program and the perceived (lack of) involvement of the supervisors of the teachers that were engaged in the course, between teachers who changed through the engagement in a Master's program and a school climate that was not changed, and between teachers that developed informal non-positional leadership and formal hierarchical structures of the school system.

At the same time, this study contributed in revealing these obstacles and provides the course co-ordinators with input to strengthen their relations with the supervisors of the participants, contributing to a more supportive organizational climate within the school, and to support the participants in handling the obstacles they meet within their schools. The study also provides school leaders with insight in obstacles that the organizational structure and culture within their schools create and that might hinder the effective use of the competences that teachers acquire in Master's courses. This awareness might help them in supporting their teachers in the transfer of newly acquired competences to the schools, thus contributing to the development of the school as a whole.

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## SECTION 2

### COMPARATIVE CULTURAL ISSUES OF COLLABORATION FOR TEACHERS PROFESSIONAL DEVELOPMENT

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## CHAPTER 10

### **INTEGRATED LEARNING CULTURES AND LEARNING TO TEACH: NORMS, VALUES AND THE NEXT GENERATION OF TEACHERS IN TWO CULTURES**

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#### **Abstract**

This chapter examines how professional learning cultures influence opportunities to learn to teach (OTLT). Drawn from a wider nine-country comparison study commissioned by the national body for teaching and teacher education in Ireland (Conway, Murphy, Rath & Hall 2009), we focus on teacher education at system and school levels in Ireland and Poland. The initial professional preparation of teachers takes place in collaboration between university-based teacher educators and schools that provide the essential practical experience. We discuss the role of this partnership in creating and sustaining integrated professional learning cultures at initial and induction phases of the continuum.

Taking a socio-cultural stance on the formation of teachers, we consider that their professional development is hugely influenced by their initial experiences in schools and that the interests, values and attitudes of school principals and co-operating teachers are crucial. Findings are presented under the following headings: new expectations for teacher education, new professional trajectories, incremental assumption of responsibility, debate about the role of schools in teacher education and fostering conversation between novices and accomplished teachers. We consider that the concept of integrated professional learning cultures is central to understanding the review and reform of teacher education in both jurisdictions.

## **Keywords**

Integrated professional learning cultures- Initial teacher education- Induction-Ireland- Poland- Socio-cultural

## **Introduction**

The purpose of this paper is to examine the interplay between attitudes, leadership in schools and opportunities to learn to teach (OTLT) in Ireland and Poland. It draws on insights from a cross-national study of learning to teach (Conway, Murphy, Rath & Hall 2009). In particular, we focus on teacher education at system and school levels and its role in creating and sustaining integrated professional learning cultures to support teacher education at initial and induction phases of the continuum. The report upon which this study is based was commissioned by the Teaching Council Ireland in order to inform its review of teacher education across the professional continuum. The focus of this research was on initial teacher education (ITE) and induction, their interface, and the implications for the continuum of teacher education, including continuing professional development. In addressing initial teacher education and induction, the commissioned report focused on learning outcomes/professional standards and

accreditation in the selected countries. The study involved a two-pronged approach: a narrative review of recent and relevant literature on teacher education and a cross-national review of teacher education policies in nine countries, namely, Ireland, Northern Ireland, Scotland, England, Finland, USA, Poland, Singapore and New Zealand. Following on the Teaching Council review, and influenced in part by it, major changes have recently been announced in teacher education in Ireland.

In this paper extending the commissioned report research, we focus on teacher education at system and school levels in two countries in particular, Ireland and Poland, and. We look at opportunities to learn to teach during initial teacher education, with a focus on the school-university relationship and parameters of engagement with pedagogy in teaching practice schools. The impetus for this study was based on the considerable differences in OTLT which emerged between the two countries. Internationally, there is an emerging consensus that teacher education is best viewed as a continuum. In this paper, we focus primarily on the early stages of that continuum, initial teacher education and induction. Significantly, we make a case for the importance of conceptualising emerging trends in teacher education review and reform in both jurisdictions over the last decade in terms of the development of integrated professional learning cultures during teacher education.

In adopting a socio-cultural perspective on learning to teach, we take as our starting point the notion of 'assisted performance' (Tharp & Gallimore 1988, Tsui 2009). We focus therefore on specific aspects of the learning to teach experience, highlighting the levels of support, assistance and contexts for pedagogy-focused professional conversations between neophytes and accomplished teachers that are available to

beginning teachers. These opportunities are influenced by values held by the chief stakeholders in this area: the regulatory bodies for teacher education which lay down the minimum requirements in terms of pedagogical preparation and school-based experience, the university-based teacher educators, the co-operating schools, their principals and teachers, and not least, the student teachers themselves. In particular we examine the (i) dynamics of school-university partnerships and (ii) opportunities for observation, mentoring and engagement with pedagogy during ITE (Conway, Murphy, Hall & Rath 2011). Second, we provide a brief overview of the historical contexts and current arrangements for teacher education in Ireland and Poland, noting the most pressing policy priorities in relation to the quality of teaching in primary and post-primary schooling in both jurisdictions (Conway, Murphy, Rath & Hall 2009, Michalak 2005). Third, we use the integrated professional learning cultures framework to analyse and appraise contemporary directions in teacher education in the countries in question by focusing on school-university partnerships and opportunities for observation, mentoring and engagement with pedagogy. Finally, drawing upon the nine-country cross-national study out of which this bilateral comparison between Ireland and Poland is drawn, we discuss the implications for teacher education.

In summary, we use integrated professional learning cultures as a framework for conceptualising quality teacher education at initial and induction phases. While teacher education in Ireland and Poland is broadly similar in concept, particularly since the Bologna accord, there are significant differences between the two countries in the roles of schools in providing opportunities to learn to teach and in supporting beginning teachers. Significant differences found in the study include the changes brought about

by teacher education reform in Poland (Gorzela 2005, Kijowska 2003, Michalak 2007, Michalak 2010b); the structured and supported approach to classroom observation and teaching practice embodied in the Polish system of ITE contrasted with the more ad-hoc approach currently prevailing in Ireland, where there are few opportunities for ITE students to observe experienced teachers or be observed by these same teachers in teaching practice schools (Conway et al. 2010) and the structured career progression set out in the Polish Teachers' Charter (Karta Nauczyciela 2000) which has no counterpart in the Irish system.

In conclusion, we draw attention to a number of themes (i) the scope for the development of school leadership vis-à-vis initial teacher education (ii) leadership as a form of mentoring to support assisted practice, and (iii) leadership and the development of partnerships between higher education institutions and schools as a key context for teacher education reform (Michalak 2010a, Conway et al. 2011).

## **1. Assisted performance and integrated professional learning cultures**

Our framework for this study conceptualises how opportunities to become a teacher in both Ireland and Poland can be viewed from an understanding of socio-cultural learning theory interfaced with an understanding of professional cultures in schools. A socio-cultural perspective is our chosen stance on learning because it offers a generative lens through which to integrate and systematically account for individual, social, and cultural-historical forces in learning, and can make a significant contribution to understanding teacher education in its cultural context. A fundamental assumption of the study is that assisted performance (Tharp & Gallimore 1988, Conway & Artiles 2005) is a core condition in learning

to teach. In essence, a socio-cultural model is fundamentally social in nature (Cole 1996, Daniels 2001, Claxton & Wells 2002, Gipps 2002, Wertsch 1991, Hall, Murphy & Soler 2008, Mewborn & Stinson 2007, Putnam & Borko 2000). The emphasis is on the social genesis of learning. Thus, it situates the person learning to teach in a sea of relationships and cultural symbols that shape and are shaped by the learner. From this perspective, while learning to teach, student teachers draw not only on the knowledge, beliefs, and skills they have acquired, but also on the cultural and historical legacy of previous generations of teachers - that is, the knowledge embedded in their respective society's cultural tools and signs.

Assisted performance can come in many guises in teacher education. It can include co-planning and/or co-teaching with a mentor teacher or student teacher peer, and also includes various forms of observation, feedback and support which might be broadly seen as forms of mentoring. Central to the concept of assisted performance in learning to teach are three ideas: (i) initiation into professional practice is guided and supported, rather than seen as a 'sink or swim' or 'trial by fire' endeavour, (ii) there is a 'cog-wheeling' of the generations, that is, where accomplished professionals structure and support the professional newcomers and (iii) there is a graduated and incremental approach to full responsibility for the professional newcomer.

In developing a framework for this study, we link Tharp and Gallimore's learning theory-based idea of assisted performance with the work of Moore-Johnson (2004) and Kardos et al. (2001) on the nature of professional learning cultures in schools. Drawing on their multi-year study of induction for new teachers in three states in the USA, the *Project on the Next Generation of Teachers*, Moore-Johnson (2004) and Kardos et al. (2001) characterise the optimal context

for learning to teach as one where integrated professional learning cultures are enacted in schools, with the necessary supports provided for this at school and system levels. Summarising their study, they claim that *'in integrated professional cultures, new teachers described being provided with sustained support and having frequent exchanges with colleagues across experience levels. Principals proved to be important in developing and maintaining integrated professional cultures where the particular needs of new teachers were both recognized and addressed'* (Kardos, et al, 2001: 250). They contrast professional learning cultures with two other types of school cultures: novice-oriented and veteran-oriented schools. Significantly the three school cultures have very different implications for the types of support offered to newly qualified (and student) teachers:

7. **Novice-oriented professional culture:** beginner teachers support each other with little or no mentoring or opportunities to observe and share practice
8. **Experienced/veteran-oriented professional culture:** experienced and veteran teachers are supportive in a general way, yet by and large provide no mentoring, observation opportunities or feedback on classroom teaching
9. **Integrated professional culture:** learning to teach is seen as a task for all in the school. All teachers are encouraged to improve teaching and learning, to collaborate and share practice, and to continue to grow in their profession. There are links between novices and experts within the school. Support for newly qualified teachers (NQTs) is generally widespread across the school, and includes peer observation, feedback and a coaching culture centred around sharing professional practice and a deep focus on pedagogy.

We use this 'school culture' typology as a way of thinking about how and why student teachers can have such different experiences even within a single system (Ireland or Poland) as well as when comparing the two systems.

In examining integrated professional learning cultures as a context for opportunities to learn to teach in Ireland and Poland, we focus on system level and school level policies and practices, and how these influence attitudes and role expectations, to the extent of the data available on these at present. We also note gaps in our knowledge. From a cross-national perspective, we can identify the challenges faced by teacher education in our two countries as similar to those being addressed by teacher education in other countries at the present time. We note the international trend towards reconceptualising or reconfiguring the professional life cycle or continuum of teacher education. For example, there has been a focus in policy and practice on mapping professional learning journeys from ITE into induction and on into early professional development in Northern Ireland, the USA, Scotland (Conway et al. 2009). Underpinning this effort is the realisation that becoming a teacher can no longer be seen as a once-off accomplishment ending at graduation from ITE. Rather becoming a teacher is a more gradual, incremental and structured professional enculturation. One consequence of this shift is that the relationship between newcomers and experienced teachers is likely to take on new features as practicing professionals take more responsibility for educating the next generation of teachers.

## **2. Policy context: Ireland and Poland**

Reforms in teacher education are influenced both by debate with the profession (for example the concerns about accountability, standardised testing and

accreditation that have come to the fore in recent years) and by wider social, political and economic context. From a national policy point of view, an educated workforce that meets the need of the economy is essential. Reforms in Poland began as late as the 1990s, as the Polish education system moved from the emphasis on vocational education and training that prevailed under communism to an education system that aimed to equip its citizens with a more rounded education that would enable them to adapt to a rapidly changing world. This push towards reform also entailed reforms in teaching and in teacher education.

In contrast, the Irish system of teacher education remained basically unchanged for decades prior to 2011 when reforms were announced. Teaching has generally been highly regarded as a profession, and it continues to attract students of a high calibre. The general perception has been that initial teacher education was succeeding in producing successful teachers and in turn, a successful school system and a well-educated populace. It is only in recent years that this has begun to be questioned, as the Irish school system faced the challenges brought about by rapid social and economic changes. The establishment of the Teaching Council ([www.teachingcouncil.ie](http://www.teachingcouncil.ie)) on a statutory basis in 2006 was a landmark event. The Teaching Council's tasks are to promote teaching as a profession at primary and post-primary levels, to promote the professional development of teachers and to regulate standards in the profession. It oversees the registration of teachers and the accreditation of programmes of teacher education. Previously, these tasks had been carried out by the government Department of Education. The Council is made up of representatives from the various stakeholders in education: teachers, teacher educators, school management, parent and union representatives. The

study on which this paper was based was originally commissioned (along with various other research studies) by the Teaching Council in order to inform the council's work. The Teaching Council began in 2010 to review various aspects of teaching, including programmes of teacher education. However, it was only with the publication in late 2010 of the most recent PISA results which showed a decline in the achievements of Irish 15 year olds in both mathematics and English (Perkins, Moran, Cosgrove & Shiel 2010) that a sense of urgency seems to have arisen at government level in respect of both teaching and teacher education. Consequently, reforms to teacher education programmes in Ireland both in terms of length and content (greater emphasis on literacy and numeracy, more varied and longer school placements among other changes) were announced in late 2011, to come into effect in 2014. These will involve a re-negotiation of the relationship between the universities and the cooperating schools.

Poland's PISA results were also one of the factors impelling reform in schools and teacher education there over the last two decades. Poland spends around US\$40,000 on educating each of its school students, less than half of what richer countries like the United States and Norway spend on education, and it now achieves similar results, which can be observed in the PISA 2009 results. In the 2000 PISA examination, Poland's average student score was 479, well below the OECD average of 500 points (OECD 2000). More than 21% of students reached only Level 1 or below. The PISA 2000 results also showed a real disparity between the educational competencies of students in the general education system and the basic vocational schools. Nearly 70% of the basic vocational school students tested at the lowest literacy level. However, thanks to a series of school reforms that began in the late 1990s, Poland has dramatically

reduced the numbers of poorly performing students in the last 10 years and in the 2009 PISA tests ranked among the top 15 OECD countries (OECD 2009).

The changes to the country's school system that made this remarkable achievement possible were needed to help Poland adapt to a free-market economy. Under communism, the emphasis was on vocational education and training. The new basic principles of the Polish education system were established in the School Education Act of 7 September 1991 (with further amendments). The 1999 Education Reform Act introduced a new structure for the Polish educational system. The primary phase was shortened from eight years to six, and a new intermediate/lower secondary stage was introduced: a three-year compulsory school called gimnazjum (gymnasium). Thus all students would study a common curriculum – including courses in reading, mathematics, and science – until they turned 15. This provided an extra year of academic studies for those students who otherwise would have spent that year in vocational training. Compulsory education was prolonged and now it lasts from age six<sup>1</sup> to eighteen. In accordance with this reform, the education system now comprises pre-school institutions, primary schools, gymnasia and post-gymnasium schools. The new external Matura examination introduced in 2005 has gradually replaced entrance examinations to universities. Higher education in Poland is a separate system. It is a dynamic and expanding area, which has seen an

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<sup>1</sup> A child aged 3 to 5 may receive pre-school education, which is not compulsory, but all six year-old children attend either kindergartens (przedszkole) or pre-school classes (oddziały przedszkolne) organized in primary schools as the Ministry of Education introduced one year of obligatory pre-school education starting the school year 2004/05.

almost five-fold increase in the number of students since 1990.

All of these reforms required changes in teaching and in teacher education as the new school structures and curriculum were implemented. The Teachers' Charter (modified in 2000) established a new four-stage career progression structure:

- Trainee teacher (*nauczyciel stażysta*)
- Contract teacher (*nauczyciel kontraktowy*)
- Appointed teacher (*nauczyciel mianowany*)
- Chartered teacher (*nauczyciel dyplomowany*)
- 

This rewards those who engaged in professional development. In-service training is provided within two paths: as complementary education that enables teachers to obtain higher or additional qualifications, and as staff development that enables teachers to update or upgrade their skills.

In discussions on education in Europe, it is frequently asserted that the quality and efficiency of education is to a large extent dependent on teachers' professionalism and the degree of professionalisation among teachers. Teachers' work is widely recognized as the most important factor influencing the quality of education at school (Abbott 1988, Darling-Hammond 1999, Hattie 2003, OECD 2005). At the same time it is stressed that the quality of teachers depends on the quality of their teacher education and this is reflected in recent European policy documents published by the European Commission (2005, 2007) and the European Council (2007).

Teacher education is connected with the educational system and to some extent it reflects the

characteristics of this system. In this context, the school placement is a vitally important element of initial teacher education. There are formal requirements in both Ireland and Poland as to the number of hours spent in school and the nature of the experience that the student teacher should have while on placement. The quality of learning for student teachers during the practicum is intrinsically connected to the type of learning culture that prevails in the school, as well as the partnership arrangements that exist between the placement school and the university or teacher training college. Schools which have an integrated professional culture offer the optimum conditions for learning to teach, but there can be considerable variation in the experience of students (Moore Johnson 2004, Conway et al. 2011, Darling-Hammond 2006, Hobson et al. 2010) and this reflects the professional learning culture of the individual schools as well as the differences at institution and system level. In both Ireland and Poland, it has been recommended that there should be clearer understandings and formal agreements between schools and teacher education institutions as to their respective roles and responsibilities with a view to remedying this. (Wilkomirska & Zielinska 2005, Teaching Council 2011a, 2011b).

### **3. Method**

Identifying similarities and differences between the Irish and Polish teacher education systems led to further consideration and analysis of the underlying broad socio-cultural contexts, both contemporary and historic. Factors at both system and school levels were identified, that have led both countries to reforms in education, although the changes in Poland have been far more extensive. Further reviews of the literature on teacher education as well as empirical investigations of teacher education in both countries

led to the identification of some common concerns as well as some differences between the two systems. The purpose of the study was to deepen understanding of teacher education in both contexts. In keeping with our socio-cultural perspective, we do not assume that the simple transfer of ideas is either desirable or feasible, but we do believe that we can learn from one another. In this chapter, the focus is on the role of established teachers in initial teacher education and on schools as sites for learning to teach, where theoretical insights and knowledge can be put into practice and the student can develop an identity as a teacher. We consider that schools that have an integrated learning culture are the best environment for this learning and development to take place, and we look at evidence from both systems that suggests how this might be, and is, being promoted.

## **4. Findings: Developing integrated professional learning cultures at system and school level**

### ***4.1. New expectations for teacher education: ITE & induction***

In both Ireland and Poland new expectations have emerged out of strikingly different national exigencies, yet influenced by shared European policies. In both countries these expectations have attempted to create school environments that foster integrated professional learning cultures during initial teacher education and induction. Policies at national level however need to be translated into action at ground level, and it takes time for attitudes and practices that have been built up over many years to change.

In Ireland, there have been a number of reviews of teacher education in the last decade. These included the report of the Working Group on Primary Pre-

service Teacher Education (Kellaghan 2002), the report of the Advisory Group on Post-Primary Teacher Education (Byrne 2002), and the OECD (2005) review of teacher education. The OECD background report on teaching in Ireland (Coolahan 2003) commented favourably on many aspects of teacher education in Ireland, but identified the need for greater continuity and integration across the continuum of teacher education, the need for a restructuring of ITE courses to give a greater sense of cross-curricular integration, the need to foster a reflective practitioner approach, and the requirement to provide closer links with school personnel on teaching practice. Other important documents on teacher education include the reports of the inspectorate on trainee and beginning teachers in primary schools (Department of Education and Science Inspectorate 2006) the reports on the national pilot induction scheme for newly qualified teachers (Killeavy & Murphy 2006, Killeavy & Murphy 2008), and the Policy on the Continuum of Teacher Education and its related documents (Teaching Council, 2011a). A new national induction scheme ([www.induction.ie](http://www.induction.ie)) was introduced in 2010, designed to support newly qualified teachers during their first year of teaching. The scheme is not as extensive as the Polish one, nor is it school-based at present, but its introduction marks a shift in awareness of the continuing need of the newly qualified teacher for professional development and support, and a greater emphasis on the professional responsibility of established teachers towards newcomers to the profession.

In Poland, the current context for teaching and teacher education is the result of a radical reform process, driven by repeated state interventions. In view of the many reforms in the Polish education system since 1991, the system of teacher education has also been subject to major changes. Initial teacher education institutions (those which belong to the

higher education system) became autonomous, centrally prescribed curricula were abandoned and changes in both methodology and content occurred, especially in subjects such as history, Polish language and literature, philosophy instruction and civics, pedagogy and psychology. Similarly, new subjects including information and communication technology, institutional management and communications were introduced. The system thereby adjusted to the principles of pluralist democracy and a market economy (Michalak 2005).

Teaching qualifications in Poland are prescribed by law and vary for different kinds of teachers (Rozporządzenie Ministra Edukacji Narodowej i Sportu 2000, 2004). Along with changes in the education system there have been significant changes in teachers' qualification requirements. The basis for these changes was a comprehensive reform of the system of teacher education. This reform led to a demand for the up-skilling of existing teachers. Reflecting the vocational ethos of Polish education in general, at the end of the 1980s, only slightly more than half of teachers had higher education qualifications. The remainder were graduates of teacher training colleges and even secondary schools. By 1998, 78.3% of teachers already had a Master's and in 2000, 84.4% teachers were graduates from the universities (Stępniewski 2001). By 2008, approximately 97% of teachers were university graduates. In 1998 the Ministry of National Education set up a Teacher Training Council which advocated the creation of a uniform regulatory system for the training and professional development of teachers, together with a single system of accreditation, and also proposed that the requirements for the basic components of teacher training and of the curricula for each level of training should be defined. The introduction of regulations on teacher training

standards in 2004 brought about reforms in the manner and scope of teacher education, based on the assumption that teachers are key players in the evolution and reform of education systems and that their lifelong learning and career development should be perceived as key priorities at national or regional level.

#### **4.2. New professional trajectories**

Reflecting international influences, the emergence of competence-based approaches to teacher education across the continuum may be noted in both countries. In Poland's post-communist era reforms over the last two decades there has been a move towards a competence-based approach to teacher education. The Decree on the competences and qualifications profile of teachers, and the regulation of post-graduate studies (2004) set out three key areas of competence for teachers:

1. Working with human beings- learners, colleagues and other partners in education
2. Work with and in society
3. Habit of life-long learning for professional and personal development.

In Ireland, the *Codes of Professional Conduct for Teachers* (Teaching Council, 2007 ) and the *Teaching Council [Registration] Regulations* (Teaching Council, 2009) set out the broad areas of competence for teachers as well as the recognised qualifications and practical experience that they must possess. A more detailed statement of the competences that teachers should possess at the end of their initial teacher training programme has been formulated through the Teaching Council's accreditation process for these programmes, and this is the first time that these

expectations have been set out in such detail (Teaching Council 2011b).

#### **4.3. Incremental assumption of responsibility**

Both countries are moving toward more graduated and incremental approaches to the assumption of full responsibility for classrooms by neophyte teachers. However, particular features in Poland suggest that these are more well-developed than in Ireland and that newly qualified teachers in Poland enjoy a much higher level of formal support through their first years of teaching than Irish NQTs. Specifically, in terms of mentoring and support, since 2000, teachers in the early years of their career are supported by a '*staż* tutor', an experienced teacher employed in the school at Appointed or Chartered Teacher level. A newly qualified teacher in Poland is employed as a trainee teacher for the first nine months, and is supervised and mentored during this time by a *staż* tutor. The next phase (contract teacher, lasting 2 years and 9 months) is again supervised and supported. This means that NQTs receive support throughout the first three and a half years of teaching. The Polish approach to teaching practice, where students generally observe initially and are only allowed to teach in their final year of ITE, contrasts with the Irish model, especially the consecutive model (post-graduate diploma) where students have been expected to take responsibility for class teaching at a very early stage, although this will change from 2014 when the new system comes into operation and opportunities for observation before taking on class teaching will be compulsory.

#### **4.4. Debate about the role of schools in teacher education**

Concerns have been expressed in both systems about the need to clarify the role of schools in the initial

teacher education and induction phases of learning to teach. Partnership agreements between school and university or college of education can set out the parameters for this, but the experience of individual students will still depend on the learning culture that prevails within the school and the attitudes and values of teachers in those schools: whether or not they see providing observation opportunities, mentoring and support for beginning teachers as part of their professional role. In Ireland, that there is a wide variation in the degree and type of support that schools provide for these beginning teachers. It would seem from recent research (Gilleece et al. 2009) that while teachers in Irish schools collaborate in coordination and planning, there is often little space or time in schools for the deeper engagement with pedagogical issues and the activities such as observation and feedback on one another's teaching that characterises an integrated learning culture. This also applies to the kinds of support and interaction that student teachers experience on school placement (Conway, Murphy, Hall & Rath 2011, Conway, Murphy, Delargey et al. 2010). This does not mean that integrated learning cultures do not exist in schools; rather it means that school leaders, principal teachers, other experienced teachers and subject specialists have an important role to play in creating such cultures, as has collaboration with teacher educators from colleges and universities. An equally important element in the creation and sustaining of integrated learning cultures is the provision of support at system level, in terms of training for mentors, reduced classroom hours for newly qualified teachers, time allocated for professional development opportunities and recognition of professional development. The Polish system has a framework that supports professional progression, and formally recognises the skills and knowledge of expert teachers through its career progression structure.

#### ***4.5. Fostering conversation between novices and accomplished teachers***

The extent to which student teachers and first year teachers are expected to share and engage in conversation about their emerging practice appears to differ considerably. In Poland, for example, once they have completed their initial teacher education, trainee teachers in their first school are expected to prepare each individual's own development plan which should be a part of the school's development strategy. Support is an entitlement, with an experienced member of staff designated as a mentor. Probationers have to produce a portfolio of evidence by the end of their first year of teaching to show that they have met the goals of their developmental plans. The head teacher assesses the newly qualified teacher's performance during this training period, in which the degree to which the professional development plan has been realised is taken into consideration. Positive assessment of the newly qualified teacher's professional performance is a prerequisite for qualifying for the title of Contract Teacher. During the period spent as a Contract Teacher (no longer than 2 years and 9 months), the beginning teacher can work towards Chartered Teacher Standard. As in the case of the probationer, the head teacher assigns a mentor, whose task is to support a contract teacher in preparing and realising a professional development plan. The mentor also prepares the draft assessment of the contract teacher's performance during the training period.

The function of this induction process is to help beginning teachers to construct their professional identity and develop professional practices suited to the realities of school and integrated into their conceptions of good teaching. The induction period encourages and motivates beginning teachers to be active agents instead of passively applying ideas or

practices suggested by other people. Within schools, the most important elements of this induction procedure include peer coaching, quality evaluation, appraisal, portfolio evaluation and collaboration on practical tasks.

In Ireland newly qualified primary teachers in Ireland must satisfactorily complete a probationary year in order to achieve full registration with the Teaching Council and be recognised as fully qualified teachers. During this year, they must satisfy Department of Education inspectors of their professional competence. A national induction programme for newly qualified primary teachers was introduced in 2010 to support them during this first year of teaching. This programme is provided through local education centres, and 'will complement the support, advice and opportunities for teacher observation and feedback that principal teachers and other teachers provide to newly qualified teachers in their schools' (Dept. of Education and Skills 2010) through workshops, seminars, online support and professional support groups. This programme is based on the National Pilot Project on Teacher Induction - Primary Strand (Killeavy 2006, Killeavy & Moloney 2010). The pilot project provided also training and support for mentor teachers, and this would seem to be an essential prerequisite for the success of the programme. Post-primary teachers must satisfactorily complete a period of Post-Qualification Employment, as certified by the principal of their school, in order to qualify for full registration and it is expected that induction support programmes will be introduced for them also in the near future. The programme of support for newly qualified teachers in Ireland is thus at an earlier stage of development than the Polish one. There is as yet no formal requirement for schools to provide a mentor for the new teacher, though of course many school principals and other experienced teachers within

schools regularly take on the task of guiding and helping newly qualified teachers in their schools.

## **5. Conclusion**

In conclusion, we draw attention to a number of issues: (i) the scope for the development of school leadership in relation to initial teacher education (ii) leadership as a form of mentoring to support assisted practice, and (iii) leadership and the development of partnerships between higher education institutions and schools as a key context for teacher education reform (Michalak 2010a, Conway et al. 2011). It is immediately apparent from the country profiles that were included in the larger study on which this paper is based that while local factors have a huge influence on the structures of teacher education, a number of common issues and concerns can be identified: promoting life-long learning, the knowledge economy, encouraging critical thought, flexibility, meeting diverse needs and promoting good citizenship.

The debate about what constitutes quality teaching and quality teacher education is also a live issue. Nevertheless the move toward integrated professional learning cultures, while evident in both countries, has evolved with some notable differences. As such, there were very different positions in relation to teaching and teacher education in Ireland and Poland in 1990. Twenty years later, there have been a number of very significant changes in both jurisdictions that have moved both systems more noticeably towards integrated professional learning cultures in the professional preparation of teachers. For historical and political reasons, Poland has introduced major reforms in its education system and in the initial education and on-going professional development of its teachers over the last two decades. The changes introduced in the Polish Teachers' Charter and its amendments have

reinforced the role of the school and of experienced teachers in providing a more incremental and graduated support for those learning to teach during ITE and induction. Perhaps the most striking differences between the two systems are the legislative arrangements governing teaching and teacher education in Poland.

As Ireland considers the changes that are needed in teacher education for today and the future, and as teacher educators begin the process of reforming teacher education programmes, it is useful for them to look at how reforms in this area have been implemented elsewhere. Some of the most striking differences between the Irish and the Polish systems are the career structure that has been introduced in Poland, which rewards continuing professional development and supports experienced teachers who act as mentors. Introducing major reform is never unproblematic, and there has been considerable debate within Poland on some aspects, not least the new demands being made on teachers, principals and teacher educators. Similar concerns and debate are to be expected as major changes are introduced in Ireland. The resource implications of extending the period of professional preparation for both primary and post-primary teachers, particularly in a changed economic climate where education in common with many other sectors is experiencing widespread cutbacks, must be considered. However, even when resources are limited, when experienced teachers consider that sharing of their professional experience and expertise with neophytes is an important part of their role, possibilities begin to open up for the enrichment of initial teacher education. There is evidence that a considerable amount of formal and informal mentoring already takes place in some schools (Conway et al. 2010) but this is by no means universal. School cultures, as we have said, can differ

widely, and the role of principal/head teacher is crucial in setting the tone and allocating responsibilities. Shortage of resources can frequently be seen as an obstacle to change, and it will be interesting to see how the proposed reforms in the Irish system are implemented in an era of cutbacks in public funding for schools. It seems likely that the attitudes of principals and experienced teachers, as reflected in the learning culture of the school, will continue to have a major influence on the 'learning to teach' experience of novice teachers.

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# **C**HAPTER 11

## **BUILDING PROFESSIONAL LEARNING COMMUNITIES**

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### **Abstract**

Communities of practice also known as professional learning communities or PLCs provide time and space for teachers to assimilate and adapt new ideas and methods into their practice (Elmore, 2002). It is within the forum of school-based PLCs that teachers can identify common problems, learn new instructional strategies, discuss their experiences using them and the impact of implementation on student performance (DuFour, 2004). Through PLCs, learning occurs in the social context of a collaborative group in which the norms of experimentation, support, and inquiry prevail (McLaughlin & Talbert, 2006). This study focuses on professional learning communities as structures to facilitate the change of beliefs, practice, and relationship; the

provision of support; the need for accountability. The participants are teachers and principals from the province of Ontario, Canada. The results of the study show that capacity of professional learning communities is built through professional development activities that occur in the schools and are directly linked with classroom practice.

## **Keywords**

Professional – Communities– Learning

## **Introduction**

Increased concern about student learning, attention has been directed towards unequal student outcomes and what is happening in schools (McLaughlin & Talbert, 2006). Principals and teachers are accountable for students' learning, and as a result there is increasing pressure to change educators' ways of doing things, of interacting with one another, and beliefs about effective practice. The site for school improvement has become the classroom and the focus is teacher knowledge and skill (Elmore, 2002; Fullan, 2007; Portelance, Borges & Pharand, 2011).

Teachers' instructional practices have been shown to have a significant effect on student learning (Leithwood & Riehl, 2003), and professional development that leads to changes in behaviours and beliefs is at the core of large-scale school improvement (Elmore, 2002; Fullan, 2007). Teachers' professional development has traditionally occurred off-site through workshops or presentations given by experts. While this format can be vital for student learning, it is not enough to meet public demand for improved student outcomes without opportunities for teachers to situate this information within their own school context (Joyce & Showers, 1988).

To bring about the desired improvements in student outcomes, capacity-building among teachers is required (Fullan, 2007). Capacity is built through professional development activities that occur in the schools and are directly linked with classroom practice (DuFour, 2004). However, there are few portals through which new knowledge about teaching and learning may enter the

school. Communities of practice (also known as professional learning communities or PLCs) have been cited as the structure that provides time and space for teachers to assimilate and adapt new ideas and methods into their practice (Elmore, 2002; Joyce & Showers, 1988). It is within the forum of school-based PLCs that teachers can identify common problems, learn new instructional strategies, and discuss their experiences using them and the impact of implementation on student performance (DuFour, 2004). Through PLCs, learning occurs in the social context of a collaborative group in which the norms of experimentation, support, and inquiry prevail (McLaughlin & Talbert, 2006; Rousseau, 2010). Practice, traditionally a teacher's private domain, moves into the public space of the learning community as teachers develop a collaborative culture.

Communities of practices have been cited as structures that can promote powerful learning among teachers as the reculturing of schools (Elmore, 2002; Little, 2001). They have been shown to build teachers' technical capacities as well as their abilities to work collaboratively with others struggling with similar problems. Research evidence shows that PLCs also positively affect student achievement goals (McLaughlin & Talbert, 2006). As educators are held accountable for student outcomes, there is a need for school improvement that has at its core the building of technical and collaborative capacities of teachers and PLCs are the structure in which this occurs.

Through PLCs, learning occurs in the social context of a collaborative group in which the norms of experimentation, support, and inquiry prevail (McLaughlin & Talbert, 2006). This study focuses on professional learning communities as structures to facilitate the change of beliefs, practice, and relationship; the provision of support; the need for accountability. The participants are teachers and principals from the province of Ontario, Canada.

The present chapter presents this study on implementation of Professional Learning Communities: the review of literature, the methodology, the data analysis and the findings.

### ***Professional Learning Communities***

The professional learning community model is based on the assumption that the core mission of the school is that each student learns. DuFour (2004) describes this simple assumption as having profound implications for schools. When teachers view it more as a commitment than a cliché, they begin asking themselves questions. What does the assessment data tell us about what students are learning? What are our goals for all students to achieve? What strategies should we use to achieve the learning outcomes? What professional development and resources do we need? What were our experiences implementing these strategies? What do the data and other indicators tell us about the effects on student learning when using the strategies? Are we meeting our goals and if not, what more do we need to do? When staff has built a shared sense of purpose, knowledge, experience, and accountability it begins to move forward.

Professional learning communities are structures occurring in schools that facilitate the change of beliefs, practice, and relationships; the provision of support; and the need for accountability (DuFour, 2004; McLaughlin & Talbert, 2006).

### ***Beliefs***

Professional learning communities have the power to change beliefs among the staff. The importance of working collaboratively is one of those beliefs. Traditionally, teachers have closed their doors and worked in isolation (Lortie, 1975), and working collaboratively with peers is not characteristic of most schools (Joyce & Showers, 1988). However, when staffs engage in "a systematic process in which teachers work together to analyze and improve their classroom practice" (DuFour, 2004, p. 9), they can become a learning community. This process shakes inertia and complacency about practice (Weick, Sutcliffe, & Obstfeld, 1999) and leads to the deep learning of teachers and their students.

### ***Practice***

Teachers have traditionally believed that what works is developed through individual practice (Elmore, 2002), which has slowed the use of high-yield, research-based instructional strategies in classrooms. However, PLC meetings held at the school during class time have been shown to provide an opportunity for teachers to learn about new techniques and how to use them with their own students (DuFour, 2004). Teachers then experiment with them in their classrooms to see if they have the effect of improving student outcomes. Through this "inquiry stance", teachers learn by doing (DuFour, DuFour, Eaker, & Many, 2006). Actually using the strategies and seeing the positive results can change teachers' beliefs about what works (Guskey, 1989). Moreover, through discussion of the techniques, new knowledge may be generated (McLaughlin & Talbert, 2006) and through collaborative inquiry and experimentation, continuous improvement of instruction can occur (Elmore, 2002; Joyce & Showers, 1988).

### ***Relationships***

Within the PLCs, teachers and principals work together in achieving consensus about goals for student learning, strategies for reaching them, and indicators of success. Working collaboratively obviously goes beyond making decisions about school rules and procedures; but many schools do not move beyond this notion of "collaboration" (DuFour, 2004). Initiatives and changes in practice can be a threat (Little, 2001) and developing relationships undergirded by trust is the basis of effective professional learning communities (Bryk & Schneider, 2002). The principal can develop trust by helping to solve problems collectively, giving advice and support, creating a common culture of expectations around using newly learned skills, and by reserving judgment until capacity has been developed (Elmore, 2002; Fullan, 2007). The role of the principal as a leader is to provide direction and influence which can be done through modeling norms of collegiality, behaviour, and beliefs and working with staff towards common goals (Leithwood & Riehl, 2003). It is also within the PLCs that shared leadership among members of the

staff may be developed to sustain the collaborative work towards school improvement (Fullan, 2004).

### ***Support and Accountability***

The level of expertise of teachers varies and there is a need to invest in capacity building (Elmore, 2002). It takes time to learn about new instructional strategies and how to access and use data. It also takes time to build supportive and collaborative cultures among staffs accustomed to working alone. Time is measured in release time, which is expensive. Districts and states need to make this investment in order for school improvement to take root (Elmore 2002; Fullan, 2007).

With support comes accountability: support in return for accountability (Elmore, 2000). Internal accountability begins when staffs collectively decide on student goals for learning (Lieberman & Miller, 2001) and continues when teachers, principals, and districts lend support to learning about new strategies and trying them out. Essentially, all barriers and reasons for not using the strategies are removed (Guskey, 1989). Internal accountability also involves keeping an eye on the data with respect to the stated goals. External accountability may be in the form of published reports of tests or categorization of schools (Elmore, 2002) and internal accountability is a mechanism that supports external accountability.

It is through the provision of release time for PLCs that capacity building occurs: goals are decided, strategies are learned, experiences using them are discussed, and assessment data that link goals and strategies are examined. With this use of public funds to support capacity building, schools are accountable to improve student outcomes and reduce gaps in achievement (Elmore, 2002; Fullan, 2007).

## **1. Methodology**

The study was to conduct an assessment of the implementation of Professional Learning Communities in Ontario, Canada in 2009. A qualitative paradigm was

chosen as the most effective for garnering the general reactions of teachers, principals and administrators about Professional Learning Communities. As Weiss (1998) points out, this technique allows a research situation in which “the views of each person are bounced off the view of others, so that there is argument, defense, justification attack, and learning over the course of the session. It is possible to gauge the strength of people’s commitment to their views, the resistance of their views to others’ arguments, and the changes that occur when different positions are aired” (pp. 162-3).

Each of the seven cases conducted in the various regions of the Province of Ontario, Canada represented a different set of school district characteristics: public and Catholic boards and Anglophone and Francophone schools. The schools were chosen by the investigators because the staff at the schools were willing to share their experiences with the investigators. Generally, the school participants included the principal, members of the School Improvement Team, and other staff (e.g., librarian, literacy coach, special education teacher). In some cases the School Effectiveness Lead and director of the district were also interviewed.

Twenty participants were interviewed in one or two rounds of interview using a schedule consisting of five research questions:

1. What is your current or anticipated role in implementing Professional Learning Communities?
2. How is your school addressing the essential components of the Professional Learning Communities to guide your school’s improvement activities?
3. What are the barriers to implement Professional Learning Communities?
4. What factors in the school support using the essential components of Professional Learning Communities?

5. How helpful are the components and the process outlined in the Professional Learning Communities in supporting school-based improvement?

Teachers and school administrators were involved in interviews that lasted between 20 and 75 minutes and were tape recorded. The interviews were conducted during school hours and teachers were provided with release time. Each participant was given a verbatim transcript and asked to review it to ensure that it accurately represented his or her thoughts (Denzin & Lincoln, 2000).

## **2. Data Analysis**

For each case, transcripts were read in their entirety to identify initial codes. The data for two schools were coded in NVivo 6 and manually for the other four schools (Fowler, 1993). Open coding was done to identify all relevant considerations and second-level coding followed (Miles & Huberman, 1994; Corbin & Strauss, 2008). Each code category was summarized and examined for themes through a process of constant comparison, and interpretations were made using inductive reasoning (Miles & Huberman, 1994).

For the cross case analysis, all of the case studies were read at least once and significant text was highlighted, notes were taken, and comments were written in the margins. Data were organized according to interview question and the information presented for each case study was listed. Coding was done and themes for each interview question emerged (Yin, 2003; Mertens, 2005).

## **3. Trustworthiness**

The indicators of trustworthiness used in this study are credibility, transferability, and confirmability. Credibility seeks to ensure that there is a correspondence between how the participants viewed the phenomenon and how the researcher interpreted the comments of the participants. Guba and Lincoln (1989) view the use of member checks as the most important criterion in establishing credibility. To

establish credibility, the transcripts of the interviews were sent to the participants to ensure they accurately represented the thoughts of the participants. Only one participant returned the transcript with additional information that was missed due to faulty tape recording equipment. The revised transcript was used as a data source. Transferability refers to the degree to which the findings may be generalized (Guba & Lincoln, 1989). While it is the responsibility of the reader to determine the extent to which the findings may be transferred to his or her situation, it is the researcher's responsibility to provide sufficient data for such a decision to be made (Mertens, 2005). In this study, the use of multiple cases strengthened the transferability of the findings (Yin, 2003). Confirmability ensures that the data and the interpretations can be traced back to their original sources and were not made up by the researcher. A confirmability audit was conducted by the research assistant who read the case studies and list of information arranged case-by-case according to question to ensure that the themes could be traced back to the database (Mertens, 2005).

## **4. Findings**

### ***4.1. Research Question #1: What is your current or anticipated role in implementing Professional Learning Communities?***

#### *4.1.1 School Board Level – Administration*

There were two directors who were interviewed and one of them stated that his role was to support the pilot implementation through messaging the importance of this initiative (Pachler, 2007). It was noted by other participants that teachers needed to feel confident that the PLC was solely about school improvement.

Consultants also provided support to staffs through workshops on strategies. Their involvement also ranged from no reported contact, to providing external and in-school workshops,. Joyce and Showers (1988) acknowledge

the contribution that consultants can make in supporting school improvement through staff development.

#### *4.1.2 School Level – Principals/Teachers*

Principals were generally quite involved in directing the implementation of the Framework in their schools. They introduced the PLC to the staff, worked with the SIT, provided release time and instructional resources, attended PLCs, directed the school self-assessment, wrote the self-assessment report, and participated in the district review. They generally demonstrated the core practices of leadership described by Leithwood, Louis, Anderson and Wahlstrom (2004) as setting direction (shared vision and group goals, high performance expectations), developing people (individual support, intellectual/emotional stimulation, modeling), and redesigning the organization (collective cultures and structures, building productive relations with parents and the community).

For the most part, the teachers who were interviewed were members of the PLC and they reviewed data, developed goals for student improvement, selected instructional strategies that were linked to the goals, participated in workshops on those strategies, implemented the strategies, and participated in the school self-assessment and district review. For the district review, the teachers in most schools were careful to ensure that evidence of the indicators of the four essential components was visible in their classrooms.

Personal learning in a collective enterprise contributes significantly to the success of large-scale innovations because it builds the technical capacity of teachers (Elmore, 2004; Fullan, 2007; Joyce & Showers, 1988; McLaughlin & Talbert, 2006). The participants in this study indicated that professional development activities were one of the most important activities. In some cases teachers attended workshops held outside of the school, and in other cases sessions were given in the school as part of a whole-school or divisional PLC.

## **4.2 Research Question #2: How is your school addressing the essential components of the Professional Learning Communities?**

### *4.2.1 Student Learning and Achievement*

A focus on student learning has been shown to be a key element of school improvement efforts (Elmore, 2002). All of the schools were committed to improving student learning and achievement, as it is the business of schools. If achievement gaps are to be closed, there must be a collective commitment to the belief that all students can learn and the development of a culture of high expectations for all students (Munby, 2003). There was evidence that this moral purpose was beginning to take hold.

### *4.2.2 Curriculum and Instructional Strategies*

The literature is clear that the use of research-based instructional strategies is linked to improved student performance (Guskey, 2000). Hence, the focus of professional development was on learning new instructional strategies that would support the student achievement goals developed by the schools. One school new instructional strategies had been adopted the previous year in connection with another initiative and during the pilot implementation of the Framework, teachers had a chance to discuss them and obtain assistance from the school's literacy coach. The participants at another school stated that there was a need to harmonize certain strategies across the school (e.g., the use of word walls).

Board language/literacy teachers and school literacy coaches were credited by teachers with providing excellent ideas and resources (McLaughlin & Talbert, 2006). However, it was only at one school that the coaching model was implemented (Joyce & Showers, 1988). It was in the area of instructional strategies that schools that participated in professional

development reported the most change. At least another school reported that they were beginning to overcome the inertia of complacency about instructional strategies and described themselves as a “school on the move”. However, it was only in two schools that the use of instructional strategies was directly linked to assessment data.

#### *4.2.3 Instructional Leadership*

Instructional leadership is second only to classroom teaching in importance in improving student achievement. System level leadership is needed to link teacher learning to system priorities and school improvement initiatives (McLaughlin & Talbert, 2006). At the school level, principals are in the unique position of being able to support the development of a teacher learning community. All of the principals in the study actively supported teacher learning through release time to meet with divisional or whole school PLCs and/or external workshops.

Schools reported that staffs collaborated on reviewing assessment data to determine goals for student achievement and in identifying professional development needs. They also shared practices and ideas and led professional development activities in PLCs. Additionally, some participants reported that distributed leadership developed in their schools, which has been identified as a factor that sustains large-scale reforms (Fullan, 2007).

#### *4.2.4 Assessment and Evaluation*

The use of assessment data is fundamental to the school improvement (Earl & Katz, 2006). Schools need to collect assessment data to guide decisions about student learning goals and the selection of instructional strategies. After implementing the specific instructional strategies, staffs need to determine if their goals for student improvement have been met. They need to monitor the on-going data to spot trends, while keeping an eye on their stated achievement goals.

The participants from two schools reported that due to training from a previous initiative, they were generally well advanced in the use of assessment data and were now honing their skills and practices. Another school reported having a data wall, using standardized measures and collaborating on the use of assessment data to inform decision making about goals and instructional strategies. It appears that teachers need (a) a data base on student learning that is timely, relevant, easy to access and use and (b) training on assessment methods and how to use assessment data.

### ***4.3. Research Question #3: What are the barriers to implement Professional Learning Communities?***

#### *4.3.1 Teacher Resistance*

Joyce and Showers (1988) note that “changing one’s behavior is difficult, especially when one has fairly dependable strategies already fully developed” (p. 73). McLaughlin and Talbert (2006) observe that beliefs are harder to change than the way people do things. Hence, some resistance to implementing the Framework was to be expected. Among the schools in this study, there were concerns about learning new instructional methods, prioritizing the implementation among other pressing needs, and feeling powerless. In response to teacher resistance, key people such as principals communicated the importance of Professional Learning Communities with respect to school improvement. Bryk and Schneider reported (2002) that the development of trust in schools is essential to establishing the conditions for school improvement.

### ***4.4. Research Question # 4: What factors in the school support using the essential components of Professional Learning Communities?***

#### *4.4.1 Teacher Cooperation*

For the most part, the teachers in the schools involved in Professional Learning Communities were committed to

improving student outcomes and were willing to learn new instructional methods and collaborate with colleagues. The importance of a climate that promotes cooperation has been identified in the literature as supporting implementation of an initiative (Fullan, 2007; Joyce & Showers, 1988).

#### *4.4.2 Professional Development and PLCs*

Personal learning in a collective enterprise within context is the only learning that counts for changing classrooms (Elmore, 2002; Joyce & Showers, 1988; Little, 2001). Teachers at five of the schools acknowledged the usefulness of the workshops provided by board consultants and/or their own colleagues. The presenters were knowledgeable and provided resources that seemed to meet the needs of the teachers. In three of the schools, professional development activities occurred within divisional PLCs. Learning occurred in the context that the new skills were practised (DuFour, 2004) and when the new techniques were demonstrated; teachers could see how they could be used in their own classrooms. The teachers at Greenview also had opportunities to visit a demonstration school, which further clarified how the strategies were actually implemented.

As mentioned previously, informal internal accountability was built into the professional learning sessions for three schools. In return for release time to learn the instructional strategies, teachers were accountable for implementing them, as they had to report back to the group at a later date on either the changes in assessment scores or their experiences using the strategies. The peer pressure and strong support provided by the school and board made it difficult not implement the strategies (Du Four, 2004; Fullan, 2007). There were no excuses.

**4.5. Research Question #5: How helpful are the components and the process of Professional Learning Communities in supporting school-based improvement?**

The participants reported that there was an increase in collaboration among staff within their divisions as they selected goals for improvement, areas for professional development, and monitored student assessment data. This sense of a positive experience came in spite some initial resistance. As one teacher said, "I think sometimes despite our resistance, just like the students, we end up learning and good things happen" (Case study, p. 12).

It was also evident that release time used for professional development activities and internal accountability made an important contribution. Another teacher commented about a session on using rubrics in language, "I guess I might not have done that before unless we were doing this teaching-learning cycle" (case study, p. 10). What became clear was the vital link between professional development and implementation of instructional strategies in the classroom through informal accountability. For two schools, the teaching-learning cycle (implement and return with pre-and post-test results) was the accountability strategy. Whereas, at one school, teachers were expected to report back and share their experiences implementing the new strategy. As the level of teachers' expertise and comfort with using data varies, post-implementation discussions could begin with experiences and move to focusing on pre- and post-test results.

A teacher at a school observed, "...we have come far – we have a very good school culture, we are very positive and are looking ahead more" (Case study, p. 32). Building capacity is at the foundation of a school's ability to respond to demands (Elmore, 2002), and for the schools participating in this study, the evidence showed that capacity building was underway and the schools were ready to take on more challenges.

## **Conclusion**

An important finding of this study is that PLCs were an important structure for collaborative activities, such as planning, decision-making, learning, and experimentation (DuFour, 2004, Joyce & Showers, 1988; Little, 2001). Participants did acknowledge the due to their participation in the pilot implementation; the PLCs became the forum for most of the week in conducting the school self-assessment process. One outcome was increased dialogue among teachers and principals about student learning and instructional strategies. A second outcome was the development of shared leadership among the staff.

To facilitate successful implementation of professional learning communities, capacity in schools needs to be developed in three areas:

1. Collaborative decision making;
2. Development of knowledge and skills about instructional strategies and how to access and use data; and
3. Development of a culture of experimentation and informal accountability.

Capacity building is achieved through professional development (Elmore, 2002), which should generally be done within the structure of the whole school or divisional PLC. In this study, the PLC was the most important structure that supported professional development (Joyce & Showers, 1988; Little, 2001). As has been shown, there is a need for leadership within the PLCs, which could come from the principal, a teacher in the school. Decision making about goals for student achievement should emerge from discussions held by divisions or the whole school. There is a need for someone to lead these discussions and ensure that the staff is committed to the goal.

The culture of experimentation would also be initiated through informal accountability in which teachers tried out the strategies and reported back to peers. However, to sustain and build capacity in the future, the principal and teachers would have to step into the leadership roles. While

the principal's involvement in PLCs is required, it needs to be shared among all staff for the PLCs to continue to function.

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## **C**HAPTER 12

### **DEVELOPING PROFESSIONAL CULTURES: TEACHING METHODS IN ESTONIAN TEACHER-TRAINING CURRICULA**

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#### **Abstract**

The European Commission's document "Improving the Quality of Teacher Education" (2007) raises questions about the efficiency of general learning and teaching methods. It emphasises the importance of meaningful learning and reflection in teacher-training. This chapter will discuss the methodological focus of Estonian teacher-training curricula. Three teacher-training curricula of one of the Estonian higher education institutions were examined in order to find out the range of methods planned in certain teacher-training curricula's course descriptions. Data were processed using content analysis. As occurs, the weak point of examined teacher-training curricula is the lack of balance between lectures and academic reading as classical methods, teaching methods that could give a possibility to implement theories in simulated situations, and real practice. There was a lack of variety of methods that were used in the three examined teacher-training curricula. The

discussion part of the chapter focuses on the reasons behind the current situation and possible solutions.

## **Keywords**

Teacher-training – Teaching methods – Non-formal methods  
– Higher education

## **Introduction**

The present chapter will discuss the methodological focus of teacher-training curricula at the University of Tartu. The introduction will be started with pointing out certain competencies necessary for teachers according to the Professional Standards for Teachers that is the fundamental document for all teacher-training courses and curricula in Estonia, and we will continue with the overview of the structure of three teacher-training curricula studied. At the end of the introduction there will be pointed out the problem that directed this research.

According to the Professional Standards for Teachers, the teacher's main obligations are to plan and direct the students' learning process; to supervise students, support their development and motivation; to critically analyse and evaluate the learning process, give feedback to the students and their parents; to involve students in planning the content and goals of their studies; to support students in developing their learning and social skills (Õpetaja kutsestandard, 2005, p. 3). These are the social competencies that are not directly related to any of the academic subjects taught in school, but still have a crucial importance in educational process as well as in every student's life. This is the framework that has to be kept in mind while preparing future teachers.

Within all the first level teacher-training curricula, we decided to study and analyse three special teacher-

training curricula with compulsory module of pedagogical disciplines. The reason why this decision was made is the fact that in Curriculum Development Strategy (2009) it is argued that there is a lack of using the principle of integration: majority of the first level (bachelor level) subject-teacher curricula do not include pedagogical studies. Although there are some subjects the student can chose from special teacher-training curricula, it is not the common practice that students do select these subjects. It is mainly supposed that the future teachers must get their pedagogical competence during the master level studies. Thus, with the purpose to make one step in evaluation of Estonian first-level teacher-training curricula and find out the range of methods that future teachers meet during their bachelor-level studies, we examined three teacher-training curricula at one of Estonian higher education institution: 'Educational Science: Humanities' bachelor's studies 2009/2010, 'Educational Science: Math and Sciences' bachelor's studies 2009/2010, and 'Educational Science: Sciences' bachelor's studies 2009/2010.

Studied teacher-training curricula prepare several-subject teachers; accordingly, the common part of each curriculum is made up of Module 1 (24 ECTS), which consists of educational science, general educational and psychological disciplines, and Module 2 (24 ECTS), a field-specific module of humanities, science or math and science. The common part is also known as the ground module (48 ECTS). The elective part of the curriculum consists of 24 ECTS disciplines field- and orientation modules, the student must choose 2 from the mentioned different specialty orientations. In addition, the student chooses the elective subjects (12 ECTS) from the provided list. Furthermore, there are optional subjects that can cover various fields and can be taken also from other

higher education institutions (18 ECTS), and the Bachelor's thesis (6 ECTS).

Considering the teachers' main obligations mentioned above and the skills they need to possess for completing these obligations on one hand, and the common knowledge of high school teachers' discipline-centeredness (subject-centeredness) and lack of psychological-pedagogical preparation on the other hand the questions were raised: (1) What are these teaching methods that are used in future teachers' preparation? (2) Are there teaching methods used that give teachers the skills to help their students to develop the social and communication competences?

## **1. Research method**

The aims of this study were (1) to find out which teaching methods are reported to be used, and (2) to find out proportions of the teaching methods used in bachelor level teacher training programs. Three studied curricula were 'Educational Science: Humanities' (further used 'Humanities') bachelor's studies 2009/2010, 'Educational Science: Math and Sciences' (further 'Math and Sciences') bachelor's studies 2009/2010, and 'Educational Science: Sciences' (further 'Sciences') bachelor's studies 2009/2010. As a data base for collecting information about teaching methods the Study Information System was used. Detailed overviews of every subject-course constituting the three curricula were studied, and the special attention was paid to the teaching methods used in the course descriptions. The range of teaching methods offered in Study Information System: lecture, practicum, seminar, colloquium, individual lesson, e-learning, self-directed study, and practice.

Collected data was processed with content analysis. In some cases the contradictions were found in overviews

– the numbers shown in general part of a course description did not agree with the numbers in the detailed program. In these cases the content of the lesson was taken into account and, according to the content, decisions were made whether the lesson is in form of lecture, seminar or practicum etc. In some cases the modules that should have consist of 624 hours of students work each consisted of less or more hours. In these cases the actual number of working hours shown in detailed overview was considered as 100%.

Our initial idea was to find out and analyse the proportion of the teaching methods generally in every curriculum but we decided to give up that approach as it turned out that in modules of the same curriculum the proportions of teaching methods vary considerably. Therefore, analysing them all together would have been confusing. It would have not given the right picture of the real situation. Accordingly, the general field specific modules, the orientation modules, and the subject field modules within every curriculum are studied and analysed separately. The Module of the General Educational Subjects is common for all three curricula; therefore, the proportion of the teaching methods in the module is described only once. The modules of optional subjects of studied curricula differ in several subjects; therefore, the methodological structure of the modules in different curricula are described separately, and then compared to each other.

## **2. Research findings**

This chapter we will start with the analysis of the first part of the Ground module which is common for all three curricula. As mentioned above, the ground module consists of two parts: the Module of General Educational Subjects, and the General Field-Specific

Module of Humanities, Math and Science, and Science. The general field-specific modules will be discussed secondly, followed by the orientation modules, the subject field modules, and the modules of optional subjects.

### ***2.1. Methods in the Module of General Educational Subjects***

The Module of General Educational Subjects is the main link between several-subject teachers' curricula – it is common for all three curricula. Collected data show that self-directed study majors in the module: 389 hours of students work (62%) (see Figure 1), lectures are the second usual form of teaching general educational subjects: 136 hours (22%) followed by seminars: 62 hours (10%), and practicums: 37 hours (6%). The common policy of main Estonian higher education institutions dictates that two third of academic studies must consist of self-directed studies. Therefore, the considerable amount of self-directed studies is justified; nevertheless, it raises a question about the narrower methods or techniques that the abovementioned learning and teaching form, self-directed study, includes.

### ***2.2. Methods in the General Field-Specific modules***

Next, we will observe the second half of the ground module – the general field-specific module of every curriculum. The General Field-Specific Module of Humanities does not include practicums, seminars or e-learning (see Table1). Self-directed study majors in the module of humanities: 460 students working hours (65%), and the other teaching method used in the module is a lecture: 344 hours (35%). The General Field-Specific Module of Math and Sciences includes 16

## Module of General Educational Subjects

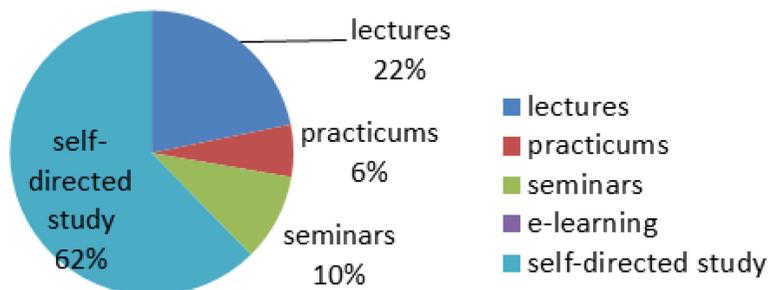


Figure 1. Proportion of teaching methods in the Module of General Educational Subjects

seminars that is 3% of the amount of the field specific module, and 176 hours of practicums that is 28% of the module. Although the amount of practicums is remarkable, the content of the practicums fixated in course descriptions shows that these practicums include mainly completing exercises of math and informatics, no other active-learning techniques used. The General Field-Specific Module of Sciences consists of following proportion of the teaching methods: 308 hours of self-directed studies (49%), 284 hours of lectures (46%), 16 hours of practicums (2,5%), and 16 hours of seminars (2,5%).

It is worth mentioning that informatics is one of the subjects in the General Field-Specific Module of Math and Sciences. Nevertheless, there is no sign of e-learning in course description. It leads us to the conclusion that the e-learning can in this case be considered as self-directed studies or other teaching forms. Therefore, we need to be careful while making final conclusions about methodological structure of studied curricula – some teaching methods might be of ambivalent character.

	lectures	Practicums	seminars	e-learning	self-directed study	total
General Field-Specific Module of Humanities	244	0	0	0	460	704
	35%	0%	0%	0%	65%	100%
General Field-Specific Module of Math and Science	130	176	16	0	302	624
	21%	28%	3%	0%	48%	100%
General Field-Specific Module of Science	284	16	16	0	308	624
	46%	2%	2%	0%	49%	100%
Total	658	192	32	0	1070	1952
	33%	10%	1%	0%	55%	100%

Table 1: Proportion of teaching methods in the general field-specific modules

### **2.3. Methods in the orientation modules**

#### *2.3.1. Orientation module in the curriculum of Humanities*

Subsequently, we will discuss the methodological proportions of the orientation modules. There are ten orientation modules in the curriculum of Humanities. The Orientation Module of Estonian Language consists of following proportions of teaching forms: 363 hours of self-directed studies (62,1%) (Table 2), 160 hours

of lectures (27,3%), 48 hours of practicums (8,2%), and 14 hours of seminars (2,4%). The Orientation Module of Literature: 400 hours of self-directed studies (68%), 102 hours of lectures (17%), 48 hours of practicums (8%), and 38 hours of seminars (7%). The Orientation Module of History includes two forms of teaching: 466 hours of self-directed studies (75%), and 158 hours of lectures (25%). The Orientation Module of Human Studies: 378 hours of self-directed studies (61%), 150 hours of lectures (24%), 12 hours of practicums (2%), and 84 hours of seminars (13%).

The Orientation Module of Russian Language: 325 hours of self-directed studies (52%), 194 hours of lectures (31%), and 102 hours of practicums (17%). The Orientation Module of German Language: 368 hours of self-directed studies (59%), and 256 hours of seminars (41%). The Orientation Module of English Language (high school teachers): 322 hours of self-directed studies (59%), 148 hours of lectures (27%), and 74 hours of seminars (14%). The Orientation Module of French Language: 322 hours of self-directed studies (59%), 122 hours of lectures (22%), 96 hours of practicums (18%), and 6 hours of seminars (1%). The Orientation Module of English Language (secondary school teachers): 354 hours of self-directed studies (59%), 16 hours of lectures (3%), 176 hours of practicums (29%), and 58 hours of seminars (9%). The Orientation Module of Social Pedagogy: 442 hours of self-directed studies (71%), 116 hours of lectures (18%), 36 hours of practicums (6%), and 30 hours of seminars (5%).

### *2.3.2. Orientation module in the curriculum of Math and Sciences*

There are three orientation modules in the curriculum of Math and Sciences. As shows the table 3, the

Orientation Module of Mathematics consists of 302 hours of self-directed studies (48%), 137 hours of lectures (22%), 166 hours of practicums (27%), and 19 hours of seminars (3%). The Orientation Module of Informatics: 295 hours of self-directed studies (47%), 132 hours of lectures (21%), 93 hours of practicums

<b>Orientation Module</b>	lectures	Practi-cums	seminars	e-learning	self-directed study	total
Estonian Language	160	48	14	0	363	585
	27,3%	8,2%	2,4%	0%	62,1%	100%
Literature	102	48	38	0	400	588
	17%	8%	7%	0%	68%	100%
History	158	0	0	0	466	624
	25%	0%	0%	0%	75%	100%
Human Studies	150	12	84	0	378	624
	24%	2%	13%	0%	61%	100%
Russian Language	194	102	0	0	325	621
	31%	17%	0%	0%	52%	100%
German Language	0	0	256	0	368	624
	0%	0%	41%	0%	59%	100%
English Language (III)	148	0	74	0	322	544
	27%	0%	14%	0%	59%	100%
French Language	122	96	6	0	322	546
	22%	18%	1%	0%	59%	100%
English Language (I-II)	16	176	58	0	354	604
	3%	29%	9%	0%	59%	100%
Social Pedagogy	116	36	30	0	442	624
	18%	6%	5%	0%	71%	100%
Total	1166	518	560	0	3740	5984
	19,5%	8,5%	9,5%	0%	62,5%	100%

Table 2: Proportion of teaching methods in the orientation modules of the curriculum 'Educational Science: Humanities'

(15%), and 104 hours of e-learning (17%). The Orientation Module of Physics: 264 hours of self-directed studies (47%), 74 hours of lectures (13%), 144 hours of practicums (26%), and 68 hours of seminars (14%).

### *2.3.2. Orientation module in the curriculum of Math and Sciences*

There are three orientation modules in the curriculum of Math and Sciences. As shows the table 3, the Orientation Module of Mathematics consists of 302 hours of self-directed studies (48%), 137 hours of lectures (22%), 166 hours of practicums (27%), and 19 hours of seminars (3%). The Orientation Module of Informatics: 295 hours of self-directed studies (47%), 132 hours of lectures (21%), 93 hours of practicums (15%), and 104 hours of e-learning (17%). The Orientation Module of Physics: 264 hours of self-directed studies (47%), 74 hours of lectures (13%), 144 hours of practicums (26%), and 68 hours of seminars (14%).

### *2.3.3. Orientation module in the curriculum of Sciences*

The curriculum of Sciences consists of four orientation modules. The Orientation Module of Physics which overlaps with the Orientation Module of Physics described within the curriculum of Math and Science; therefore, we will not describe it here. The Orientation Module of Geography consists of following proportions of teaching forms: 369 hours of self-directed studies (58%) (Table 4), 252 hours of lectures (39%), 4 hours of practicums (1%), and 15 hours of e-learning (3%). The Orientation Module of Chemistry: 387 hours of

self-directed studies (60%), 94 hours of lectures (15%), 60 hours of practicums (10%), and 92 hours of seminars (15%). The Orientation Module of Biology:

<b>Orientation Module</b>	lectures	Practi-cums	seminars	e-learning	self-directed study	total
Mathematics	137	166	19	0	302	624
	22%	27%	3%	0%	48%	100%
Informatics	132	93	0	104	295	624
	21%	15%	0%	17%	47%	100%
Physics	74	144	68	0	264	550
	13%	26%	14%	0%	47%	100%
Total	343	403	87	104	861	1798
	19%	22%	5%	6%	48%	100%

Table 3: Proportion of teaching methods in the orientation modules of the curriculum 'Educational Science: Math and Sciences'

326 hours of self-directed studies (52%), 132 hours of lectures (21%), and 166 hours of practicums (27%).

<b>Orientation Module</b>	lectures	Practi-cums	seminars	e-learning	self-directed study	total
Physics	74	144	68	0	264	550
	13%	26%	14%	0%	47%	100%
Geography	252	4	0	15	369	640
	39%	1%	0%	2%	58%	100%
Chemistry	94	60	92	0	387	624
	15%	10%	15%	0%	60%	100%
Biology	132	166	0	0	326	624
	21%	27%	0%	0%	52%	100%
Total	552	374	160	15	1346	2438
	74	144	68	0	264	550

Table 4: Proportion of teaching methods in the orientation modules of the curriculum 'Educational Science: Sciences'

## **2.4. Methods in the subject field modules**

### *2.4.1. Subject field module in the curriculum of Humanities*

Subsequently, the methodological proportions of the subject field modules will be discussed. There are 10 subject field modules in the curriculum of the Humanities. The data is shown in table 5. The Subject Field Module of Estonian Language consists of following proportions of teaching forms: 374 hours of self-directed studies (60%), 205 hours of lectures (33%), and 45 hours of practicums (7%). The Subject Field Module of Estonian Literature: 368 hours of self-directed studies (59%), 126 hours of lectures (20%), and 130 hours of seminars (21%). The Subject Field Module of History and Civic Education: 436 hours of self-directed studies (70%), and 188 hours of lectures (30%).

The Subject Field Module of Russian as Foreign Language and Literature consists of following proportions of teaching methods: 404 hours of self-directed studies (64%), 204 hours of lectures (33%), and 20 hours of practicums (3%). The Subject Field Module of German Language and Literature: 368 hours of self-directed studies (59%), and 256 hours of seminars (41%). The Subject Field Module of English Language and Literature (high school teachers): 276 hours of self-directed studies (59%), 96 hours of lectures (20,5%), and 96 hours of seminars (20,5%). The Subject Field Module of French Language and Literature: 368 hours of self-directed studies (59%), 224 hours of practice (33%), and 32 hours of practicums (5%). The Subject Field Module of English Language and Literature: 286 hours of self-directed studies (62%), 6 hours of lectures (1%), 126 hours of practicums (20%), and 106 hours of seminars (17%). The Subject Field Module of Educational Sciences: 394

hours of self-directed studies (63%), 170 hours of lectures (27%), 8 hours of practicums (1%), and 52 hours of seminars (9%).

<b>Subject Field Module of</b>	lectur es	Practi- cums	seminars	e- learning	self- directed study	total
Estonian Language	205	45	0	0	374	624
	33%	7%	0%	0%	60%	100%
Estonian Literature	126	0	130	0	368	624
	20%	0%	21%	0%	59%	100%
History and Civic Education	188	0	0	0	436	624
	30%	0%	0%	0%	70%	100%
Human Science	198	0	46	0	382	626
	32%	0%	7%	0%	61%	100%
Russian as Foreign Language	204	20	0	0	404	628
	33%	3%	0%	0%	64%	100%
German Lang and Literature	0	0	256	0	368	624
	0%	0%	41%	0%	59%	100%
English Lang and Literature (III)	96	0	96	0	276	468
	20,5%	0%	20,5%	0%	59%	100%
French Lang and Literature	0	224	32	0	368	624
	0%	26%	5%	0%	59%	100%
English lang and literature (II)	6	126	106	0	386	624
	1%	20%	17%	0%	62%	100%
Educational Science	170	8	52	0	394	624
	27%	1%	9%	0%	63%	100%
Total	1193	423	718	0	3756	6090
	19,5%	7%	12%	0%	61,5%	100%

Table 5: Proportion of teaching methods in the subject field modules of the curriculum 'Educational Science: Humanities'

### 2.4.2. Subject field module in the curriculum of Math and Sciences

In the curriculum of the Math and Sciences, there are three subject field modules. The Subject Field Module of Mathematics consists of: 352 hours of self-directed studies (56%) (Table 6), 138 hours of lectures (22%), 98 hours of practicums (16%), and 36 hours of seminars (6%). The Subject Field Module of Informatics: 446 hours of self-directed studies (63%), 72 hours of lectures (10%), 110 hours of practicums (16%), and 74 hours of seminars (21%). The Subject Field Module of Physics: 358 hours of self-directed studies (57%), 128 hours of lectures (21%), 80 hours of practicums (13%), and 58 hours of seminars (9%).

<b>Subject Field Module of</b>	lectures	Practi cum s	seminars	e- learning	self- directed study	total
Mathematics	138	98	36	0	352	624
	22%	16%	6%	0%	56%	100%
Informatics	72	110	74	0	446	702
	10%	16%	11%	0%	63%	100%
Physics	128	80	58	0	358	624
	21%	13%	9%	0%	57%	100%
Total	338	288	168	0	1156	1950
	17%	15%	9%	0%	59%	100%

Table 6: Proportion of teaching methods in the subject field modules of the curriculum 'Educational Science: Math and Sciences'

### 2.4.3. Subject field module in the curriculum of Sciences

In the curriculum of the Sciences, there are four subject field modules. As shown in Table 7 the Subject Field Module of Geography consists of 368 hours of

self-directed studies (59%), 156 hours of lectures (25%), 88 hours of practicums (14%), and 14 hours of seminars (2%). The Subject Field Module of Chemistry: 373 hours of self-directed studies (60%), 159 hours of lectures (25%), and 92 hours of practicums (15%). The Subject Field Module of Biology: 271 hours of self-directed studies (46%), 301 hours of lectures (51%), 5 hours of practicums (1%), and 9 hours of seminars (2%).

<b>Subject Field Module of</b>	lectures	Prac-tice	seminars	e-learning	self-directed study	total
Physics	128	80	58	0	358	624
	21%	13%	9%	0%	57%	100%
Geography	156	88	14	0	368	626
	25%	14%	2%	0%	59%	100%
Chemistry	159	92	0	0	373	624
	25%	15%	0%	0%	60%	100%
Biology	301	5	9	0	271	586
	51%	1%	2%	0%	46%	100%
Total	744	265	81	0	1370	2460
	30%	11%	3%	0%	56%	100%

Table 7: Proportion of teaching methods in the subject field modules of the curriculum 'Educational Science: Sciences'

### **2.5. Methods in the Module of Optional Studies**

The Module of Optional Studies of the teacher-training curricula overlaps in majority of subjects. Therefore, only one figure is used in this chapter – the Module of Optional Subjects of Humanities (Figure 2); proportion of teaching methods in the same module of other curricula is covered by the text. The differences in these modules are dictated by the fact that in the curriculum of Math and Sciences and Sciences there are more courses offered. The curriculum of Humanities officially includes 18, Math and Sciences

25, Sciences 34 optional subjects. Subjects are mostly of amount 3 ECTS, some of 6 ECTS. Students can take from this module 12 ECTS, it means maximum 4 different (3 ECTS) subjects. Considering the fact that this is the only module offering didactics and active learning methods, it needs to be pointed out that in light of developing social and communication skills this is not sufficient for future teachers.

### Module of optional subjects ES (Humanities)

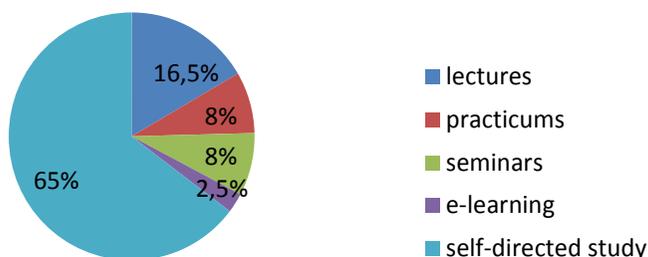


Figure 2: Proportion of teaching methods in the module of optional subjects of the curriculum 'Educational Science: Humanities'

While analysing the teaching methods used in this module, the conviction deepens that there is not enough room for teaching the students various teaching and learning techniques (not to mention training to use those techniques). The main accent in this module is also drawn on self-directed studies (65%/62%/61%) (Figure 2 as an example), lectures follow (16,5%/21,5%/22%), then several practices (8%/7%/8%), seminars (8%/8%/7%), and finally e-learning that is shown in different percentages, but basically means one subject which is web-based and is common for all three curricula.

In conclusion, results show that the main accent in the studied curricula lays on knowledge of the subjects that the teacher-training student specialises on – future math teachers' curriculum is focused on math from different angles, language teachers' in specific language and literature etc. Unfortunately there is a very few subjects in studied curricula that have special focus on subject didactics, not to mention the subjects that focus on methods of developing students' social and communication competence.

In terms of methodology, self-directed studies predominate in the examined three educational science curricula being followed by lectures. The General Field Specific Module and the Orientation Module of the curriculum of Math and Sciences differ at this point: self-directed studies are followed by practice, the lectures follow, then seminars and e-learning. In the curriculum of Humanities seminars are ranking third, the practicum is rarely used and (according to data collected) e-learning is used only in one subject. In some cases e-learning is not fixated in detailed overviews, but it is mentioned that the course is partly web-based. In those cases the e-learning is obviously fixated as self-directed studies; e-learning can also be built into courses as lectures, practices or seminars, only via Internet.

### **3. Discussion**

As the results show, in terms of methodology self-directed study predominates in the examined three educational science curricula and it is followed by lectures. According to Donald Bligh (1972), a lecture as a method of teaching is efficient for providing necessary information but a lecture does not stimulate the higher levels of thinking. The above fact thus raises the question of whether the intended meaning of general pedagogical and psychological subjects

reaches students; furthermore, do the students develop the ability to use the knowledge presented in pedagogical context? Further, in order to answer this question, we will consider the consequences that rise from classical lecture-based learning.

Even if The Estonian Teacher-Training Strategy (2009) does claim that the teacher-training curricula, which are in use at our main teacher-training higher education institutions, are composed in accord with The Professional Standards for Teachers it rather seems that as a result of classical lecture-based learning, our future teachers will not be able to develop their students' social and communication competence, as they do not have the teaching competencies needed. However, as mentioned above the teachers' obligations are also to plan and direct the students' learning process; to support their development and motivation; to involve students in planning the content and goals of their studies; to support students in developing their learning and social skills. Thus, developing future teachers' social and communication competence should find its place in teacher-training curricula – pedagogical and psychological competences are needed in involving students in planning their own learning process, giving feedback to students and their parents, and especially in supporting students in developing their learning and social skills. The abovementioned skills can hardly be taught via lectures.

University teachers often identify themselves more as researchers who are experts in their discipline and less as teachers who should adopt variety of teaching methods (Kember, 2008). Despite that fact it is hard to find the university teachers who realise that they teach inefficiently, but it does not bother them as their main interest is the research. Erica Löfström (2008, p. 26), educational researcher from the University of

Helsinki, argues that university teachers often overestimate their use of meaningful learning at their lectures: in teachers' opinion their classes are built according to the principles of meaningful learning, but students do not feel the same way. Nevertheless, the study conducted in Tallinn University showed that in students' opinion at teacher-training courses the constructivist paradigm is used as the philosophical ground for teaching (Löfström, 2008, p. 26).

According to the above-mentioned constructivist approach, which is acknowledged in modern educational sciences, students build their knowledge themselves and teachers' job is to guide students in their learning process. For increasing the knowledge building efficacy special methods are needed – classical lecture that is based on knowledge-transmission model does not form deep approaches to learning (Biggs & Tang, 2007, p. 25), which should be one of the teachers' main goals at every level of education.

According to previous research, before having a teaching experience teacher-training students' approach to teaching is inquiry-based and constructivist-based. They describe teaching science, for example, as a process. However, after the first contacts with a class during a lesson future teachers' approach to teaching changes. The first teaching experience has been described as follows: "The idea of control emerged as being more important than learning content. The atmospheres of "thinking and questioning ideas" were replaced by fears of constructivism as "chaos" (Gilbert, 2009, p. 434). It can be explained by the fact that during their studies teacher-training students have only heard, read, and thought about the concepts of constructivism, but they have rarely (or never) experienced and analysed (after the experience) how these concepts work in reality,

nor have they tried in simulated situations to use these concepts in teaching process. This can be done in simulated situations where, for example, the students teach each other.

One of the basic documents of European policy of teacher-training "Improving the Quality of Teacher Education" (2007) also raises the questions about efficiency of general learning and teaching methods – classical lectures versus problem based learning. In addition, the document discusses the topic of using those general methods in teacher-training. Likewise, professionals engaged in managing teacher-training education have argued that there are more discussions on what and why to teach and less about how (Raik 2006), which should be the gap for teacher-training institutions to fill. It is inevitable that teachers who are taught using the narrow range of methods will have the poorer set of methods to apply in their further work at school.

The methodological approaches that help to form deep learning are drama education, adventure training, and – wider – the experiential education, which help to focus and train students' communication competence and other social skills. Experiential education philosophy has essentially been founded by John Dewey (1916/2007, 1938/1997). The contemporary definition of experiential education provided by Itin (1999) states it being a philosophy of education, which describes the process occurring between a teacher and student that infuses direct experience with the learning environment and content. Thus, being accented on interaction of the teacher, student, and environment involved in an experience it serves as an excellent basis for raising awareness about student's social and communication competence, as well as improving these competences.

Some of the papers written on adventure training do not show the improvement of the students' positive psychological measures. "Though the OAE [Outdoor Adventure Education] course group revealed improvements across several positive psychological measures, these failed to reach statistical significance. Contrary to expectations, no significant differences were shown between the OAE course and control groups." (Sheard & Golby, 2006, p. 199) Even so, there is still a lot of subjective evidence that speaks for adventure training method. It is also important not to forget, while critically analysing the results of various research, that there exist a lot of confounding variables while completing data about outdoor education value (see Ewert & Sibthorp, 2009).

We have already emphasised the value of students' social and communication competence, and have pointed out the lack of competent teachers to guide the students in their growth in that field. In fact, the teacher's pedagogical competence to guide students in their social and communicational development becomes even more crucial in the light of new Estonian National Curriculum of General Education where the section of 'crossing topics' is accented (Põhikooli riiklik õppekava, 2010; Gümnaasiumi riiklik õppekava, 2010).

## **Conclusion**

Examining three teacher-training curricula in one of the main Estonian teacher-training institutions we have come to conclusion that one of the weaknesses of the teacher-training curricula is the lack of balance between using a) lectures and academic reading for teaching theory (lectures, seminars); b) the teaching methods that give an opportunity to implement abovementioned theory in simulated situations (practicums); and c) real practice as a teaching

method. It is inevitable that teachers who are taught using the narrow range of methods will have the poorer set of methods to apply in their further work at school. The use of action learning and teaching methods is needed in teacher education, especially in different pedagogical and psychological subjects – these are the methods that help future teachers, besides acquiring a subject matter of academic disciplines, to learn to develop their students' social and communication competence.

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## **C**HAPTER 13

### **DEVELOPING PRE-SERVICE TEACHERS' VALUES AND ATTITUDES IN LITERACY: A COLLABORATIVE MENTORING PROJECT**

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#### **Abstract**

This research examines the benefits of a pre-service teacher – secondary school student mentoring program that was initiated: a) to improve the literacy skills of at-risk grade ten students, predominantly males, who were struggling with success in literacy, and b) to provide pre-service teachers with an opportunity to work closely with a student who was struggling with literacy skills and to program for that student's individual needs. Although research has identified that literacy tutoring can be effective with young children (Lipton & Wellman, 2003; Gordon, Morgan,

O'Malley & Ponticell, 2007; Juel, 1996), few studies focus on the benefits of tutoring adolescents. The research question posed was: How does an opportunity to mentor students identified as "at-risk" develop pre-service teachers' capacity as literacy teachers? Twenty-eight pre-service teachers mentored seventy-five grade ten students in a series of five forty-minute sessions. Data sources take the form of surveys administered before and after the sessions, instructor observations of what happened in the mentoring sessions, written reflections of the pre-service teachers, and results on the provincial test. For the scope of this chapter, we focus specifically on the experiences of the second author, who was a mentor in this project. Our findings indicate that opportunities to mentor struggling students help pre-service teachers develop an awareness of the kinds of literacy issues that exist in relation to student achievement and develop specific literacy teaching strategies to address individual student needs. The stakeholders in this research project were a) the mentees (Grade 10 students); b) the mentors (pre-service teachers); c) University of Ontario Institute of Technology (UOIT) Secondary English Language Arts instructors; and d) the High-school.

## **Keywords**

Mentoring – Literacy – Pre-service teachers

## **Introduction and brief overview**

This paper presents a mentoring project that brought together twenty-eight pre-service teachers from The University of Ontario Institute of Technology (UOIT) and seventy-five Grade Ten students from a secondary-school near Toronto, Ontario. This qualitative study explores the benefits and challenges for pre-service teachers in the area of literacy instruction as they engage at-risk students in an array of literacy activities. Although we will give a brief overview of our findings on the success of the mentoring project this paper will focus primarily on the following two questions: What mentoring experiences

does a mentoring project offer for pre-service teachers? How do pre-service teachers meet the challenge of mentoring? For an in-depth understanding of the mentoring process, we will present the case study of one pre-service teacher's experience.

The online mentoring project was built into an intensive 72-hour Teaching Secondary English Language Arts course. This three-month project ran from January to March 2008 and each pre-service teacher worked with one or two grade ten students on a series of five "literacy modules" to be explored in five mentoring sessions of approximately 35 minutes (half a period) in length. Each module had an interactive teaching component: questionnaire, cloze activity, exemplars with questions, organizers, etc.

UOIT's secondary language arts program instructors embarked on this project for a variety of reasons, recognizing its learning potential for both the pre-service teachers and the grade ten students as they engaged in purposeful tasks with an authentic audience. A literacy team from the secondary school was formed, consisting of the English Department Head (as team leader), the Vice Principal, the Special Education Head, three teachers from the school and Hughes (Assistant Professor and Instructor of the English methods course at UOIT). The team drew on evidence from past Ontario Secondary School Literacy Test (OSSLT) scores that clearly indicated that males, in applied-level courses, struggle with the literacy tasks on the OSSLT and, subsequently perform poorly in comparison to their academic and/or female counterparts. A decision was made to focus primarily on the struggling boys.

From a teacher education perspective, Hughes was particularly interested in helping her pre-service teachers develop a heightened sense of competency in

teaching students who struggle with literacy skills as they adjusted to their new roles as English teachers. She presented the opportunity to be involved with this mentoring project to her students and they unanimously felt that it would be a positive learning experience for them as well as the grade 10 students. Hughes and her pre-service teachers spent time in class discussing and troubling the issues around males and literacy, a topic that has garnered much media attention over the past few years. Some of the pre-service teachers expressed concern that the focus on males meant that struggling females would not receive attention they needed, and Hughes shared these concerns with the literacy team. The team felt that the concerns were valid but they needed to start with a smaller group and securing funding for the project would be easier if they targeted struggling males, especially given the media attention the achievement gap in literacy between boys and girls was receiving. Despite their concerns, the pre-service teachers committed themselves wholeheartedly to the project. Both the instructors and mentors had the overall intention to create a learning situation for all participants that views students of any age as co-constructors of knowledge.

This article is written from two perspectives: the instructor (first author) and a pre-service teacher (second author) of a Secondary English Teaching course conducted at UOIT.

## **1. Contextual Framework**

In this study we modeled our understanding of mentorship on the work of Lipton & Wellman (2006) and took their concept of learning-focused mentoring relationships to build a framework for the pre-service teachers to work with their mentees. We found that Lipton and Wellman's categories of mentoring were

highly suited to the outcomes we hoped to achieve and to our knowledge of the power of mentorship. The four categories we examined were: Offering Support, Creating Challenge, Facilitating Vision, and Consulting, Collaboration and Coaching (Lipton & Wellman, 2006).

We felt that our pre-service teachers could benefit from structured understandings of the ways that the mentoring sessions might unfold as they worked with their mentees. We spent time in class engaging in discussion so that they would have a clear understanding of the expectations of the project, their roles as mentors and the successes and challenges that they were realizing throughout the three month period. This time was given during our English classes where these future teachers would plan, problem-solve and reflect on their experiences of mentoring.

As we progressed through our project observing, talking to and interviewing our pre-service teachers, we were often struck by the insights that they shared and the impact that the experience was having on them as learners, mentors and future teachers. We found that there was a wonderful connection being formed and that both pre-service teachers and their mentees were learning from each other. This reciprocal relationship reinforced our beliefs that this kind of experiential learning should be a focal point in teacher education programs, beyond the traditional practicum component.

## **2. Our Understanding of the Power of Mentorship**

Mentorship is a concept that is becoming more widely recognized in the field of education. In Canada and the United States, school districts often require their new teachers to take part in New Teacher Induction or Mentorship Programs. The purpose of these programs

is often to support and guide new teachers as they journey into the field of education. It is also apparent that more and more teachers are enlisting the help of parents, co-op students and peer helpers to mentor students in classrooms. This phenomenon is due in part to a recognition of the value of mentors and in part to the reality that classroom resources continue to decline.

The success and power of mentoring lies in the values, attitudes, and purposes of the stakeholders involved. When the stakeholders of this research: mentees (Grade 10 students); mentors (pre-service teachers); UOIT's Secondary English Language Arts instructors; and participating schools, share common values, attitudes, and purposes mentoring becomes a powerful tool that increases the chances of success for the mentees involved. However, when there is discord among the stakeholders, problems can arise.

### **3. Literature Review**

The need for mentorship is becoming exceedingly more important in education and the research indicates that the benefits of mentoring programs are advantageous and widespread (Armstrong, 2006; Carr, Hermen & Harris, 2005; Kozonlonka & Horwood, 1997; Sullivan, 2004).

Hawkey (1997) argues that, although several studies provide overviews of mentoring and its management (cf, McIntyre, Hagger & Burn, 1994; Wilkin, 1992b), few "examine or analyze the intricacies of mentoring interactions (Glickman & Bey, 1990), how mentoring relationships operate between the individuals involved, or how and what pre-service teachers learn from their mentoring experiences" (p.325). Our research addresses this gap by collecting and analyzing the

narratives of pre-service teachers who are participating in the mentoring project.

We draw on this research to look at the power of the mentoring relationship to assist secondary students in developing important literacy skills. At the outset, we sought to explore the benefits of mentoring for classroom students as a form of outreach to the local community, but as the project progressed we found that this experience had tremendous benefits for our pre-service teachers as well.

#### **4. Theoretical Framework**

Using Lipton & Wellman's mentoring relationship framework, we hope to explore the question: How does an opportunity to mentor students identified as "at-risk" develop pre-service teachers' capacity as literacy teachers?

##### ***4.1. Offering Support***

Under the first criteria of "Offering Support" Lipton and Wellman (2006) list several important characteristics that describe what it means to offer a mentee the guidance and encouragement necessary for them to meet with success. The first sub-category is identified as "Attending Fully." As a mentee, it is very important to feel heard and that your thoughts, concerns, and questions are valued. All learners, regardless of age, require this full attention in order to become risk-takers and to be able to step outside of their comfort zone. Along the same lines it is important for a mentor to understand the power of empathy and, as Lipton and Wellman (2006) promote, to be able to respond empathetically.

Further to empathetic responses it is very important for the mentor to create a "safe" space for their mentees (Lipton & Wellman, 2006). The concept of

“safe space” is well supported in a wide range of literature. Gibbs (2006) proposes that the ideal culture of learning must be “safe and caring” (33). Hunter (1969) links a safe learning environment to one of the major factors of motivation. Eldridge & Bennett (2003) found that a feeling of emotional safety is a critical element in education.

In addition to the aforementioned aspects of support it is felt that mentors should also understand the importance of scheduling time, offering resources and providing information (Sullivan, 2004; Carr, Hermen & Harris, 2005; Lipton and Wellman, 2006). The mentors were able to offer a great deal of support through resource offerings and information.

#### ***4.2. Creating Challenge***

The second category that the authors borrowed from Lipton and Wellman (2006) falls under the heading of “Creating Challenge.” This topic is exceedingly important in the mentorship relationship as well as in the teaching/learning partnership. Creating challenges is something that teachers do naturally and it was one of the areas where our pre-service teachers excelled in terms of challenging their mentees to develop their literacy skills. Lipton and Wellman (2006) focus the challenge creation in the following five sub-categories: goal-setting, maintaining focus on student learning, exploring samples of student work, the active engagement of students in problem-solving and decision-making and, finally, building connections.

#### ***4.3. Facilitating Vision***

The third of Lipton and Wellman’s (2006) categories was “Facilitating Vision”. We found this category to be very important as it enabled our pre-service teachers to move their mentees forward toward the end goal, defined by the mentees, reinforcing the planning

aspects of teaching that they were being taught at the Faculty of Education. Interestingly, Lipton and Wellman's work on mentorship mirrored the work of Wiggins and McTighe (2005) and Tomlinson and McTighe (2006) on the Backward Design model for unit planning. This vision of unit planning was being taught to the pre-service teachers in their Core Methods course. In many ways Backward Design requires the teacher to be a mentor to his/her students. Lipton and Wellman (2006) talk about painting the big picture, setting high yet achievable expectations, assisting in the identification of learning outcomes and developing action plans, prioritizing tasks and identifying resources.

The pre-service teachers were very concerned about assisting in the identification of learning outcomes, as they were aware of the importance of paying close attention to curriculum expectations as they were being taught at the Faculty of Education. As a result they were very keen to understand the big picture and how well their mentees were progressing in relation to others in the class.

#### ***4.4 Consulting, Collaboration, and Coaching***

Lipton and Wellman's final category focuses on, "Consulting, Collaboration, and Coaching." The pre-service teachers entered into a relationship where they could work with their mentees on this continuum as required. According to Lipton and Wellman (2006, p. 28) the intentions of consulting are: to share information, advice, resources related to curriculum and content and effective practices both among each other as mentors and with their mentees. Pre-service teachers engaged in this practice frequently throughout the project, by discussing their experiences with each other: what worked, what didn't and why. They also shared information and resources

with their mentees, as well as giving them helpful test-taking and writing tips.

The intentions of collaborating are to co-develop information, ideas, and approaches to problems and for coaching their mentees: to support their idea production, decision-making, and ability to reflect on learning. Following Atwell's (1998) model of a writing conference, the mentors supported and encouraged the students, and sometimes nudged them to elaborate or to clarify.

Finally, the role of the coach is to increase the ability of the mentee to self-coach and become a self-directed learner.

## **5. Data Collection Methods and Analysis**

Data for this study took the form of surveys administered at the beginning and end of the project, structured field notes during participant observation, pre-service teachers' learning journals, and transcripts of semi-structured interviews with individual pre-service teachers and focus group meetings.

When the data was analysed by the authors, a myriad of comments served as examples that reinforced each of our categories demonstrating that mentorship has a defined framework and purpose. We also found very concrete examples of Lipton and Wellman's (2006) reference to the importance of sub-categories when understanding each of their mentoring criteria.

Because the school we partnered with wanted to target the grade 10 males in applied level classes, their guidance department printed up a list of male students based on enrolment in a first or second semester applied level course, focusing on those who needed the most support. Because of the long list of

names, the Literacy Team decided to pair the grade 10 students up so that each pre-service teacher would work with two students.

### **5.1. Meaningful Mentoring**

To create meaningful mentor-students relationships, the partner school "hand-selected" students, predominantly males, to work with our pre-service teachers as these volunteers were "off site" and coming in to the school on specific dates to meet with their students (they wanted to make sure the students were solid "attenders" and would be present for the mentoring sessions). In late January we held a mentoring information session for the pre-service teachers at our campus to outline the project.

### **5.2. Enhancing the Experience**

Because the intention of the mentoring project on the school's end was to promote/enhance students' literacy skills and confidence and to raise scores on the Ontario Secondary School Literacy Test, the sessions needed to focus on specific literacy skills and strategies. The teachers at the school planned the modules and the pre-service teachers modified the order and content of some of these modules to meet the individual needs of their mentees.

The sessions were as follows:

#### *5.2.1. Session One: "Getting to Know You" & "The News Report."*

- reading, writing, and general interest surveys
- attitudes toward literacy and the Ontario Secondary School Literacy Test (OSSLT)
- shared goals of the mentoring project
- "real" news article sample
- news report structure and content requirement

- sample task and exemplars

#### *5.2.2. Session Two: "Reading Strategies"*

- what effective readers do
- strategies for reading tasks: graphic, narrative, dialogue, information
- types of questions: explicit, implicit and making connections
- multiple choice strategies and open response exemplars

#### *5.2.3. Session Three: "Short Writing Task"*

- paragraph format/organizer
- topic development and use of conventions
- sample task and exemplars

#### *5.2.4. Session Four: "Series of Paragraphs Expressing an Opinion"*

- planning, structure, and content
- sample task and exemplar
- anecdotal survey "How do you feel about literacy now?"

The "feel good" component of the mentoring sessions was enhanced with cookies and juice for all participants in the first session, and treats provided at subsequent sessions. This project required that mentoring session be conducted in a quiet setting outside of the students' classroom so the stakeholders in this research project met in the school library.

## **6. Research Findings**

The results of our project were significant both quantitatively as indicated in the improved OSSLT scores for the target group, and qualitatively in our

participants' positive attitudes leading up to, during, and after the administration of the OSSLT.

Quantitatively, we saw an overall improvement of 15% in the applied level results from two sets of students writing the OSSLT in 2008 and 2009. Seventy-five percent of the school's applied level students were successful in the 2009 OSSLT compared to only 60% in 2008. Similarly, 82% of the male students were successful in the 2009 OSSLT compared to only 73% in 2008.

Qualitatively, there was a positive change in student and pre-service teacher attitudes towards literacy in general, and the test in particular, and an overall improvement in teacher-student interaction as observed by the researchers and the school's Literacy Team. We noted a shift in the attitudes of the students who participated in the mentoring project. The response from the students at the initial information session in February had been fairly negative. The male students had felt "singled" out (as indeed they were) and resented their participation in a project that, from their perspective, suggested they were "inferior" to their female classmates. The vice principal and literacy chair attempted to convince these male mentees that this was actually a great opportunity and that they were really lucky to have been chosen, and the impact of the project on their success on the test and on their overall literacy skills would be considerable: the message was not particularly well received at that time, based on the observation of numerous negative murmurings. However, despite the negativity voiced at the large group session, once these young men met with their mentors, a remarkable transformation occurred and was clearly visible when the researchers and literacy team observed the sessions. One on one, with a pre-service teacher giving them their undivided attention, the mentees could not and did not "buy out"

of the process. They were involved and, for the most part, engaged. They knew that their mentors were invested in them and their success, and they responded in kind. This was evident from the comments made in a post-project survey administered by the school to the participating mentees. Though the mentors and mentees participating in this project differed immensely in terms of their scholarly successes, the effort made by both the mentees and mentors to re-align the values, attitudes, and purposes implied by their interaction and involvement in the project afforded a significant shift in the perception of mentoring.

The results and findings of the Mentoring Project from the school's perspective clearly indicate that one-on-one literacy support from caring adults does indeed have an impact on the overall confidence and literacy skill development of grade 10 applied level males and, subsequently, improves their success rates on the OSSLT. From our perspectives as the instructor (first author) and a pre-service teacher (second author) of a Secondary Language Arts Teaching course, we turn our attention now to the benefits of the experience to the pre-service teachers focusing on the second author's written reflections and recollections of her mentoring experience.

### **7.1. Sarah's Narrative of Her Mentoring Experience**

*"As a first-time mentor, I was nervous: at least I knew I would have that in common with my mentees. I tried to get to know them a little as well as how they felt about their literacy in the short amount of time we had. Both mentees were different, but open to help and support. It was easy to empathize with my mentees as we were all learning what literacy meant and how we needed to show our skills: they needed to*

*learn how to perform their literacy skills and I needed to learn how to get them to perform these literacy skills in a myriad of situations.*

*Creating challenges for students who struggle with literacy is fairly easy, but the OSSLT test is fairly formulaic and both of my mentees knew what they needed to write and what it should look like; however, they struggled with how to write what they needed and how to make it look and read the way it was supposed to. It was important to set goals for each mentee which made them feel safe but pushed them to achieve more in each session. One of my mentees couldn't stitch sentences or join phrases together so that they didn't sound like disjointed bullet points. It felt like he had mastered the planning stage of writing, but hadn't spent enough time following through with the writing itself. So we looked at exemplars of work that flowed well and discussed and highlighted the parts that worked to support linking ideas together. I had to build a relationship of trust with both mentees: trust in me to support them and trust in themselves that they could improve. While it was difficult at first to encourage the mentees to believe they could do the same in their writing as the examples we provided to them they did replicate the skill, albeit by following the same structure in the exemplar rather than face the frustration of trying to weave their own sentences together. While I struggle with the idea of literacy as replication, both mentees had explicit goals: pass the OSSLT test and graduate from secondary school.*

*In having these explicit goals, it was easy to identify the desired results for the mentees, and plan their learning experiences in such a way that they might understand and believe that they could achieve them. While I know that literacy is so much more than the replication of skills, I also am aware that an important aspect of education*

*is success. I was concerned that, although they would probably pass the test, their voices were not developing. However, in attempting to re-align my values, attitudes and purpose with that of my mentee, I was able to communicate and promote a shared set of values through common behaviours and skills that my mentees could utilize. Had I not been able to develop this shared sentiment, I doubt my skills as a mentor would have benefitted my mentees.*

*Many times in this mentoring experience, my peers and I consulted with each other on what our mentees were like, what worked, what didn't and why. Through this collaborative effort, I was able to glean a better understanding of how my mentees felt about their sessions and reflect on how to make them better each time we met. In mentoring students who struggle to showcase their literacy, it is important that they see the flaws in their work and correct them. Hopefully, they learn to do this themselves, without the support of a mentor and become self-directed learners. However, the process of coaching also made me more conscious about the subtleties required to ensure students' literacy development. While my ultimate goal for this project was to facilitate learning opportunities for my mentees, which although centered on the OSSLT, would be geared towards improving their overall literacy skills, I also gained a better understanding of students who struggle with literacy, and will be able to draw on this experience in my future classrooms."*

## **Conclusion**

Sarah's experience and the comments of her peers collected through written reflections, suggest that through extended literacy mentoring, these beginning teachers developed an awareness of some of the literacy issues they would have to confront in their own classrooms in the future. In preparing for their

mentoring sessions, they acquired specific literacy teaching strategies to help their mentees improve both reading and writing skills. Based on post-project written reflections and focus group interviews, it is clear that they also developed a greater understanding of students who read below expectations and they developed greater empathy for these students.

This research points to guidelines for future development of mentoring programs. The data suggest that productive partnerships are established through the development of trust and understanding and that both mentors and mentees benefit enormously, both academically and socially, from a positive mentoring relationship. The pre-service teachers' experiences as mentors helped consolidate their knowledge and skills as they taught, guided, advised, motivated, validated and acted as role models for their mentees. They also had opportunities to reflect on their educational philosophy and practice, and to experience the kind of personal satisfaction one feels in helping another achieve a goal. Ultimately the project proved successful for most involved.

It should be noted that the success of the mentoring project was also due to the commitment of all the stakeholders, including the students, teachers, pre-service teachers, administrative team, and the school community, who shared the common goal of increasing the students' confidence and developing their skills in the area of literacy. As every good teacher knows, it is critical to develop action plans, prioritize tasks, and identify resources. UOIT's pre-service teachers often went above and beyond the project expectations to find ways of fulfilling these aspects of the mentorship relationship.

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## **C**HAPTER 14

### **MATHEMATICS TEACHERS' SUPPORT OF PARENTS: THE ROLE OF INQUIRY**

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#### **Abstract**

A description of a professional development program's use of inquiry to inform teacher practices in a United States school (pre-kindergarten to grade 8) in New York City about parent-child collaboration in mathematics. The research question investigated was: What can teachers learn about parent-child collaboration and their role in cultivating it from professional development that provides opportunities to a) engage students and parents in mathematics tasks, b) gather and analyze related data, and c) share findings with colleagues? Through classroom-based interaction with families and quantitative/qualitative analysis of data (surveys, work samples, reflections, observations, and interviews), seven teachers determined 1) parents' lack of content knowledge and differing prior learning experiences as reasons for a paucity of mathematical discussion at home, and 2) engagement as a means of enhancing parents' understanding of current methodology.

## **Keywords**

Professional Development – Parental Engagement – Teacher Inquiry

## **Introduction**

Studies reveal the formal training of educators to partner with parents in any form as under-emphasized in teacher education and professional development programs (Shartrand et al. 1994; Hiatt-Michael 2001; Witmer 2005). Not surprisingly, Calabrese Barton et. al (2004) surfaced teacher practices consisting mainly of a “laundry list that good parents do” (p.3), and Ferrara (2005) found teacher skills limited to reactionary “how to” strategies for dealing with situations such as “difficult parents” or parents of children with learning disabilities.

Such conditions fall short of meaningfully engaging parents in their child’s academic learning. This is particularly unsettling in mathematics education since studies highlight parents as a factor in developing positive attitudes (Kliman 1999) and higher achievement in mathematics (Goldstein & Campbell 1991; Kokoski & Downing Leffler 1995; Van Voorhis 2011; Mackinnon 2012). To contribute to this aspect of teacher training, I crafted a university sponsored professional development program involving teacher inquiry and investigated its impact on teacher understandings about parent-child collaboration in mathematics.

My posed research question was: What can teachers learn about parent-child collaboration and their role in cultivating it from professional development that provides opportunities to a) engage students and parents in mathematics tasks, b) gather and analyze related data, and c) share findings with colleagues? This chapter describes a) the inquiry efforts of the

involved teachers, and b) their related findings concerning parent-child collaboration in mathematics.

## **1. Theoretical Framework**

Within the Ecologies of Engagement Framework developed by Calabrese Barton et. al (2004), parental engagement is defined as “a dynamic, interactive process in which parents draw on multiple experiences and resources to define their interactions with schools and among school actors” (p. 3). This framework represents a shift in focus from knowing what parents do, to understanding how and why they do what they do. To better understand parents, Calabrese Barton et. al encourage educators to inquire about parents’ actions as a means for tailoring practices conducive to parent-child partnerships.

For teachers to gain such understanding, Situated Cognitive Theory (Choi & Hannifin, 1995; Jonassen & Rohere-Murphy, 1999) informs teacher educators that new knowledge comes from implementing and observing actual school-based teaching. In addition, opportunities for teachers to share feedback with colleagues can foster professional growth in a community of practice (Darling-Hammond & McLaughlin 1995; Lee 2005; Epstein & Van Voorhis 2010; Walker, Shenker, & Hoover-Dempsey 2010; Johnson 2012). The professional development program described in this chapter, crafted with these features in mind, represents a means for developing understandings necessary for tailoring teacher support of parent-child collaboration.

## **2. Methods and Procedures**

### **2.1. Participants**

An inner-city parochial school population of 147 pre-kindergarten through 8th grade students and their parents along with their seven teachers in the metropolitan area of New York participated in the program. The school's curriculum was reform-based, yet teachers were provided little guidance on how to productively involve parents. In addition to receiving professional development credit, the teachers also received a stipend for their participation in the program.

The students' ethnic backgrounds consisted of 82% Hispanic, 14% Afro-American, 3% Caucasian, and 1% Asian. There were 75 male and 72 female students, and one class per grade level except for pre-kindergarten and kindergarten that were merged due to size restraints. The families were fluent in English and were classified with low socioeconomic status (approximately 81-90% of the children qualified for free lunch).

The seven participating mathematics teachers consisted of one teacher for both pre-kindergarten and kindergarten, one teacher from each of grades 1 through 5, and one teacher for grades 6 through 8. The 2nd grade teacher had 18 years of teaching experience, the 1st grade teacher had three years, the pre-kindergarten/kindergarten teacher had two years, and the others were first year teachers. Five teachers were state certified and two were working towards it. Four teachers were Caucasian, two were Hispanic, and one was Pacific Islander.

## ***2.2. Professional Development Framework***

For eight weeks during the first half of the school year, I prepared the teachers to a) implement a mathematics parental engagement project within their own classrooms, b) collect data (surveys, work samples, written reflections, observational field notes, and transcribed notes), and c) quantitatively and qualitatively analyze their data. The professional development consisted of a) five teacher workshops and b) three implementation sessions (initial meeting, engagement workshop, and follow-up session).

## ***2.3. Parental Engagement Project***

The parental engagement project (Mistretta 2008; Mistretta in press) sought to inform, engage, promote reflection, and maintain collaboration among parents and children concerning mathematical learning. The mathematics content of the project involved the use of tangrams (moveable objects consisting of seven geometric shapes, namely two large triangles, one medium triangle, two small triangles, one square, and one parallelogram), a familiar tool for the teachers, and in turn their students, from prior professional development with me concerning manipulatives (moveable objects).

An invitation informed parents of the project's intent, requested their participation, and inquired about times that would best suit their schedules. The initial meeting, attended only by parents, involved survey completion along with discussion of constructivist teaching practices, the value of parental involvement, and the use of manipulatives, specifically tangrams.

The engagement workshop involved parents and children using tangrams to complete mathematical tasks involving spatial reasoning, computational skills, and problem solving. Information concerning home

tasks that reinforced and extended the workshop was distributed and discussed. During the follow-up session, families reflected on their home tasks. In addition, strategies for maintaining parent-child collaboration were explained by the teachers.

#### **2.4. Measures**

Teachers administered a parent survey (Mistretta 2008) consisting of 14 statements requiring 5-point Likert scale responses and one narrative response question to investigate how their classroom parents and children collaborated in mathematics, and the reasons behind their actions.

Work samples concerning mathematical tasks completed at home were collected to assess quality of work. Related written reflections were collected to investigate student and parent feedback concerning the most enjoyable and challenging aspects of working together. For younger students where writing posed a challenge, pictures were drawn to depict their feedback, and verbal explanations recorded by their teachers.

Observational field notes were taken by teachers while parents and children worked on classroom tasks to investigate parental assistance (explanatory versus exploratory), methods of solution (single versus multiple), and questions posed (short answer versus probing).

Whole group reflective discussions among the families about classroom and home tasks were taped. Topics discussed were the same areas investigated through written reflections and observational field notes. Teachers transcribed notes afterwards to clarify and assess consistency between a) observational and

taped data concerning classroom tasks and b) written and taped data concerning home tasks.

Journal Entries were kept by each teacher throughout the program so that I could monitor their a) initial viewpoints and practices, b) findings from their gathered and analyzed data, and c) garnered knowledge from practical experiences working with their families.

Taped focus group interviews were conducted using questions that reflected those of the journal entries. I transcribed notes afterwards and compared each teacher's verbal responses with their corresponding journal entries to clarify and assess consistency.

### **3. Data Analysis and Findings**

Each of the teachers analyzed data for their own students and parents that included a) tallying Likert-scale survey responses and scores on home tasks to determine frequencies, b) using content analysis to code observational field notes and transcribed notes of taped conversations about classroom tasks to determine emerging themes, and c) using content analysis to code survey narrative responses, written reflections, and transcribed notes of taped conversations about home tasks to determine emerging themes.

I analyzed each of their gathered data sets in the same manner and found the teachers' findings consistent with mine. Using content analysis, I coded the teachers' journal entries and my transcribed notes of taped focus group interviews to determine emerging themes.

After analyzing their parent surveys, each teacher noted a paucity of parent-child discussion about

methods of solution. Most parents involved themselves in only checking that homework was done and reviewing for tests. This lack of content knowledge and differing prior learning environment surfaced as reasons for parents' limited mathematical discussion with their children. The majority of parents at each grade level made comments reflective of "Mathematics today is taught differently than in my time. I don't want to confuse my child."

It was encouraging that the teachers uncovered this parental challenge since, according to Konzal (2001), teachers often misunderstand parents' low level of involvement as lack of commitment, as opposed to parents' actual lack of understanding concerning curriculum and methodology. Such a misunderstanding has often positioned parents as passive recipients of information and teachers' agendas, rather than as active participants who meaningfully contribute to their child's academic learning (Burton & Baum 2009).

Teachers graded work samples using a rubric where a score of 4 (correct solution with all work/explanations), 3 (correct solution with incomplete work/explanations), 2 (correct solution with missing work/explanations), 1 (incorrect solution but with relevant work/explanations), or 0 (incorrect solution with missing work/explanations) was awarded. Each teacher found most scores being 3 or 4.

Analysis of written reflections surfaced most students in each grade enjoying the opportunity to share methods of solution that were different from that of their parents. Most felt challenged by the absence of parents offering answers, but rather questioning how and why. Most parents in each grade enjoyed witnessing their child's thinking, but found it

challenging to listen and guide their child's method of solution.

Analysis of observational field notes surfaced most parents initially taking control of conversations in an explanatory manner using only one method of solution (theirs), and posing short answer questions requiring a yes/no and/or number response. Over time though each teacher detected more meaningful collaboration occurring as they guided parents to question more and tell less by posing prompting and probing questions such as What do we know that can help us? Can we approach this another way? Why? and How?

Analysis of teachers' journal entries and transcribed notes of related focus group interviews portrayed all the teachers initially acknowledging the value of involving parents, yet not confident in their parents' knowledge of how to help their children. They desired training on how to involve parents more productively since they basically only communicated with them through written letters about general classroom procedures. They also limited parents to only checking homework, reviewing for tests, and drilling multiplication tables.

In addition, each teacher expressed in both written and verbal form their realization of the benefits of engaging parents and children in mathematical tasks. They all specifically acknowledged the opportunities to a) enhance parents' understanding of current methodology, b) cultivate meaningful discussion among families, and c) witness parents' desire to be involved, as well as children's enjoyment while collaborating with their parents.

## **Conclusion**

A former president of the National Council of Teachers of Mathematics stated “we have to help parents bridge their fear and encourage them to join hands in providing a solid mathematics education for all students” (Price 1996: 536). This professional development program demonstrated its ability to address this directive by developing teacher understandings of parent-child collaboration through inquiry.

Through practical experiences working with families, analyzing related collected data, and sharing findings with colleagues, the teachers a) determined parents’ lack of content knowledge and differing prior learning experiences as reasons for a paucity of mathematical discussion at home, and b) witnessed the benefits of engaging parents and children in mathematical tasks.

The inquiry efforts of the teachers described in this chapter surfaced parental perspectives about their role in their children’s mathematics education that, in turn, informed the teachers about their role in supporting parent-child collaborations in mathematics education. A limitation to this study was that only one, non-public school community was involved. Future work should expand upon this work to include multiple and diverse school settings to determine more generalizable findings.

Such investigations help align values, attitudes, and purpose of those involved in the learning community. I contribute the described professional development framework as a means towards using inquiry to align teachers’ and parents’ support of children’s success in mathematics. For when all constituents work in collaboration, conditions exist for both developmental and community learning.

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## **C**HAPTER 15

### **MISSED OPPORTUNITIES: THE IMPORTANCE OF STAKEHOLDERS SHARING PURPOSE, PROCESS AND PRODUCT**

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#### **Abstract**

This investigation explored the digital literacy demonstrated by fifty preservice teachers engaged in problem-based learning. Using a case study design, the research examined the collaboration among students as they created wikis as tools for identifying solutions to two content-bound, open-ended problems. Data included participant interviews and activities documented in wiki page histories. All data were analyzed within Dresang's framework for Radical Change (1999, 2005, 2009). Results indicate that preservice teachers had the skills needed to use wikis as tools for communication. They recognized and valued the potential of wikis as meaning making tools and valued knowledge construction as a meaningful pursuit. Students were unable to construct new knowledge. Through findings, we identify and describe the necessity for stakeholders to have shared purpose regarding instruction and knowledge construction in

teacher education and professional development programs. This shared vision will enable stakeholders in educational communities to use Information Communication Technologies (ICTs) as knowledge construction tools.

## **Keywords**

Digital Literacy – Literacy– Teacher Education-Wiki  
Technology

## **Introduction**

According to the Pew Research Center (2010), Americans between the ages of 18 and 29 use technology in nearly every facet of their lives. In fact, 75% of those surveyed have a profile on a social networking site (p. 29) and approximately 55% visit that site at least once daily (p. 28). Cell phone use for talking, texting and connecting was reported by 94% of respondents and 83% reported sleeping with their mobile device nearby (p. 32). This group is “more networked and globally engaged than members of any similar age cohort in American history” (Zogby, 2008, p. 94). They are the Millennials (Pew Research Center, 2010), the First Globals (Zogby, 2008). Born between 1980 and 2000, this group makes up the majority of students currently enrolled in teacher education programs in the United States. While they may be more likely to text, tweet and friend than the Baby Boomers and Generation Xers who teach them, this research on digital literacy and related research describing the use of wikis among undergraduates (Cole, 2009; Lundin, 2008; Morgan & Smith, 2008; Wheeler, Yeomans & Wheeler, 2008) and K-12 teachers and students (Engstrom & Jewett, 2005) shows that they are not always eager or fully able to use real- life technologies for acquiring and constructing knowledge in academic settings.

According to the National Council of Teachers of English (NCTE, 2008) “proficiency with the tools of technology” and the ability to “create, critique analyze and evaluate multi-media texts” are among the key characteristics of 21st century literacies (p. 1). Evidence shows that K-12 teachers are developing and using these 21st century literacies and finding ways to foster them in classrooms. In fact, a 2009 survey of over 1,400 teachers found that “[m]ore than three-quarters (76 percent) of K-12 teachers report that they use digital media in their classrooms” (PBS, 2009, p. 2). These teachers value a wide range of digital media from video to interactive lesson plans and “have strong positive attitudes about the effects of digital media on their own teaching and on students’ engagement and achievement” (PBS, 2009, p. 5). As the digital divide decreases (NCTE, 2009) and the number of teachers using digital media personally and professionally increases (PBS, 2009), an exploration of digital literacy among stakeholders such as preservice teachers, teachers and teacher educators seems imperative.

## **1. Perspectives/theoretical framework**

Our understanding of literacy and learning is grounded in a sociocognitive perspective (Langer, 1987, 1989, 1990a, 1990b, 1991, 1995) informed by the work of Rogoff (1990), Vygotsky (1962, 1978) and Wertsch (1985, 1991).

From this perspective, all learning is social, collaborative and contextually dependent. Individuals develop literacy within the communities where they live and work. This occurs through interactions among community members who model the literacy practices and skills that are appropriate and necessary for communicating and constructing knowledge in particular contexts whether they exist online in real-

time, virtual time or face-to-face. Based on this notion, digital literacy is the ability to use language through Web-based tools such as wikis, blogs and interactive whiteboards for the purposes of communication and knowledge construction.

This perspective of digital literacy guides our investigation of the ways in which digital literacy is demonstrated through wiki technology. It is framed by Dresang's theoretical principles of Radical Change: interactivity, connectivity and access, and the information behaviors related to changing forms, perspectives and boundaries that grew out of the theory (Dresang, 1999, 2005, 2009; Dresang and McClelland, 1999). While Radical Change theory originally developed as a response to children's experiences with literature, it has applications to digital texts. These principles and behaviors articulate the skills and experiences associated with living in a digital world.

Dresang (2009) defines interactivity as "dynamic, nonlinear, and nonsequential learning and information behavior" that provides "an increasing sense of control by end-users" (p.27). When understood within the context of the information behavior related to changing form, we see that content, format and style are ever changing in the digital world. Texts may be print, non-print, aural or visual. They need not be rule governed. They are never static.

Through the principle of connectivity (Dresang, 2009) one is embraced by a "sense of community" and can participate in the "construction of social worlds that emerge from changing perspectives" (p.27). This means that changing perspectives becomes a consistent information behavior through the exchange of multiple and "previously unheard voices" (p.29). In the digital world, this is evidenced through the texts

created in social networking communities such as Facebook and Twitter.

The principle of access (Dresang, 2009) “refers to breaking longstanding information barriers, bringing entrée to a wide diversity of formerly largely inaccessible opinion” (p. 27). This narrowing of the digital divide is best observed through information behavior related to changing boundaries (p.29). Based on this principle, all members of the digital world are invited to be both consumers and producers of information regardless of age, gender, interests or assumed expertise.

As technology permeates every aspect of knowledge acquisition and knowledge use, both in and out of the classroom, the theory of Radical Change and its resultant behaviors articulates and informs the skills and dispositions necessary for developing 21st century literacies in an ever increasing digital world.

## **2. Literature review**

According to the sociocognitive perspective of literacy that guides this study, individuals develop literacy within their particular communities through interactions with community members who model appropriate ways of constructing and conveying meaning. Digital literacy involves effective communication and knowledge construction through active membership in Web- based communities and skilled use of Web-based tools such as wikis, blogs and other changing and developing information and communication technologies (ICTs) (Coiro, Knobel, Lankshear, & Leu, 2008; Lankshear & Knobel, 2003; Leu, Kinzer, Coiro, & Cammack, 2004; McKenna, Labbo, Kieffer, & Reinking, 2006; McPherson, Wang, Hsu & Tsuei, 2007). Position statements of national organizations such as the National Council of Teachers

of English (2008) and the International Reading Association (2009) reflect these newly developing notions of digital literacy.

Wikis are uniquely suited for the exploration of digital literacy. Wikis serve as the tool through which members of the digital world, as both author and audience, are able to access, share and exchange ideas. Wikis have the potential to become the texts that convey newly constructed knowledge of a community. In this way, wikis reflect the principles and behaviors of Radical Change Theory (Dresang, 1999, 2005, 2008) and may be Radical Change texts.

The literature related to the use of wikis in educational settings ranges from anecdotal descriptions to empirical research providing insight into the use of wikis as tools for acquiring and constructing knowledge in academic settings. Whether describing the use of wikis in K-12 (Borja, 2006; Luce- Kapler, 2007; Morgan & Smith, 2008), undergraduate (Cole, 2008; Lundin, 2008; Morgan & Smith, 2008; Wheeler, Yeomans & Wheeler, 2008) or teacher development settings (Engstrom & Jewett, 2005), authors describe wikis as collaborative, malleable, inquiry tools that can promote student-centered knowledge acquisition and construction through the inherent seeking, sharing and revising of ideas. These characteristics combined with the assumption that most learners in the 21st century are "digital natives" (Prensky, 2001) prompts educators across all levels to use wikis (Borja, 2006; Cole, 2008; Engstrom & Jewett, 2005; Luce-Kapler, 2007; Morgan & Smith, 2008; Wheeler, Yeomans & Wheeler, 2008).

Bringing digital literacy tools typically used to engage in authentic, out of school contexts into the classroom has its challenges. Most authors concluded that wiki users of all ages need an orientation to wiki

technology for school purposes (Cole, 2008; Engstrom & Jewett, 2005; Luce-Kapler, 2007; Wheeler, Yeomans & Wheeler, 2008). They noted that some learners experienced difficulty using wiki technology. Undergraduates (Cole, 2008) and teachers alike (Engstrom & Jewett, 2005) reported trouble uploading, editing and browsing. Students required to use wiki tools for school purposes did not have high motivation for or interest in the task (Cole, 2008; Wheeler, Yeomans & Wheeler, 2008). In fact, Cole (2008) reported that only 68% of students had actually logged on by midterm. Of that group, no one had posted information. They cited lack of time, lack of willingness to share and critique ideas and lack of confidence in their work as additional reasons for not participating (Cole, 2008, p. 144). Luce-Kapler (2007) and Wheeler, Yeomans & Wheeler (2008) noted that wiki users also experienced difficulty due to uncertainty about the expectations of the assignment.

Teacher educators, as stakeholders, can meet the challenges of using digital tools to develop literacy by providing modeling and scaffolding that is typical of effective instruction in any classroom (Cole, 2008; Engstrom & Jewett, 2005; Luce-Kapler, 2007). Teacher educators need to model critical thinking and information literacy skills (Engstrom & Jewett, 2005). Assignments need to be contextualized within the curriculum in order to be purposeful (Cole, 2008).

This literature demonstrates that wikis have the potential to promote high level thinking and knowledge construction. If this is to happen, teacher educators must provide appropriate directions, scaffolding, opportunity and feedback. They must model the use of digital tools for digital literacy. To do this, teacher educators must themselves be proficient with these tools and possess digital literacy.

Understanding the digital literacy of preservice teachers seems to be a logical next step.

### **3. The case study**

We explored the digital literacy of preservice teachers through a nested case study using purposive sampling. Invited participants included graduate and undergraduate preservice teachers enrolled in teacher education programs at a small liberal arts college in Northeastern United States. Twenty-seven undergraduate students were enrolled in a required integrated math/science methods course and twenty-three graduate students were part of a required integrated social studies/English methods class. Within each methods class, students were divided randomly into five groups of five to seven students. While each student was a member of a group, only thirty-six students were active participants. Each group served as a case.

All groups used PBWiki to engage in problem based learning projects. Undergraduate students explored the preservation of the ladybug while graduate students investigated Jamestown as an historical mystery. All groups participated in a lesson on how to use wiki features and received a clear description of the problem and a multi-step problem solving framework. All participants had access to computers on campus. Most also had access at home. At each class meeting participants were encouraged to maintain their engagement in the project and reminded that their contributions were recorded. All instructions were posted on the wiki. Pre and post interviews about the definition of digital literacy were conducted.

#### **4. Methods of data collection and analysis**

Data included interviews with participants about their knowledge of digital literacy prior to and at the conclusion of the problem-based wiki project completed by each group. Wikis consisted of page histories, indicating both types and frequencies of functions performed by participants. There were two levels of data analysis provided by the wiki page histories. At the first level, all functions were identified and counted. At the second level, two researchers reviewed the substance of each transaction to create a coding scheme (Nastasi, 1998). The coding scheme reflected literacy skills as follows: initiation, revision and extension. The coding scheme was finalized and frequencies established. A third rater utilized the coding scheme to code twenty-five percent of the wiki data for purposes of reliability. A content analysis was applied to the interview data, identifying underlying themes related to their understanding of digital literacy and their own digital literacy skills.

#### **5. Results and findings**

The research goal was to explore digital literacy through the interaction and collaboration of participants as they used wikis as tools for identifying and processing information in pursuit of solutions to content-bound, open-ended problems. This study resulted in two major findings that inform our understanding of how digital literacy is developed and demonstrated. Specifically, we identified the literacy skills that students possessed and chose to utilize when confronted with wikis as tools for meaning making. We were also able to identify the limits of the knowledge they were able to construct with this tool.

Findings indicated that preservice teachers were proficient in a limited number of skills needed to use

wikis as tools for communication. These particular skills included initiation, revision and extension.

**Initiation:** Students exhibit the skill of initiation when they post new information on the wiki, typically at the end of the last post without incorporating it into the wiki narrative. An initiation could include a quote, hyperlink, graphic, and or a brief text related to the topic of the wiki. Evidence of participants' skill of initiation is provided below:

- **Student One Posting:** First two successful settlements in America were commercial ventures that were licensed by King.
- **Student Two Posting:** The settlers created relationships with the Native Americans in the area.

The first posting provides historical background information on the economic incentives, while the next student posting provides information on Native American relationships with the settlers. Participants initiated through the addition of related topics containing factual information. Students below initiated through the addition of related hyperlinks.

- **Student Posting:** A new citizen science project has been launched at Cornell (the Lost Ladybug Project) to educate the public on the importance of biodiversity.
- **Student Posting:** Here is a website:  
<http://www.msnbc.msn.com/id/26857828/>

Generally, students initiated by posting a variety of graphic material as new information. Table 1 below, displays the frequency and types of graphic initiations demonstrated in the wiki pages for the social studies and science problem-based learning activity.

Table 1: Combined Social Studies and Science Graphic Data

Types of Graphics	Science	Social Studies	Total
JPEG	12	9	20
Video	0	3	3
Website (Hyperlink)	30	73	103
Word Attachment	0	2	2

Revision: Editing, deleting, reformatting and reorganizing information posted is the skill of revision. Participants' revision consisted of editing by changing word order and correcting errors in grammar and spelling without changing the intent of the original post. This was limited to their own postings rather than the postings of others. Samples that illustrate students' revisions are provided below:

- Science Student Posting: ~~Habitat~~ habitat
- Social Studies Student Posting: where ~~they~~ did they get their food

Table 2. Frequency of Skills shows the frequency of revisions made to both science and social studies wiki pages.

Extension: Students extend when they add information or related topics to that which is an existing post. Below are samples of student extension:

Science Student Posting: The National Science Foundation has funded the "Lost Ladybug Project" with 2 million dollars to inspire young children to hunt for ladybugs. "A team of Cornell scientists is asking children for their help.

Science Student Posting: The goal is to generate excitement about natural science and getting outdoors; demystifying science and getting the kids comfortable with the process of doing scientific inquiries.

Table 2, Frequency of Skills, also shows the frequency of extensions made to both science and social studies wiki pages.

Table 2: Frequency of Skills

Skill	Social Studies	Science	Total
Initiation	158	66	224
Revision	62	23	85
Extension	57	12	69

### **5.1. Knowledge construction**

Data indicated that students were adept at finding information, but they did not engage in analyzing, evaluating or critiquing information. Their thinking about information and the texts they created through that information remained largely at a factual level. Knowledge was acquired and regurgitated. Knowledge was not constructed. They did not use newly acquired facts to create unique ideas. Students posted additional data bytes without making meaning out of posts through substantive revisions. When students did post information they did not contextualize it, rather they just pasted the bit of data to a long list of other postings. The students' postings represented no evidence of critical thinking or evaluation of sources. There was no editing of peers' postings.

Both findings indicate that preservice teachers were facile with the skills needed for using wikis as meaning making tools and that they recognized and valued the potential of wikis as meaning making tools. In initial interviews they characterized digital literacies by their technological tools. For these students, digital literacy meant “cameras,” “computers,” “satellites” for watching television and navigation tools for “surfing the Web.” Final interviews were quite different. Participants spoke of “deciphering,” “creating information,” “a process” and being more than “technologically savvy.” While preservice teachers clearly experienced a shifting perspective of digital literacy that was both product and process, they never actually used wikis as tools for deep engagement in the process of knowledge construction.

## **6. Discussion**

The literature indicates that wikis are viewed as collaborative tools that facilitate the kinds of student-centered learning typically associated with problem-based learning. Wikis require the kinds of skills that this study identified namely initiation, revision and extension. Each of these skills shows the principles and information behaviors of Radical Change theory (Dresang, 1999, 2005, 2009) in practice. Wikis have the potential to foster the kinds of knowledge that 21st century literacies require (NCTE, 2008), and yet, participants in this study were unable to demonstrate them.

Teacher educators and preservice teachers seem equipped to use these tools and engage in these literacies. That is the good news. The challenging news is that learners, well versed in the use of technology in their lives outside of school, experience difficulty using and making meaning through wikis in school settings. Our study of preservice teachers

confirmed this. Like Cole (2008), we had low participation. Of the fifty participants, only thirty-six participated through individual posting. They were able to use the tools to access and contribute information to a developing text; however, this text was not truly collaborative. They made no revisions and only limited extensions. Moreover, it was neither original nor cohesive. Reorganization of ideas remained at the sentence level creating a virtual laundry list of pre-existing information about the problem. While students were unable to demonstrate the objective of the assignment by constructing new knowledge, interviews indicated that they did develop an understanding of knowledge construction as a process and product. They recognized wikis as a tool for making this happen. Like Luce-Kalper (2007), this study points to the potential for wikis to become Radical Change texts.

Dresang does not discuss knowledge construction as part of Radical Change theory. She explores information sources as Radical Change texts, but does not explore the new texts that are constructed or the information that these new texts convey. She focuses on the process of information gathering with an eye toward production as shown in access and boundaries, but not the product of the process. Interestingly, neither do our students. Clearly, they understand the process and its potential, but they were never able to construct new knowledge with a wiki.

## **7. Implications**

This study is significant because it provides a window into the 21st century literacies (NCTE, 2008) of 21st century teachers. While there is little doubt that the Millennials who will lead us in the future of education are technically proficient with the digital tools required for developing and demonstrating 21st century

literacies (NCTE, 2008), these findings indicate that Millennials are not yet demonstrating the ability to use them as tools for literacy to “create, critique analyze and evaluate multi-media texts” (NCTE 2008, p. 1). Based on the findings of this case study and the newly developing body of literature that supports them, it is clear that we must chart a path for integrating digital tools into teacher education and professional development programs in ways that will enable learners to use digital tools for engaging in the meaning making and critical thinking processes necessary in the 21st century. In our study, we missed an opportunity to chart such a path. Upon reflection, we found that there was a misalignment of purpose among stakeholders. As teacher educators, we assumed that students who used wikis in their everyday lives and recognized the inherent potential of wikis for meaning making would be able to transfer and apply these skills to meaning making in an academic context. As a result of our missed opportunity to construct knowledge through technological tools such as wikis, we identify four essential questions that educators must ponder before embarking on this pathway to practice. In doing so, we can move toward establishing a shared purpose that reflects stakeholders’ shared values about technology and knowledge creation.

### ***7.1. Why use technology?***

Wikis, blogs and Twitter are just a few examples of the digital tools and texts that stakeholders in education are using in their lives outside of school. As these stakeholders appropriate tools and texts for educational purposes, we must examine our motivation for using technology in classroom contexts and establish the goals and objectives we hope to achieve through technology. Upon completion of our own study, we reflected on our students’ tendency to

focus on the quantity of information they contributed to the product rather than the quality of information or the collaborative process of problem solving. We grappled with whether or not our assignment objectives were clear. We wondered if wikis were the best choice for achieving the objectives related to problem solving. Similarly, participants in Cole's study (2009) reported feeling that wikis were not relevant or necessary to the course or to their learning. These findings indicate that we should use digital tools because they are essential for learning and not simply because they are trendy, current, convenient or available. Educators should utilize technology when they can establish a clear purpose for doing so and integrate it with content and pedagogy in ways that are meaningful and essential for achieving student learning goals and objectives (Harris & Hoefer, 2009; International Society for Technology Education [ISTE], 2008; Mishra & Koehler, 2006).

### ***7.2. What support is necessary?***

Several studies indicated that learners experienced difficulty using the technical skills required to construct a wiki such as creating hyperlinks, browsing and uploading (Cole, 2009; Engstrom & Jewett, 2005). Others noted that wiki users also experienced difficulty due to uncertainty about the expectations of the assignment (Wheeler, Yeomans & Wheeler, 2008). While participants in our study expressed no confusion over the assignment and demonstrated the technical skills required to construct a wiki, their ability to utilize these skills for meaning making was in its nascent stage. In initial interviews, students understood digital literacy as synonymous with digital tools such as computers and search engines. They needed support to engage in thinking processes associated with knowledge construction. While students never engaged fully in these processes, final interviews

demonstrated a shift in their thinking about being digitally literate. After the assignment was completed, they talked about the importance of “creating information” and described it as “a process” that required more than being “technologically savvy.”

These findings serve as a caution to teacher educators against believing “the myth of the ‘digital native’” (Mindlin, 2010, p.12) and assuming that students who have grown up using technology will be able to use it for school purposes. We must remember that learners may not be encountering a particular tool for the first time, but they may be encountering that tool for the first time in the classroom. Educators must support the refinement of learners’ technical digital skills as well as the development of their critical thinking skills by providing scaffolding and modeling that promote analysis, evaluation and synthesis which are hallmarks of literacy and necessary for the construction of new knowledge (ISTE, 2008; Jenkins et al., 2009; Mindlin, 2010).

### ***7.3. Can we create new knowledge?***

ISTE standards call for teachers to use their knowledge of technology, content and pedagogy to promote and support student “learning, creativity and innovation in both face-to-face and virtual environments” (2008, p. 1). In short, teachers are asked to promote the construction of new knowledge. Researchers such as Cole (2009), Engstrom & Jewett (2005), Lundin (2008), Morgan & Smith (2008) and Wheeler, Yeomans & Wheeler (2008) described wikis as inquiry tools that can promote student-centered knowledge acquisition and construction through the seeking, sharing and revising of ideas. While this may be true, their examination of wikis and ours shows that this does not always happen. Students in our

study engaged in fact finding. Their wikis presented no evidence of new knowledge.

If learners are to construct new knowledge, assignments and projects utilizing technology to achieve curricular and instructional goals must convey the creation of new knowledge as a necessary and explicit purpose. Directing learners to use digital tools such as wikis to describe, explain or identify is not likely to move them beyond the solitary act of fact finding. Instructing learners to debate, hypothesize and discuss will promote interaction and collaboration as they question and synthesize facts in order to construct new knowledge.

#### ***7.4. How will we establish community?***

Interacting and collaborating while using digital tools are essential for the knowledge construction process (ISTE 2008; Jenkins et al., 2009). Many describe wikis as collaborative (Cole, 2009; Engstrom & Jewett, 2005; Lundin, 2008; Morgan & Smith, 2008; Wheeler, Yeomans & Wheeler, 2008); however, the lack of interaction and collaboration between and among our preservice teachers during wiki construction was striking. Our students initiated 224 individual posts consisting of newly acquired information from digital sources, but only extended 69 existing posts created by classmates. These extensions occurred without comment and consisted of the addition of information rather than the revision of ideas. Similarly, Cole (2009) reported low participation among students in her study. Educators should encourage students to engage freely in the collaborative process by creating discourse communities in the digital world just as they do when meeting students in person. The atmosphere must be facilitated, collegial and cooperative. Teacher educators and their students must be viewed as equal stakeholders in the process. Ideas of all stakeholders

must be welcomed, equally valued and respectfully challenged so that they can be refined and extended. Feedback in the form of probing questions and critique must be frequent and consistent.

### **Finding answers**

Our study and the work of those cited here indicate that when we ask learners to appropriate their everyday digital tools in educational settings, we must promote a shared understanding about the purpose of technology. We assumed that students who spoke of technology's potential for meaning making would see this same potential in academic settings and be able to use it for this purpose without explicit directions to do so or a need for modeling and scaffolding. Even though stakeholders shared the same values about knowledge construction and technology, they did not share a sense of purpose. Purpose was misaligned. Therefore, the identification of clear curricular and instructional goals and objectives, the provision of instructional scaffolding and modeling, the creation of new ways of knowing and the establishment of a supportive community of learners are important aspects of effective learning contexts. The four questions that we pose to teacher education and professional development programs are questions all stakeholders in education should consider before embarking on any pathway to practice. To do so ensures that we, as stakeholders in education, avoid misalignment of purpose that can lead to missed opportunities for knowledge construction in 21<sup>st</sup> century classrooms.

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## **C**HAPTER 16

# **EXPLORING TEACHER PROFESSIONAL DEVELOPMENT THROUGH THE LENS OF COMPLEXITY THEORY: THE TECHNOLOGY TOGETHER STORY**

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### **Abstract**

Facilitating teacher professional development in complex and dynamic school environments continues to be a challenge for school leaders. This is particularly the case in the area of information and communication technology (ICT) integration, where a constant and rapid rate of change, expanding pedagogical possibilities, and the influence of individual teachers' values, attitudes, beliefs and skills mean that simplistic approaches to teacher learning are unlikely to be successful. This chapter explores the potential of Complexity Theory, including notions of causality, self-organised adaptation, sensitivity to initial conditions, bifurcation and redundancy, for understanding teacher professional learning. Issues of collaboration, reflection, management and policy are considered through the lens of Complexity and these ideas are illustrated

through discussion of Technology Together, a whole-school ICT professional development and culture change program for primary and secondary schools.

## **Keywords**

Teacher professional development – Complexity theory – Information and communication technology

## **Introduction: The challenge of teacher professional development in ICT**

Schools in Australia, as in most international contexts, have faced an unprecedented range and rate of change in the past two decades – changes which impact directly on teacher learning. Such transformation in educational practice is particularly pronounced in the area of information and communication technology (ICT), where teachers have encountered not only new possibilities, but increasing expectation and pressure to integrate technology into their pedagogical practice.

Over the past decade a number of key reports have highlighted the limitations of traditional approaches to professional development for teachers, particularly when confronted by the complexity of change associated with ICT integration (Downes, et al., 2001; MCEETYA ICT in Schools Taskforce, 2005; Moyle, 2006; Zammit, et al., 2007). Yet the need for effective and sustainable approaches has gained increased importance in Australia in light of the Federal Labor Government's renewed policy emphasis on ICT integration in schools – popularly referred to as their 'Digital Education Revolution' (DEEWR, 2008). In addition to increases in funding for infrastructure, this policy initiative has included a focus on developing the skills, pedagogical understandings and practices of pre-service and practicing teachers as well as school leaders (DEEWR, 2010). Such a system-wide focus

underlines the critical need to identify approaches to ICT professional development that move beyond simplistic short-term training to whole-school cultural change models.

Teachers' adoption of ICT is highly influenced by their values, attitudes and beliefs. Previous research (Phelps, 2002, 2007; Phelps & Ellis, 2002; Phelps, Graham, & Kerr, 2004) has documented the influence of affective elements such as self-efficacy, anxiety, attribution and learned helplessness, as well as a range of motivational and strategic elements such as help seeking, support and encouragement, perceived usefulness, pedagogical orientation, goal seeking behaviour and volition. Traditionally, however, most approaches to technology education have paid little heed, if any, to these influences, instead focusing on skills and knowledge. Competency-based approaches, emphasising pre-specified objectives and the achievement of clearly specified and measurable skill levels, have dominated technology courses. Such approaches strive to achieve a similar, if not identical, learning outcome for all participants.

While competency-based approaches certainly have their place, their long-term effectiveness in meeting the complex needs of schools and society more generally is questionable. An alternative conceptualisation – that of computer *capability* – has been previously proposed (Phelps, 2002; Phelps, Hase, & Ellis, 2005). Capability implies an individual's confidence in their ability to function in both familiar and unfamiliar settings, including the capacity to adapt to rapid change. While competency-based approaches emphasise attainment of specified computer skills, capability-based approaches emphasise adaptability and 'learning how to learn'. As such, capability-based approaches place a much more central focus on

values, attitudes and beliefs, affects, motivation and strategies.

While it may seem self-evident that good professional development should acknowledge and work productively with these important elements of learning, it is by no means a straight forward proposition for school leaders to enable or facilitate such approaches in their whole-school context. To do so inevitably involves consideration of elements such as relationships, trust and collaboration within the school, enabling collegial dialogue and reflection, the building of learning communities, and the implementation of flexible and responsive management approaches and policy.

This chapter describes one ICT professional initiative, developed through a three-year action research project involving 16 schools in northern NSW, Australia, that builds on the above ideas. The paper draws attention to the potential of Complexity Theory for providing school leaders and teachers alike with fresh understandings of teacher professional learning. While these ideas have been developed in relation to ICT learning, there are clear implications in terms of teacher learning more broadly.

The chapter begins by providing a necessarily brief overview of the key ideas underpinning Complexity Theory. We then describe the research that led to the development of *Technology Together*, a whole-school ICT professional development and culture change program for primary and secondary schools. The relevance of Complexity Theory in understanding the dynamic of teacher learning in ICT is then discussed, with reference to our experiences with *Technology Together*. Finally, we summarise the key implications for teacher professional development, with a specific

focus on collaboration, reflection, management and policy.

## **1. Complexity Theory: The foundational ideas**

Complexity Theory (for example, Kauffman, 1995; Waldrop, 1992) has influenced a broad range of disciplines from biology, climatology, immunology and architecture to economics, business and psychology. Only relatively recently has its potential been recognised within educational research and development (Davis & Sumara, 1997; Doll, 1986; Fleener, 2002). As a collection of ideas, and thus perhaps more accurately referred to as 'Complexity Theories' (or sometimes 'Complexity Science') this body of literature is concerned with non-linear, evolving and changing systems – those that are unpredictable in that, even if one was familiar with all the components of the system, one would still not be able to determine exactly what would happen next.

Complexity (the term we will use henceforth) acknowledges the inability to totally understand the whole through an understanding of the parts but rather aims to understand the whole by understanding the interaction of its parts. Briefly, then, Complexity is concerned with the 'big consequences of little things'; helping to understand how coherent and purposive patterns and wholes emerge from the interactions of simple, non-purposive components (Lissack, 1999).

Complexity's foundational ideas can assist school leaders and those involved in teacher professional development to 'make sense' of their context, particularly the nature of change and learning. In the following discussion, we briefly outline these ideas for the purpose of providing a foundation for our later discussion. Since these ideas have been applied in diverse disciplines and contexts, from the study of

weather and ant colonies to the understanding of social systems, the language used when describing these concepts is often generic. For example, the term 'agent' is used to refer to a contributing 'part' in the system, so this might represent a nerve cell, an ant or (in a social system) an individual person or a collective entity such as a group, organisation or corporation. Similarly, the notion of 'schema' can be differentially understood, but generally refers to the sets of rules or patterns that guide and shape a system.

### ***1.1. Change as emergent, self-organised adaptation***

From the perspective of Complexity, development and change is viewed as natural, evolutionary and emergent; a process which is neither imposed nor random. The interaction among the various 'parts' of a system, and the ways that the system is subsequently organised and structured in turn influences future events. Complexity thus views change as adaptation stemming from the interaction, alignment and organisation of agents into higher levels of complexity. Learning, for example, is viewed as adaptation to environment based on experience. The long term behaviour of a system is understood as determined as much by small chance changes as by deterministic laws (Stacey, Griffin, & Shaw, 2000).

### ***1.2. Feedforward, feedback and sensitivity to initial conditions***

Complexity recognises that, over time, interactions and events 'feedforward' to produce the systems which are discernible at any given point in time. However, Complexity also acknowledges the role of 'feedback', by which past or present occurrences influence events in the present or future. In this way, it is asserted that complex phenomena embody their histories (Davis & Sumara, 2005) and that processes

are critically dependent on their initial conditions, conditions that may be unrecoverable or unknowable. This notion of 'sensitivity to initial conditions' is the essential idea behind the often discussed 'butterfly effect'; a metaphor that suggests that the flap of a butterfly's wings can change the climate on the opposite side of the globe. As Turner (1997) states, such unpredictability need not be equated to unintelligibility or inaccessibility to understanding, but it heralds the need for different types of understandings.

### ***1.3. Homeostasis and bifurcation***

Homeostasis refers to the tendency of a system to maintain a stable, constant condition. Bifurcation (sometimes termed phase transition or, more popularly, a 'tipping point') occurs when a system moves from one form of stability to another, resulting in new but more complex stabilities. Complexity theorists recognise that such bifurcations are prompted by conditions which may not be known or knowable. Thus, the input of a new idea, individual, action or rule into the system at any point can lead to subtle changes which may subsequently lead to dramatically different outcomes. There is unpredictability at each bifurcation point since no subsequent state is deducible from the previous one (Stacey, et al., 2000).

### ***1.3. Agent interaction, redundancy and diversity:***

Complexity is primarily concerned with the relationships and interactions between 'agents'. It focuses on how behavior and change is influenced by internal schema, which are actively constructed through interaction between agents and subsequently continue to change through such interaction. 'Redundancy' refers to a system having a degree of

similarity or commonality in its characteristics and schemas in order for there to be some level of cohesiveness. However, systems also require a level of diversity among and between agents which enables novel responses, thus facilitating evolutionary possibilities. Such diversity can prompt both gradual emergence, or more rapid and radical bifurcation.

These ideas have underpinned the development of a unique approach to teacher ICT teacher professional development which came to be known as Technology Together. We will first provide some background to this program before illustrating the connections to Complexity Theory.

## **2. Technology Together and the metacognitive approach to technology learning**

Technology Together is a process of ICT professional development which was planned, implemented, evaluated and refined as part of a collaborative research initiative between Southern Cross University and a regional school system in NSW, Australia. The research took place between 2004-2007 and was funded by the Australian Research Council (ARC).

The aim of the research was to investigate the effectiveness of a metacognitive approach to computer learning in supporting teachers' ICT professional development in a whole-school context and to develop and refine a practical approach to schools' implementation of the process. In brief, the metacognitive approach to computer learning, which is described in more depth elsewhere (see for example, Phelps, 2007; Phelps & Graham, 2007; Phelps & Graham, 2008; Phelps, et al., 2004), involves participants reflecting upon their past and current feelings, attitudes, beliefs and motivations regarding

computer use, together with their ICT learning strategies, help-seeking patterns, goal setting and achievement. The approach had been previously developed and trialled in both undergraduate and postgraduate teacher learning contexts but had not been utilised in a whole-school professional development environment. In a practical sense, the project also aimed at increasing teachers' confidence and skills in using computers, integrating ICT into their teaching, implementing curriculum and scope and sequence documents, diversifying their ideas and knowledge and increasing teacher dialogue regarding ICT within the whole-school context.

Expressions of interest were invited from schools within the regional system for involvement in the project. Selection was based on a number of criteria, including the identification of teachers who were interested in acting as facilitators/mentors, the presence of a supportive principal, and the need to involve a diversity of schools in terms of size, levels of infrastructure and level of existing self-identified staff skills in ICT.

Action research was used as an overarching meta-methodology in the development of Technology Together. As a form of collective, self-reflective inquiry undertaken by participants in order to understand and improve their own social or educational practices (Kemmis & McTaggart, 1988), action research provided the opportunity for both change and improvement (action) and new understanding (research), achieved through explicit and systematic cycles of planning, acting, observing and reflecting. The research involved two 'macro-cycles' conducted over two years, with seven schools participating in 2005 and a further nine in 2006. Of these sixteen schools, fourteen were primary schools and two were secondary schools (directly proportional to the total

number of schools in the region). Each school engaged in three 'micro-cycles' (one per term for three of four terms), with learning from schools involved in the first action research cycle contributing to the planning by schools in the second cycle. The focus of the 'micro-cycles' was on schools trialing, customising and evaluating metacognitive processes for professional learning in their own whole-school context. In this process teachers set goals, established and reflected upon strategies, and embedded a wide range of ICT initiatives into their day-to-day classroom practices.

The project was facilitated in schools by designated teachers, referred to as Companion Mentors (CMs), who also played the role of co-researchers, working closely with the university based researchers (this chapter's authors) throughout the year.

Within the action research framework a mixed methods approach was employed (Creswell, 2003; Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2002). The research was informed by a wide range of data, including pre- and post-intervention surveys, workshop evaluations, planning and implementation documents, journals completed by teachers, notes from staff discussions, samples of work, observations and critical reflections. A focus was placed on triangulation and member-checking of all data, with an emphasis on maintaining the 'teacher voice'.

The resulting professional development process, currently in publication with the International Society for Technology in Education (ISTE) (Phelps & Graham, forthcoming) had a clear focus on experiential learning. Technology Together incorporates a guided process that can be driven by both whole-school and individual vision and goal setting. It is an approach which values and embraces diversity, sharing and collegial support. It is not conceived as a "quick fix"

but rather a flexible, sustained, inquiry-driven approach to ICT professional learning, encouraging active participation and responsiveness to local need. The approach promotes shared reflection and dialogue, risk-taking and experimentation within a collaborative and cooperative environment. Importantly, it fosters metacognitive awareness by teachers, not only of their own learning approaches, but also of their colleagues and students. As such, there is a strong focus on 'learning to learn' effectively in contexts of continual change, and empowering teachers to view themselves as capable, lifelong computer learners.

### **3. Teacher Professional Development through a Complexity lens**

Having outlined the foundational ideas underpinning Complexity, and introduced the background to our research context, we will now explore the implications of these for teacher professional development, illustrating these points through the story of Technology Together.

#### ***3.1. Teacher professional learning as an open, non-linear systems***

For those involved in facilitating change in schools, the idea that teacher professional learning is complex may seem self-evident. However, many of our traditional approaches to supporting teachers, particularly in areas such as ICT, have assumed a much more linear model. A new system, hardware or software product becomes available and teachers all receive training on how to use it and how to integrate it in their teaching. It is assumed that access to resources and provision of training will lead to effective integration. Complexity helps us to embrace the idea that there are many factors that influence teachers' ICT learning and that these factors all interact in unpredictable ways. While

we can influence some of these factors, others are beyond our control. Sometimes we don't even recognise these issues and the ways they shape our work until after they have had an impact, if at all.

Case studies of the various schools involved in our research (Phelps, Graham, & Watts, 2011) revealed numerous examples of the non-linear nature of teacher professional development. Factors which might be assumed to have had a positive effect on teacher learning did not always influence it as might be predicted. For example, the presence of highly supportive ICT 'experts' within a school was not, in itself, any guarantee of a progressive ICT-using school culture. Sometimes quite the opposite was true. Teachers, and in fact the whole school community (in some circumstances), became over-reliant on such a person and therefore tended to avoid responsibility or the need to develop enhanced ICT skills. Similarly, having a supportive and encouraging school management team, while in most cases positive, sometimes led to reticence and resistance. Sometimes, schools had very good hardware infrastructure in place yet the hardware received very little or limited use. Some schools provide staff with lots of formal, well planned professional development opportunities but found that teachers didn't carry through with what they learnt, and did not progress beyond the basics. Other schools, however, rarely provided such training opportunities and yet there was extensive evidence of incidental, ad-hoc, self-directed and self-motivated learning happening every day. Some teachers and schools remained 'stuck' with particular patterns of technology use while others, given the right conditions, quite radically and rapidly transformed as ICT using communities.

Our experience with Technology Together provided a valuable insight into the diversity and difference at

work in each school and the complex interplay of factors such as leadership approaches, staffing patterns, hardware configurations and individual and collective dynamics, including values, attitudes, beliefs, levels of commitment and enthusiasm regarding ICT use – and how all these factors interact in unpredictable ways.

### ***3.2. Teacher learning as emergent, self-organised adaptation***

As previously indicated, Complexity views development and change as natural and evolutionary – neither imposed nor random (Doll, 1989). Change is associated with adaptation and, in particular, learning is viewed as adaptation to an environment based on experience. This learning is not just an individual but a shared experience of interaction and alignment within and between individuals or collectives in order to create new understandings, assumptions or practices. These ideas are very ‘fitting’ with the technology learning environment, where there is (or needs to be) continual and constant adaptation to new hardware, new software and new and evolving ideas and practices.

Importantly, complexity science recognises that change does not always occur in the direction of ‘best practice’ or ‘improvement’. Sometimes things change and evolve simply because they do, and the processes and outcomes are neither better nor worse – just different. Some believe that we should only introduce new technologies or techniques when they have been ‘demonstrated’ to ‘improve’ educational outcomes. Complexity challenges this idea – and certainly the notion that any technology or technique will have the same outcomes in all educational settings. Complexity would instead have us focus on the evolution of ideas and practices - trying things out to see if they work at

this point in time - whilst emphasising that the process of learning and adapting to change is critical in its own right. In other words, if things don't work quite the way we envisage, what is most important is the learning experience we've had along the way.

These ideas were particularly pertinent in the Technology Together process where we emphasised the need to take 'risks' and experiment with new technologies and pedagogical approaches, with the understanding that there is no 'right', 'correct' or 'proven' way. This also helped to challenge established assumptions around who were ICT 'experts' and ICT 'novices'. Rather, all teachers were encouraged to take steps along their own ICT learning ladder, sharing and celebrating successes (as well as difficulties) as a supportive collective. It was recognised that what worked for one person may not work for others in the same way, but what was viewed as most important was that learning fed back into the broader system, occasioning new opportunities for learning and change.

### ***3.3. The influence of feedforward, feedback and initial conditions on teacher learning***

The idea that processes are critically dependent on initial conditions, the complexities of which may be unrecoverable or unknowable, would suggest that for us to effectively facilitate learning within a school or classroom setting, we need to acknowledge and at least partially understand and engage with the history of the 'system' and the complex interaction of 'agents' (teachers, students, parents, school leaders, but also teachers' family and friends and other influences such as media, industry etc).

In the context of ICT professional learning, 'sensitivity to initial conditions' helps us to recognise that

'teaching' or 'training' doesn't cause learning; that delivering training to all teachers in the same way won't result in the same outcomes for each teacher. Some teachers have had negative experiences in computer training contexts and will bring these along as 'baggage' that influences their personal attitude and confidence. Others will be bored and resentful, thus affecting the dynamic of the group. Of course there may also be positive impacts. One of the teachers in the group may spontaneously make a comment about a past experience and suddenly a previously reluctant, nervous or resentful group of teachers might be transformed into a learning community – sharing success stories and creative ideas, supporting the less confident and capitalising on the most confident. Those involved in delivering such workshops or training opportunities have little or no control over either such happenings, or the flow-on effects from them.

The idea of 'sensitivity to initial conditions', then, posits that the starting point for any professional development within a school system must be an acknowledgement of these complex histories and the unpredictable influence these have on both individual and collective responses to change. This is not to assume that individuals or collectives are likely, or even able, to be aware of all these factors. They can't. But reflective activities can help stimulate teachers to better understand the interplay of their past experiences and background with their current and emerging 'state' as technology users.

In Technology Together we provided numerous stimuli and processes to 'occasion' (not 'cause') learning. This included a self-reflective survey and other prompts to encourage teachers to reflect on, and discuss, their own histories with ICT and professional learning, and how these influenced their present values, attitudes,

beliefs, skills and so on. Each school was also encouraged to undertake an initial analysis of its demographics, ICT context, school culture, patterns of leadership and student and teachers' values, attitudes, beliefs and skills with ICT. Again, this was not intended by way of hypothesising or establishing causal connections, but rather as a stimulus for potential self-organisation and change.

### ***3.4. Homeostasis, bifurcation and teacher professional development***

To understand how Complexity can assist us to develop effective ICT learning cultures we also need to understand the notion of 'homeostasis' or the tendency of a system to maintain a stable, constant condition in the face of changing circumstances (Davis & Sumara, 2005). All school communities develop relatively stable patterns of 'happenings' - traditions develop in how ICT is approached and a 'comfort level' forms among staff as to their level of usage. Although some impetus to continually learn is part of most school cultures and contexts, oftentimes the rate and nature of change and growth is (more or less) stable.

Occasionally, however, something happens which makes a major difference for a school. It might be a chance happening which leads to quite rapid and significant transformation in values, attitudes, beliefs and practices within a school. One teacher might leave the school and another arrives. Someone might go to another school and see something being done and bring a new idea back. These events can't necessarily be predicted or caused but they make an enormous difference in the dynamic in the school. As mentioned earlier, Complexity refers to these happenings as 'bifurcation'; a movement from one form of stability to another which expands the space of the possible (Davis & Sumara, 2005).

The idea of bifurcation underpins Technology Together, which seeks to enable circumstances which prompt transition from the 'competency' path to the 'capability' path of technology learning. An emphasis is placed on moving outside personal and collective comfort zones and all teachers are encouraged to challenge themselves, no matter what their background. Further, an explicit emphasis is placed on teachers recognising and sharing 'ah-ha' experiences which, in complexity terms, are often significant bifurcation occurrences for teachers in relation to their learning (Phelps, 2005). For example, a realisation by a less confident ICT using teacher that they were able to learn a computer skill independently, through exploratory processes, might for them be a highly significant moment. Their act of sharing this 'ah-ha' with other teachers can have quite a profound influence on the whole school, although this influence can be highly unpredictable – and can be both positive and negative. It may, for example, encourage other less confident teachers to recognise that they can do it too. Alternatively it can lead individuals or collectives to feel they are being alienated or left further behind.

### **3.5. Interaction, redundancy and the challenging of internal schemas**

Where something *does* work well, Complexity theorists look to the rich, complex and often nuanced range of factors that influenced that success, avoiding seeking simple causal connections. But Complexity also focuses on what is *atypical* in systems - on instances where something *doesn't* work as expected. This is quite different to traditional scientific and educational practice which has focused on controlling variables and on what works for 'the majority', ignoring outliers.

Complexity emphasises that it is important to have both redundancy *and* diversity for a system to be

healthy. Redundancy ensures that we all have things in common and a sense of unity, but diversity is critical since it is from such differences that new evolutionary possibilities emerge. Complexity suggests that we pay attention to the diversity and difference in each school and the complex interplay of factors such as leadership, staffing patterns, hardware configurations and individual and collective dynamics, including levels of commitment and enthusiasm regarding ICT use. As an example, if the staff within a school or other organisation all have very similar educational, socio-economic, cultural and experiential backgrounds then the 'system' will be more limited in its capacity to respond in innovative ways when confronted with unforeseen stimulus.

In the interests of fostering diversity, *Technology Together* doesn't seek to ensure all teachers develop the same knowledge or skill sets. Nor does it seek to establish consistent learning goals across a school or to impose any one form of learning strategy on the group. Rather, each teacher is encouraged to identify and celebrate existing skills and knowledge, to set their own goals (individual or collective) and to reflect upon the most appropriate strategies to assist them (with capability in mind). Difference and diversity within the whole school are celebrated and recognised as (at times) influencing the system in unexpected ways.

The 'rules' or internal models or schemas that are spoken of in Complexity can, amongst other manifestations, be interpreted as values, attitudes, beliefs and assumptions that, consistent with complexity, are enacted. Acknowledgment and challenging of values, beliefs and assumptions is an integral component of *Technology Together* as participants are encouraged to explore their assumptions through interaction with others or

through provision of reflective prompts, new ideas, and dissenting perspectives. For instance, the process challenged many teachers' assumptions regarding what constituted effective ICT learning strategies. Where many initially believed they needed to learn from experienced 'others' within the school environment, Technology Together prompted them to realise they could learn with and from similarly skilled peers, family, friends and, importantly, with and from their own students and independently through experimentation. This 'de-institutionalisation' of professional learning was consistent with the enactivist model of cognition (Davis & Sumara, 1997b; Sumara & Davis 1997a), emphasising that learning does not take place as a result of 'teaching' but rather through a complex interplay of experiences, relationships and ideas being worked and reworked through the process of reflection.

#### **4. Implications of theory and practice collaboration, reflection, management and policy**

What specifically, then, are the implications for teacher professional development in relation to collaboration, reflection, management and policy – the key themes of this book?

In terms of **collaboration**, Complexity provides very particular perspectives on 'agent interaction' and places a focus on the internal schemas of those agents which, as we discussed above, can be understood as the values, attitudes, beliefs and assumptions of individuals and also whole-school systems. Complexity emphasises the importance of establishing professional learning communities since, as described by Nielsen and Triggs (2007), such communities build space for teachers to work together in order to expand the sense of the possible, thus enhancing the potential for emergence that is inherent in the collective.

However, Nielsen and Triggs also caution regarding the nature of learning community models, noting that those which are prescriptive and focused solely on a particular outcome or political agenda may conversely encourage simplification in an effort to maintain control. Thus, while the concept of learning communities holds great potential and relevance from a Complexity-based perspective, the epistemological and ontological beliefs and perspectives underpinning how these are conceived and established hold the key to their resultant value in supporting learning and change.

As has been argued elsewhere (Phelps, 2005) **reflection** can be a productive method for both studying and working with complexity in educational contexts. Reflective processes, including journals and other such scaffolds, provide scope not only for promoting learning and change but for engaging participants in recognising processes of feedforward, feedback, emergence and bifurcation. Reflection assists to build up a holistic picture of the interplay between individuals' histories and their current and emergent 'state', thus providing insight into sensitivity to initial conditions. Reflection is an inherently non-linear approach to learning and reflective journals, for example, enable intermingled documentation of ideas and experiences from the past, present and imagined futures. Reflective processes need not represent a logical, sequential argument but can evolve and grow from experience, interactions and complex thought processes. In this sense they can be seen to embrace concepts of learning as emergent and evolutionary.

Reflective learning does not assume that superior ideas will supercede inferior ones (as consistent with Sumara & Davis, 1997a) as learners' cognitive processes while journaling are more analogous to an experiment – where ideas can be tried, held up to

scrutiny and 're'-flection. There is no assumption that students will arrive at one 'destination' and there is no notion of 'right' or 'wrong' in the experiences documented. Variation, individualisation and localised experience and knowledge are embraced. Journals are a form of personal narrative and, as such, provide potential to present one's own adaptation to environment and the emergent nature of action and knowledge. As emphasised earlier, while the complex interplay of factors that impact on an individual, or the significance of any one event or factor, cannot be fully 'known', through reflection individuals can come to more awakened awareness of the role of history and initial conditions on their current learning context.

In terms of **management**, Complexity would suggest that school leaders, administrators and those involved in delivering teacher learning programs need to acknowledge that there is no single, linear or fail-safe approach to professional development. Rather, it emphasises the need to build school communities that are supportive of emergent change - encouraging teachers to actively embrace ICT learning opportunities as they arise and to actively value and engage in continuous and collegial life-long learning. Managers should not seek simplistic or generalisable approaches, nor expect 'quick fixes' which can be directly transferred to different contexts. They also can't expect to find 'best practice models' or think that what works for one classroom or school will work for another. Rather, managers and school administrators need to view classrooms and school communities as organic wholes and 'go with the flow'; celebrating the emerging and evolving possibilities for change - 'occasioning' learning rather than adopting traditional 'training' mentalities.

The **policy** implications of a Complexity-informed approach to teacher professional development are

significant. In particular, it challenges us to critique a range of initiatives, in Australia and elsewhere, which seek to set standards for teacher competence or to mandate teacher training curriculum in order to maintain consistency, uniformity, predictability and control. Complexity places our focus more squarely on the importance of diversity in responding to change. It also would challenge those policy-makers who seek simple and fail-safe solutions to school improvement, particularly where these focus predominantly on altering behaviour without a recognition of the important role of schema (teachers' values, attitudes, beliefs and assumptions). In Australia, a major implication for policy in relation to teacher learning lies with the currently limited opportunities and resourcing for teachers to engage in reflection and discussion and to work more collegially. Interestingly, a number of schools who were involved in *Technology Together* have now moved to team-based teaching models, active fostering of learning communities and engaging teachers and students alike in metacognitive and self-regulated learning.

## **Conclusion**

In summary, then, what does complexity science tell us about ICT professional learning for teachers? It helps us to see that in designing and initiating any professional development in schools it is critical to acknowledge the complex interplay of factors that influence teacher learning, particularly the diverse histories, cultures and contexts of each school and each individual teacher. Complexity prompts us to recognise that effective professional development can only be understood and achieved through a respectful recognition of the differences that exist between school cultures – differences that can either enable or constrain change. It also helps us to accept and capitalise on the fact that professional development

approaches may not necessarily influence teachers and schools in predictable ways and that approaches underpinned by a philosophy of 'one size fits all' will likely falter since they fail to take account of the nuanced and complex differences that exist within and between schools.

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## CHAPTER 17

### **TRIBES, TERRITORIES AND COMMONS IN TEACHER EDUCATION: LOOKING BACKWARDS ON TEN YEARS WITH A MODE2 CURRICULUM PROJECT**

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#### **Abstract**

For more than a decade the Faculty of General Teacher Education at Oslo University College has been involved in integrated and subject based curriculum work - with "flerfaglighet" - *multidisciplinary* - as a keyword. A guiding idea has been that systematic and modest cooperation across TE subjects supports better balance and higher quality in the qualification for professional tasks. The faculty received the national quality award in 2003 for their coordinated curriculum work. This chapter presents the main areas of coordination efforts and gives an account of contributions to TE strategies.

## **Keywords**

Multidisciplinary coordination – Didactics and curriculum theory – Teacher education

## **Introduction: 'Flerfaglig' – A decade of coordinated curriculum work across and within disciplines**

From 2000 and onwards large parts of the academic staff at the teacher education program for basic school teachers at Oslo University College (now HiOA) have been involved in integrated and subject based curriculum work. Sketching and implementing pieces of a multidisciplinary curriculum score have been key features, extending the cooperation between the compulsory subjects in the teacher education program for basic schooling. Cross curricular responsibilities for focus on professional competences and integrated use of Information and Communication Technology, have been among the recurrent features of the development efforts. In the department the term "flerfaglighet" - multidisciplinary - has gained acceptance as a catchword for systematic and at the same time modest cooperation across subjects to promote engagement and obligations in serving common professional tasks.

### ***National background – TE in the HE sector from the 1970s and onwards***

In Norway TE for the long basic schooling (ages 6/7 to 16), that started in the late 1950s, have been based mainly on the generalist class teacher model qualifying teachers for the folk school. Throughout four decades of expansion and reform from the 1970s of TE within the HE sector the duration of the general TE program have doubled from two to four years. During these decades national regulations have been based on a uniform framework and core curriculum to secure a GTE program that, with minor exceptions, certify

personnel with the GTE examination for teaching of all subjects at all levels of basic schooling.

### ***The State College in Oslo and the Faculty of Education***

The Faculty of Education at OUC is mainly offering TE bachelor programmes for the kindergartens and for basic schooling. The four year teacher education for the basic school accepts more than 300 new students each year. During the last decade the compulsory first cycle have normally been organised with eight parallel classes the first and the second year. Almost all faculty is engaged primarily in teaching, but also in R&D. In-service training and further education studies are important supplementary activities. The faculty offer four master degrees and will from 2012 start to implement a new PhD-programme in sciences of education for TE.

From 2010 the new two track program is organised with 200 students following the team teacher track qualifying for school years 5-10 and 200 students in the class teacher track qualifying for the seven first years of Norwegian basic schooling. From the second term in 2011 OUC and the neighbouring state college merge to form Oslo and Akershus University College of Applied Sciences (HiOA), Norway's largest state university college, with 16,000 students and 1,600 employees. Among the main aims for the new institution is to achieve full university status and develop into one of the leading universities in the Nordic region with a professionally oriented profile.

### **1. From a seminar tradition to TE colleges and university drift**

In Norway the development of mass higher education started from the 1960s. Important new features have included upgrading of professionally oriented schools

and new types of colleges into the HE-sector. The division between old universities and the new higher education institutions was from the start formalized through a strict binary model keeping the established universities and the college sector apart (Jarning 1985). From a research policy angle the binary system was from the start seen as a defence against academic drift in new institutions and the concentration of expensive research funding to the universities. However, with the turn towards comprehensive knowledge policy perspectives from the end of the 1980s, research functions gradually have been included systematically in the new HE institutions.

In Norway, as in the neighbouring Nordic countries, mass higher education has from the start been rooted in a democratic welfare state agenda (Rust 1989). Free education across all levels is seen as an important public good and all state owned institutions provide tuition-free higher education. In the college sector developing from the 1970s professional short cycle and bachelor programs qualifying for key welfare sectors as education, health and social services, has also been the core of emergent welfare professional knowledge triangles (Havnes 2011). Following the widened focus on knowledge policy issues all parts of HE have adapted to serve mixed functions that include broad welfare contributions, new accountability based systems of governance, as well as competitive quality standards. In line with the new agenda major reforms of the state college sector have been introduced in 1994-96 and again from 2003.

Through these reforms all HE in Norway have a common legal framework including the mandate to base its educational programs, teaching and learning: *"on the best from research, professional and artistic development work, and proved experience"*. This framework signals a widening of forms and fields of

research, forerunning research drift furthered in the Bologna process. The knowledge triangle in the new institutions still has undergraduate teaching and learning as the by far dominant scholarly activity. Research has close connections to professional fields (Kyvik 2010) rather than to discipline-based research. Professional services constitute the third core knowledge area.

The professional and scholarly knowledge base of the educational sector at large has, throughout the whole period, been multidisciplinary. Important changes, however, are seen in shifting models of educational expertise and R&D. Starting from a main focus on the discipline of education - *pedagogikk* - in the 1950s and 60s, expertise knowledge was extended to - *skoleforskning* - interdisciplinary sectorial R&D from the 1970s. From the late 1990s a new broadening is implied with an emerging and unstable widening of focus, now on - *utdanningsvitenskap* - broad multi- and interdisciplinary research on and in education, with growing interchanges of academic, professional as well as policy oriented knowledge interests and subfields. Slow change in the more general knowledge priorities and patterns in teacher education curriculum as well as in many research fields make it relevant to analyse the dynamics of the hybridization of the last decades in relation to responsiveness and resistance of older fields and disciplinary patterns.

Principal objectives from the state for the research mission of the college sector are that research shall contribute to regional development, improvement of professional practice, and improved quality of teaching and learning (Kyvik 2010). During the last decades the broadening professional knowledge nexus and growth in research funding and competence have been forces behind gradual and on-going piecemeal changes of curricula and pedagogy in major college program

areas. Through the national adaption of the frameworks of the Bologna Process from 2003 application for change in accreditation of institutional status have been introduced as a framework for institutional mobility and a more flexible division of labour within the higher education sector. The key difference in institutional position is that universities can, without external accreditation, offer educational programmes at all levels, while university colleges must apply for external accreditation for study programmes above the bachelor level. During the last years university drift, with merger processes and strategies for accreditation as full universities, are central in many parts of the Norwegian HE sector.

### **1.1. Early unified basic schooling and a strong heritage of the general teacher**

In the modern history of Norway, one finds an early introduction of a unified folk school as the basis for post WW2 implementation of comprehensive secondary schooling (Jarning 1993, Telhaug 2004). From the 1920s, unified schooling would include all seven years of the folk school. The lasting and strong tradition of unified schooling has been the habitat of the general teacher – *allmennlæreren*. Through a series of reforms from the 1950s to the 1970s a mass education system was established, including unified schooling for nine years, comprehensive reorganisation of the upper secondary level, and growing tertiary education. Reforms of the 1990ies extended the basic schooling to 10 years and the individual right to three years post-compulsory secondary education for all was established. This extended development of unified schooling have been an important part of the framing of teacher qualification as well as for an on-going broadening of the knowledge base for ten years of compulsory schooling and a long educational career for all children

and young people. However, despite the strive and reforms over nearly a century to build and expand unified basic schooling and a long secondary education for all, the historical divide between academic and non-academic fields of knowledge have had and still have marked influence on teacher qualification patterns in Norway (Karlsen and Kvalbein 2003). Teachers for basic schooling were from the beginning of 19C educated at teacher seminars, forerunners for the broad TE programs in the college sector. The university sector on the other hand, has had a historical monopoly on the education of subject teachers for the gymnasium as well as for today's secondary general education.

The table below sums up key features throughout the transformation period in HE sector reforms as well as in TE curriculum guidelines and HE and TE related research priorities.

<b>HEfield</b>	<b>HE policies and expansion</b>	<b>TE policy and expansion</b>	<b>HE research policy</b>
<b>1960+</b>	1970+ District colleges (DC) 1976+ Regional college (RC) sector	Tradition: 2year folk school TE in seminars 1973+ TE upgraded to colleges 1977+ GTE extended to 3y programs	1949+ Research councils support university R&D 1976 RC include support to DC R&D
<b>1980+</b>	Almost 100 small RC 1994: College sector reform - 26 state colleges (SC)	R80 National curriculum guideline - 3yTE R92 4 year TE programs + new NC guideline R98 Revised NCG - 3y common/1y	1997+ National R&D strategy for the SC sector
<b>2000+</b>	2003+ <i>The quality reform</i> – first phase in the	R03 National curriculum guideline - 2y	2003+ University drift:

	national Bologna	common/2 y elected by the student 2006: National evaluation of GTE R09: Two track TE for basic schooling break with the uniform GTE tradition	Options for accreditation of PhD/accredit ation as full university
<b>TE field</b>	<b>Subjects and subject didactics</b>	<b><i>Pedagogikk - Pedagogy</i></b>	<b>Sectorial R&amp;D</b>
<b>1960+</b>	The GTE model is based on broad and elementary subject competence 1973+ Courses in subject didactics (SD)	<i>Pedagogikk</i> as professional core field with placement program integrated 1970+ New diverse research on schooling and pedagogy weaken the hegemony of psychology- teaching methods as axis	1975+ Subject didactics as emergent R&D fields
<b>1980+</b>	R80+ 1y for individual choice of subjects. SD in all school subjects. R92: Common part 3 of 4y of TE. R98: Subjects and SD expand in common 3y. More time to sciences	R80+ Pedagogy and placement 45cp. R98: Pedagogy 30cp over 3 years. 18 weeks placement program separate from pedagogy.	1983+ Research council reports on SD 1989+ Research program for professional R&D
<b>2000+</b>	R03: 90ects compulsory subjects with SD included. A major or two minor additional subjects by individual choice R09: Choice between class teacher and team teacher TE profiles	R03: Pedagogy 30ECTS over 2 years. R09: Pedagogy 60ECTS in both tracks	<i>Utdanningsvi tenskap</i> – sciences of education - gradually in use as framework for sectorial and professional R&D

During the last three decades the borders between the sectors gradually have been less rigid, but many aspects of the earlier binary patterns still represent important institutional and curricular differences. In basic schooling practically all teachers at the primary level are certified as general teachers. At the intermediate level general teachers might be somewhat less dominant, and at the lower secondary level, it is common to meet a teaching staff with a mixed college and university background. From 1992 general teacher education has been a four-year programme. Since that time new national curriculum guidelines for general teacher education were introduced in 1998 and again 2003. Only with the 2009 TE reform now under implementation, the generalist all-in-one model teacher in the college sector TE programs is substituted by a less undifferentiated policy approach. The class teacher oriented program qualify teachers for grades 1-7, while a team teacher oriented program qualifying for grades 5-10 in the basic school.

## **2. Coordinating four knowledge tribes in teacher education**

At OUC the decade with multidisciplinary coordination and curriculum development in the general teacher education program started in year 2000. The first phase included all first year students and staff in the four year general teacher education track. Increased multi-disciplinary cooperation, focus on professional competences and have sharing of assignments and integrated use of Information and Communication Technology, have been main areas in focus (Bjarnø et.al. 2011). In addition the project included the necessary development of organizational and material framework needed to support and institutionalise new practices and common learning within the focus areas.

With the introduction from 2003 of a new national curriculum guideline connected to phase one of the Bologna reforms in Norway, the faculty behind the general TE program saw possibilities to extend the multidisciplinary cooperation strategy. At the same time project organization was ended and exchanged with a model for leadership, coordination and curriculum management for all ordinary teaching and scholarly activities within the first cycle – the compulsory first two years, according to the 2003 national guidelines. In charge of the coordination were a team of three program leaders – a position called head of studies in the state colleges. Each of the two years the teaching faculty was organised in three teams that would cover teaching and all other faculty obligations in relation to three classes, each with a normal size of about 40 students. The team leaders each year would be recruited from the main subjects and acted as combined subject and team coordinators. A responsible for the yearly placement program, as well as for ICT tasks, has been additional members of the group of coordinators. For the faculty as a whole recurrent meetings and seminars have been arenas supporting a multidisciplinary public sphere within the program area, also partly extending to other parts of the department. The coordinating network and web of information systems and common arenas have made it possible to keep an acceptable balance between cooperative interests and initiatives from within the faculty and the involving subjects on one side and common obligations needed to keep up a sufficient coordination and stop unacceptable variation in relation to common aims and tasks. In this way not only curriculum design, but also pedagogies have to greater extent been collectivized and have included a broadened program based on common teaching and learning issues.

## **2.1. Multidisciplinary**

The keyword 'Flerfaglig' have gained acceptance as a term for a common interest in cooperation across borders between the disciplines and tribes (Beecher 1993) involved in the TE program. A common interest in developing a curriculum with less of the negative interference typical of encyclopaedic curriculum codes, have been one of the major motivating forces behind the development work. For many participants *multidisciplinary* has been a catchword for thematic cooperation in more modest forms than earlier coordination strategies. Strategies had earlier been centred around weeks reserved for interdisciplinary project work, and this model had tended to create lines of conflict between subjects in focus and subjects that would have only marginal involvement with project contents. Cross-disciplinarily with this model had then come out as contrary to more discipline based knowledge priorities. A guiding idea behind the turn to co-disciplinary forms of coordination has been that openness towards disciplinary differences might support further common sharing of multidisciplinary educational issues. This orientation can be seen as a move towards a Mode 2 notion of cross disciplinary collaboration (Bjarnø et al, part VII). Following this approach it is relevant to analyse local multidisciplinary TE trajectories as emergent forms of collegiate TE professionalism inside the modern discipline framework, and as an expression of practical rather than theoretical forms of knowledge integration (Grimen 2008).

Multidisciplinary cooperation in the project has included:

- *Thematic coordination*
- *Temporal organization and coordination*
- *Joint teaching on selected themes*
- *Coordination of themes in professional training*

- *Sharing of examination tasks*
- *Supplementary cross-disciplinary course literature*

Focus on professional competences has included:

- *Case-work with video examples and with examples in students reports from in-school practice*
- *Extended exchange of tasks between subject teaching and periods with in-school practice*

Selective support from Information and Communication Technology have included

- *Introduction of a Learning Management System*
- *Use of digital video*
- *Use of databases with access from internet*
- *More systematic use of WWW as source of information*

## **2.2. Two examples: Starting at school**

When a new cohort start their first year of study the project have chosen the children starting their primary schooling and the first year teaching in mathematics and Norwegian as shared thematic framework for the teaching in mathematics, Norwegian and pedagogy. The theme work cover the period from the start of first term at the end of august to the start of the first school practice period in October. Already through the first evaluations by the students of the shared theme it was evident that there was a broad support for the thematic coordination in the introduction of the teacher program (73% in 2001). Challenges were seen not least in relation to variations on the side of the

staff in the ability to relate to themes and tasks in other subjects than their own.

### ***2.3. Sharing an examination***

At the end of the first term teachers in two subjects, Norwegian and education, have experimented with a shared examination. The assignment have been graded separately and given the grades pass or fail by the teacher in each of the two subjects involved. A recurrent challenge with this examination have been to find a thematic common ground and assessment genres that handle the knowledge interests of the two subjects involved without obvious imbalances.

In a recent publication this examination is pointed to as an unconventional framing of assessment and examination in a survey of the subject Norwegian in almost 20 TE programs (Osdal and Madsen, in Haug 2009). The survey, however, give no information about the comprehensive multidisciplinary pedagogic development work that this shared examination is a small part of.

### **3. Tools for balancing - The multidisciplinary knowledge architecture**

The acceptance in the local knowledge tribes for sharing of common topics have been dependent on common search for multidisciplinary professional topoi and assignments that adds to knowledge and competences also in focus in one or more of the subject fields. Important in this collaborative curriculum work have been that while project based interdisciplinary have represented a knowledge architecture seen in competition with subject based learning areas, the multidisciplinary strategy have represented approaches that have invited subject specialists to exchanges with other fields and move beyond limitations of their respective subjects.

The curriculum matrix (Appendix) was invented in 2002 and has proved to be an important coordinating and balancing tool. The matrix can best be seen as cross disciplinary curriculum score. The score include all key parts of the local signature pedagogy. It is interesting to note that in didactical analysis and curriculum analysis focus is mainly directed towards micro or macro formats. In the strive over a decade to develop a modest and at the same time thorough multidisciplinary cooperation and coherence in the TE program, the intermediate level of polysubject didactics have been the main area for cooperative didactic efforts. The local experiences support that further focuses in didactic analysis could be directed towards such intermediate combinations of traditions, needs for support by open arenas for deliberation, as well as by regulative tools that give enough rigour to cross disciplinary local traditions.

### ***3.1. Curriculum development - within and between fields and subjects***

The concern for deeper understanding of on-going changes in higher education and research leading to more open systems of knowledge production is a guiding idea behind the Mode 2 thesis from "The New Production of Knowledge" (Gibbons et al. 1994). The core of the analysis is that a parallel expansion of knowledge producers due to mass higher education and growing demand for specialist knowledge in new fields has created the habitat for more continuous innovation and knowledge production. These changes are affecting traditional monopoly positions of dominant research institutions.

*"Mode 1 is discipline-based and carries a distinction between what is fundamental and what is applied; this implies an operational distinction between a theoretical core and other areas of knowledge such as the engineering*

sciences, where the theoretical insights are translated into applications. ...

By contrast, *Mode 2 knowledge production is trans-disciplinary*. It is characterised by a constant flow back and forth between the fundamental and the applied, between the theoretical and the practical." Gibbons et al, 1994, p. 19

A guiding idea in the curriculum development across the disciplines in the local TE program have been that openness towards differences in contributions of disciplines in teacher qualification can further mutual understanding of the professional qualification of teachers. This orientation can be seen as a move away from the older and more naïve generalist approach to interdisciplinary. The positive local reception and growing use of the keyword '*flerfaglig*' can, in this respect, is an indicator of growing mutual acceptance among the core academic staff of the combined discipline based and multidisciplinary aspects of the local TE program.

A puzzling pattern of responses have been that 'outsiders' as well as the national institutions have shown little interest in the overall cross disciplinary cooperative strategy. In a national evaluation from 2005-06 (NOKUT 2006), in later reform of the national curriculum guideline for teacher education (St.m 11 2008-09), as well as in research (Haug 2010) a traditional pattern with school subjects on one side, and 'Pedagogikk' - the study of education - as the professional core field on the other side, have been brought back as a main pattern of intellectual orientation. Attempts to bring focus on a multidisciplinary professional knowledge core in teacher education as a more coherent orientation, have not gained stable response outside the local tribe of teachers educators. In this respect tensions

between local development efforts and surrounding institutional framework reflect the strength of the system of disciplines and mode 1 research fields as main patterns of intellectual orientation.

### ***3.2. Academic mainstreaming or deepening of professional knowledge orientations***

Professional and practical knowledge can, in line with more general hierarchical research orientations, often be seen as forms and fields of knowledge subordinate to the system of disciplines. In an article on the historical development of the social sciences, Wittrock and Wagner (1990) emphasise different ideal types of institutional and cognitive development of the social sciences. They use the terms *comprehensive social science*, the *discipline model*, and the *professional model* to distinguish between characteristic knowledge orientations. This kind of analytical approach also takes into account contrasting knowledge profiles and programs for institutions, and is not limited only to research.

In the HE sector in Norway a softening of hierarchies between the established universities and the college sector have been partly accepted from the 1990s. Strategic challenges in the local example can be related to lasting tensions between this kind of gradual openness for other sources of knowledge orientations on one side, and strong discipline orientations on the other. An external source of tensions can be found in differences in HE and R&D policies. Parallel with new focus on professional aspects of knowledge policies, national research funding and reward patterns have been based mainly on academic rather than on combined academic and professional scholarly standards (Kyvik 2010). Internally in the state colleges related conflicting orientations can be seen in growing divisions between the large majority of staff

engaged with bachelor programs and newer minor groups engaged primarily with small graduate programs and research centres. Earlier binary orientations on the system level have echoes in such more recent tensions inside the colleges, and such internal lines of conflict rise in years when the binary divide are weakened at a system level.

In relation to the local multidisciplinary cooperative strategy it have been important to soften competitive meritocratic orientations, and create arenas for professional teaching, research and scholarship that challenge emerging strengthening of disciplinary hierarchies. The knowledge nexus (Clark 1995) under development connected to the multidisciplinary cooperative efforts have a broad professional orientation (Havnes 2011) with:

- A main focus on interchanges between education and certification of new generations of professional candidates,
- A R&D profile that emphasize professional domains,
- Wide possibilities for knowledge exchange with the teaching profession.

A recurrent pattern in the reception of the multidisciplinary approach to strengthen the coherence in TE programs, have been a fragmented valuation. 'Outsiders' have at a number of occasions combined positive evaluation of parts of the collaborative repertoire, while overlooking linkages to the overall collaborative framework. Attempts to bring focus on multidisciplinary as a more general alternative to coordination by one discipline (Ongstad 2006), have had difficulty in gaining wider attention. This summing up of collaborative gains and experiences over a decade is then another attempt to try to point to intellectual and institutional results that challenge the realism of the recent return of coordination strategies with the study of education alone as main tool for

professional coordination and coherence in teacher education programs that include contributions from many tribes and disciplines.

#### **4. Teaching – a profession inside the system of disciplines**

And in general it is a sign of the man who knows and of the man who does not know, that the former can teach ... Aristotle, *Metaphysics*, Book I, Part 1.

<http://classics.mit.edu/Aristotle/metaphysics.1.i.html>

In line with the approach of Aristotle, teaching competences is close to mastery and understanding of specific fields of knowledge. Pedagogy in this perspective is, at least partly, developing from within subject matter and fields of knowledge. This approach to teacher qualification also is much in line with the continental and Nordic 'didaktikk' tradition (Hopman 2007) as well as with renowned Anglo-American approaches to teaching competences and pedagogy (Alexander 2008). Following such perspectives it is relevant to approach local experiments with multidisciplinary cooperation in TE as a strategy to develop the professional repertoire of new generations of teachers within the disciplines as well as in relation to cross-disciplinary didactical competences. In this sense multidisciplinary coordination can be seen as an effort to balance professional and disciplinary knowledge cultures.

From a combined historical and epistemological interest in the expansion of HE and TE from elite, to mass and to universal coverage, the new forms (Gibbons et al 1994) include not only changing distribution of advanced forms of knowledge, but at the same time changes with impact on knowledge standards, norms and ideals. The constructive

potential of mode 2 forms in TE curriculum architecture developed in the cooperation efforts reported here, correspond to such long term needs to support more coherent ways of tuning professional and disciplinary fields of knowledge that contribute in teacher education programs.

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## **Appendix: Plan for first term of first cycle at the general TE program at HiOA**

Students TE09 – First term - autumn 2009									
Mth	Week	X-time (3h)	Math (4h)	No (3h)	ES (3h)	Multi-disciplinary/Cross-subjected	Assignment/ Exam	Practice	Other
Aug	34	-	-	-	-	ICT: Pre courses, use of computers and introduction to a word processor (computer suites)			Compulsory
	35	-	Mat	No	ES	ICT: Introduction to ICT, LMS/VLE (Frontier) and e-mail (lecture room and computer suites)			Compulsory
Sept	36	-	Mat	No	ES	ICT in the school start assignment, word processing, handling document (computer suites)		School visit - observation Fri. 4.09	Compulsory
	37	Mat	Mat	No	ES	ICT Library and study method course, study strategies (computer suites)	Handing in the school start for guidance (week 37-38)	Cooperation meeting practice teacher	Compulsory
	38	-	Mat	No	ES		Mat Folder requirement 1	Kick-off-meeting before practice	Compulsory
	39	-	-	-	-			Observ.practice	
	40	Pres	Mat	No	ES	ICT/No: Digital folders and file management (lecture room and computer suites) Presentation of the assignment school start. Preparation for observation assignment in the theme Language and learning in practice	No/Mat/ ES Handing in the school start assignment.		Compulsory
Oct	41	-	-	-	-	Observation theme language and learning		Practice	
	42	-	-	-	-				
	43	-	Mat	No	ES				Drama B Mon. F Tuesday
	44	-	Mat	No	ES		No Folder text 1		Drama B Mon. F Tuesday
Nov	45	Mat	Mat	No	ES		Mat Folder requirement 2		Drama B Mon. F Tuesday
	46	-	Mat	No	ES	ICT/mat: Formula editor and painting tool in a word processor – preparing for the exam in number theory (computer suites)			Drama B Mon. F Tuesday
	47	-	Mat	No	ES	No Compulsory response group	No Folder text 2 No/Mat/ES Exam: School start 3+3+3 credits  Drama written test + performance		Drama B Mon. F Tuesday
	48	-	Mat	No	ES	ICT Digital photo editor (computer suites) Preparing for picture book week 51			
Des	49	-	-	-	-		No/ES Exam 5 + 5 credits Mat Home exam		
	50	-	-	-	-	A&C Composition, layout and picture expression	Mat Handing in home exam 7 credits		
	51	-	-	No	-	No/A&C/ICT Theme week picture book ICT/No Guidance picture book	No Compulsory assignment: Picture book		

# CHAPTER 18

## USING A COMMUNITY OF PRACTICE FOR TEACHER PROFESSIONAL DEVELOPMENT IN THE UNITED ARAB EMIRATES

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### **Abstract**

Achieving teacher transformation through professional development training programs is not always guaranteed. Research has shown that teacher transformative learning is more likely to occur through professional interactions with colleagues and critical reflection. Such processes can help teachers develop new knowledge, change their previous beliefs about teaching, implement new strategies in class, and improve their classroom teaching practice. A Community of Practice (CoP) professional development model provides an environment where such learning can be

achieved. While popular in the West, the CoP model is underused in parts of the world that have traditional educational systems, such as the Middle East. This chapter reports on a teacher professional development program using a CoP model designed to provide training on classroom teaching strategies and techniques to 25 college teachers in the United Arab Emirates (UAE). The chapter first describes the process of the CoP program and then reports on the results of an investigation of the participants' attitudes towards the program and the content of the training sessions as well as how they implemented the specific teaching techniques in their classes.

## **Keywords**

Communities of Practice – Professional Development – Higher Education

## **Introduction**

Over the past two decades, a number of educational reforms have swept the Arabian Gulf. The primary focus of the reforms was improving the quality of education for Arab youth and transforming the oil-dependent Gulf states into 'knowledge economies' (Onsman 2011; Mohammed Bin Rashid Al Maktoum Foundation & The United Nations Development Programme / Regional Bureau for Arab States (MBRF & UNDP/RBAS) 2009, 2012). Despite the amount of effort and capital invested in these reforms, the outcomes have been rather modest. The most recent Arab Knowledge Report mentioned that "reports and studies show that education systems in Arab regimes are traditional and are of poor quality" (MBRF & UNDP/RBAS 2012: 34). The 2009 PISA (Programme for International Student Assessment) results show the well-resourced Arab Gulf states lagging behind international standards and below the indicated low benchmark (UNESCO Report 2011) while "the low levels of performance for the Arab countries participating in the study, compared to the countries

of the Organisation for open minded and Development” are indicative that further reforms are needed in education (MBRF & UNDP/RBAS 2012: 35).

In addition to the low education standards in public schools, tertiary education institutions are also facing challenges in terms of the quality of their programs and the graduates they produce. A main contributor to these challenges is the fact that higher education is delivered in English while primary and secondary education is delivered in Arabic. High school graduates cannot start their Bachelor program until they have achieved a certain level of English proficiency on the International English Language Testing System (IELTS). As a result students spend 1-2 years in a foundation English language program until they achieve an IELTS score of 5 and when they finally start their Bachelor program their English is weak and the majority of them struggle in their program.

These challenges are further exacerbated by the fact that faculty at tertiary institutions have heavy workloads (up to 20 contact hours per week) and little time for research and professional development (MBRF & UNDP/RBAS 2009). In addition to heavy workloads, faculty often find that students are disinterested and lack motivation for learning (Aubrey & Coombe 2011). These negative student attitudes are noted throughout the different levels of education in the Gulf Arab countries. A recent study of teachers and students in the UAE found that “The results were shocking, as a great percentage of teachers believed that “the care of students for their study is decreasing day after day” (56.8% of them totally agree, while 34.1% of them somewhat agree), while no teacher refuted this statement.” (MBRF & UNDP/RBAS 2012: 339). The same study found that Emirati students also exhibit low respect for their teachers with “A large percentage of teachers (69.2%)” reporting that “they felt low

respect and esteem by society and students (73.7%)” (MBRF & UNDP/RBAS 2012: 314). When western faculty come to the Arabian Gulf they find themselves ill-equipped to deal with negative student attitudes towards learning and their lack of basic study skills. In a recent article, Roney (2010) talks about how Western teachers who come from a non-Arab culture often complain about how Arab students do not like to read, they come to class late, they lack discipline, they do not bring with them their study materials (e.g., books, notes, or pens) and often will try to cheat when they are assigned independent work outside of the classroom.

Given these challenges, being able to manage Gulf Arab students’ behavior in the classroom becomes paramount since a positive and productive learning environment requires effective classroom management (Lewis, Romi, Katz, & Qui 2008). The present study describes a professional development program designed to help a group of tertiary education teachers working in the UAE manage their students’ classroom behavior and improve their effectiveness as teachers.

## **1. Methodology**

The context of the present study was a tertiary institution in the UAE (College thereafter). As it is the norm for government tertiary institutions, the College had two campuses (one for male and one for female students). A professional development (PD) program was designed using a community of practice model (CoP) (see Wang, 2010). The program aimed to introduce teachers at the College to a range of classroom management strategies and teaching techniques in order to help them overcome student behavior problems in the classroom.

### **1.1. Participants**

A total of 25 teachers from the foundation English program and different undergraduate programs and disciplines across the two College campuses enrolled in the PD program. There were two groups of eight teachers in the female campus and a group of nine teachers in the male campus. Each group met weekly for a total of 5 weeks. Table 1 summarises the background information of the study participants.

Table 1: Participant background information

<b>Age</b>	<b>31-40</b>	<b>41-45</b>	<b>46-50</b>	<b>50+</b>
	20%	20%	36%	24%
<b>Gender</b>	<b>Male</b>		<b>Female</b>	
	28%		72%	
<b>Subject Area</b>	<b>English</b>		<b>Other</b>	
	60%		40%	
<b>Teaching Experience in years</b>	<b>1-5</b>	<b>6-10</b>	<b>11-20</b>	<b>21+</b>
	4%	28%	40%	28%
<b>Qualifications</b>	<b>Bachelor</b>	<b>Master</b>		<b>Doctorate</b>
	12.5%	70.8%		16.7%

Participants came from different countries: six from Britain, three from other European countries, seven were from North America, three from Australia/New Zealand, three from India, two from the Middle East, and one from South America.

### **1.2. The PD Program**

The strategies and teaching techniques for the PD program were based on Lemov's (2010) book, *Teach Like a Champion*. The book provides a range of strategies gathered from the best practices of highly effective teachers in order to address specific areas of

classroom management such as increasing student motivation and engagement, maintaining high behavioral expectations, establishing classroom routines and a strong classroom culture. The book was accompanied by a DVD with video clips exemplifying the use of the strategies in a classroom setting. Table 2 lists the strategies and techniques included in the PD program along with a brief description of each.

Table 2: Program contents

<b>Engaging Students</b>	
<b><i>Cold Call</i></b>	Teacher asks a question, pauses, nominates student to answer.
<b><i>Everybody Writes</i></b>	Students write their answers in response to a question (written version of cold call).
<b><i>Do Now</i></b>	A short written activity students do as soon as they enter the classroom.
<b><i>Exit Ticket</i></b>	At the end of the class, students are given 1 – 3 questions reviewing the lesson and enabling the teacher to check learning.
<b>Setting and Maintaining High Behavioural Expectations</b>	
<b><i>100%</i></b>	100% student compliance using the least invasive form of intervention, being firm and calm and inventing ways to maximize visibility.
<b><i>Strong Voice</i></b>	Economy of language; don't talk over students; don't engage; square up/stand still; quiet power.
<b><i>What To Do</i></b>	Make directions specific, concrete, sequential, observable.
<b><i>Do It Again</i></b>	Repeat a routine activity so students do it correctly or better.
<b>Creating a Strong Classroom Culture</b>	
<b><i>Classroom Set Up</i></b>	Set up the classroom carefully; think about assigned seating.
<b><i>SLANT</i></b>	Students sit up, listen, ask and answer questions, nod and track the speaker.
<b><i>Circulate</i></b>	Circulate in the classroom; break out beyond the front of the class; ensure full access to all students; engage while

	circulating; move universally, impersonally but unpredictably; face the class as much as possible.
<b>Tight Transitions</b>	Quick and routine transitions students can do without the teacher.
<b>Props</b>	Public praise for students who demonstrate excellence.
<b>Setting High Expectations</b>	
<b>No Apology</b>	Don't apologise for content or blame it on another source e.g. management, exams.
<b>No Opt Out</b>	A sequence that begins with a student unable to answer a question should end with the student answering that question as often as possible.
<b>Right Is Right</b>	Set and defend a high standard of correctness in the classroom.
<b>Stretch It</b>	The sequence of learning does not end with a right answer – use follow up questions that extend knowledge.

### **1.3. Procedures**

The PD program followed a CoP model. A CoP is a collaborative, non-directive model of teacher professional learning that aims to create a non-threatening environment where participants have the opportunity to engage in critical reflection on their current practices and interaction with peers in order to find solutions to common problems, i.e. managing student behavior in the classroom (Lave & Wenger 1991; Wenger 1998). Although CoP as a model of professional development is known internationally for helping teachers obtain long term and sustainable improvement in their teaching practice (see Butler, Lauscher, Jarvis-Selinger, & Beckingham 2004; Flint, Zisook, & Fisher 2011; Vescio, Ross, & Adams 2008), it is a relative new concept in the Arabian Gulf.

For this PD program, during the weekly meetings, participants were introduced to the different strategies using excerpts from the book and video clips. After

watching the video clip, teachers would discuss the new strategy with their peers focusing on how the strategy was implemented in the video clip and how effective it was. Teachers would then consider whether they would use this strategy in their own classroom and reflect on the challenges they might encounter in their efforts to implement this strategy. At the end of the face-to-face meeting, participants had a clear idea of the strategy and how to use it in the classroom. In the week between the face-to-face meetings, participants were encouraged to apply the new strategy in their class and then share their experience in the following meeting. Thus teachers completed a series of learning cycles (see Figure 1 below) and each cycle would lead teachers to either adopt a strategy as it was presented to them, or adapt a strategy (modify certain aspects of it to fit it to their specific context), or abandon a strategy (when they would find that the strategy was not suitable for their teaching context).



Figure 1: Cycle of learning in the CoP (based on Wang 2010).

### **1.4. Data Collection and Analysis**

Teachers were asked to complete an anonymous online survey before they started the PD program and two months after they completed the program. The surveys comprised closed Likert-scale items and open questions. The pre-PD survey asked teachers to report on their students' behavioral problems and the frequency with which each problem was encountered. In addition, teachers were also requested to report what their expectations were with regards to attending the CoP. All 25 teachers took the pre-PD survey.

The post-PD survey comprised five closed and five open questions. 17 teachers took the survey. Teachers were asked to report which of the strategies (see Table 2 above) they used in their classroom, their impressions of the PD program and the extent to which it had met their expectations. Four teachers also volunteered to be interviewed in order delve deeper into some of the issues mentioned in the survey.

The participants' responses to the closed questions in the surveys were analysed using descriptive and frequency statistics, while their responses to the open-ended questions and the interviews were analysed using thematic coding.

## **2. Results and Discussion**

The results of the data analysis and their significance in providing in-service professional development and teacher support in the Arab tertiary education context, are reported here under two main sections: effectiveness of the CoP program and the teachers' views of the CoP as a model of professional development.

## 2.1. Effectiveness of the CoP Program

In the pre-PD survey, teachers reported a number of problems they faced in the classroom such as students' lack of motivation and self-directedness, their inability to fully engage in classroom activities while being easily distracted by technology (laptops and mobile phones). Figure 2 summarises the frequency of these problems as reported by the teachers.

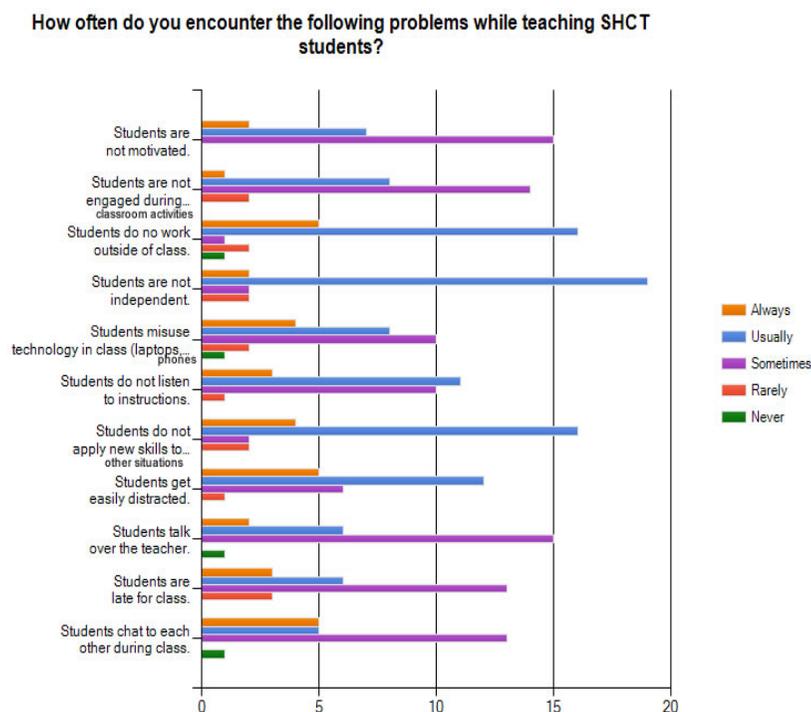


Figure 2: Problems teachers encounter in the classroom.

The problems that the teacher participants reported were rather typical in the Arabian educational context (see Fields 2011; Toren & Iliyan 2008).

In the post-PD survey, teachers reported which of the strategies they used in their classroom as a result of attending the CoP program (see Figure 3).

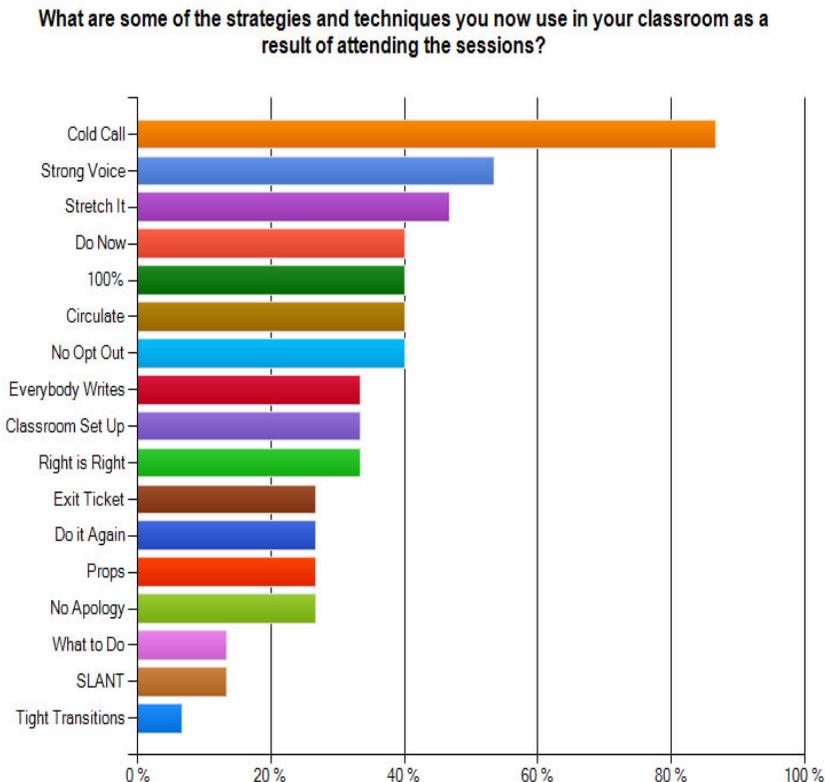


Figure 3: Strategies used by the teachers in the classroom.

Results showed that 40% of the teachers who participated in the CoP used seven out of the seventeen strategies that had been introduced in the PD program. *Cold Call* was by far the most popular strategy with 87% of the teachers reporting that they had used this strategy with their students. Two other strategies, *Strong Voice* and *Stretch It*, were used by about half of the teachers, while 40% of the teachers had also used *Do Now*, *100%*, *Circulate* and *No Opt Out*. The least used strategies were: *What to Do*, *SLANT* and *Tight Transitions* with teachers reporting

that these strategies did not suit the tertiary context. With regards to the strategies that were not used, teachers thought that some of them were useful but they did not use them because of:

- lack of time (teachers needed more time to further explore the strategy and plan how to implement it in the classroom);
- logistical barriers (e.g., for the Classroom Set Up strategy that requires teachers to arrange the seating in a certain way, teachers reported they had no time to re-arrange classroom furniture due to back to back lessons).
- the nature of what they were currently teaching (teachers thought their lesson did not lend itself to the use of some strategies);

Teachers also reported on the positive impact of the CoP on their teaching practice. Figure 4 shows a summary of the teachers' responses.

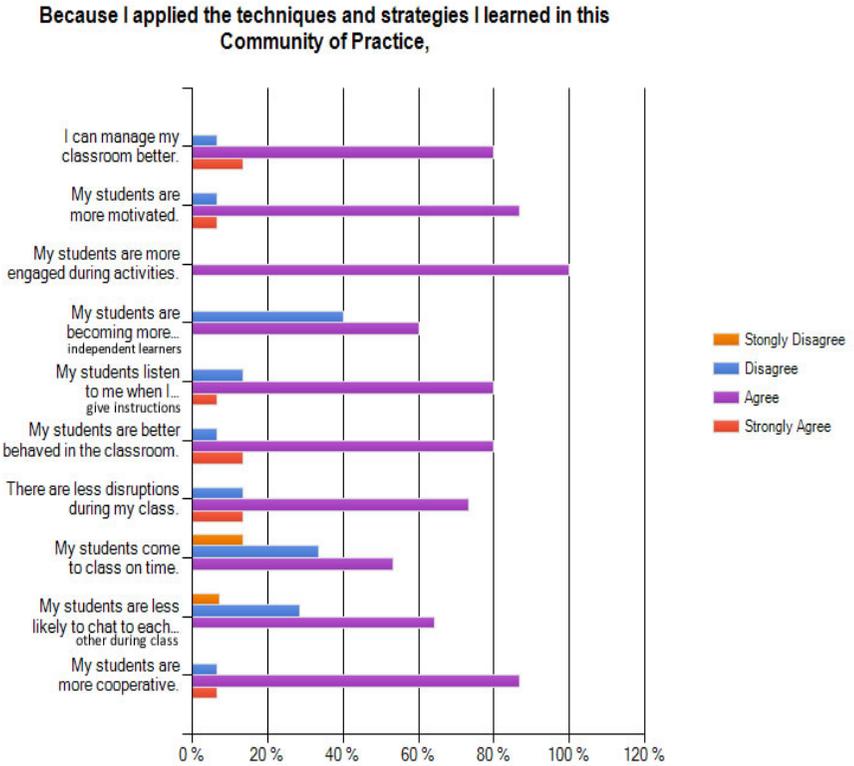


Figure 4: Impact of the CoP program.

Teachers found that the use of the strategies increased their students’ engagement in the classroom and helped their students become more motivated and better behaved in the classroom. By and large, teachers agreed that implementing the strategies they learned in the CoP helped them manage their classroom better.

However, teachers reported that despite the use of the new strategies, some issues remained problematic, such as students coming late to class. Only half of the participants reported an improvement in this area. The issue of student self-directedness also appeared problematic with 40% of the respondents reporting

that the use of these strategies did not help their students become more independent learners.

In general, the overwhelming majority of teachers who participated in the CoP reported positive gains from implementing the strategies. In one of the open-ended questions teachers responded that the PD program:

“Gave me more ideas on how to keep them [students] on task.” (Post-PD Survey, Teacher 10)

“Helped me engage and focus students’ attention from the first moment.” (Post-PD Survey, Teacher 11)

“Made me feel more in control and found better techniques than getting angry.” (Post-PD Survey, Teacher 7)

The positive results of the CoP in this study are in line with previous research studies of teacher engagement in professional communities of practice (see Andrews & Lewis 2002; Wang 2010). Furthermore, the teachers in this learning community were given the chance to critically reflect on the results of their application of the new strategies and determine the extent to which they were effective in their classroom. Such engagement in critical reflection is necessary if a PD program is to help teachers implement changes in their practice (see Vescio et al. 2008).

## ***2.2. CoP as a Model of PD***

Prior to participating in the CoP, teachers were asked to report what their expectations were with regards to the PD program. Table 3 summarises the teachers’ responses.

Table 3: Expected benefits from attending the CoP.

<b>Attending this community of practice will:</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
Improve my classroom management skills.	<b>52%</b>	48%	0%	0%
Have a positive and lasting impact on my classroom instruction.	<b>52%</b>	44%	4%	0%
Advance my understanding of effective instructional strategies for improving student academic achievement.	<b>48%</b>	<b>48%</b>	4%	0%
Provide me with opportunities to meet with my colleagues and discuss issues relating to teaching practice.	<b>60%</b>	40%	0%	0%
Enhance my summative evaluation.	9%	<b>50%</b>	32%	9%

Results showed that teachers anticipated that the program would teach them new skills about how to manage their students and that it would have a long term positive effect on their teaching. They also valued the opportunity to engage in discussions with colleagues who faced similar problems in their classrooms.

In the post-PD survey, the overwhelming majority of teachers found that the program had a positive effect on their teaching practice (see Figure 5).

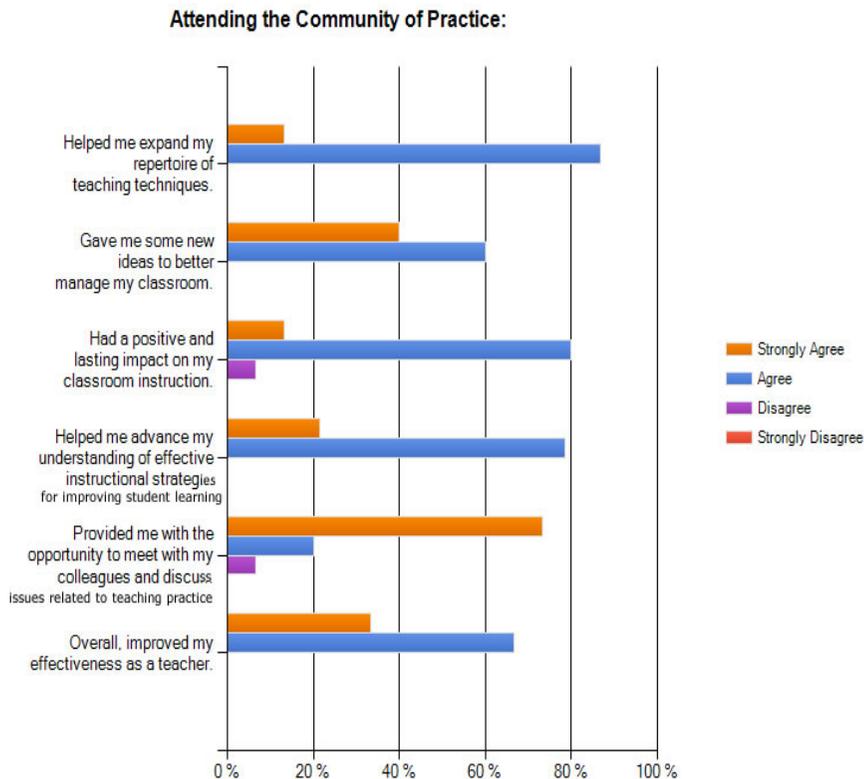


Figure 5. Benefits from attending the CoP program.

All PD program participants either agreed or strongly agreed that attending the CoP gave them new ideas and strategies for managing their students' behaviour, and helped them become more effective teachers. The majority of the teachers also strongly agreed or agreed that the CoP gave them the opportunity to meet with colleagues and discuss issues related to teaching practice and that the PD program had a positive and lasting impact on their teaching practice.

In general, teachers welcomed the opportunity to exchange ideas with their colleagues as well as explore solutions together and learn from each other, further reinforcing the view that peer interaction is an essential component for constructing meaning

(Greenleaf & Katz 2004; John-Steiner & Mahn 1996; Vygotsky 1978). The following responses from participants illustrate this:

"It was great to meet colleagues and share experiences." (Post-PD Survey, Teacher 8)

"Sharing and discovering that almost everyone has similar problems - working together to find solutions." (Post-PD Survey, Teacher 7)

"Opportunity to meet with my colleagues and discuss issues related to teaching practice and come up with best practices." (Post-PD Survey, Teacher 4)

"The realisation that it was not just me having these problems and the sharing of tips and techniques that can help." (Post-PD Survey, Teacher 2)

Teachers also reported that the CoP format valued their experience as professionals and provided them with the opportunity to share their expertise with their colleagues in a non-threatening environment.

"The expertise of the presenters and the opportunity to share concerns and techniques with colleagues in a non threatening environment." (Post-PD Survey, Teacher 6)

These results echo those of previous studies that found teachers are more open and willing to accept new ideas and try them out in class when they are in a supported and non-threatening context (Guskey 2002; Hindin, Cobb-Morocco, Arwen-Mott & Mata-Aguilar 2007; Ben-Othman 2010).

The following interview excerpts also show how much teachers appreciated the fact that the PD program was long enough to give them the change to try the new strategies in the classroom and share their experience with their peers:

"I really like this [Community of Practice]. It suits my learning style, I guess, because I like first of all the fact that it's run over quite a few weeks and there's time to reflect and build....sharing ideas with colleagues and getting input before then trying it out in the classroom and then of course there's the next week when you come in and you can again share experiences of the actual practical application but most of all for me it's that fact it's over quite a few weeks.. it's the chance to absorb and try things out." (Interview, Teacher 3)

"I really like having these sessions as a series and to get the opportunity to come back after you use a technique and share the experience with the other faculty and listen to them share their experience." (Interview, Teacher 1)

Research in teacher professional development has shown that longitudinal PD programs are more likely to yield long lasting effects than one-off workshops (for a review see Avalos 2011).

Teachers who were new to the College where the present study took place found that having the opportunity to discuss the problems they were facing in the classroom with the teachers who had been working there for a while was beneficial. For newcomers who were well-qualified and experienced teachers, it was rather demoralizing finding themselves unable to motivate and engage students in their classroom. When these teachers found that their situation is 'typical' in the Gulf educational context, they felt part of a community that were prepared to work together to address these issues:

"It helped me as a new teacher. One of the ways it helped me was just to meet other teachers who weren't new and who'd been here longer so I could share some of my concerns and

experiences and learn from them, so on many different levels ...not just learning classroom techniques but meeting other teachers and also understanding that instructors who'd been here for ten years are having the same problems that I have after ten weeks." (Interview, Teacher 2)

The CoP model of professional development empowered the new, but experienced, teachers who saw themselves participating in a community of peers rather than "being on the receiving end of a mentor-mentee relationship" (Cuddapah & Clayton 2011: 72).

## **Conclusion**

The PD program described in this chapter demonstrates some of the fundamental features of a professional learning community: peer collaboration, a focus on student learning, and continuous professional development (Vescio et al. 2008). The teachers who participated in the CoP collaborated closely with their peers, shared their ideas and personal experiences, reflected on their own practice and took risks in trying out new practices. Their goal was to manage their classrooms better and improve student learning. Furthermore, teachers recognized the importance of continuous professional development and learning as they reported the positive effects of the PD program on their teaching practices.

While a CoP model is not a 'one-size fits all' approach to teacher professional development, the present study has shown that a program designed to respond to well-defined teacher needs in a specific context taking into account teachers' professional knowledge and experience can be highly effective. Hopefully this study will serve as a starting point to more such PD programs in the Arab Gulf States to help raise the quality of education in the region.

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## CHAPTER 19

### **SCHOOL-BASED PROFESSIONAL DEVELOPMENT: SIGNIFICANT INSIGHTS FROM A CASE STUDY OF IRISH TEACHERS OF READING**

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#### **Abstract**

Recent research has indicated that students require explicit instruction in reading comprehension strategies to become proficient readers. However, there is a dearth of research relating to how to provide effective professional development for teachers in this area. A recent Irish study (Concannon-Gibney, 2009) used gathered survey data to create a professional development (PD) programme for teachers in reading comprehension strategy instruction (CSI) in one case study school which lasted one academic year. This paper will analyse and discuss the PD programme, its impact on the participating teachers' pedagogy, the

teachers' assessment of the overall in-school PD experience, as well as the overall lessons learned from the year-long innovative initiative. It is envisioned that the experience of designing, implementing, participating in and reflecting on the PD initiative on CSI may have some contribution to make to the Irish and international debate on effective models of PD for teachers, school and education systems.

## **Keywords**

School based professional development, reading comprehension instruction, Irish teachers

## **Introduction**

In the past reading comprehension was regarded as 'un-teachable' (Mason et al., 1984) and it was perceived that students learned how to comprehend what they read through a process of osmosis. This resulted in a skills-based, 'bottom-up' approach to reading instruction (Stahl, 2004) characterised by reliance on phonics instruction and the over-use of workbooks and basal reading schemes (Martin & Morgan, 1998; Government of Ireland, 1990). Comprehension strategies tended to be assessed rather than taught in classrooms (Durkin, 1978; Lunzer & Gardner, 1979; Morris, 1986; Martin & Morgan, 1994; Shiel & Hogan, 1997.) More recent research has revealed that comprehension strategies can be taught explicitly and thus methods for teaching students to comprehend have been also been investigated (Raphael, Highfield & Au, 2006; Dole et al., 1996). Such studies have demonstrated that reading comprehension achievement can improve when students are explicitly taught such strategies. Although these new understandings of comprehension have been welcomed by the educational community, the implementation and impact of explicit strategy

instruction in reading classrooms both internationally and in Ireland is not widespread (Pressley, 2002; Cosgrove et al., 2000).

This static nature of classroom pedagogy may be in part related to the failure of educational research to adequately investigate and promote the relationship between teacher professional development and the enhanced understanding and pedagogy of reading comprehension including the explicit teaching of reading comprehension strategies (Ogle, 2008; Anders, Hoffman & Duffy, 2000). A significant recent Irish study (Concannon-Gibney, 2009) attempted to contribute to this research vacuum by examining current teachers' practice and understandings in relation to reading comprehension strategy instruction and using this information in conjunction with recommendations from the literature to design an appropriate professional development course for a group of Irish teachers in the comprehension development area in one case study school. The study further documented the teachers' experiences of the implementation of comprehension strategy instruction (CSI) over a sustained period of time (one school year) following the professional development initiative. It provided insights into and the impact of the teaching cultures which exist in schools in Ireland and internationally. It detailed and explored the openness and interest of the participating teachers in professional development and their ability to enact curricular change post initiative in their local context with respect to an essential part of the curriculum: reading comprehension instruction. While the study drew heavily on the international experience and research, it marked a very significant innovation in the Irish context in offering an in-depth study of a sustained year-long, school-based, tailor made professional development initiative. Additionally, the fact that it was focused in the still yet under

researched reading comprehension area, further signals that it may offer a contribution to the research field on professional development of all teachers, especially teachers of reading.

## **1. Methodology**

The complete study was in two phases. In Phase One, a large sample of 400 teachers (across 30 schools) completed a questionnaire focused on current understandings, practices and professional development needs in relation to reading and reading comprehension instruction. Data gathered from the questionnaires was further explored in twelve semi-structured interviews with a purposive sample of respondents. In response to the findings of Phase One, a year long professional development (PD) initiative was developed for one case study school representing Phase Two of the study, which will be the focus of this paper.

The case study school was a medium sized new and developing school (having been established in 2004) located in Dublin, Ireland with twelve mainstream teachers and seven teachers involved in learning and language support. Fifteen teachers chose to participate in the PD initiative from across a range of class levels (ages 4-12yrs.). The school had a diverse student population, with high numbers learning English as an additional language (almost eighty percent, see IP, p.1) which has become a salient issue in Irish classrooms recently (see [www.cso.ie](http://www.cso.ie)) and a cause for concern amongst the teachers in Phase One of this study. The majority of the staff had recently qualified, with eighty-six percent having seven or less years teaching experience (PIS). This may have contributed to their overall motivation to improve their practice and participate in the PD initiative (Guskey & Huberman, 1995)

The school was part of the sample used in Phase One of the study and was chosen as a case study school as a result of high response rates in relation to the questionnaire and interview data that indicated a particular interest in the teaching of English. Therefore, the content of the proposed professional development programme would be positively related to the current needs of the school (Fullan, 1995). Indeed, the majority of teachers involved in Phase One of the study expressed an interest in professional development in the teaching of reading comprehension, highlighting it as an area of need not only on a local level in this case study school but also at system level.

The data gathered in Phase One revealed that reading instruction in Irish classrooms tended to be unbalanced, focussing on decoding skills in the junior and learning support classrooms and on an affective approach to reading in the senior classes. These findings are indicative of a more 'bottom-up' approach to reading instruction (Dole et al., 1991) that advocates a 'simple view' of reading (Gough & Tunmer, 1986), which contends that decoding results in linguistic comprehension. At all class levels, reading comprehension remained secondary to decoding skills and reading for enjoyment. When it formed part of instruction it was generally approached in an implicit manner and developed through intensive questioning and osmosis. In general, the case study school was representative of the larger sample of Phase One of the study as their approach to reading instruction was largely traditional in nature, lacking elements of a 'balanced approach' to reading advocated in current literature (Pressley & Wharton McDonald, 2002).

As an initial task the participating teachers completed pre-intervention surveys. The teachers subsequently participated in a PD programme in comprehension

strategy instruction (CSI), which lasted over a period of five weeks. Session evaluations discussion groups and post-intervention surveys were used to judge the kind of learning that had occurred as a result of the PD programme and how this new knowledge translated into classroom practice both during and after the training programme had taken place.

This was followed by discussion groups during the school year and a planning session towards the end of the year to facilitate whole school planning with respect to CSI. In all, the professional development initiative spanned one school year (Taylor et al., 2002), as represented in Table 1 below.

Table 1: Outline of the Professional Development Course

Pre-intervention surveys (PIS)	5 training sessions (Sept./Oct.)	Discussion groups (December) (DG1a,b)	Discussion groups (February) (DG2a,b)	Planning session (April)	Refresher course (May)	Post-intervention surveys (PDDS)
	Session evaluations (PDS1-5)	Member checks	Member checks	Session Evaluation (PS)	Session Evaluation (RS)	
Reflective logs (RLT, RLL)						

The research questions focused on the experiences of the teachers participating in the professional development initiative and their subsequent implementation of programme material. These findings are intended to inform policy makers in terms of future professional development provision, and all teachers in terms of issues associated with implementation of professional development initiatives generally but also specifically in relation to reading and comprehension strategy instruction.

## **2. The Case Study School: Factors that may have encouraged curricular change**

School climate can have a significant effect on the success of professional development programmes

(Smylie, 1995). The significance of strong leadership in relation to attitude and participation in professional development has been extensively documented (Lyons & Pinnell, 2001; Joyce & Showers, 1995; Ingvarson et al., 2005). From the outset of the study, it was evident that the principal of the case study valued professional development as she attended all of the training sessions despite being an administrative principal without teaching duties as she felt it was important to 'practice what you preach' (IP, p.1). Indeed, the actions of the principal might have a significant positive impact on whether curricular innovation was taken seriously by the staff (Ingvarson et al., 2005) as data from the post-initiative interview (IP, p.3) revealed that the Board of Management set aside a specific yearly budget to encourage the staff to participate in PD. This would be unrepresentative of most schools in the Irish context given that sixty percent of teachers surveyed in Phase One of the study had never participated in a professional development course on the teaching of reading. It is clear that the principal seemed to encourage change and development as a social norm within the school to enable professional development to thrive (Lyons & Pinnell, 2001). Given the findings of Phase One which implied that Irish teachers and schools seem somewhat resistant to change, it may be surmised that this principal's commitment to curricular change and innovation may not be representative of others in the same position. Therefore, although the case study school may differ from the rest of the teaching population in this way, it may be helpful to investigate the effect this school climate has on curricular change.

While the data revealed that the teachers themselves appeared individually motivated (for example PIS, T14; PIS T15), the data also revealed evidence of a collaborative, 'learning-enriched'

(Rosenholtz, 1991) school community. For example, Teacher 8 referred to the case study school as 'a pretty exciting place to work (T8, tr.7, p.1), while Teacher 3 regarded the case study school as an ideal school for such a study stating that 'everyone is so hard working and wants to get on and wants the school to do well' (T3, tr.2, p.13). What is interesting to note about this comment is the sense of collegiality and collaboration that it evokes, referring to the whole school 'doing well'. This would imply a collaborative ethos, characteristic of schools that nurture teacher innovation (Rosenholtz, 1991). Indeed, when asked to describe their expectations for the professional development course many of the teachers expressed a desire for interesting ideas for comprehension 'for all class levels' (PIS, T4) anticipating that the PD initiative would '...create new ideas influencing the whole school approach' (PIS, T1). This goal was in strong alignment with research recommendations encouraging a whole-school approach to all initiatives including reading comprehension (Pearson et al, 1992). In contrast, while many of the teachers in Phase One of the study acknowledged the benefits of collaborating with colleagues, a culture of individualism appeared to persist in their respective schools. Therefore, while the case study school may not be completely representative of other schools in the system due to its younger staff profile and apparent positive climate, it offers an insight into the benefits associated with developing this type of school environment, particularly in relation to enacting curricular change. Ingvarson, Meiers and Beavis' (2005) study also highlighted the importance of a pre-existing level of support as a pre-requisite to successful PD programmes. Therefore, the case study school was deemed an appropriate site to conduct this study.

### 3. The Professional Development Programme

Table 2 below outlines the content of the weekly sessions that were held as part of the PD programme over a period of five weeks. The content and delivery of the programme included a focus on theory and its practical implementation supported by discussion and reflection.

Table 2: Outline of Sessions in PD Programme

Session 1	<ul style="list-style-type: none"><li>• Rationale: Background theory and summary of research findings in relation to CSI</li><li>• Overview of PD initiative</li><li>• The Gradual Release of Responsibility Model (Duke &amp; Pearson, 2002)</li><li>• Strategy 1: Preview/activate/predict</li></ul>
Session 2	<ul style="list-style-type: none"><li>• Discussion of implementation thus far</li><li>• Strategy 2: Visualize</li><li>• Strategy 3: Connect</li></ul>
Session 3	<ul style="list-style-type: none"><li>• Discussion</li><li>• Strategy 4: Question</li><li>• Strategy 5: Infer</li></ul>
Session 4	<ul style="list-style-type: none"><li>• Discussion</li><li>• Strategy 6: Monitor/clarify</li><li>• Strategy 7: Summarise</li></ul>
Session 5	<ul style="list-style-type: none"><li>• Discussion</li><li>• Multiple strategy instruction</li><li>• Planning for instruction</li></ul>

It is important that teachers understand the rationale behind new approaches or methodologies if they are to implement the new learning in the classroom (Joyce & Showers, 1995). This is evident in Teacher 13's comment that 'the terms and the outline of the skills that good readers use...gave me more of an understanding about what I need to specifically teach' (PPDS, T13). The teachers in the case study school

valued the opportunity to learn about the theory underpinning comprehension strategy instruction introduced on the professional development course as three quarters rated the lecture aspect of the course as very helpful and the remaining twenty-five percent rated it as 'helpful'. Teacher 1 felt that the professional development course had the 'perfect mix of academic, practical activities and understanding' (PPDS, T1).

In order to deepen the teachers' theoretical knowledge, they were also provided with professional literature throughout the school year of the initiative (Joyce & Showers, 1995). The teachers found this additional source of information helpful with Teacher 8 referring to reading an extract from a professional literature book (Miller, 2002) as the most interesting aspect of one programme session (PD2, T8). It was essential at all stages of the programme sessions that the teachers understood the rationale behind CSI as according to Sweet and Snow (2002), teachers often cite lack of understanding as a reason why they do not implement the content of professional development courses. It is interesting to note that emphasis on professional literature is neither included in current in-service provision for Irish primary teachers nor a norm within Irish schools as evidenced in the data from Martin & Morgan (1994) and reflected in Phase One of this study. It may be concluded that it may be helpful to include such material in future professional development and practice.

The inclusion of practical activities may positively influence implementation, as according to King and Newman (2001, in Day & Sachs, 2004); teacher learning is most likely to occur when teachers can directly connect the professional development to the contexts in which they teach. Therefore group work on practical activities formed part of every session. When the teachers were asked to describe the most useful or

interesting aspect of each training session, many of the participants named a practical activity that they had engaged in such as the predictogram (PD1, T12) or the narrative pyramid (PD4, T6). It was clear that the teachers valued 'doing the strategies...' (PPDS, T9), which enabled them to discover 'how the approaches might work in the classroom' (PD1, T1). The inclusion of a range of practical activities within the programme may also have aided implementation as all of the teachers regarded this element of the professional development course as 'very helpful' or 'helpful'. The emphasis on the practical application of theory was further developed through encouraging teachers to apply the new learning in their classroom so it could be discussed at the subsequent training session or discussion group. The teachers appreciated how the weekly sessions gave time to implement material (PPDS, T11) and to engage in 'real-time' learning (Fullan, 1995). Indeed, for real change to occur, new methodologies need to be tried and tested in the classroom many times before they can become part of a teacher's repertoire (Joyce & Showers, 1995) as teachers move through cycles of action and reflection in order to take ownership of the new learning (Grundy & Robinson, 2004).

The discussion groups which were held regularly throughout the remainder of the school year provided a particularly useful forum for the exchange of classroom experience, which can be pivotal to curricular change (Eraut, 1989, in Farrell, 1995). As Teacher 2 noted 'I think a lot of people are doing things quietly in their own classrooms, these groups are great for hearing the ideas, because you'd love to know what was going on' (DG2b, p.3). Many of the teachers commented that an important advantage of having lots of follow-on support (PPDS, T6) (Ingvarson et al., 2005) meant they did not feel isolated in their classrooms. Therefore, the model of professional

development espoused in this initiative may contribute to the dissolution of the 'egg-crate' structure of schools (Lortie, 1975) by providing scaffolding and support for the teachers as they attempt to change their practice.

Discussion often enabled the participants in the initiative to reflect on their current practice and to plan for the future. Through discussing what was currently going on in their classrooms, some of the teachers became dissatisfied with traditional methods and were enthusiastic about trying new methodologies. Teacher 1 commented that she would definitely try and use more strategies as she felt her pupils would learn a lot more (DG2b, p.6, T1). In this way, the discussion groups gave the teachers the opportunity to process the experience of implementing CSI and thus deepen their learning (Arin-Krupp, 1995, in Garmston & Wellman, 1999). In doing so, the majority of the teachers appeared to develop some awareness of the ineffectiveness of traditional approaches to reading comprehension and to make plans for change.

These developments are particularly important in the context of the current teaching profession, which often experiences difficulties in adopting an 'inquiry stance' within the hectic pace of the school day (Cochran-Smith & Lytle, 2001). Therefore, this study may highlight how collaborative, reflective cultures may be developed in schools through the use of a model of in-school professional development as described in the present study. At present, there are no structures in place to encourage or facilitate this type of collaboration in Irish schools. It may be tentatively concluded that the provision of opportunities for discussion and reflection should be included in future professional development at system and at school levels.

## 4. Discussion

The professional development initiative of the current study was a school-based programme (Fullan, 1995) which reflected the needs of the teachers in the case-study school in relation to reading comprehension instruction. Many of the teachers (e.g. PPDS, T9; PIS, T3) felt that high participation rates by teachers in the overall programme were linked to the convenience of the initiative being based in the school (Skilbeck, 2005)). The principal of the school outlined the importance of customised nature of PD programme and initiative as it centred on 'what are we at (*name of school*)? what are we going to do?, what is our policy going to be?, what's going to suit us?, what's going to work?' (IP, p.2) and reflected the staff's 'shared vision for the school' (PIS, T15). This model focuses on issues that are highly relevant for the teachers, which may energise and motivate the staff for innovation and improvement (Fullan, 1995).

As the initiative was on-going through-out the school year, the perceived needs of the staff members navigated the direction of the programme. During the initial programme session, the teachers were invited to express their needs in terms of programme content. In this light, Teacher 13 requested '...more ideas for the non-writer' (PD1, T13). This request was then accommodated in subsequent sessions as more examples were included of how to teach the comprehension strategies in the junior end of the school. In another training session, Teacher 1 expressed an interest in exploring text-to-text connections in greater depth (PD2, T1). The following week's session was altered to include a further examination of this topic and teachers were also provided with some professional literature to extend their understanding (Miller, 2002). Throughout the year, the discussion groups also provided a forum for the expression of learning needs. Following discussion

groups held in December (DG1a, DG1b), some staff members expressed a need for professional literature based on the strategy of summarising (RRL, p.2), which was then located and supplied to all staff. In the discussion groups held in February (DG2a, DG2b), the teachers expressed concern about the school plan not including a section on comprehension. Therefore, a whole staff session was organised in April to discuss how the programme content could be aligned with the current school plan, having tried and tested various different elements of the programme in the classroom. In this way, the programme differed from a traditional training model of professional development where learning is 'bound and delivered' (Wilson & Bearne, 1999, p.194). In contrast, the learners actively identified their needs and the programme content was adapted accordingly. In this study, the teachers were not regarded as passive objects to be 'in-serviced' (Hargreaves & Fullan, 1993, p.125). Instead they were given an active role in shaping their learning which would contribute towards 'collective sense-making' (Coburn, 2001) within the mutual adaptation approach to curricular change (Snyder *et al.*, 1992).

The current study received very positive feedback in relation to its needs-based model of professional development, which adapted and evolved according to the context and needs of its teacher participants. The teachers of the case study school welcomed the opportunities for discussion, reflection and collaboration, which were important features of the case study's methodology. However, there is currently no such provision made at system level in Ireland for this type of PD or interaction amongst teachers, despite strong recommendations from the literature (Skilbeck, 2005). Such lack of provision may be encouraging a culture of individualism among teachers to persist in Irish schools much to the detriment of curricular innovation and development.

The professional development initiative encouraged participation of all the staff of the case study school (of which the large majority chose to participate). Throughout, the staff was provided with regular (every 5-6 weeks) opportunities to work together and discuss course content. This was perceived as a significant advantage of the programme by the teachers as it appeared to encourage a culture of collaboration in the school and reduced teacher isolation (Little, 1981, in Snyder *et al.*, 1992). The teachers relished the opportunity to 'support each other along the way' (PIS, T13) as they could 'put their ideas together' and 'help each other during the year' (PIS, T6). Indeed, research has shown that collaboration can often be an effective tool in problem solving during innovation implementation (Guskey, 1995). In this way the professional development programme seemed to enable the further development of 'teamwork' (PIS, T6) within the staff through creating an 'opportunity for discussion and chat in a space where there was time outside the school day' (PPDS, T1). The professional development initiative may have helped to encourage the development of a school culture in which collaboration became more of a social norm, which in turn may contribute to further curriculum innovation (Smylie, 1995). Indeed, recent communication with the school revealed that CSI continues to gain status in their classrooms as new staff members (2008/09) were mentored in their learning and implementation of CSI.

A particular advantage of involving the majority of a school's staff in the professional development programme was its potential to allow the staff to 'look at the whole-school approach to reading/literacy and modify [it]' (PIS, T1). The advantages of consistency and continuity throughout the school were commented on by many teachers, recognising the positive nature of developing a system (PPDS, T8) where the teachers

would be 'implementing the same strategies throughout the school' (PIS, T11) ensuring the teachers took shared ownership of the new methodologies. Some teachers (e.g. DG1a, p.7, T11; DG2b, p.2, T1) recognised the importance of this spiral curriculum in relation to comprehension strategies. The implementation of a school-wide spiral curriculum was an important aim of the initiative from the outset. As the teachers experienced the positive effects of CSI they became more willing to alter the current methodologies used by the school (Guskey, 1998). Previously Beard El Dinary (2002) highlighted the advantages of a whole school policy on comprehension strategy instruction, as its cumulative effect would outweigh the time commitment required and experienced during this study.

As the participation in the PD initiative was voluntary, not all teachers took part. It was felt that such non-participating staff members may have adversely affected school-wide implementation (Hargreaves & Fullan, 2000) of CSI. In order to address this issue a whole-school planning session was held during a staff meeting in April at which all staff members were present. However, during the whole school planning session, there was one teacher in particular (RRL, p.10), who had not participated in the course and did not agree with the core concept of the course regarding the explicit teaching of comprehension strategies as she believed that children would comprehend naturally through enjoyment (a view espoused by some teachers in the findings of Phase One). Although this negative view was in the minority, it may have become a significant barrier to change in the future as effective implementation of CSI would call for a shared vision of reading instruction and consistency of approach throughout the school. It highlights the possible advantage any maybe necessity of providing professional development during school

hours (Lyons & Pinnell, 2001) so that all teachers on a staff might work through and develop a shared school-based understanding of research-based practice in relation to reading development.

#### ***4.1 The Impact of the Professional Development Course on the Teaching of Reading***

The main aims of the professional development programme were to highlight that comprehension could be taught through the use of mental modeling and explicit teaching (Duffy, 2002). Throughout the evaluations of the various elements of the initiative, many of the teachers (e.g. PD1, T8; PPDS, T3; PPDS, T9; PPDS, T15) spoke of the 'how' of comprehension teaching referring to how comprehension needed to be taught in a planned and systematic manner. This indicated that as a result of the CSI PD initiative teachers had progressed to understanding that comprehension strategies could actually be taught (Pressley, 2002). There was a considerable amount of evidence that the teachers in the case study school were attempting to move away from a pre-initiative 'interrogative' style of instruction, which has been criticized in the literature in the past (Pressley & Wharton McDonald, 2002), towards developing a repertoire of comprehension strategies in the classroom. For example, one teacher explained how she taught children to use a range of strategies:

'...usually I'd have a litany of questions for them to answer but I didn't need to do that... and we did prediction, visualization... they had so many questions to ask the character' (DG1a, p.2, T14).

It may be concluded that the professional development programme, by providing an alternative to questioning (through active learning, lecture, modeling, discussion and collaboration), had a

significant impact on the learning environment of this classroom.

Many of the participants (e.g. PPDS, T3; PPDS T4) alluded to how the in-depth professional development initiative had significantly altered their confidence levels about teaching comprehension. These findings highlight the importance of extended engagement with course content (Sweet & Snow, 2002), which can result in increased confidence and improved teaching methodologies and also higher student achievement (Meiers & Rowe, 2002). Indeed, one teacher (DG1a, p.3) felt that the initiative had equipped her so well with knowledge and methods for teaching comprehension that in the classroom she hadn't had any negative experiences with regard to CSI. In applying and adapting the course content to her context, she was confident that she had achieved positive results. It may be surmised that the teachers' enhanced confidence levels were related to their increased knowledge and understanding of the reading comprehension as a result of participating in the professional development programme and overall initiative (Fullan, 1995). The access to ongoing support (both from the researcher and from colleagues) may also have contributed to the surge in teachers' confidence (Lyons & Pinnell, 2001). The teachers appeared to have developed new knowledge and skills while also gaining confidence in their ability to teach comprehension. However, knowledge alone is not sufficient to enact curricular change. It is also essential that teachers are facilitated to take ownership of the new learning and adapt it for use in their particular context (Duffy, 2004).

The professional development programme of the current study aimed to employ a mutual adaptation approach to curricular change (Snyder et al., 1992), where the practitioner has an active role in shaping

the curriculum to meet local needs, as course facilitators work with teachers to explore how to translate theory into practice in a particular context (Duffy, 2004). Many of the teachers citing numerous and varied examples (e.g. DG1b, T2, p.6; DG1b, p.6, T8; DG1a, p.3, T13; DG1a, p.2, T14) reported using current school resources in order to implement CSI PD programme content, thereby changing their instructional emphases but retaining local and available materials. In this light the professional development programme may have enabled the teachers to improve their classroom practice through changing their use of current existing and available resources, without feeling that they were required to use the same resources that had been demonstrated throughout the programme. This point is significant as this availability of resources issue has been a barrier to change in other past studies (Duffy & Roehler, 1986). Importantly, this finding fits with the 'mutual adaptation' (Snyder et al., 1992) goal of the overall professional development initiative to create 'thoughtfully adaptive' teachers of CSI (Duffy, 2002).

## **Conclusions**

The value of Concannon-Gibney's (2009) study as outlined and discussed throughout this paper lies in its offering of some clear insights into extended school-based professional development, as well as a possible 'blue-print' for such future PD programmes for teachers. Spanning one school year and focusing on one school staff, the benefits of the needs-based initiative were many but the data gleaned regarding holistic and shared exploration and school-wide implementation of one educational (specifically CSI) theory, and the discussion, reflection, support and collaboration required to sustain such curricular change in one school context were particularly valuable. However, if similar professional development

programmes were to be designed and enacted more broadly, certain key features would require refinement and development.

Firstly, data from the final surveys of the initiative indicated that it may be recommended to hold shorter, more frequent teacher PD sessions over a longer timeframe. For example teacher 3 stated that 'some of the sessions were very long after the teaching day' (PPDS, T3, p.2) (sessions were two hours in length) and Teacher 9 reported the training would have been more effective if the course had consisted of 'shorter sessions broken up over a longer period of time' (PPDS, T9, p.3).

Although it is recommended that one school year of professional development should be sufficient to implement curricular change in reading instruction (Taylor *et al.*, 2002), there was data that suggested that the professional development could have been extended beyond one year. Teacher 8 outlined how a review at the end of first term of the subsequent school year would be beneficial in the context of teaching new class groups (PPDS, T8). It may be tentatively concluded that due to the depth of programme content, the barriers to implementation that existed in the case study school (particularly the school cultures around the school plan and the enduring use of workbooks) and the need for the teachers to take ownership of the intervention, more time may have been required to ensure full implementation. This has implications for system-wide PD change as it has been identified that the obstacles facing the case study school in implementing change are very representative of schools in the Irish system (from Phase One of the study) and of those internationally (see Beard El-Dinary, 2002).

The present study sought to investigate the experiences of primary school teachers in one case study school as they participated in a professional development course on reading comprehension instruction and then attempted to implement the new methodologies in their classrooms. Although the study gathered rich data in this vein through surveys, reflective logs and discussion group transcripts, which will hopefully inform future research and professional development provision, it may have been amplified if it had gathered data relating to teachers' actual classroom practice (through observation or video) during implementation. Although this type of support was not particularly popular with the wider teaching population (indicated in the findings of Phase One) and it was felt that the teachers in the case study school would not be amenable to this type of research in the first year of implementation, had the study continued into a second year, this may have been a very valuable method of gathering data in relation to the actual practice of comprehension strategy instruction in a small number of Irish classrooms. This might have been a useful third phase in the study as it might have highlighted interesting discrepancies between teacher opinion/belief and their actual classroom practice (Langer & Allington, 1992) while also acting as a learning tool for teaching as discussion between the observer and the observed might prove powerful in changing practice (Joyce & Showers, 1995). Therefore, it may be proposed that future initiatives and research in this area could include a second year of implementation in order to observe actual classroom practice. It would also have been interesting to include a stronger socio-cultural element in the study, charting the influence of the case study teachers' developing beliefs, understandings and school context as they moved from traditional to more research-based best practice on their classroom climate and

their pupils' understanding of the reading task (Au, 1997).

In general, the provision of a school-based PD initiative that focused on the current and developing needs of the teachers appears to have been a very positive and worthwhile attempt to develop teacher's understanding and practice in relation to reading pedagogy. As the aim of this study was to provide a 'blue-print' for PD reform, certain positive attributes certainly need to be highlighted in future PD initiatives. Firstly, the critical and influential role of the principal and administrators in fostering a culture of change needs to be recognised and addressed. Teachers should be encouraged to view their school as a supportive, learning community rather than focusing on individual classrooms. Ideally, the whole staff should be involved in any PD initiative to amplify cohesiveness within the school. It is also apparent that time needs to be set aside in the school day/week for teacher collaboration, discussion and reflection if change is to be mobilized. The content of a PD programme needs to be relevant to the needs of the teachers, and adaptable as their needs evolve. The PD programme should include both theory and discussion of its practical classroom implementation. While a PD initiative may include workshop sessions where new knowledge and skills are communicated, it is also essential that other learning experiences would be provided such as on-going discussion groups and perhaps in an extended initiative, in-class reciprocal coaching through observation and video-tape. Teacher quality is regarded as one of the most critical variables in student achievement and in our current economic and social climate it has never been more important for our students to succeed in school. Therefore teacher professional development needs to be pushed to the top of educational agendas so that its format reflects research-based best practice. It is hoped that

the study discussed in this paper (Concannon-Gibney, 2009) has highlighted the critical need for reform and development in this area both in Ireland and internationally.

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## SECTION 3

### COMPARATIVE CULTURAL ISSUES OF REFLECTION FOR TEACHERS PROFESSIONAL DEVELOPMENT

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## **C**HAPTER 20

### **PREDICTING SUCCESS IN TEACHER EDUCATION: A COLLABORATIVE PROFESSIONAL LEARNING AND REFLECTION PROCESS**

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#### **Abstract**

In the light of the forthcoming baby-boom retirements, the requirement for dedicated, committed and quality entry-level educators will only surely rise. However, indicators are such that many entry-level educators experience significant attrition. The dropout rates during the early years in teaching are high. This can result when an individual finds the job not to be what is expected, and there is a mismatch between person and context. As well, there is often a lack of early mentoring for new educators. Would retention rates be higher if university teacher preparation / education programs were able to identify, select and mentor those individuals who were best suited to the shifting and complex working realities of teaching? Current post-secondary

teacher education practice emphasizes academic standing for selection and admission, even though, at best, above a required minimum, it is weakly correlated with professional success. In order to select candidates who demonstrate potential for teacher education, the University of Lethbridge uses a workplace-based University course that identifies suitable candidates for admission. This paper reports research findings related to the efficacy of the course from a student perspective and in terms of its ability to predict success in teacher education.

There are multiple pedagogical, curricular and other reasons that contribute to the effectiveness of the course described in this chapter. One major factor in its success, however, is a long-term (over 30 years) cross-institutional partnership in collaborative professional development with multiple stakeholder groups active in education. These groups have brought their many, sometimes conflicting, perspectives, to bear on course governance, curriculum content and the roles of instructors, supervisors, and administrators who work collaboratively with students in a university-based seminar and within a school-based practicum. This process of collaborative professional reflection is also the core of how the instructors and practicum coordinators work with each other and how students work individually, and with each other, their teacher associates and faculty instructors in an experiential approach to professional learning which explores the nature of teaching as a career.

## **Keywords**

Teacher education – selection – predicting success – experiential learning – collaborative professional reflection

## **Introduction**

Abundant anecdotal evidence and student evaluations appear to support the efficacy of the University of Lethbridge teacher education Orientation to Teaching Course. A more formal research inquiry, however, is required to assess its efficacy. Thus, an ongoing

research study was initiated to gather data that addressed the following questions:

- Do students' perceptions of their experiences of the course indicate that the course meets its objectives related to career exploration and selection?
- Does the course predict success in teacher education?
- Does the course predict success in teaching?
- If the course is successful – why?

This chapter documents previous results of an analysis of qualitative data from over three hundred students in regard to the first question and statistical analysis of quantitative data gathered over five years from over one thousand students in response to the second question. Research plans are being developed for question three. Question four is addressed throughout this chapter.

## **1. The Course**

Orientation to Teaching (Ed 2500) has four purposes and they are:

- To explore contemporary education,
- To help each student to assess the personal suitability of teaching as a career,
- To assist the Faculty of Education, in partnership with the teaching profession, to evaluate students' potential for teaching and for admission to the B.Ed. program, and
- To assist the student in beginning to make the transition from student to professional educator.

Students must be in their second year of University with thirty credit hours completed with a minimum C.G.P.A. of 2.5.

The seminar (with twenty students) includes many interactive and experiential elements. Seminar content

may include the nature of children, learning, teaching, curriculum, instructional materials, professional ethics and career expectations examined as separate themes or through discussion and reflection on practicum experiences and overall inquiry into contemporary educational issues. The seminar also requires students to interact and present within groups and individually plan and teach a microteaching lesson to peers. Within the practicum component of the course, under the supervision and guidance of their practicum Teacher Associate, students observe and analyze classroom interactions, tutor individuals, provide short periods of instruction for small groups, assist teachers in supervision, marking, preparing materials and in many other aspects of the teacher's job. They may work with the whole class for simple tasks like opening exercises, reading stories, assist with exceptional children and extracurricular activities and, if ready, teach occasional lessons. They may also attend staff meetings and professional development activities with their teacher.

Students keep a logbook and professional journal within which they document, interpret and reflect on their practicum experiences. These journals are used within the seminar. The logbook also includes a beginning portfolio of what the student brings to teaching, beliefs about teaching, personal professional goals, evidence of professional learning, and an assessment of their personal professional attributes, strengths and weaknesses, and emerging teaching style. They use all of their personal, professional and academic experiences in assessing their own suitability for teaching in a final paper for the course.

Students are required to complete Ed 2500 and be recommended for admission to the program by both their professor and practicum Teacher Associate prior to application for admission to the Faculty of Education

proper. Students may complete Ed 2500 at the University of Lethbridge or its equivalent at other accredited institutions. It is also possible to receive a waiver of Ed 2500 if students have been teacher assistants or have done extensive volunteer or applied studies work in an Alberta classroom. Students are also able to claim credit for Ed 2500 as an elective in other degree programs should they decide not to pursue teaching as a career.

## ***1.2. Collaborative Partnerships and Reflection***

### *1.2.1 Course Governance*

The Ed 2500 course came into existence in the late 1970s through the collaborative efforts of the Faculty of Education of the University of Lethbridge, Provincial Executive of the Alberta Teachers' Association (ATA), the Lethbridge Local of the A.T.A., representatives of the Parent Association as well as Lethbridge School Districts and Boards. On-going monitoring of the course, program and policy development is maintained through these groups who participate in the Teacher Education Advisory Committee (T.E.A.C.) The Faculty of Education Field Experience Office, under the supervision of the Assistant Dean of Field Experiences, and a Faculty of Education Standing Committee of elected Faculty members (Ed 2500 Committee) also contribute to this process and, with the Coordinator of Ed 2500, provide administrative support for the Ed 2500 Instructor Group. An Ed 2500 Handbook (2006) of policies, practices, roles, relationships and course content and procedures guides activities for all participants.

Within the Faculty of Education, our history is characterized by a unique culture of collegiality and collaborative decision making, whereby teams of

instructors work together on the continuous development of program areas. We also have a policy of regarding stakeholders in education as our partners in the development and delivery of programs.

As well, stakeholders in education, with Alberta have a tradition of using collaborative partnerships for projects of mutual interest. Despite that culture, however, each group has its own perspective, goals, attitudes, values and agendas regarding education. These agendas may have elements in common, different but non-conflicting interests, or significant elements that may be perceived to be conflicting. Typically, as with the jurisdictions, government and teacher association perspectives regarding teacher compensation, working conditions, roles, relationships, class sizes, teacher evaluation, and student assessment may be at odds with each other. Parent Associations find themselves concerned with the educational and personal welfare of their children as it may be affected by government, school district and teacher's work policies. School boards are often caught in the middle of all of these agendas trying to make things work as best they can. When we add what academics and teacher educators want, the potential for disagreement and conflict is significant. So how do we manage to work together?

First, in regard to our teacher education program and the Ed 2500 course, we provide a neutral ground together with a common and important project of significant mutual interest to all parties. This minimizes dysfunctional partisanship and enables us to listen to each other for the good of the common project.

Second, we have been working in this way for thirty or more years which has enabled us to deal with sticky elements of both substance and process over time.

Our persistence in staying with what works in collaboration has made the process resilient enough to withstand difficult challenges.

Further, the challenges of curriculum design, development and implementation are not new. We regard dealing with different and/or conflicting agendas of various stakeholders as normal. The art of curriculum design (even at the post-secondary level) is one of negotiation and the creation of a set of activities, content, roles and relationships in which all groups can see themselves and their agenda's represented. Sometimes these views conflict but if the activities can contain these paradoxes then we have agreement. Teachers' lives are riddled with these paradoxes – we, and our students, have to learn to live within them and be arbitrators of how multiple views might be balanced and accounted for.

We have developed such a curriculum for Ed 2500 which is agreed to by all parties. It is documented in the Ed 2500 Handbook that details all elements of the course, activities, roles of instructors, teacher associates, students and others while leaving room for individual differences and creativity.

Where stakeholders feel strongly enough about their perspectives and views, they are able to deliver workshops and seminars on particular to our students representing their point of view (e.g. A.T.A. workshop on Professional Behavior and Ethics, Government presentations on mandated curricula, teacher workshops on working realities).

### *1.2.2 Reflection – Seminar and Practicum*

Regular instructor meetings with the Co-ordinator of Ed 2500 facilitates on-going, professional exchanges as to what is working, what is not and sharing and

resolution of issues. It is a collaborative and reflective endeavour and, in turn, instructors work in professional experiential and reflective learning cycles with their students in the seminar. Students work both individually and with groups of peers. This same process occurs with Teacher Associates and students in the practicum. School-based experiences provide content for seminar reflective activities. Instructors work with Teacher Associates, engaging in liaison activities and conversations at least during alternate weeks. Students provide evaluative feedback every semester at the end of the course.

The Ed 2500 Committee engaged in two cycles of a collaborative course review (from 2002 to 2006 and from 2008 on) that involved all stakeholders. In addition to the above groups, an Ad Hoc Ed 2500 Committee (a sub-committee of T.E.A.C.) was established which consisted of representatives of our Teacher Associate partners. Through this focus group process, issues related to Ed 2500 were identified and addressed including policies, practices, roles and relationships that were reviewed, renewed and improved. Three major issues identified were:

- Developing adequate student understanding of professional ethics prior to practicum placement,
- Dealing with students in difficulty, and
- Development of research-based evaluation rating scales for assessing student performance.

## **2. Literature Review and Conceptual Framework for the Course**

### **2.1. Attrition**

Attrition figures for the first four or five years of teacher careers for the U.S.A. and Ontario approach an annualized figure of 10% per year (Berg, et. al.,

2005; Ingersoll, 2002; Jamieson, 2003) meaning that perhaps 40% to 50% of new teachers may be lost in the first five years.

It is interesting to note that the three top reasons cited by employees generally (Branham, 2004) as to why they leave within the first year of the job are:

- The job was not what the employee expected,
- A mismatch between job and person, and
- Too little coaching or feedback.

Ed 2500 is designed to enable students to experience the realities of teaching as work and as a career (know what is expected), determine whether and how they are suited to teaching as a career (person-context match) and to provide mentors (faculty, instructors, teacher associates and peers) to assist in career exploration, and early professional and workplace learning.

## ***2.2. Professional Learning in the Workplace***

Schon's (1983; 1987) seminal work of the nature and sources of professional learning and knowledge clearly established that professionals create their post-graduation knowledge and practices through both implicit and explicit reflection-in-action and reflection-on-action as they apply both their formal and informal personal theories to their work contexts. Data from life course research, teachers' life stories and collaborative autobiography (Butt and Raymond, 1989) have also established that – together with biographical dispositions which professionals bring to their careers – the workplace, work experience and workplace learning are major sources and means of professional learning and professional knowledge. Huberman's work (1988) and that of Retallick (1994, p. 38, et passim.) has shown that workplace colleagues are also a major influence on and source of professional

learning. Other research into teachers' work lives has also shown a strong relationship between professional learning and inter-collegial relations with peers and administrators. Taken together this work stresses the importance of the relationships that foster a social learning community as an ideal context within which professionals (individually and collectively) thrive, learn, grow and develop effective organizations (Retallick, et al., 1999). The process of workplace learning is a core element in this process. Given this understanding of how professionals learn and develop the Faculty of Education B.Ed. Program attempts to provide a context conducive to collaborative professional learning, including Ed 2500, which enables students to both observe and directly experience teaching and simple workplace and professional learning as a means of career exploration.

There are two core challenges for each student in Ed 2500 which relate to professional conduct and professional learning. (1) As soon as the student enters Ed 2500, he/she is regarded as a potential member of the teaching profession. Students are expected to be professional in attendance, appearance, demeanour, behaviour, language, conduct and ethical behaviour. (2) As future professionals, students are responsible for their own professional learning and to begin to construct their own professional knowledge and style through the Professional/Experiential Learning Cycle of activity, experience, reflection and professional learning which is documented in their logbook and portfolio.

To say that the seminar only addresses the reflective and theoretical elements of teaching and that the practicum only addresses the experiential elements of the professional learning cycle would be untrue and a stereotypical categorization of what we do in regard to workplace praxis. Our Teacher Associates live,

understand and discuss contemporary educational issues (and many have, or are, pursuing post-graduate studies). Our University Instructors, whether retired professionals or regular university faculty members, are or have been, intricately involved in professional practice in schools and use many experiential strategies for professional education in the university-based seminar. The professional learning cycle is used, therefore, in a complete manner of activity, experience, reflection and documentation of professional learning in both contexts. They also, however, interact and inform each other so that both university and practicum learning become integrated in personal, collegial, practical, professional and academic ways. The process is work-embedded and workplace-focused. It attempts to reflect what research suggests works best with professional learning – it attempts to be personal, social, interactive, experiential, concrete, constructivist, hands-on, reflective, emotional as well as cognitive and intellectual (Butt, 1995). It tries to provide a variety of relationships and contexts that reflect the richness of the learning communities within which the fully professional teacher learns best. When we evaluate students, we are assessing how well they can engage in professional workplace learning in context as a measure, not only, of what they can do in a substantive sense, but what career long potential they might have through their own prowess in professional learning.

### ***2.3. Evaluation***

As part of the review process, the evaluation rating scales for both the seminar and practicum were updated to reflect current research as to what predicts success in teaching. This included items related to reflective practice, workplace learning, the work of Schechtman related to leadership, human interaction,

and communication skills [summarized in Byrnes, Kiger and Shechtman (2003)], and teaching dispositions which help children learn best (Butt, 1995).

In regards to performance in Ed 2500, those admitted to the B.Ed. program either received a R grade (Recommended for Admission) or an HR grade (Highly Recommended for Admission) based on both Teacher Associate and Seminar Instructor ratings of their performance on the fifty-seven item rating scales. Students deemed unsuitable for teaching but who complete the course, may receive a pass for course credit but are not recommended for admission (NR). Students compete for admission on the basis of successful completion of the Ed 2500 Introduction to Teaching Course with a recommendation for admission in combination with their overall grade point average – in addition, HR students receive a boost in their C.G.P.A.

### **3. Previous Findings**

In order to address the question as to whether students were experiencing the course as intended both quantitative and qualitative data was gathered from over three hundred students (Butt, Grigg and Dyck, 2005). From the quantitative data we learned that 90% of students' attitudes regarding teaching were positive and those who wanted to enter teacher education moved from 88% to 96% as a result of their experience of the course.

Interpretation of qualitative data from over 300 Ed 2500 students as to what they had learned from the course yielded a thematic structure of five major themes. The most pervasive theme, (1) Course Effectiveness, was characterized by sub-themes related to the richness of the professional and work

experiences both in the practicum and seminars as well as the effectiveness of mentorship relationships. (2) Understanding Teachers' Work related to how students 'eyes were opened' to the nature of teachers' working realities and the amount of time, energy, flexibility, different teaching styles and the complexity of teaching required and resultant stress produced within the political context of teaching. In contrast to teaching as work, eyes too were opened in regard to (3) Teaching as a Profession with its major responsibilities, the degree of caring, accountability for children's learning and impact on children's lives. Students' respect for teachers and teaching grew significantly as did their appreciation of the professional values and skills of good teachers. A fourth major theme attested to the fact that students began (4) Personal Professional Learning as they engaged in an important role transition from student to teacher, as the semester progressed, as well as their learning about "self as teacher" as they learned and developed skills relating to children, learning, curriculum and teaching. Lastly, the fifth theme of (5) Career Commitment revealed student realizations that, despite its challenges, teaching is a rewarding and exciting career; that they had increased in their confidence; that they could teach and wanted to teach; and, for some, they were able to discern their preferred teaching context. Of equal importance, the experience permitted some students to decide, for a variety of reasons that teaching was not the best work context for their career aspirations.

From the thematic structure of qualitative data solicited from a non-directive general request to comment on the most important learning students gleaned from the course, there appears to be a reasonable degree of congruence between what students experience and learn and course objectives

and intentions to enable them to engage in a realistic exploration of teaching as a career.

#### **4. Research Questions and Methods**

The research question investigated for the purpose of this chapter is:

Does student performance within the Ed 2500 Orientation to Teaching course predict success in University-based teacher education practica/internship?

Since we are eventually interested in the degree to which the course predicts student success in teaching, we operationally defined success in teacher education as successful completion (without difficulties) of the B.Ed. Program including all three teaching experiences in schools. These consist of:

- Professional Semester I: a 5-week practicum focusing on generic teaching skills
- Professional Semester II: a 6-week practicum focusing on teaching in the student's major
- Professional Semester III: a 15-week culminating internship.

Unsuccessful completion of practica/internship within the teacher education program included two groups of students:

- Those who received an incomplete designation – that is they experienced some difficulties in the practica/internship that they were required to remediate through further teaching in schools.
- Those who failed the practica/internship or withdrew due to lack of success.

This study is a preliminary investigation of the research question as to whether a more in-depth study is worthwhile at this stage in the development of

Ed 2500 - using simple categorized data. A comparison of students who received a Highly Recommended (HR) designation as compared to their peers who received a Recommended (NHR) designation for Ed 2500 was conducted both in regards to students who experienced teaching practica/internship success (pass) versus those who experienced difficulty (Incomplete) or failure (W/F). A chi-square analysis was used to determine whether there were significant differences among the groups of students in each category for over one thousand students who participated in the course over five years.

## **5. Results**

6.5% of NHR students failed or withdrew due to inadequate performance whereas 0% of HR students did. In addition, 5.5% of NHR students experienced difficulty whereas 0% of HR students did. Taken together 12% of NHR students failed, withdrew or experienced difficulty in practica while 0% of HR students did. In all three comparisons these findings are statistically significant (Chi Square = 14.16, 10.50 and 26.25 respectively – all significant at the 0.01 level which appears to support the notion that ratings in Ed2500 predicts success in teacher education programs as determined by success in practica/internships.

## **6. Discussion**

New rating scales are currently in use for both seminar and practicum performance in Ed 2500. These scales were carefully developed by the Ed 2500 Committee through the use of focus groups of multiple committees based on the collective professional expertise of the field, faculty and what we could discern from research on what predicted teaching/learning success at the Ed 2500 Level. These

forms were piloted, reviewed, reformatted and fully implemented in 2006. These rating scales attempted to provide clear, focused and specific criteria for rating performance in Ed 2500. From these forms a written statement that specified the criteria for awarding the Highly Recommended Designation was devised. These rating scales were designed to further improve the rating of performance in Ed 2500 and, hopefully, their degree of predictability of success in practica and internships.

Research on the nature and development of professional knowledge, professional and workplace learning, the role of reflection as well as investigations into professional dispositions, teaching skills and strategies which enable optimum student learning undergird many of the items on the rating scales.

One of the core set of research findings, however, which pertains to the rating scale is the work of Schechtman (see below) who has investigated and developed reliable and valid assessment procedures for admitting students to B. Ed. programs. These procedures have been shown to predict success in teacher education, student teaching and in the first two to five years of teaching (Schechtman, et al., 1991, 1992a, 1992b, 1993, 1998; Byrnes, et. al., 2003). Schechtman has utilized the notion of 'Assessment Centres' (which have been widely and successfully used in industry for predicting managerial effectiveness) in developing procedures for assessing students for admission to B. Ed. programs.

While some interview proceedings and two or three-day assessments of potential candidates for teaching have predicted success, those procedures were deemed to be too time consuming and not cost effective. Schechtman (see above) developed a modified version of the 'Assessment Centre' that takes

only ninety minutes to complete. This procedure has been demonstrated as being as reliable and valid as the two or three-day assessments.

In the assessment procedure, two trained assessors work with eight students who participate in the discussion of two controversial topics; one related to education, one a social issue. These discussions are followed by a leaderless group activity that involves problem solving and group decision-making. Assessors evaluate each candidate on the basis of his/her verbal activities, interpersonal and human relations skills as well as leadership qualities. Each student is also given an overall rating for general suitability for teaching which, while drawing from the verbal, interpersonal and leadership, may also include other qualities the assessor's professional expertise deems important. Whereas the rating of verbal, interpersonal and leadership qualities, that has been shown to be related to professional success, are significantly correlated to global overall ratings (0.75 and greater). The global rating has been shown to be the best predictor of professional success.

While these findings pertain to Schechtman's research, we hypothesize that Ed 2500 might be able to achieve the same or better predictive results since Ed 2500 appears to address the same (and additional factors) as that work but within a more extended and real way over much longer period of time. The next section addresses this argument.

### **6.1. Ed 2500 as an Assessment Centre**

Ed 2500 rating scales for both practicum and seminars include many items that assess communication, interpersonal/human relations and leadership abilities plus other research-based professionally desirable qualities.

Ed 2500 provides a context which does not have the time/cost/benefit difficulties of two or three-day assessments or, for that matter, multiple ninety minute assessment centres. As a credit course it has an excellent cost/benefit ratio.

Ed 2500 provides thirty-nine hours of seminars, sixty hours of practicum, mid round and final assessments and a culminating interview for assessing teaching potential.

Ed 2500 is not a simulated experience; it is real on-the-job workplace learning. We assess not only their current potential for teaching, but also their ability to engage in professional learning.

The assessment team is a combination of working teachers and University Instructors who have many years of experience in teaching and teacher education.

The experience enables students to engage in a thorough career exploration through 'trying the teachers' job on for size' – experience the rich but stressful working reality, the deep responsibilities, the ethical and professional requirements of the career and professional learning – who they might be as teachers – and the nature of their personal, practical, professional and intellectual passions about, and commitment to, teaching.

Seen in this light it is not surprising that this preliminary research shows some predictive validity for Ed 2500 as an efficacious 'Assessment Centre' which both mirrors but goes beyond Schechtman's (year) approach. Most importantly, Ed 2500 serves an educative and professional induction to teacher education. It is a vital introduction, preparation and foundation for our program – a rich context for

developing student readiness, commitment and maturation for professional learning.

## **Conclusion**

The data analysis indicates that significantly more students whose performance in Ed 2500 was rated as Highly Recommended by their Teacher Associates and Seminar Instructors experience success in the program than their colleagues whose performance was rated as Recommended for admission to the Faculty of Education. This provides some preliminary evidence that level of performance in Ed 2500 is related to and may predict success in practica/internships in teacher education. This is in contrast to the use of grade point average above 2.5 as the major admission criterion, which, in a crude regression analysis of the data predicted less than 1% of the non-success, success, high success in practiac/internships. In addition, rates of practicum/internship difficulty increased from 12% for GPA above 2.5 to 26% for G.P.A., below 2.5. This suggests that grade point average may be a necessary but not sufficient condition for success up to a certain value after which other factors related to personal and professional skills play more of a key role as measured by the Ed2500 rating scale for whom Highly Recommended had a zero practicum/internship difficulty rate over five years.

Given these findings, it seems worthwhile to, first, improve and fine tune those aspects of Ed 2500 which are deemed important in predicting success in teacher education and teaching followed a more intensive research study which uses scores on seminar and practicum rating scales (as determined by trained observers) as a measure of performance.

All elements described in this chapter contribute in some significant way to the potential success of Ed

2500 in meetings it objectives. The core set of essential processes and structures, however, are the collaborative experiential professional learning and reflection cycles practiced in governance among all stakeholders, in the continuing orientation and professional learning of instructors and Teacher Associates and within both seminar and practica with student learning experiences. The Ed 2500 Handbook becomes the repository for documenting the results of this process as an evolving guide for the course in content, experiences, clear roles, relationships, requirements, expectations, and evaluation procedures.

In regard to the differing values of stakeholders – the deliberative process attempts to make sure that we can identify which values are parallel (non-conflicting), which can become congruent through agreed choices of common activities which address them, and those which are authentically different/opposite/or conflicting.

We regard conflicting values in education manifest through paradoxes, dilemmas or antimonies as normal pressures that will always occur in education at any level including those experienced by the teacher in the classroom. So teachers and students in teacher education need to be able to live among and address these tensions in healthy and productive ways.

In regard to the continuing success of our Ed 2500 course, we notice that if any of the key elements of our approach is neglected, the rate of occurrence of problems increases. Neglect of the Handbook procedures, or anything that interrupts ongoing conversations, and too rapid turnover of personnel without due attention to orientation all can contribute to a less functional system. In addition, new contextual challenges, changes in stakeholder policies,

and other changes in education, all contribute to the need to conduct summative reviews (in addition to our strong formative processes) as was the case in the full review described in this chapter.

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## **C**HAPTER 21

### **INTERNATIONAL FACULTY TEACH FOR SUCCESS IN A RURAL MIDWESTERN LIBERAL ARTS COLLEGE**

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#### **Abstract**

The international faculty members' perceptions of the challenges, transitions and adjustments to teaching in a Midwestern liberal arts college in Iowa, USA describe shared values and modifications to align their professional behaviours to meet institutional expectations. Survey and interview questions address how faculty members adjust to a Midwestern academic environment. The researcher examines if there is a mentoring program that identifies expectations and institutional support for international faculty members. Survey results show that challenges, transitions, and adjustments are related to clarity of communication and English language fluency. The international faculty members align their former educational system with current teacher-student experiences and

expectations. Colleagues are mentors with procedural institution expectations. The stake holders are the international faculty members who maintain rigorous teaching standards to gain tenure and relate to their American students. The college administrators are stake holders striving for institutional diversity, academic excellence, to retain quality faculty and students. The undergraduate students are stakeholders, selecting to study in a small engaging, media rich college with supportive professors. I am a stakeholder, reflecting on teaching strategies to achieve student and professional success. References: Boice, *The New Faculty Member* (1992); *Attributes of Successful New Faculty*, UC Berkley (2009); Black, *GenY* (2010).

## **Keywords**

International Faculty Members; Higher Education; Teaching Strategies

## **Introduction**

Globalization and population mobility have had an impact on recruitment practices in organizations throughout the world providing opportunities for institutions to recruit from a worldwide field of applicants. Institutions of higher education in the USA are no exception. Central College, Iowa recruits from this pool of global candidates seeking to appoint quality faculty members who will identify with its institutional goals, students' interests, and contribute to the academic community through their service, teaching and research. This chapter presents the international faculty members' perceptions of the challenges, transitions, and adjustments to teaching in a small, rural Midwestern liberal arts college in Iowa, USA. The research data was collected using an electronic survey and interviews. Questions address how faculty members with international backgrounds adjust to a cultural and academic environment different from their own and what foreign educators

perceive as the challenges, transitions and adjustments to be successful as college professors. The participants responded to questions asking if there was institutional support and a mentoring program that identified expectations for international faculty members.

The international faculty members, institution administrators, and college students are all stakeholders in the outcomes of the study and education process, striving for personal, professional, and institutional success. To teach for success the international faculty members have to demonstrate behaviors which connect and align their attitudes and values to reflect the goals of the college. The study identifies the importance of supportive professor - student relationships and the importance of understanding and relating to the new generation of college students, Generation Y, who come from "media-rich environments" (Black, 2010, p. 97).

## **1. Research Study Participants**

This study focuses upon the international faculty members at Central College, Iowa. Fifteen percent of the one hundred and six professors originate from five continents: Canada and Mexico-North America; Chile-South America; UK, Germany, USSR, and Slovakia-Europe; China, Korea, and Nepal-Asia; Ethiopia and Ghana-Africa; and Iran-The Middle East. They form a diverse group of specialists in multiple fields, which include: biological, physical, environment and computer sciences; business studies; history; art; music; foreign languages; religious studies; and teacher education. They have been recruited to teach in a college that was founded by members of the Reformed Church in America. Eighty percent of the international faculty members, twelve out of a cadre of fifteen participated in the study.

The international faculty members include individuals who came to the USA as non-American citizens and have subsequently become first generation USA citizens. This includes individuals who were foreign students studying for tertiary degrees. All competed with a national pool of candidates for their faculty positions. Institutionally they are a valued resource, as their presence, experiences and contributions provide for a greater sensitivity to global awareness supporting one of Central College's community goals, "to experience and appreciate the diversity of cultures present in the United States and the world and to relate knowledgeably and sensitively to persons of diverse cultural perspectives" (Central College Catalog, 2010-2011, p.7).

The demographics of Central College's student population and the rural geographical location of the campus are contributing factors to the adjustments made by the study members. Central College has a predominance of Midwestern students with limited racial and ethnic diversity. Central College Fall Semester 2009-10 Enrollment Report recorded over 90% of the 1572 students being from Iowa, with the Midwestern states the main out of state recruitment regions. Given the student demographics, the international faculty members provide the campus with valuable global perspectives, diversity, and continuity. The international faculty members have become an established group, settling in the Midwest. Their average of ten years' of service demonstrates a commitment to the institution.

Colleges seek to recruit faculty members who relate to the students, who teach in a manner which is engaging, rigorous, and stimulating. Teaching for success is a challenge to all faculty members in institutions of higher education, but more so for international faculty members. Central College reviews

course evaluations made by students. The statistical data and students' comments are used as a part of the faculty members' academic tenure and post tenure review and are contributing factors in tenure and promotion decisions. It is apparent from the study that students' evaluations may be a source of stress for international faculty members, resulting in adjustments in teaching styles to strategies preferred by American students (Theobald, 2007). This raises the question, what does teaching for success in this study mean? Are the international faculty members teaching for their own professional success, to gain tenure or for the success of their students? Faculty members, students and the college administration are all stakeholders in this process. Teaching for success cannot be achieved in this rural Midwestern liberal arts college without an alignment and communication of shared values and a common purpose directed towards the institutional goals and positive student learning outcomes.

## **2. Literature Review**

Teaching for success requires an understanding of learning styles and the cognitive processes students use to perceive and process information, demonstrating affective responses and behaviors as they remember, understand, apply, analyze, evaluate and create meaning, (Anderson and Krathwohl, 2001).

Oblinger and Oblinger (2005) discuss the changes in learning styles of the digital generations describing how students think digitally and process information learning through "mediated immersion" (as cited in Black, 2010, p. 99). This requires many faculty members to make adjustments and reflect on how to accommodate environmental, cultural and generational differences in styles of learning. International faculty members are teaching college

students who rely upon and relate to technology. The students' comfort zone is using media sources and search engines to process information moving from one link to the next, rather than critically reading text books. Students are constantly connecting with friends and their families, visual learners, technological dependent and assured. Black (2010) states that the "gains in technical expertise and informal knowledge may be offset by students' shorter attention spans and lack of depth of learning" (p. 98). Although students are able to retrieve information this does not mean they have the skills to understand, evaluate and analyze the sources. This may explain why students prefer lectures supplemented with interactive materials and online activities, simulations and more non-linear texts, thus accounting for the adjustments in teaching required by international faculty members. The quality and expertise of faculty members and the manner in which they relate to the culture of the GenY students and institution can be contributing factors in faculty and student retention.

In addition to adjusting to the students there are other pressures for international faculty members. Theobald (2007) identifies stresses for international faculty members as pre-tenure pressures, visa work, and varying levels of institutional support; stating the importance of "competent immigration support; collegiality and support from the chair of the department" (as cited in Redden, 2008, para. 4). Redden (2008) cites the challenges for integrating international faculty members as "the loss of professional identity; a lack of fluency in a profession's language, and the absence of a professional and social networks." In addition there were challenges of mastering "explicit and implicit academic expectations." (p. 2). These findings were evident in the respondents' comments in this study. Participants want to align their previous experiences with the

expectations of the institution and understand the explicit and often more subtle implicit expectations.

In an earlier but relevant study, Boice (1992) identifies attributes of successful new faculty members. These behaviors include having positive attitudes about students and the ability to teach relaxed paced lectures with student involvement. The successful incumbent is prepared to find ways to improve their teaching, is resilient and able to ask for advice from senior faculty members. Success is having the ability to develop social networks and differentiating gossip from meaningful information. In a blog describing research on successful new faculty, Chua (2003) discusses how success for international faculty members is related to their style of teaching. She recommends a student-centered approach, suggesting that students can understand challenging content, want to be active learners, but it is the task of pedagogue to teach with rigor so that students form positive attitudes and acquire skills.

Further advice for international faculty members is presented by The Science Education Resource Center, SERC (2009) at Carlton College, MN describing how the USA students are more likely to ask questions in class, question professors and contribute to class discussions. Professors in the United States are less likely to conduct formal tutorials, favoring conversational discussions. SERC states the importance of setting clear expectations about course requirements with written guidelines of how grades are assigned. To overcome English language constraint it is suggested that Power Point presentations be used to explain the major points.

The literature review enriches the analysis of the challenges, transitions and adjustments of the international faculty members at Central College,

Iowa. The studies demonstrate the importance of professional development for new professors and support for international faculty members to alignment values, behaviors and attitudes. If there is collegial, departmental and institutional support for international faculty members all the stakeholders can share and focus on the teaching and institutional goals with a collective understanding of professional expectations and behaviors. When there is a socio-cultural disconnect, lack of understanding, or miscommunication between the stakeholders the learning outcomes and goals of teaching for success will be compromised. This may result in tenure being denied to faculty members, students leaving to study at another college, with the negative financial implications of these scenarios on the institution.

### **3. Research Findings**

#### ***3.1. How do faculty members with international backgrounds adjust to a cultural and academic environment different from their own experiences?***

The participants described their former education systems as a process requiring students to memorize facts, take notes, listen, record, and write extended essays. Lectures were the norm. In their experience students were held accountable for their own motivation and success. Faculty members identify the impact of their own school environments as an enduring legacy and describe how this has influenced their teaching methods:

- My personal educational background has a huge impact on the way I teach, in two different ways. In my country the style is "sink or swim" and some professors are proud of the low number of students that pass their course.

- In this country where everyone is “above average,” self esteem, earned or not, is of paramount importance, and the teacher’s experience and education are considered to be of little value to the “consumer” i.e. the student. The direct impact on my teaching has been a continual effort to balance rigor with customer satisfaction.
- I went through the traditional lecture-note taking system and I see the advantages of more student engagement in the process of learning.
- I had to memorize facts, data, formula, read classical literature and poems, remember quotations, names and dates and be able to quote and apply these facts in extended timed essay examination papers which were submitted to external examiners. The examination system was designed to differentiate between students, eliminating those deemed to be less academically able.

American students are perceived as entering college not as prepared academically in comparison to European or Asian students where entry into institutions of higher education is more often an elitist selective process. Overseas tracking and selection often begins in elementary schools and is based upon intensive competition and demanding high school courses in mathematics, writing, foreign languages, and the sciences. The survey respondents identify cultural differences comparing their education experiences to those of their students:

- Students receive less language training in high school than in my country; they are less prepared to deal with learning a foreign language and are often overwhelmed by the amount of work they need to put in preparing for class.
- I was keenly aware of the competition and the importance of doing well. Only a select few moved on to post-secondary education and only after passing highly competitive and difficult entrance exams. Education was a privilege to be earned and not a right to be squandered. The onus was on the student to learn and not on the teacher to cater. Students in Iran have a much more rigorous curriculum.

- Students are less likely to actually read and therefore inform themselves, they are much more focused on just learning what is on the test.

These comments reflect the interactive teaching style suggested by Boice (1992) and Chua (2003). Unlike the faculty members, American students view college as an entitlement rather than a privilege, Black (2010).

### **3.2. What do foreign educators perceive as the challenges, transitions and adjustments to be successful as college professors?**

The faculty members are the products of different educational systems but they are living and working in an era with a youthful computer-literate, mobile, generation of learners who make conscious, reasoned choices. If international faculty members are teaching for success then there is a need, for those who received a more formal elitist education, to adjust to the American teaching style. These comments illustrate perceptions of the differences in teaching and learning styles:

- Students here are less responsible for their own education, they expect to be reminded about things that I as a student was always aware of: when and where exams will be, what is on the exam, how to calculate my final grade. They complain about lecture style classes. Students are very fast to blame the professor for their poor performance. Many do not study regularly and expect to get a good grade by studying the day before the exam....then the exam is "too hard"
- Students seem less interested in knowledge for its own sake and find it hard to motivate themselves for knowledge that does not directly benefit their grades. I

was really surprised to learn students considered most of learning exercises busy work.

- I never tried to negotiate with the teacher the pace of the teaching but now I find students are asking me to slow down, even if it means we are behind in the schedule.

The responses provide examples of how the current generation of media dependent students learn, as discussed by Black (2010), Oblinger and Oblinger (2005), and SERC (2009) demonstrating the dilemma of how to maintain rigor and provide a depth of knowledge in a new era of interactive, technologically oriented, digital learners. Professors reflect upon how to align their teaching, values and attitudes to meet the needs of the students and maintain rigor without compromising the quality of their courses.

- I'm always conflicted about how much I should "baby" my students. When I think about it, I conclude that I should let them do things on their own but I always end up caving in. I constantly remind them about when assignments and exams are due, I give study guides, do review sessions outside of classroom, try to use interactive teaching methods, use clickers and quizzes to incentive them to study regularly.
- I have become a softer grader than I was in my initial teaching years. I also evaluate students more on accomplished tasks than general knowledge.
- I make lots of handouts, homework questionnaires, and add more and more text summarizing on Power Point. I had to in order to have a successful tenure-review.
- Ours is a consumer oriented world and Central delivers a product. Keep the consumer happy and we are an on-going enterprise. Instruction has become more "student-centered."
- My syllabus is very clearly defined with multiple exercises. Students will only fail if they fail themselves.
- An adjustment is realizing that American students know less than what I did as a student. Students either want to pass the class or make a certain grade in it. Few are in the class for acquiring knowledge. I assigned an exercise - Ex. B on page 76 without mentioning the fact

it continued on page 77. Students did not turn the page as I had not specifically asked them to do so.

It is evident from these comments that the college professors are cognizant of the learning styles of students and the students' potential impact on tenure track reviews. Theobald (2007) states, "foreign-born faculty are chagrined at the increasing focus on student-as-consumer." (as cited in Redden, 2008, p. 2). How then did the study participants think students perceive them and what were the challenges in their interaction with students in class? Faculty members wrote:

- To my knowledge students perceive me as a demanding and strict teacher but also someone they can turn to for help.
- They see me as a hard professor, I do not entertain. As far as challenges are concerned I cannot assume students know history, geography, or world literature and this makes teaching quite impossible at times.
- Most of my courses remained content and lecture oriented. I treat students intelligently and expect a lot from them. Students appreciate not being patronized. I have not had any bad experiences, the students are entirely too Iowan nice and polite.

Colleges want to retain students for the full degree program so the quality of teaching is an important factor and one which cannot be underestimated. If the international faculty members fail to recognize and relate to the student expectations and learning styles the result will be a negative alignment and dissonance between groups. A lack of understanding or failing to accommodate socio-cultural differences will not promote academic success for either the faculty members or the students. Success requires diverse groups to communicate so that regardless of their different cultural and academic backgrounds, they are able to work together to define and meet achievable

common goals. This emphasizes the importance of the positive alignment of the values, attitudes and purpose of the stakeholders in institutions of higher education.

A further example of adjustments relates to the limited sense of global awareness of students and the students' limitations when discussing issues of global importance. One professor stated:

- Students tell me that since the USA is the world leader and if they don't have a good way to deal with environmental issues, obviously no one else does.

The international faculty members have a global perspective on world events yet understandably in a rural Midwestern college most students do not have this breadth of experience or exposure to an international perspective. Faculty members want to broaden the students' global perspective and interest in international affairs. To this end, many enhance their teaching with examples from their foreign and cultural experiences, enriching the teaching environment while addressing one of the college goals to develop the students' global awareness.

### ***3.3. Is English your second or third language, if so how does this impact upon your teaching and student comprehension?***

Failure to communicating effectively in a second language can negatively impact on the students' evaluation of the international faculty members, Redden (2008). The respondents suggest a lack of comprehension by students may not be the result of the language skills of the professor. The respondents state that difficulties in comprehension may be due to the limitations of the student, their lack of vocabulary and linguistic skills or failure on the student's part to

study and prepare for the class. These are a sample of the responses:

- It is technically my second language but by now it is my best language. If anything their lack of comprehension and mastery of their own language probably frustrates me more than them.
- English is not a problem but I do know that some students have a limited vocabulary in the English language and this causes some misunderstanding.
- My experience tells me that diligent or smart students hardly have difficulties understanding me, not to mention content of complex material in discussions, while for those who are not it is the first excuse for their poor performance.
- English is my third language but I am not aware of any comprehension problems on the part of my students and I have no problem comprehending my students at any level.
- English is my second language. The vocabulary specific to my discipline I learned in Spanish so sometimes I have an accent but technical terms are very similar so it doesn't have such a large impact.
- I have lived in the USA for a long time. I look Hispanic and have an accent but I am adjusted to American culture. Because I have an accent in class I get comments that make me realize they think I just arrived in the country.

The use of language and effective communication skills are key factors in the learning process. The comments presented are the reflections of the international faculty members and may not be shared by the college students. Students may suggest they cannot understand the tone, inflexions or the way words are pronounced by non American speakers and these impacts on their academic performance rather than a lack of study skills, limited comprehension or restricted vocabulary.

***3.4. Is there a mentoring program which defines expectations? Is there institutional support for international faculty members?***

Respondents demonstrate there is support for international faculty members as related to institutional academic expectations and work visa requirements. The importance of this is described by Theobald (2007). Comments recognize this mentorship:

- My department chairperson and colleagues went out of their way to help me settle down. The department meetings gave me some idea about the teaching system. New faculty meetings helped me to learn about the function of various departments. It was all very useful e.g. how to respond to students with learning disabilities.
- The college was efficient and supportive with the help of an immigration lawyer to obtaining my H1B initial work visa. Department colleagues were extremely supportive and wanted me to be successful. New faculty workshops provided a bonding experience to meet other new faculty, through these meetings we established our own faculty support group.
- There was a retired faculty member who took an interest in my welfare and helped me adjust.
- Yes, primarily with faculty, but not the community since it is hard to meet people in the community without kids or church membership.

The participants received support from their departments, other faculty members and formal workshop sessions to explain and provide an understanding of institutional expectations. This is a key factor in professional faculty development. Providing an on-going mentorship support system for new international faculty members had a positive outcome for all stakeholders identified in the study. Mentorship in all the forms described by the participants promoted a welcoming atmosphere to

support their adjustment, providing an understanding of the culture of the institution, their professional responsibilities and teaching expectations.

### Conclusion

The original research conducted at Central College, Pella, Iowa contributes to an understanding of the challenges, transitions and adjustments of an increasingly mobile population of foreign professors working in U.S. colleges. Despite orientation sessions, new appointees are required to adjust to the work place and learn often unstated institutional expectations; however, international faculty members have additional challenges resulting from cultural differences related to their own educational background and assumptions about teaching and learning. International faculty members must adjust to a more informal teaching style, as American students prefer teachers who use interactive learning situations with continuous feedback and guidance. Respondents described how they adjusted to classroom situations and accommodated students with more direct communication, collaboration and personal conferencing, supporting students with exercises, Power point presentations, quizzes, written assignments, explicit outcomes, and course expectations. They feel compelled to set high standards, and found that students responded to rigor if the tasks were achievable and defined. Students did not perform well or show initiative if assignments were not explicit. Even students in the Midwest respond positively to an interactive teaching style that incorporates electronic media (Black 2010). The professors acknowledged that their own English language skills, fluency, and accents sometimes challenged students' comprehension, but thought that some students used this as a reason for poor performance and lack of preparation for class. It seemed to be that poor student performance was a

potential source of tension between the professors and students that exacerbated their “foreignness.”

Further research could address several questions: Does the desire for positive professional reviews, coupled with the inability of students to achieve competencies, result in lower educational standards? Are faculty members changing styles from lecture to more student interactive strategies not just to support student learning but to avoid poor student evaluations which impact upon the tenure process? Is the college acquiescing to consumerist demands to the extent that the institution cannot be an advocate for, and encourage different, teaching styles inherent in a diverse faculty? Do the international faculty members feel the current evaluation system is fair and one that recognizes their strengths and institutional contributions? Are the diverse backgrounds and experiences of the international faculty members being sufficiently recognized and utilized? If there is a college goal to encourage a global perspective, and the institution is serious about internationalizing the campus, should the recruitment and retention of international faculty members be a significant institutional priority?

Teaching for success recognizes that international faculty members embraced change to adjust to cultural and generational differences in learning styles. While working to achieve personal academic success, the international faculty members are also effective advocates for their students. They as a group want their students to succeed in the global economy. The international faculty members demonstrate a global awareness and concerns for environmental and world issues, and as a group are actively contributing to the diversity of this Midwestern campus. The participants' responses indicate that they are personable, engaging, and at the same time challenging students to develop

a global perspective. The unique quality of the descriptive data has value for institutions of higher education and the governance of Central College, Iowa. The results and conclusions may contribute to the discussion of how best to mentor and facilitate the adjustment of international faculty members. The study should stimulate discussion to define teacher-student institutional expectations, and describe exemplary effective teaching practices. The research benefits all sectors of the academic community, acknowledging the contributions of the international faculty members to promote academic excellence as they personally address the challenges, adjustments and transitions of teaching in the USA.

The principle stakeholders in the study are the international faculty members, the college administrators and college students. The international faculty reflected on how they teach, maintaining rigor and academic standards while relating in a positive manner to their American students. Their reflections also demonstrate the positive outcomes when the stakeholders, the international faculty members and institutional administrators share common values and goals as communicated through a system of mentorship and institutional support. This resulted in the retention of quality faculty members as demonstrated by the longevity of service of the cohort. The students are also stakeholders who visit numerous institutions before enrolling in an undergraduate degree program. They come to college looking for a sense of identity, social acceptance and academic challenges. Their retention is a challenge to many institutions with today's consumerist student population. There are many factors which will impact on student retention, one of which is how students relate to and identify with their professors. It is therefore financially beneficial for the college to have an academic environment which is challenging,

engaging, and diverse with supportive professors who relate to the culture of students in a caring and meaningful way.

As an international faculty member, I am a personal stakeholder in the study, having made my own adjustments and met the challenges of working in an unknown and foreign environment. I continue to reflect on my attitudes and values, to communicate more effectively, while teaching for personal and student success. The students in this Midwestern college are from rural, small towns. They come to college with a strong work ethic and have family values founded upon a sense of kindness, sincerity, generosity and caring; wanting to contribute to society. They are a unique talented group who engage in all facets of academic, sporting, and artistic campus student life. They find multiple ways to give back to the greater good of others. I am impressed by the innocence of these Midwestern students, their wholesomeness, faith and values. I had an attitude much different from theirs when I was at college, I was much more cynical and self actualizing. I have made a conscious decision to move to the USA and am professionally rewarded to be able to teach and share my own life stories and international experiences with these Midwestern students. Having travelled and taught in Europe, Asia and Africa many of my friends are amazed that I have decided to work in a liberal arts college in the Midwestern rural Iowa, USA. I reassure them this is a good place to be, despite the lack of public transportation. I arrived with two suit cases, a bicycle, and rented a house I had not seen, within walking distance of the college, so I was not the norm from day one, but fitted in, was accepted, and adjusted.

As I reflect not only on my personal experiences but the adjustments of the study participants it is

apparent that all the stakeholders benefit from a supportive environment where the professors can communicate in an engaging manner, defining achievable, rigorous, academic standards. Teaching for success therefore requires self evaluation with personal adjustments, adopting teaching strategies to accommodate individually, diverse, interactive student learning styles. Success is also defined by the institutional and collegial support, exemplified by an environment which encourages reflection, a culture of professional development, and mentorship. Success requires multiple factors which include: commitment, collaboration, and a sense of identity, collegiality, and an open minded attitude with an ability to meet undefined challenges to adjust to and develop new skills. It is evident from this study that it is possible for a group of academics from different counties and continents with diverse educational backgrounds to meet the challenges, adjusting, and transitioning to teach for success in a rural Midwestern liberal arts college, in Iowa, USA.

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## **C**HAPTER 22

### **DEVELOPMENT OF GLOBALLY ACCEPTABLE TEACHERS: A STUDY CONDUCTED IN AN AUSTRALIAN TEACHER EDUCATION PROGRAM**

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#### **Abstract**

With an increasing number of English as a Second Language (ESL) students entering teacher education, the support for ESL pre-service teachers is becoming an increasingly important issue facing Australian universities (Han, 2005; Miller, 2010). This chapter explores the perceptions of 11 ESL pre-service teachers of the Master of Teaching program at the University of Tasmania, and support strategies that are in place to support their future teaching and learning. These ESL pre-service teachers were from four language and cultural backgrounds. They were encouraged to reflect on their teaching practices in weekly focus group meetings, reflective journals and surveys responses. The finding of this study contribute valuable insights on these ESL pre-service teachers', including my own, experiences, values, beliefs, attitudes as well as the cultural and educational needs in the professional development toward globally accepted teachers.

## **Keywords**

Teacher education – ESL education – Support strategy

## **Introduction**

Due to the increasing number of ESL students entering teacher education in Australia, the support for this student-teacher group has become a critical issue. Recent literatures have identified an increasing diversified teaching force in Australia (Miller, 2010; Ryan & Hellmundt, 2003). Many international students come to teacher education institutions in their goal to be professional teachers. These beginning teachers bring different experiences and a global perspective to Australian classrooms. However, they also face great challenges due to their state of being ESL students and pre-service teachers. That is, they need to overcome the challenge of language and cultural differences as well as form a new identity of being professional teachers (Han, 2005). In dealing with this situation, ESL pre-service teachers need to be provided with strategies and support structures. In response, universities are under pressure to accommodate and provide assistance to these students to address their significant cultural and language differences and their identity shift (Cruickshank, Newell, & Cole, 2003; Dong, 2004). Hence, the teaching of ESL pre-service teachers is becoming an increasingly important issue facing Australian universities.

This paper reports a qualitative and ethnographic study which seeks to understand what support strategies would be beneficial in supporting ESL pre-service teachers to become professional teachers. This paper describes the perceptions of a group of 11 ESL pre-service teachers, including the researcher, from the Master of Teaching program at the University of Tasmania. Data were gathered from surveys, focus

group meetings, participants' journal entries on their practicum experiences, and the researcher's reflective journals on the focus group meetings, to seek further clarification of how to best cater for ESL pre-service teachers in future teaching and learning. During this research, the researcher placed herself as an insider within the research activities. This position enabled her to observe, participate and reflect as a member of this special target group. It is believed that the findings of this study may provide an opportunity to improve teacher education practices, especially support mediation for ESL pre-service teachers in their transition from ESL students to professional teachers.

## **1. Literature Review**

The importance of providing support to students from non-English speaking backgrounds in teacher education profession has been emphasised by a large number of researchers (Bangou, Fleming, & Goff-Kfour, 2011; Dong, 2004; Li & Kaye, 1998). There is evidence which showed that ESL pre-service teachers from other language and cultural backgrounds bring students in English speaking countries multi-cultural learning experiences (Barkhuizen & Feryok, 2006; Cruickshank, Newell, & Cole, 2003; Han, 2005). Hence, support structures put in place in universities can assist in the development of worldly teachers who have multi-cultural and global perspectives (Clement & Outlaw, 2002). An examination of the support strategies adopted by universities is beneficial for the intercultural development of both beginning ESL pre-service teachers and the institutions they belong.

Due to the status of being both ESL students and pre-service teachers, ESL pre-service teachers are required to have a higher level of English proficiency and self-resilience, so as to complete coursework at university and to perform as professional teachers in

classrooms. As a result of the language and cultural differences, the ESL pre-service teachers face great challenges in their coursework, such as hardly understanding lectures, getting poor marks for assignments, lacking of participation in tutorials, having problem communicating with colleague teachers, and hardly gaining rapport from their students (Cruickshank, Newell, & Cole, 2003; Miller, 2010). In addition, some ESL pre-service teachers have difficulties in their practicum experiences which is an important part in their teacher education in Australia. The practicum experiences involve making connections between what they have learned at the university and how this knowledge and skills can be applied in classrooms (Kiggins & Gibson, 2003). Some ESL pre-service teachers suffer from lacking of prior experiences in local learning environments and systems. When confronting these problems some of them may feel under pressure or even lose their hope of becoming a teacher and withdraw from the program. Thus, effective support strategies are never so important for them to overcome the obstacles and continue their study.

Australian universities and other tertiary education institutions have developed a variety of support strategies to address the issues faced by ESL students. The traditional support strategy refers to university assistance, where ESL students have access to language assessment, self-access materials, as well as short courses on study skills, such as academic writing, note making, and grammar (Cruickshank, Newell, & Cole, 2003). However, teacher educators nowadays intend to develop support models for a more specific purpose of assisting ESL pre-service teachers in their teaching profession. For instance, at the University of Sydney ESL pre-service teachers are supported by a number of teaching strategies including the Cruickshank, Newell, and Cole's (2003)

mode, which provides remedial classes in each semester to help them cope with the mainstream classes.

## **2. Background of the program**

The Master of Teaching program in the Faculty of Education at the University of Tasmania is a two-year postgraduate degree with a graduate entry requirement. The program has curriculum and method classes as well as a professional practice component, Professional Studies, which is based around understanding the practice of teaching. The four practicum experiences are seen as a significant part of this program. They involve pre-service teachers going into schools and taking responsibilities in teaching with the help and guidance from one or more colleague teachers. The ESL pre-service teachers are required to undertake the School University Partnership Program (SUPP) and four practicum experiences in the same way as the local pre-service teachers. They also have the support from the colleague teacher(s) in the classrooms and a university lecturer to come to their classrooms weekly to monitor their progress.

Apart from the assistance provided for teaching experiences, these ESL pre-service teachers also benefit from the following relevant supports and assistances provided to support their coursework:

- University wide content-based courses, which allow ESL students to learn languages in meaningful contexts, rather than to have them study the language as a separate subject;
- Tutoring approach and focus groups, one in which support staff work with individuals or small groups on specific areas of needs (Cruickshank, Newell, & Cole, 2003).;

- Self-directed learning, which is mainly behind the establishment of self-access materials and the provision of on-line support (International Students, 2011);
- Other support services, (e.g. Weekly skill-based courses focusing on academic writing and preparation for examinations) (EL SIS, 2011).

### **3. Participants**

The research involved the participation of 11 ESL pre-service teachers who are from four non-English speaking countries including Chile, China, Japan and Germany. Of these 11 participants, the five Chilean pre-service teachers and the one from Germany were exchange students who were studying a degree in the Faculties of Education in their own countries and came to Australia for a six month exchange experience. The other pre-service teachers were full-time students in the program. These participants were from both the first year and second year of the program.

### **4. Aims and research questions**

The study aims to determine the dominant discourses present in the ESL pre-service teachers' perceptions of their experiences in learning and teaching within the Master of Teaching program. The research seeks to find out how the ESL pre-service teachers are supported in both their practicum experiences as well as their university courses. It also gives recommendations to enable future ESL pre-service teachers to be better supported in their teaching and learning. This paper addresses the following three research questions,

- What are the experiences and perceptions of ESL pre-service teachers studying in the Master of Teaching program at the University of Tasmania?
- What are the responses and actions undertaken by educational institutions to include the culturally diverse student population?

- What support should be in place to provide ESL pre-service teachers with a meaningful cross-cultural experience, and assist their shift of teacher identity?

## **5. Methodology and data collection**

This study is designed based on the theoretical framework of qualitative approach, ethnography approach (Charmaz, 2006) and constructivist grounded theory (Strauss & Corbin, 1990). During the eight weeks research period all the first year pre-service teachers were doing their School University Partnership Program (SUPP) as well as their Professional Experience One (PE1). The second year ESL pre-service teachers, however, were undertaking their Professional Experience Three (PE3). Within the research activities, the participants were encouraged to record and reflect on their teaching experiences, including the engagement, happiness, achievement, as well as their confusions, doubts, problems, difficulties and frustrations.

The data collection methods were in forms of surveys, focus group meetings, journal entries and the researcher's reflective journals. Surveys were given before and after the practicum experiences to seek changes in the participants' understandings toward the teaching profession. Focus group meetings were organised on every Tuesday afternoon during these eight weeks. The discussion of the focus group meetings was audio taped and made into transcripts to enable further analysis and interpretation of the conversations. The participants' journal entries in relation to their perceptions of teaching and learning in Australian classrooms were collected in the last week of the data collection to further support the evidence. It is important to mention that the researcher was involved in the research activities as a member of the participant group. Therefore, she was required to keep

a journal on her practicum experiences as well as a reflective journal on the focus group meetings. These reflective journals were a further support to the tape recording of the focus group meetings.

## 6. Data analysis

A constructivist grounded theory approach was used to interpret and interrogate the textual data and transcripts to find the dominant discourses present in the ESL pre-service teachers' responses to their experiences (Strauss & Corbin, 1990).

Table 1: Dominant discourses

Dominant discourses	Reponses
Discourse 1: Cultural conflict	614
Categories:	
• Cultural aspects in teaching and learning	487
• Language aspect in teaching and learning	127
Discourse 2: Pragmatic practice	400
Category:	
• Experience about the Professional Experiences	400
Discourse 3: Limitations	314
Category:	
• Beginning teachers' concerns	314
Discourse 4: Professional identity	137
Categories:	
• Attributes teachers should have	121
• Reason for choice of education	16

The researcher used three coding processes: open, axial and selective coding to organise the collection of data (Sarantakos, 2005). Through each step of the coding approach, the textual data were identified and labelled into open codes, axial codes and selective codes. The responses to the identified codes were

recorded and constructed according to the frequency of their occurrence. Thirty seven open codes emerged from the open coding process. These codes were then reclassified into fourteen themes in the axial coding stage, and further refined and reduced into six categories in the selective coding process. Based on the categories emerged from data analysis, the research has uncovered four dominant discourses in understanding ESL pre-service teachers' perceptions of their experiences of the Master of Teaching program. These dominant discourses are shown in Table 1 above.

## **7. Findings and discussions**

Two dominant findings emerged in this study. The first finding involves the process of phronesis, in which the ESL pre-service teachers explore and refine their own perceptions of teaching through their practicum experiences. The second finding, however, is the construction of binaries in the ESL pre-service teachers' knowledge of teaching.

### **7.1. Phronesis**

Developing a "practical wisdom based on the perception of a situation" (Korthagen cited in Berry, 2004, p. 1307) on their practicum experiences is a challenge for these ESL pre-service teachers. Added to these initial perceptions is their difficulty in speaking the language which limits their understanding and perceptions of teaching. These ESL pre-service teachers came to Australia with a non-English speaking background; they must adjust rapidly and learn fast, in order to cope both academically and socially (Sawir, 2005). The ability to develop and reconceptualise their perceptions of teaching on their practicum experiences and make adjustments to their teaching practices is an essential requirement.

For phronesis to occur successfully this means that the university needs to provide structures, such as focus group meetings, that support ESL pre-service teachers' construction of knowledge. Traditional teacher education practices have been challenged in that pre-service teachers cannot successfully produce the knowledge they have been presented and expected to produce in their own classrooms (Berry, 2004). In comparison to traditional lectures and tutorials, the focus group meetings provide ESL pre-service teachers with more opportunities to discuss their concerns and ideas, as the topics of the meetings are designed with more of a focus on their developing perspectives and the size of the groups are usually smaller (Cruickshank, Newell, & Cole 2003). Also, these focus groups support the construction of these ESL professional identities. As Lee and Boud (2003, p. 188) argue, "Academic identities, including identities as researchers, are forged, rehearsed and remade in local sites of practice". The Master of Teaching program is a local site of practice for ESL pre-service teachers to develop and construct their teaching identities. This finding is evidenced in one of the ESL pre-service teachers' discussions in the last focus group meetings:

"Now I can possibly say, I have given a beautiful full stop to my PE3 (Professional Experience Three). In this practicum, I took more teaching and stayed closer to my students as a real teacher. I found now I can fit myself into an Australian classroom and I made another big step towards my life of teaching... It has been a great experience spending time with all of you to discuss what we have learnt during the weeks. I have learned a lot during the discussions, and most important, having the chance to meet all the people in the group gives me a lot more confidence because I know that I can come to someone to discuss the difficulties I met, and know that there is someone there to support me."

*Transcription of focus group meetings*

## 7.2 Binaries

The second finding specifically appears in a Conflicting binaries model which is developed from all of the discourses listed in the last section. As this research has an explicit focus on the ESL pre-service teachers' teaching and learning in the Master of Teaching program, there are a few "living contradictions" in their developing subjectivities (Whitehead cited in Berry, 2004). The ESL pre-service teachers' knowledge about teaching is reframed through phronesis which has the discursive effect of producing a number of conflicting binaries in their knowledge construction. The ESL pre-service teachers reframe their perceptions of teaching and learning, however, they learn to live with the contradictions and binaries in their knowledge construction. As Davies (1994, p. 2) argues, "It enables us to see the diversity and richness of our experience of being a person as we find ourselves positioned now one way and now another". These binaries are shown in Table 2 below:

Table 2: Conflicting binaries

Initial perceptions of teaching and learning	Reframed perceptions of teaching and learning
<ul style="list-style-type: none"> <li>• Teaching is about transmission</li> <li>• Teacher-centred climate</li> <li>• Surface attributes of a teacher</li> <li>• Initial teacher identity</li> <li>• Scared and unprepared for teaching</li> <li>• Cultural conflict in teaching practice</li> <li>• English language is a limitation</li> </ul>	<ul style="list-style-type: none"> <li>• Teaching is about the co-construction of knowledge with students</li> <li>• Student-centred climate</li> <li>• Inner attributes of a teacher</li> <li>• Developing professional multicultural identity</li> <li>• Confident</li> <li>• Developing a multicultural teaching philosophy</li> <li>• First language has become an advantage</li> </ul>

From Table 2 it can be seen that the ESL pre-service teachers' knowledge and perceptions about teaching have been reframed through the pragmatic practice of teaching experiences. The main change in these ESL pre-service teachers' perceptions is how knowledge is constructed. That is, teaching in an Australian classroom is not about the transmission of knowledge, which appears as a teacher-centred teaching climate; instead, it is about guiding students to construct their own knowledge, values and beliefs, which appears as a typical student-centred climate. Another change is how these ESL pre-service teachers' initial teacher identities change and adapt Australian practices. Their ideas about what makes a good teacher changed to include teaching strategies. The ESL pre-service teachers' identities shift from their "old self" to a new professional teacher identity (Han, 2005), and they start to build a new rapport in Australian classrooms with this new identity to "gain respect from zero" (Han, 2005, p. 2). This finding is evidenced in the journal entries written by one ESL pre-service teachers before and after her first practicum experience:

*"I am a little bit scared and feel unprepared for this course. ...How can I teach students with my poor English, I don't know many technical words, I don't know all the Australian body language. I have a lot to improve within these two years!"*

*Journal written before PE1*

*"I assume studying this course has already had a certain influence to my mind. I want to be a teacher. Now I am not yet confident to say I am a great teacher, but I am sure I will be ready to take all the responsibility to teach in the future."*

*Journal written after PE1*

### **7.3. Recommendations**

Two recommendations are also provided in this study. One significant recommendation is that the Master of Teaching program improves and develops the support strategies for ESL pre-service teachers. It needs to provide, as in this research, focus group meetings in which the ESL pre-service teachers can learn to reconstruct their teaching practices in "local sites of practice" (Lee & Boud, 2003). Also, social media can also be used to support the professional development of this student teacher group (Ting, 2011). This research also suggests an enabling program which is an online-based program that can provide ESL pre-service teachers with opportunities to exchange ideas with lecturers or other pre-service teachers through online discussions or sending messages. It is believed that these support strategies can cater for ESL pre-service teachers' concerns and perceptions and better assist future ESL pre-service teachers in their teaching and learning in the Master of Teaching program at the University of Tasmania.

### **Conclusion**

This paper reported a study which aims to investigate ESL pre-service teachers' perceptions of the Master of Teaching program at the University of Tasmania, Australia. The effects of globalisation and technology means that teacher education institutions need to provide and create spaces that allow for the development of global teachers rather than only focusing on locally acceptable teachers (Han, 2005). The global perspectives and pedagogy that global teachers bring into Australia provide students with a cross-cultural experience which help them to meet their future lifeworlds' needs in this rapidly changing world (Merryfield, Jarchow, & Pickert, 1997). Hence, setting up support strategies to assist them to enter the Australian teacher profession is becoming a

necessary feature of teacher education institutions. This research has made transparent the continual need for teacher education institutions to provide supportive strategies that can better assist ESL pre-service teachers' teaching and learning. Supportive strategies and enabling programs, such as those made in the recommendations, are crucial in assisting ESL pre-service teachers to overcome the cultural and language difficulties and to develop their own professional identities to become worldly teachers who have a cross-cultural perspective to teaching and learning.

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## CHAPTER 23

### **ROLE PERCEPTIONS AND IDENTITY DILEMMAS AMONG KINDERGARTEN TEACHERS REFLECTED BY THEIR LIFE STORIES**

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#### **Abstract**

The study, explores self-perceptions and professional identities of kindergarten teachers in Israel. Previous research focuses on the gender orientation that structures this profession as a women's social role. The study employed the methodology of narrative analysis of life stories, and reported a variance between the kindergarten teachers' role perceptions, based on their feminine identity and the new expectations emerging from the kindergarten reform, promoting dilemmas regarding their professional identity. The results revealed that kindergarten teachers cope with the conflict in ways that are related to the unique motives characterizing their life stories.

#### **Keywords**

Identity, Gender, life story, role perception, kindergarten.

## **Introduction**

The objective of this study was to explore the self-perceptions and professional identity of kindergarten teachers in Israel. Previous research had focused its attention on the gender orientation that structures this profession as a social role for women (Winterer, 1992; Oram, 1996; Allen, 2000; Lascares & Hinitz, 2011). Even the Hebrew name of this occupation "Ganenet" which is the feminine noun of "Ganan" (gardner in Hebrew), implies that this profession is meant for a woman. Like a gardener who is responsible for taking care of the planets in his garden, the Ganenet is responsible for the nurturing of the kindergarten children. This metaphor of gardener and a garden was created by Froebel (1778-1852), a German pedagogue, who developed the concept of the kindergarten. Froebel's ideas were based on the idea of "Spiritual motherhood" that emerged in Europe and North America in the middle of the 19th century (Allen, 1991). The idea of feminine competence as valuable within the public sphere was at the time, an act of liberalization for women. This idea, of a kindergarten teacher as a female profession was adopted by kindergarten teachers in Israel and has become a very solid element in their collective professional identity. Recently, the ministry of Education (MOE) in Israel has leded some systemic changes that have been developing regarding the definition of the kindergarten teachers' role as a director. This reform, together with informal changes based on the changes of society, especially those of women's roles and definitions, has challenged the kindergarten teachers' role and has impacted on their performance. One of the objectives of this study was to examine the role definitions of kindergarten teachers within the current Israeli educational systemic reform, from three major perspectives: Teaching as a social role, as a profession and as a career.

Previous studies have shown that the self-perceptions of kindergarten teachers reflect their feminine identity, as they consider it to be a social mission and an expression of altruism, as well as the fulfillment of care-giving roles (Katz, 1995; Moyles, 2001; Vogt, 2002, Nodding,2011). Other studies have identified the fact that the multi-dimensional professional role of kindergarten teachers, which includes many contradicting elements, promotes frustration and dissatisfaction emerging from their low status and small salaries (Kelly & Berthelsen, 1995; Einarsdottir, 2003; Eizenberg & Oplotka, 2007 Gililivray, 2011). Paradoxically, kindergarten teachers are expected to be responsible for the important challenge of enhancing children's development and achievements (Noddings, 1994, 2011; Moyles, 2001,Dalli &urban 2012). The role of the kindergarten teacher is seen as far-reaching and with undefined limits. They interpret their work situation through different frames: educational, caring, managing and administrative (Einarsdottir, 2003, Simpson ,2010, Woodrow & Cable, 2011, Dalli & Urban 2012, Osgood,2012). Few studies have examined the role of kindergarten teachers as a developing career, and those which have, had presented it within the traditional models of career development in teaching, describing it as a step-related linear development (Hargreave, 1980; Sharp & Draper, 2000; Powney et al., 2003).

By adding the narrative voice of kindergarten teachers, this study contributes to the existing research literature, by providing unique perceptions of the developing careers of kindergarten teachers within the context of their life stories and their relations with significant people in their lives.

The study's main goal was to assess how kindergarten teachers in Israel perceive their role and personal identity?

This goal was divided into four sub- categories: Gender issues, Identity issues, Systemic issues, and Personal issues, which have been examined by asking several secondary questions:

- Gender issues: What is the relationship between teachers' self-perceptions as women, and their role / professional identity, with respect to it's reflecting current changes in the definitions of being "a woman" and changes in women's work status?
- Identity issues: How do the teachers conceptualize the different and contradictory aspects of their role?
- Systemic issues: How do the teachers perceive the formal and informal systemic changes that have recently been developed regarding the definitions of their role/career? How do they form new frameworks for their role as directors?
- Personal issues: How do the teachers' self-perceptions and personal experiences relate to their professional roles and identities as kindergarten teachers?

## **1. The life story methodology**

In order to examine these questions, the research approach that was employed provided the subjective understanding emerging from reports of personal experience, as provided by the interpretative phenomenological methodology. In line with this approach, each biographical report included segments that reminded the person of subjective experiences and provided him/her with knowledge of ways of coping with various social challenges. The current study employed the methodology of narrative analysis of life stories, based on interviews that took place with nine kindergarten teachers, with at least 15 years of experience, within the Israeli public preschool system. Our assumption was that within 15 years teachers will have developed a clear and stable professional identity. As some studies have proposed that people become less dependent on social standards and

comparisons with increasing age and experience and they are more oriented towards personal standards (Burely, Turner, & Vitulli, 1999, Kanfer & Akerman, 2004). Identity and personal biography are inter-related, and narrative is a mode of thinking fundamental for articulating lived human experience (Brunner, 1991). We achieve our personal identities and self-concept through the use of narrative. A teacher narrative amounts to more than telling stories; it has significance for how they pursue a vision of education professionals. The current study focused on the subjective ways in which kindergarten teachers have coped with the new reform as well as their self-role concept resulting from it.

The research process was based on an analysis of a series of the participants' life stories. The data collection was initiated by interviewing each participant. Later, the text was shared with the participants and revised in accordance to their remarks, in order to ensure their participation in the formation of the final version. After reading all of the revised interviews, major topics arising from the texts were identified and coded. The text categories were classified and matched with categories proposed by theoretical literature, thus forming the wide conceptual framework for the study. Based on this matching, five shared themes were identified and examined. In addition, a unique theme for each life-story was explored. The common themes identified were: Gender, Power, Professional role, Life roles, Experiences and Current Dilemmas.

## **2. The five themes –A framework for role perceptions**

**Gender:** The data included multiple references to the gender self-concept that arose in a visible or in a concealed way, and was demonstrated by the

teachers' gender experience both from early childhood as well as adulthood. It was found that some of the participants were not aware of the gender characteristics of those experiences. This finding might be related to the level of their self-awareness to gender identity. In the current study, self-awareness was identified and demonstrated on a scale ranging from very conscious of the feminine identity through an ambiguous or a dual perception of feminine and masculine identities, to unaware of gender identity. Through their use of language, the teachers in the study illustrated the power that gender discourses upon their definition of self. These discourses bind them in a way in which they cannot construct meaning outside of the set of definitions given to them as women. They have cope with the commonly used language that they have defined as being masculine in nature (career, assertiveness, management etc.) by trying to give those words meaning and connecting them to labels of teacher, wife, or mother ,and to the feminine ethos and the need to be nurturing, loving or submissive. Throughout their stories they have continued to employ explanations and solutions which closely mirror the gender discourses.

**Power:** The combination of "feminine" and "masculine" language used by the participants represented a dual perception of power. The participants used words such as "care" "giving" "tenderness" etc... alongside "power" "control" and "authority".

This duality demonstrated the way that the participants have negotiated their power and power relations in a continuous process of constructing their professional identity. At first it seemed as if they lack the language with which they can find alternative interpretations for their stories. This had changed during the third or fourth interview sessions, when it

was noted that when they had the opportunity to create their stories, by a kind of self- dialog, they had developed their role perceptions and had expanded their ability to use alternative interpretations. .

The process that the participants had undergone revealed their need to express "soft" qualities regarded as "feminine" while asserting power and influence on others.

The concept of power appeared in our study in 3 dimensions:

1. The meaning of power: power as a way of struggling and facing life and life events.
2. The structure of power: power in a concealed or visible way.
3. The origin to power: There were found 4 origins to the professional authority of the kindergarten teacher: the feminine ethos, the professional knowledge, the professional autonomy, and the idiosyncratic personality as a personal competitive advantage.

**Professional role:** The results demonstrated that kindergarten teachers in Israel perform their work in accordance to traditional definitions of this profession. A feminine identity and care-giving ethics were the main factors in their self-perceptions.

The study reported a variance between the role perceptions of the kindergarten teachers and the new expectations emerging from the kindergarten reform, which promotes dilemmas regarding their professional identity. The study pinpointed attention to the increasing importance of elements such as status and prestige and to their connection to self-actualization, and the appearance of career terminology in discussions. The reform in the role of kindergarten teachers is viewed by the teachers, paradoxically, as

an attempt to increase external supervision and as a threat to their autonomy and status. These gaps were expressed through the meaning that they had attributed to their role and in their reframing suggestions. Their conceptualizations reflected personal dilemmas between perceiving their role as an altruistic act and a social mission, to their strong wish to establish a meaningful career.

**Life roles experiences:** The teachers see their professional role as a part of their overall identity, and relate it to their additional life roles as women and mothers. They referred to the complexity of being a women, mother, wife, daughter, or female friend and saw the virtues and competencies of being a teacher as reflected by those roles and identities. The results revealed two levels of introspect with regards to being both a mother and a teacher: The performance level, in which they differentiate between performing as a mother versus performing as a teacher, and the inner level, in which they feel that the two roles originate in the same place and are built-in with their overall identity.

**Current dilemmas:** The results of our study revealed that kindergarten teachers cope with conflicts in ways that are related to the unique motives characterizing their life stories, as their life stories expressed contradictions and indecisions. The process of creating a life story can serve as a method which can assist in reshaping the professional and personal identity. The table below illustrates some of the unique motives of participants:

Role Perceptions and Identity Dilemmas among Kindergarten Teachers

Teacher	A unique motive in the story	The dilemma	The focus
<i>Rachel</i>	Traditional gender perception as a source of her performance	"Do I have to make changes in my role and professional identity or can I keep my old traditional ways in which I still believe?"	The gap between "her way" and the new reform expectations
<i>Michal</i>	A Paradoxical individual	"I'm afraid of losing my feminine identity as a women, although I would like to keep the power that I have received due to the new masculine way in which I perform"	A gap Between her traditional role perception and her performance as a manager.
Yonit	An internal multi-identity dialog pertaining to ways of surviving as a teacher	"How can I maintain a meaningful career while still keeping my traditional identity as religious yet modern women?"	The gap between her career concept and the kindergarten teacher career path
<i>Anita</i>	Self-development, change as a way of life, teaching as a social mission	"How can I continue working as a social mission within a very frustrating reality dictated by the new reform?"	The gap between her mission perception and the possibilities of accomplishing it within the education system.

Teacher	A unique motive in the story	The dilemma	The focus
Naomi	From silence to a unique voice	"How can I actualize myself as a kindergarten teacher?"	The gap between her subjectivity and her aspiration towards actualization.
Nili	Between feminism and a traditional being	"Can I hold a career with a high status and a good salary while still keeping my traditional way of being a kindergarten teacher?"	The gap between her feminism as a concept of believe and her traditional identity, by which she identifies herself

### 3. Discussion

The results of our study demonstrate that kindergarten teachers in Israel perform their work in accordance to the traditional definitions of this profession. A feminine identity and the care-giving ethics were the main factors in their self-perceptions

The effort that the participants have made in order to give new meaning to their role and professional identity have been lead by the traditional perception of a collective identity as a frame for their discourse. The discourse of a subjective self always takes place within the space and time possible for the subjects involved and includes words that are subject to meaning and rules. Our mind set is subject to language, culture, and life experiences as a frame for change. Those limitations can explain the stable teacher's gendered feminine identity that is demonstrated in this study. The life stories and the life experiences demonstrated the expression of the teachers' perceptions and were

subjected to the limited spectrum in which they could execute their ideas.

The tension and gaps found between performance and self-perceptions raised the following questions: What do we mean by "identity"? Does identity exist only in relation to performance, or can it be an internal dimension separate from the external acting and performance? Can we separate body and identity? And do the kindergarten teachers have a feminine identity even though they operate in a managerial way, which they themselves regard as a masculine activity?

Although these questions remain unanswered at this point in time, our study provides an important theoretical contribution to the conceptualization of teachers' professional identity as a developmental outcome of subjective personal processes. The process of creating a life story can serve as a method which can assist in reshaping the professional and personal identity of kindergarten teachers. Between the third and fourth interview sessions some changes took place in some of the teacher's self-concepts. The process of creating a life story had functioned as an inner dialogue through which, although they had doubts, they have even reported broadening their point of view and obtaining some new insights as to future professional decision making.

The five themes that this study has proposed can be used as a framework for future studies on feminine professional identity.

The study's additional theoretical contribution to existing studies is related to the presentation of the teacher's role through providing teachers' voices and demonstrating the structuring of their developing careers as reflecting the feminist aspects of their lives. The educational implications of this study are related

to the contribution of the in-depth understanding of the impacts of the educational reform with respect to the teachers' role. Only through awareness of the teachers' personal needs and their subjective views, can real changes be achieved. The need to reshape their careers in a way that would enable them to create meaning and self-actualization requires in-depth future studies.

Finally, this unique case-study of kindergarten teachers refers to the general process of creating a professional identity as a subjective universal process. The findings of this study indicate a major argument about identity, whereby a person is an active participant in shaping his identity and creating it in accordance to his unique life experiences and his interactions with others - by giving new meaning to these experiences. The associations found between the main motifs of the personal life story, the professional identity and the professional story, suggest the central role of the circumstances of human life in creating a subjective professional identity, but at the same time it explores the question of changing limits. According to this, the issue that should be examined as a continuation for this study is, the possibilities of changes and re-interpretation of space limits, for a given individual. This investigation should take place on a base of the ideas that language is space of acting which create the world always in a culture and life experience context and we are all subject to expectations, language and the discourse rules (Gilmore, 1994 Butler 2001, 2011 Borchers, 2007 ). And if so, what is nothing but self-determination, as Butler contends, the construction of a political act (Butler, 1990)

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# CHAPTER 24

## **INTEGRATING ASSESSMENT FOR LEARNING: ALIGNMENT BETWEEN TEACHER PROFESSIONAL DEVELOPMENT AND TEACHING**

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### **Abstract**

Assessment for learning (AfL) is currently one of the most promising pedagogical approaches for enhancing student learning and achievement. However there have been notable barriers impeding teachers' use of AfL in their classrooms. Time and class sizes; teacher misconceptions of AfL; and perceived misalignment between system priorities and classroom assessment practices have all been cited as critical challenges in promoting implementation of AfL. To address these challenges, we assert the role of teacher professional development on assessment for the integration of AfL in the classroom. Traditional top-down teacher assessment training models highlight the values of AfL from

the perspectives of educational administrators and researchers, but have not paid adequate attention to teachers' perceptions of AfL. Summarizing challenges to the integration of AfL in classrooms, we argue for aligning teacher professional development with teaching in developing teachers' capacity of using AfL.

## **Keywords**

Assessment for learning – teacher professional development  
– integration

## **Introduction**

The role of assessment for learning (AfL) in promoting students' learning and achievement has been widely recognized since Black and Wiliam's (1998) initial meta-analysis of research on AfL (e.g., Hume & Coll, 2009; Kirton, Hallam, Peffers, Robertson, & Stobart, 2007; Marshall & Drummond, 2006). The central aim of AfL is to actively engage students in assessment processes (including self-, peer-, and instructor-based assessment) throughout learning in order to improve achievement, develop metacognition, and support motivated learning and positive student self-perceptions (Assessment Reform Group, 2002). For example, MacPhail and Halbert (2010) found that AfL strategies fostered a greater appreciation of learning among students, specifically pathways for enhancing their learning and engagement through questioning and feedback processes. In an earlier study, Marshall and Drummond (2006) found that students who experienced AfL were more autonomous and self-regulating with respect to learning as well as assessment.

However, despite these promises, there have been notable barriers impeding teachers' use of AfL in the classroom. Over the past ten years or so, researchers have worked to identify these barriers in the hopes of

finding ways to better support teachers in implementing AfL in their classrooms. Practical barriers such as time and class sizes (Torrance & Pryor, 2001; Cheung, 2002; Mabry, Poole, Redmond, & Schultz, 2003); teacher misconceptions of AfL philosophy, theory, and practice (Brown, Kennedy, Fok, Chan, & Yu, 2009; Hargreaves, 2005); perceived misalignment between system priorities and classroom assessment practices (Gardner, 2006; MacLellan, 2001); and the lack of effective models for professional development on assessment (Lee & Wiliam, 2005) have all been cited as critical challenges in promoting AfL.

To address these challenges, it is instrumental to develop teachers' capacity of integrating AfL into their classrooms. For example, James and Pedder (2006) assert that a potential way forward in realizing the promises of AfL is to research structures for educating teachers, both in-service and pre-service, about the complexities and possibilities for assessment integration within the educational context in which they work. For the purpose of effective teacher education, the specific challenges facing AfL integration must be considered. Traditional teacher training models have generally taken a top-down approach, not paying adequate attention to teachers' perceptions of AfL. Hence, this paper will first summarize challenges facing AfL integration, then point out some problematic underlying assumptions related to AfL of traditional approaches to teacher training, and finally discuss the possibilities and direction of integrating AfL in the classroom by aligning teacher professional development on assessment with teaching.

## **1. Barriers to assessment for learning integration**

Previous research has pointed out some barriers to the integration of AfL within the classroom. In this section, we will synthesize these barriers to AfL implementation. It is important to note that while these barriers are described individually, they are in fact interrelated and influence each other in practice.

### ***1.1. Misalignment between systemic assessment priorities and AfL***

Assessment is value-laden; it reflects the purposes and priorities of schooling in different contexts (Lingard, Mills, & Hayes, 2006). As with other classroom assessment processes, the use of AfL can only be understood by taking account of the social, cultural, economic, and political contexts in which it operates (Gipps, 1999). In the current context of accountability and standards-based education worldwide, summative forms of assessment tend to drive curriculum and instruction and limit emphasis on formative assessment (Madaus & Kellaghan, 1992). For example, Ball (2004) identified that the national assessments for accountability and monitoring purposes in England limited teachers' use of diverse assessment approaches within their classrooms. In a US based study, Popham (2008) found that teachers abandoned AfL practices in their classrooms because they felt constrained by state assessments under No Child Left Behind legislation. Similarly, Darling-Hammond and McCloskey (2008) argued that the assessment system in the US overemphasizes externally developed tests and deemphasizes AfL processes. Brown et al. (2009) conducted a cross-cultural survey and found significant differences in assessment practices and beliefs held by teachers in Hong Kong, New Zealand and Australia. They noted that broader cultural norms that focused on

examinations are part of school culture in Hong Kong and may impede AfL implementation in this context. The current trend towards accountability and standards-based education worldwide and the associated emphasis on summative forms of assessment and large-scale assessments suggest a misalignment between systemic assessment priorities and AfL integration. This misalignment reflects conflicting values, attitudes, purposes concerning assessment of educational administrators and classroom teachers.

### ***1.2 Teachers' misconceptions of AfL***

Hargreaves (2005) noted a duality in how teachers conceptualized AfL: on one end, some teachers conceive 'learning' as an external process that is reliant upon teacher transmission of knowledge. Teachers that espouse this belief of learning view themselves as responsible for shaping students' learning and monitoring their progress. For these teachers, AfL is teacher-centered and objective-based. In contrast, other teachers articulated a constructivist view of learning in which student achievement is situated in and dependent upon social context and students' experiences. In this view, AfL is considered to be student-centered with peer-, self-, and instructor-feedback contributing to the scaffolding and progress of learning, i.e. students take control of their own learning through assessment while the teacher offers structures and support for engaging in AfL.

Teachers' negative perceptions of AfL may be related to their own experiences of assessment as students (Harrison, 2005) as AfL has yet to become seamlessly integrated into teaching and learning processes. For example, based on a survey with teacher candidates and faculty members on their perceptions about assessment, MacLellan (2001) found that although

faculty members claimed they used a variety of AfL practices in teaching pre-service teachers, the teacher candidates reported limited experiences of effective AfL integration within their own learning and thus may be less likely to adopt this approach in their future work. Thus teachers need to experience positive instances of AfL integration in order for it to influence their practice.

It should be noted that teachers' misconceptions about AfL may be perpetuated because, as mentioned above, Assessment of Learning (AoL) is prioritized in state, provincial, and national assessment systems. In addition, teachers are inclined to focus on AoL as results from these assessments are used to communicate student achievement, form part of the students' academic record, and are used as a measure of school progress and teacher effectiveness in the accountability context. In a learning environment that centers on accountability, students may choose to adopt an approach known as learned dependence. Yorke (2003) defines learned dependence as a status acquired by students to rely on the teacher "to say what has to be done and does not seek to go beyond the boundaries that he or she believes to be circumscribing the task" (p. 489). Learned dependence encourages teachers to utilize a transmission model of education. As articulated by Hargreaves (2005), such an approach to education reduces the perceived value of AfL. Hence teachers are less likely to adopt this practice within the context of learned dependence.

Thus, in order to promote the integration and implementation of AfL in the classroom, it is crucial for stakeholders—teachers, students, and educational researchers and administrators to share common values, attitudes and purposes concerning AfL.

### ***1.3 Misalignment between teachers' assessment practice and spirit of AfL***

Even if teachers are committed to the principles of AfL, what they do in their classrooms is largely dependent upon their broader educational beliefs. Evidence suggests that some teachers integrate AfL in a literal and procedural way (Marshall & Drummond, 2006). Marshall and Drummond (2006) examined the ways in which teachers enacted AfL in their classrooms. They found that teachers who followed the letter of AfL tended to ask closed questions, thus preventing students from forming connections between ideas and limiting the quality of student responses. These teachers assumed a "sense of ownership and responsibility" to assist and assesses students (Marshall and Drummond, 2006, p. 146), which meant that the benefits of AfL towards student autonomy were largely absent. These teachers continued to view their role as the assessor of student learning. Marshall and Drummond (2006) asserted that teachers adhering to the letter of AfL may be familiar with the assessment techniques, but may not fully understand the rationale for using and integrating AfL techniques into teaching and learning. Consequently, they implemented AfL in a step-by-step fashion with few opportunities to integrate feedback into learning.

### ***1.4 Practical barriers to integration***

Studies on AfL integration have considered practical constraints such as time, class size, and resources on teachers' adoption of AfL practices. The shortage of time is frequently mentioned in research on changing assessment practices (Cheung, 2002; Torrance & Pryor, 2001). Specifically, teachers believe that traditional forms of assessment are more time efficient and have more value because they serve summative requirements and accountability demands (Hargreaves, Earl, & Schmidt, 2002; Mabry et al.,

2003). Even among those teachers who appreciate the potential of AfL to positively influence student achievement, there are concerns that AfL demands too much class time to integrate and that AfL implementation limits the amount of curriculum teachers can cover within their program (Morgan & Watson, 2002). For example, teachers in Carless' (2005) study noted that AfL was good in theory, but that it was not practical to implement, especially within a context of competing curriculum demands.

Duncan and Noonan (2007) argued for the importance of knowing how teachers' assessment strategies are influenced by types of classroom learning conditions (i.e., class size and resources). However, their research did not provide clear evidence to support the conclusion that teachers with smaller class sizes tended to use AfL practices more so than teachers of larger classes. A second aspect of classroom learning conditions that often impacts the integration of new educational policies and practices is resources (i.e., funding, personnel, and technology). Consistently across the literature on AfL integration, is the claim that AfL integration requires notably little additional resources (Black, Harrison, Lee, Marshall, & William, 2003). The majority of classroom strategies associated with AfL focus on student and teacher interaction rather than on the use of sophisticated resources or technologies. As such, like class size, resources do not appear to limit the integration of AfL in teaching and learning.

In order to address the barriers delineated above and to promote AfL integration in the classroom, it is instrumental to align teacher professional development on assessment with teaching. However, traditional models of teacher training have generally taken a top-down approach, which does not emphasize this alignment. In the next section, we will

broadly explore the structures and challenges associated with traditional approaches to teacher professional training.

## **2. Traditional teacher professional training**

Specialized professional development for teachers was originally designed to address the needs of unqualified or uncertified teachers in the early 1940s. The notion that professional development was used for upgrading the least well-prepared teachers supported the misconception that it was only for those in trouble (Harris, 2004). Since the 1990s, a great deal of research has cautioned against the use of some of the traditional forms of professional training. Critiques have focused on the problematic underlying assumptions that guide these forms of professional development.

Baron (2008) asserted that traditional teacher professional development supported a top-down approach based on the assumption that teacher improvement could be achieved through vertical transmission of ideas from experts to teachers (Park, Oliver, Johnson, Graham, & Oppong, 2007; Sparks & Hirsh, 1997). This approach to professional development is “driven by a deficit view of teachers that is reactive and remedial in nature” (Baron, 2008, p. 56) and views teachers as relatively passive recipients of experts’ knowledge and skills (Lieberman, 1995; Sparks & Hirsh, 1997). It assumes that learning and changes in practice occur through access to new information where the “instructor’s role is to convey that knowledge in a clear, concise manner; the learner’s role is to absorb it” (Osterman & Kottkamp, 2004, p. 14). The focus is on what is being taught by the experts rather than on what is being learned by the teachers.

Short-term approaches to teacher training are found ineffective because the topics for training are not commonly selected by teacher participants and the activities are often initiated, planned, and delivered at the district or board level (ERS, 1998). Moreover, the discussion of concepts is often shallow and fragmented due to the short duration of most professional development sessions (Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009). This top-down approach often resulted in low coherence between the topics being discussed and teachers' own goals for learning (Penuel, Fishman, Yamaguchi & Gallagher, 2007).

Sparks and Hirsh (1997) noted that the traditional teacher training model is decontextualized, i.e., it generally calls for teachers to attend an event external to their classroom where they passively receive advice from experts that they can then implement on their own. Hargreaves (2007) argued that this off-site, decontextualized model is in fact disconnected from teaching practice, failing to recognize that organizational constraints and conditions specific to classroom contexts make it difficult for teachers to apply new ideas and skills within their practice. Lieberman (1995) noted that ideas and skills that are unrelated to the organization and context of a teacher's classroom "have a hard time competing with the dailiness of work" (p. 593).

In sum, the traditional top-down teacher training model typically focuses on topics most relevant of system priorities rather than on dilemmas identified by the teachers themselves. Misalignment between teacher professional development and teaching practice and misalignment of the values, attitudes and purposes concerning professional development among stakeholders such as teachers, educational researchers and administrators contribute to

ineffective traditional professional development approaches.

### **3. Contemporary professional development**

The majority of current research on teacher professional development recommends a shift away from top-down models that are disconnected from teacher practice. In place of the traditional formats is a call for models of professional development that focus on teachers' values, beliefs and perceptions while promoting collaborative, contextualized, and skills-based learning (e.g., Cochran-Smith, 2006; Darling-Hammond et al., 2009; ERS, 1998). A number of contemporary professional development approaches satisfy these conditions. Examples include action research (e.g., Marczely, 1996), coaching (e.g., Costa & Garmston, 1994), mentoring (e.g., Johnson, 2008), peer observation (e.g., Allen & LeBlanc, 2005), and communities of practice (e.g., McLaughlin & Talbert, 2006). Many researchers have proposed models outlining the critical elements of effective professional learning within these activities (e.g., Darling-Hammond et al., 2009; Garet, Porter, Desimone, Birman, & Yoon, 2001; Gordon, 2004; Guskey, 1995). In this section, we discuss elements commonly considered as essential components for effective teacher professional development.

Atherton (2009) emphasized deep learning in teacher professional development, which involves comprehension and connections between new knowledge and previous teaching experiences. Teachers are more likely to be motivated to engage in deep learning through collaborative and context-based inquiry. Therefore, contemporary approaches to professional development suggest that teachers should actively engage in learning, which involves fostering a collaborative atmosphere based on mutual trust,

respect, and support as teachers work together to solve practice-based problems. The Learning How to Learn (LHTL) project (MacBeath, Pedder, and Swaffield, 2007) provides one example of how this principle was endorsed within the context of assessment education for in-service teachers. The LHTL project involved a professional learning initiative across 40 schools in the UK and aimed to develop and extend teachers' use of AfL to improve students' understandings on how they learned. In particular, the program involved an initial inset session held by researchers with additional optional workshops for teachers and school administrators. A consultant was designated to each school and cross-school meetings were established for school administrators to help support the implementation of AfL practices and encourage professional dialogue. Further, a website was created to enable communication and exchange between teachers about ideas and experiences of implementing principles of AfL. Success of the LHTL project suggests that viewing teachers as active learners have a positive impact on their assessment learning and may be a useful principle in designing future professional development activities.

Job-embedded learning is another essential element of effective teacher professional development. Job-embedded professional development links teacher learning to immediate and real-life problems faced in the classroom. Rather than being an isolated event taking place outside of school, professional development becomes integrated into teachers' daily work (Speck & Knipe, 2005). Job-embedded professional development also involves teacher collaboration (Guskey, 1995; Park et al., 2007). This model of professional development calls for regular opportunities for participants to share perspectives and seek solutions to authentic problems. It acknowledges that adults learn well in groups and that

teachers within the same or similar context can advance their inquiry further than through disconnected or individual professional development (Hawley & Valli, 1999). Collaborative learning can take on multiple forms from focused reading groups to in-class peer observation.

One instance of contextualized learning about assessment was evident in the King's-Medway-Oxfordshire Formative Assessment Project (KMOFAP) in England which sought to help teachers turn AfL ideas into practice (Harrison, 2005; Black & William, 2006). This project focused on practical assessment procedures to encourage teachers to engage with the pedagogical principles of AfL. Specifically, the project emphasized four main areas of AfL including questioning, feedback, sharing criteria with the learner, and peer and self-assessment (Marshall & Drummond, 2006). A number of KMOFAP factors that align with contemporary aspects of effective professional development contributed to teachers' adoption of AfL within their classroom. First, while the professional development project was led by expert researchers, teacher learning occurred in the context of their own classrooms (Harrison, 2005). Based on in-class observations, direct and specific feedback was given to teachers' about their use of AfL. In addition, teachers were invited to reflect on their practice through discussions with researchers and teachers from across the professional development project. In this way, teachers contributed to the development of a supportive community focused on AfL. Moreover, teachers in this project were actively involved in planning their learning to scaffold toward greater AfL integration as related to context-specific problems. Based on this professional development program and on differences observed between AfL integration across school contexts, James and Pedder (2006) assert the importance of job-embedded learning and

of considering teachers as active learners in professional development processes. They further contend that ongoing professional learning that utilizes principles of AfL with teachers may present a promising way forward in promoting teacher assessment capacity.

While traditional forms of professional training have focused on the transmission of a product, such as a particular teaching strategy, contemporary professional development approaches connect teaching practices to teachers' pedagogical beliefs and to contemporary theory in order to provide a comprehensive approach to teacher development. Central to this element is an emphasis on continuous and guided reflection that focuses on philosophy, theory and practice (Argyris & Schön, 1974). The model of professional development referred to as reflective practice encourages a more complex approach to professional development and recognizes that learning is the result of changes in deeply held beliefs rather than superficial behaviors (Osterman & Kottkamp, 2004). Under a reflective practice model, the learning goal is not merely the acquisition of new knowledge, but also improvements in teachers' professional practice through behavioural and belief changes (Jay, 2003).

## **Conclusion**

Teacher professional development can take on many forms. Although no single approach has proven best, a vast amount of research calls for sustained and ongoing professional development that is connected to teachers' daily practices and that focuses on process-based learning and critical reflection. Moreover, professional development approaches must enable teachers to identify and work within the systemic conditions that constrain their pedagogy. As the

accountability movement is now in full swing within most educational systems, professional development on AfL must consider the barriers that such a system imposes on teachers' integration of this pedagogical approach. To date, few studies have examined the pairing of contemporary professional development models with current barriers to AfL integration in the classroom. Hence we assert that there is a need for further research in this area if the promises of AfL are to be realized within classrooms and schools.

Specifically, we call for research that explicitly examines teachers' values, beliefs and perceptions about integrating AfL within systems that emphasize summative assessments and standardization. What we need as a research community is to establish and articulate frameworks for highlighting the values, attitudes and purposes regarding assessment of different stakeholders. Through such a program of research, we hope to make gains in teachers' adoption of the spirit of AfL through aligning values of students, teachers, assessment experts and educational administrators.

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## **C**HAPTER 25

### **QUESTIONING TEACHER GOALS IN PROFESSIONAL DEVELOPMENT: SHAPING SATISFACTION, PERCEPTIONS, AND PERFORMANCE**

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#### **Abstract**

This study reports empirical evidence examining a common standard of effective professional learning dealing with teachers' involvement in their own learning. The data were collected during a five-day mathematics institute

involving 51 elementary and middle school teachers. The questions of how participants' goal alignment influences their satisfaction with, perceived usefulness of, and measurable learning from the experience were examined. Surprisingly, the alignment of the participants' goals with the institute's goals did not effect satisfaction, perceptions, or learning. We consider the implications for the design of professional development. This study is concerned with teachers as stakeholders in their own professional learning and whether their personal goals influenced their perceptions of and learning from the PL experience.

## **Keywords**

Professional Learning – Motivation – Teacher Knowledge and Beliefs

## **Introduction**

Since the 1990s, a number of organizations in the United States have proposed different visions for the design of professional learning opportunities (PL) to change and rebuild the way teachers think about teaching and learning (e.g., NPEAT, 2000). One result of these vision statements has been the development of standards for teacher learning (e.g., Desimone, 2009; Hawley & Valli, 1999; Hill, 2004a) that operationalize the visions in order to create effective PL (Guskey & Huberman, 1995). However, the standards have often been based on experience and common sense rather than research. In fact, only a few studies have yielded empirical evidence about the effects of the practices suggested in the standards on teacher learning or practice has been produced (e.g., Fishman & Davis, 2006; Garet Porter, Desimone, Birman, & Yoon, 2001). This lack of data creates a situation in which the standards cannot support the necessary decision making for creating professional development adequately because there is not enough known about the individual elements of the standards

or the ways in which they work together to create a professional learning experience for teachers.

In this exploratory study, we consider teachers' ownership of learning which is one standard that appears across a number of documents. Specifically, we consider the notion that teachers should be involved in the identification of their learning needs, the learning opportunity, and the PL process (e.g., Fraser, Kennedy, Reid, & McKinney, 2007; Guskey, 2003; Hawley & Valli, 1999; Hill, 2004a; NPEAT, 2000, Olson, Butler, & Olson, 1991). In some of the standards, this ownership stance is expanded to include teachers having a choice of whether to participate in the learning at all (e.g., Hill, 2004a) while in others, the standard is focused on engaging teachers' in PL that they help shape. This construct can also be considered "coherence" as it is actively interested in aligning the activity of the PL to the work the teachers do in their own classrooms (Penuel, Fishman, Yamaguchi, & Gallagher, 2007).

Because it is reasonable that teachers would engage more, and therefore potentially learn more, in PL they felt ownership in, we sought to understand the impact that this standard might have on measured teacher learning and satisfaction related to the PL. To understand the impact of teachers' ownership on learning and satisfaction, we considered whether teachers' personal goals aligned to the goals of a weeklong PL experience impacted their satisfaction or learning. Because ownership involves buy-in to the goals and approaches used in the PL, we used goal alignment as a proxy measure for ownership in this study. Our assumption was that participants who had goals similar to those of the PL experience would experience a higher level of ownership because they would see its relevance to their situation. Thus, participants who are closely aligned should feel more

satisfied with the PL and they should be more motivated, thus learning more, because their interests are aligned with the PL experiences. In this study, we considered a group of teachers mandated to participate in a week-long PL experience that they did not play a role in designing. We considered whether there was a relationship between the measured learning or satisfaction of teachers based on their personal alignment to the goals of the PL experience.

## **1. Theoretical Framework**

Past research suggests that teachers, as adult learners, control what they learn by selecting new information and deciding how to use it. Thus, unless a teacher takes responsibility for learning, it will rarely happen (Olson, Butler, & Olson, 1991). Teachers enter PL focused on the needs of their classroom and students. They ask practical questions, aloud or internally, about the changes they are being asked to make: How complex are the changes? Will they help solve my classroom problems? Is the time and energy required worth the results? Are these lasting changes or will they be gone soon? (Cuban, 1988). Engaging teachers in PD at the planning stage should create a motivated audience because the teachers begin the learning process already invested in the experience. Conversely, overlooking teachers in the planning process could result in situations in which teachers are not able to buy-into or engage in the activities designed to promote their learning. Thus, they may not learn.

However, within the structure of many U.S. schools, it is impossible to engage teachers in the planning process because teachers' time is committed to other activities. Too often, school administrators determine the content and duration of PL based on budgetary constraints or student assessment data. Further,

teachers have limited time to engage in activities related to planning PL in any but the most cursory ways (e.g., in an after school meeting or on a survey teachers might indicate that they would like particular topics included). Further, adding more voices to the planning necessarily increases the amount of time it takes to plan (e.g., Armour & Makopoulou, 2012; Reynolds, 2000). Thus, there is a tension between fostering ownership through teacher co-planning and teachers' time limitations and the design of the average U.S. teachers' day.

In this study, we treated the alignment between teachers' goals and the workshop goals as a proxy measurement for ownership. Selecting and committing to goals is a key motivator for individuals to take action; it drives learners' choices, their attention and their resulting opportunity to learn (Pintrich & Schunk, 1996). Teachers' professional goals indicate their aspirations, interests, needs and desires, which energize them to action (Leithwood, Jantzi, & Mascall, 2002). We posit that teachers, if given the opportunity, would choose topics that are personally meaningful and relevant to their classroom situation. Given this, our working hypothesis is that those teachers whose goals aligned to at least one of the stated goals from the PL experience would show higher levels of satisfaction and achieve higher levels of learning than those whose goals were not aligned.

To explore the ownership standard, this study attempts to determine how teachers' personal goals, as aligned to the stated workshop goals, affected their satisfaction with, perceived usefulness of, and measurable learning from a mandatory PL experience. The following research questions were addressed:

1. How does participants' alignment with workshop goals influence their satisfaction with a PL experience?
2. How does participants' alignment with workshop goals influence their perceptions of the usefulness of a PL experience?
3. How does participants' alignment with workshop goals influence their performance on an assessment after a PL experience?
4. How does the participants' motivation for attending the summer institute correlate to their performance on an assessment after a PL experience?
5. How does the participants' motivation for attending the summer institute correlate to their satisfaction with their PL experiences?.

## **2. Methodology**

In this study, we relied on survey data and results from an assessment of teacher learning collected during a week-long summer institute offered in one rural school district. Data for all of the teachers (i.e., general education and special education teachers) in grades three through eight were considered for this analysis.

The researchers worked with district administrators to design this PL experience in response to the new state standards that were about to be implemented. Like the new Common Core State Standards for Mathematics (National Governors Association, 2010), these state standards presented participants with new challenges as they were being asked to teach mathematics that was much more complicated and conceptually grounded than the mathematics to which they were accustomed. The district leadership was particularly interested in offering PL in mathematics to all of the elementary and middle school teachers in the district because their student performance data indicated significant weakness among students in mathematics. Three of the study authors also served

as developers and/or facilitators for parts of the PL experience.

There were four primary institute goals, shown in Figure 1. These were shared with the teachers using “explorer” language intended to be more interesting and less intimidating than the academic jargon of the team’s goals. Our use of this friendly tone particularly focused on the well-documented issues of elementary teachers’ weakness and low efficacy in mathematics (e.g., Ma, 1999; Mewborn, 2003). We wanted the teachers to feel at ease with the goals.

<b>Summer Institute Goals</b>	<b>Goals as Presented to Teachers</b>
<ul style="list-style-type: none"> <li>- Increase mathematical content knowledge for teaching</li> <li>- Build a shared vision of standards-based practice</li> <li>- Introduce investigations-based teaching strategies</li> <li>- Integrate manipulatives and technology to support mathematical learning</li> </ul>	<ul style="list-style-type: none"> <li>- Become mathematical explorers</li> <li>- Explore 'algebraic thinking'</li> <li>- Dig into the State Standards</li> <li>- Investigate the Algebra around you</li> <li>- Examine classroom artefacts</li> </ul>

Figure 1: Goals of the Summer Institute.

The PL experience engaged participants in a variety of mathematical activities selected to extend their content knowledge and develop understanding of standards-based teaching as defined by the state’s mathematics standards. To this end, materials were taken from a variety of published resources. Because algebraic thinking was a new element in the state’s standards, the PL specifically focused on that. This focus allowed us to cover a variety of number sense topics, including multiplication and proportional

reasoning. We also emphasized the use of a variety of manipulatives throughout the institute. The PL experience engaged teachers in learning mathematics in a way that modeled the standards-based pedagogies and included time for discussion of the pedagogical aspects of the experience.

### **2.1. Participants**

Participants included 51 third through eighth grade teachers. As shown in Table 1, most of the participants had considerable teaching experience. Of the 51 teachers, 28 had participated in some type of mathematics PD in the past five years and 17 of the 51 had taken graduate level mathematics education or mathematics class in the past five years. Participation in the summer institute was required for all general and special education teachers responsible for teaching mathematics in the school district. Because the schools' principals had been asked to announce the summer institute, what the teachers knew about the goals and purposes of the workshop varied greatly.

Table 1: Participant Information

<b>Years of Teaching Experience</b>	<b>Number of Teachers</b>	
	<b>3-5 Grade</b>	<b>6-8 Grade</b>
0-3	2	3
3-10	11	7
10-20	17	2
20+	9	0

## **2.2. Data**

Data included surveys and assessments administered at the beginning and at the end of the five-day PL experience (See Appendix A for more information). The surveys included both open-ended and Likert-scale questions. To measure teacher learning, we relied on the Learning Mathematics Through Teaching (LMT) assessment (SII/LMT, 2004). We used the Algebra subtest of matched forms for elementary (3-5) and middle grades (6-8), which have been shown to be reliable and valid (Hill, 2004b; Phelps, 2005). This assessment was designed to measure mathematical knowledge for teaching (MKT; Ball, 2003), which is a reconceptualization of Shuman's pedagogical content knowledge (PCK; Shulman, 1986). MKT includes the unique knowledge teachers need that other people who use mathematics in their daily life may not need. For example, MKT includes knowledge needed to create representations, interpret novel student work, and analyze mistakes (Hill, Schilling, & Ball, 2004). All analysis of the participants' learning from the institute as measured with the LMT used z-scores. These scores were calculated from the materials provided by the test developers for each form of the assessment. Per test developer guidelines, a gain of  $z=0.3$  or more was considered significant. We administered the pre-test the morning of the first day of the workshop and the post-test on the last day. There were approximately 30 hours of PL in between the two tests.

To determine participants' goals, we analyzed responses on a survey given before information about the goals of the workshop had been presented. The survey collected basic demographic information and asked, "What are your personal goals for this summer institute?" Given that most of the teachers received little prior information about the summer institute, we interpreted their stated goals as insight into what they

valued and desired. We analyzed each teacher’s response to determine whether it aligned to one or more of the institute goals. All participants were coded into one of three groups as a result of this analysis: the “aligned” group included those members whose stated goals aligned with one or more of the summer institute goals (N=24); the “not aligned” group included teachers who identified goals that were not aligned with any of the stated goals of the workshop (N=12); and the “ambiguous” group included those teachers whose stated goals did not clearly place them in either of the other two groups (N=15). At least two researchers analyzed each teacher’s response and four members of the research team reached 100% agreement on the codes before using the designations for further data analysis.

Participants’ satisfaction with and their perceptions of usefulness of the PD were determined based on six Likert-scale statements from the post-PL survey administered at the end of the week-long experience. For each item shown in Table 2, participants indicated whether they strongly disagree (1), disagree (2), agree (3) or strongly agree (4). In cases where more than one response was circled, the scores were eliminated from the analysis. Each question was analyzed independently as the questions relating specifically to satisfaction and those relating to perceptions of usefulness were not statistically correlated.

Table 2: Likert-Scale Statements Used to Determine Satisfaction and Perceived Usefulness of the Institute

<b>Satisfaction</b>	The institute has taught me a lot about exploring mathematics.
	The institute sessions were informative.
	Participating in this summer institute has been a positive experience for me.

<b>Perceived Usefulness</b>	The institute has shown me some new ways to teach math to my students.
	I feel like I learned about algebraic thinking in this summer institute.
	The summer institute was useful to me.

For the purposes of this study, we determined motivation for attending the summer institute based on participants' responses to five Likert-scale questions asked on the first day of the institute (Table 3). While participation in the institute was required by the school district administration, we wanted to understand whether the teachers perceived participation as mandatory or whether they had other motivations from the outset. The surveys asked teachers to indicate whether they strongly disagree (1), disagree (2), agree (3), or strongly agree (4) with each statement. In cases where teachers circled more than one response, the scores were removed.

Table 3: Survey Statements Used to Determine Motivation for Attending Institute

The summer institute will help me learn how to teach mathematics more effectively.
Attendance at this institute is a requirement for my job.
The summer institute will help me learn the mathematics I need to know for teaching.
I'm attending the summer institute because of my interest in mathematics and mathematics teaching.
The continuing education credit units were a significant factor in my decision to participate in the summer institute.

### 3. Results

Our results are limited because of the small number of participants. While there were 51 participants, once their data were separated into the three alignment

groups, then, for Likert-scale instruments, further divided among the four categories, there were often very small numbers of participants in each cell—most critically, some cells did not include even five responses, rendering statistical analysis difficult. Further, the data were not normally distributed. In Appendix B, we provide a contingency table that shows the frequency data for the Likert-scale items. In the conclusions section, we address the implications of this issue.

### ***3.1. Research Question 1: How do participants' alignments with workshop goals influence their satisfaction with a PD experience?***

Table 4: Pearson Chi-Square Values for Participant Goal Alignment and PL Satisfaction

<b>Survey Statement</b>	<b>Pearson Chi-Square Value</b>	<b>df</b>	<b>P Value</b>
The institute has taught me a lot about exploring mathematics.	1.293	4	0.863
The institute sessions were informative.	5.212	6	0.517
Participating in this summer institute has been a positive experience for me.	3.570	6	0.735

For research question 1, we calculated a Pearson Chi-Square statistic and, because of the small  $n$  per cell, we also calculated a Fisher Exact Test for the responses of each of the three survey questions relating to satisfaction. In all cases, there was no significant relationship found between the participants' responses and the participants' goal alignment (See Table 4 for Pearson Chi-Square statistics).

**3.2. Research Question 2: How do participants' alignments with workshop goals influence their perceptions of the usefulness of a PD experience?**

As with research question 1, a Pearson Chi-Square statistic and a Fisher Exact Test were calculated for each of the three survey questions relating to usefulness. As can be seen from Table 5 the Pearson Chi-Square results show no significant relationship between each question and the participant's goal alignment for either of these two tests.

Table 5: Pearson Chi-Square Values for Participant Goal Alignment and Perception of Usefulness of PD Experience

<b>Survey Statement</b>	<b>Pearson Chi-Square Value</b>	<b>df</b>	<b>P Value</b>
The institute has shown me some new ways to teach math to my students.	1.854	4	0.763
I feel like I learned about algebraic thinking in this summer institute.	2.426	2	0.297
The summer institute was useful to me.	4.544	6	0.603

**3.3. Research Question 3: How do participants' alignments with workshop goals influence their performance on an assessment after a PD experience?**

Teacher learning was determined by considering the mean gain scores on the LMT. Overall, teachers scored significantly higher on the posttest than on the pretest. In fact, using group averages for pretest and posttest scores, the ambiguous group showed the most growth (gain of  $z=1.072$ ), the aligned group showed the middle amount of growth ( $z=1.023$ ), and the not aligned group showed the least amount of

growth ( $z=0.836$ ). With growth being considered significant at  $z=0.3$ , all three groups showed remarkable growth in their learning<sup>1</sup>.

An  $F$  statistic was computed to test for the significance in the relationship between goal alignment and participants' performance on the LMT. There was no significant difference in gain scores between the three goal-alignment groups.

### ***3.4 Research Question 4: How does the participants' motivation for attending the summer institute correlate to their performance on an assessment at the end of the PD experience?***

Pearson Correlations were calculated between the Likert-scale responses on the five pre-workshop survey questions related to motivation and the pretest and posttest scores on the LMT. As shown in Table 6, two questions showed significant correlation. In the first case, participants who agreed with the statement that the institute would help them learn mathematics tended to have lower LMT pretest scores than their counterparts. The second indicated that those people who felt more strongly that they were being forced to attend scored significantly lower on their posttest than their counterparts.

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<sup>1</sup> We believe that some of this gain is attributable to the testing environment. The pretest was given in a somewhat chaotic room with over 100 total participants while the posttest was given to the participants in smaller, quieter classrooms. However, the PD was specifically developed to address algebraic thinking and, therefore, was closely aligned to the assessment. Thus, some amount of the gain score is likely a direct result of the PD.

Table 6: Correlation of Participant Motivation and Their Performance on an Assessment

<b>Survey Statement</b>	<b>Pre-LMT Score</b>	<b>Post-LMT Score</b>	<b>Gain Scores</b>
The summer institute will help me learn how to teach mathematics.	-0.099	-0.242	-0.160
Attendance at this institute is a requirement for my job.	-0.202	-0.455 *	-0.278 ***
The summer institute will help me learn the <u>mathematics</u> I need to know for teaching.	-0.366 **	-0.244	0.133
I am attending the summer institute because of my interest in mathematics and mathematics teaching.	-0.205	-0.157	0.048
The continuing education credit units were a significant factor in my decision to participate in the summer institute.	-0.252	-0.183	0.070

\*Correlation is significant at the 0.01 level (2-tailed).

\*\*Correlation is significant at the 0.05 level (2-tailed).

\*\*\*Correlation is significant at the 0.10 level (2-tailed).

### ***3.5. Research Question 5: How does the participants' motivation for attending the summer institute correlate to their satisfaction with their PD experience?***

For this research question, we calculated the Pearson Correlation between the mean Likert-scale results of the motivation survey questions M1 to M6 and the Likert-scale responses to the satisfaction survey questions S1 to S3. As shown in Table 7, only one significant correlation existed at the 0.05 level. That correlation indicated a positive relationship between

receiving professional credit and the teachers' perceptions of how informative the institute was.

**Satisfaction Statements**

- S1** The summer institute will help me learn how to teach mathematics more effectively.
- S2** Attendance at this institute is a requirement for my job.
- S3** The summer institute will help me learn the mathematics I need to know for teaching.

**Motivation Statements**

- M1** The summer institute will help me learn how to teach mathematics more effectively.
- M2** Attendance at this institute is a requirement for my job.
- M3** The summer institute will help me learn the mathematics I need to know for teaching.
- M4** I'm attending the summer institute because of my interest in mathematics and teaching.
- M5** The continuing education credit units were a significant factor in my decision to participate in the summer institute.
- M6** The summer institute will help me learn how to teach mathematics more effectively.

Table 7: Correlation of Participant Motivation and Their Satisfaction with the PD Experience

Correlations	<b>S1</b>	<b>S2</b>	<b>S3</b>
<b>M1</b>	-0.077	-0.036	-0.097
<b>M2</b>	-0.001	0.148	0.250
<b>M3</b>	0.135	0.155	0.066
<b>M4</b>	0.049	-0.029	-0.033
<b>M5</b>	0.216	0.287*	0.073

\*Correlation is significant at the 0.05 level.

## **4. Discussion**

We assert that the inconclusive nature of the findings is important. After all, drawing from the various PD standards (e.g., Guskey, 2003; Hawley & Valli, 1999; Hill, 2004a; NPEAT, 2000; Olson et al., 1991), we had anticipated seeing some kind of clear connection between goal alignment and the success of the workshop. Yet, we did not find these clear connections. The importance of our study is that it raises empirically-based questions about what matters in the design of PL. In this section, we discuss the relevance of the results to us as professional developers and suggest the design issues that each of the results raise. We also raise issues for further study arising from this work.

### ***4.1. Research Questions 1-3***

In this study we examined how participants' alignment with workshop goals influenced their satisfaction with and perceptions of a PL experience. We also considered the impact of these goals on the development of their MKT. Based on standards for effective PD (e.g., Guskey, 2003; Hawley & Valli, 1999; Hill, 2004a; NPEAT, 2000), we expected those teachers whose goals aligned to at least one of the stated goals of the institute to show higher levels of satisfaction and demonstrate higher levels of learning than those whose goals were not aligned. Surprisingly, we found that while all the participants showed significant gains in their MKT, their learning, satisfaction with, and perceptions of usefulness of their PL experience were not significantly different regardless of their personal goals at the outset of the experience. This is significant because it suggests that the participants' perception of the degree to which there is coherence between PL and their day-to-day activity (Desimone, 2009; NAE, 2009; Penuel et al, 2007) may be more important than whether the

participants have actual ownership over the design of the PL experience.

Contrary to the prevailing consensus that teachers should set their own learning goals (e.g. Hill, 2004a), our data suggest that teacher ownership may be fostered in other ways. Teachers' personal alignment with the goals of the workshop was not an essential characteristic of satisfaction or learning. Because the teachers' MKT increased significantly and their satisfaction scores were high, as evidenced by an overall mean of 3.2 out of 4 on the survey item 'summer institute was useful to me' and a mean of 3.0 out of 4 on the survey item 'participating in this institute has been a positive experience for me', the PL experience was "successful".

Fundamentally, we believe that teachers should have options in both their decision to participate in PL and the design of that PL. However, based on our results here, we posit that there are serious questions to be asked about the *necessity* of this as an element of teacher PL. Other studies also raise this question. For example, Armour & Makopoulou (2012) found that fostering ownership through teacher engagement in planning was prohibitive because of the time it took. Like our participants, their participants were able to develop a sense of relevance through participation in courses that were aligned to their day-today activities and that adjusted to the needs of the participants in implementation. Our study, combined with other evidence from the literature, suggests further research is necessary to understand the relationship between teacher ownership of the PL experience and their learning and satisfaction.

#### **4.2. Research Question 4**

When asked about their motivation for attending the summer institute, the participants in this study who agreed that the institute would help them learn the mathematics they needed for teaching, as a group, performed worse on the LMT pretest. This might suggest that teachers can identify their own learning needs. This is consistent with the ownership standard in that the teachers are recognizing an area in which they need further development. It is also consistent with adult learning theory, which posits that adults pay attention to things they think are important.

Also consistent with the ownership standards, the participants who reported that participation was mandatory had negatively correlated gain scores from the pretest to the post-test than their colleagues who did not report that they had to participate. This suggests that having some kind of teacher buy-in to the PL beyond an administrative mandate may be important for learning. We lack conclusive evidence to explain why some teachers felt the institute was required while others did not. However, this finding raises important questions about the factors that influence whether a teacher buys into the PL rather than feeling that it is mandated. It also raises a question about whether buy-in always leads to higher levels of growth.

Our emerging hypothesis is that teachers enter PL experiences with two different sets of goals. One is a motivation goal: "Why am I here?" and the other is a learning goal: "What do I hope to gain from this institute?" The motivation goal may be the more critical goal for teacher buy-in than the learning goal. Unfortunately, the motivation goal is more personal and difficult to change from within the PL experience. This is consistent with Ford's (1992) Multiple Goals Principle, which acknowledges that behaviour related

to multiple goals and that individuals who are pursuing multiple goals tend to be more successful as long as those goals do not conflict. Building from this hypothesis, it is likely that PL developers will have better results with PL that provides rich enough learning environments to allow a variety of learning goals to be met, but that also supports the alignment of teachers' motivation to the PL. In our study, for example, the school principals did not provide enough information to the teachers to prepare them for the summer institute. In fact, through anecdotal evidence, we learned that these participants not only were not provided with adequate information about the PL institute, but also lacked information about the low student performance on the state standardized test that led to the institute. Had the teachers been provided with more basic information about the institute and/or about district performance, participant motivation may have been impacted. Based on our findings, this may have led to greater gain scores.

#### **4.3. Research Question 5**

In an effort to correlate satisfaction with motivation, one positive relationship was identified. Those participants who responded that continuing education credit units were a significant factor in their decision to participate in the summer institute found the sessions informative. This may be because they had a compelling motivational goal regardless of their learning goal(s) and we were meeting that motivation goal: they were getting the credits for participating in the PL experience.

While not statistically significant, the teachers who thought the institute would help them learn to teach mathematics more effectively reported that the institute was not a positive experience. The same was true for the teachers who were interested in

mathematics and in teaching, generally. We interpret these data to indicate that these teachers did not understand that the PD experience was focused on pedagogy through the use of modeling. Anecdotal comments during the session appeared to bear this out. Throughout the week, the teachers' questions indicated they did not understand how to apply this PL experience in their own classroom setting. They were looking for guidance for applying the mathematics in the workshops directly to their individual classrooms and not gaining the pedagogical insight that could help them transfer their new mathematical skills to their classrooms. Perhaps if this PL effort had focused more on overtly connecting content learning to pedagogy, the teachers would have had higher satisfaction ratings as they may have seen the experience as being more relevant.

## **Conclusion**

In this study, we examined the idea that teachers need to have ownership of their professional learning experiences. From the study, we found that ownership may not be clearly connected to motivation or learning. In fact, we suspect, based on our results, that the teacher may have two motivational goals (learning and personal) that help them make sense of the situation. While this study was only exploratory, it highlighted areas in which more research and discussion is warranted: the interplay of teachers' multiple goals; the difficulties surrounding data collection; and analysis of research on PL and the need for systematically designed PL research.

If, as we suspect, there are multiple goals at play, then careful consideration needs to be given to what that means for the design of PL. Clearly, in district-wide efforts such as this one, there is no feasible way for the PL developer(s) to create a learning experience

that will meet everyone's goals. However, if we better understand what kinds of goals matter in promoting learning and satisfaction, we may be better able to engage teachers in that learning.

Our second suggestion for further research focuses on the very nature of doing research on PL. As noted elsewhere (e.g., Borko, 2004; Desimone, 2009; Fishman & Davis, 2006), there is a significant lack of empirical research conducted on the impact of PL. As shown in this study, there are significant issues related to conducting such research. In this study, for example, we worked with a group of 51 teachers, which is a reasonably large group for PL. But, the group proved to be too small to support powerful statistical analysis. One option to address this problem would be to collect data from larger groups of teachers, but that raises significant issues for the implementation of the PL. In this study, for example, our 51 teachers were divided among three classrooms, two for elementary and one for middle school. Each group had one or two facilitators. Larger groups of teachers would require more space and more facilitators to remain consistent with PL standards. Further, as with many PL studies, the professional developers were also the researchers so their attention was divided between gauging learning and data collection. Further, time spent on the research, such as the completion of the surveys and assessment instruments, was time not spent engaged in learning activities that could lead to changes in the participants' classrooms. Research on PL proves to be difficult both in terms of data collection and in terms of analysis. As a community, we need to develop research methods that allow rigorous study of PL within the constraints of the systems within which it occurs.

Finally, we believe this study raised a number of questions about designing PL. Because most research on PL has focused on what teachers like and what they value, the field lacks robust evidence about the design of effective PL experiences. While there are a number of standards documents to drive good design, the lack of empirical evidence leaves us with little understanding of which design elements help teachers learn and elements impact teacher practice. While there were interesting indications that emerged from these data, no conclusive recommendations can be made. Clearly this is an area for further consideration.

### **Acknowledgements**

The work reported here was supported by Georgia's Teacher Quality Higher Education program. The opinions expressed here are those of the authors and do not necessarily reflect those of the funding agency. The researchers wish to thank the participants and others involved in this PL effort. We especially thank Victor Brunaud-Vega for his assistance in the preparation of earlier version of this study.

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## Appendix A

### *Data Collection Instruments*

No. of Participant Responses	Item Measured	Data Collected
51	Participant Goal Alignment	Open-ended survey question: "What are your personal goals for this summer institute?"
51	Participant Satisfaction	Post-Survey Likert Scale
51	Usefulness of PD	Post-Survey Likert Scale
48	Participant Motivation	Pre-Survey Likert Scale (LMT)
51	Mathematical Performance	Pre- and Post-LMT

Note: Variances due to participants choosing not to complete portions of the surveys.

## Appendix B

*Contingency table showing frequency of response by group for the survey questions relating to teacher satisfaction and perceived usefulness of PD experience*

		<b>Likert Scale Response</b>				
<b>Survey Question</b>	<b>Group</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Total</b>
The institute has taught me a lot about exploring mathematics.	Aligned	0	1	18	5	24
	Not Aligned	0	1	9	3	13
	Ambiguous	0	0	10	4	14
	Total	0	2	37	12	51
The institute sessions were informative.	Aligned	0	3	18	3	24
	Not Aligned	1	2	9	1	13
	Ambiguous	0	0	11	2	13
	Total	1	5	38	6	50
Participating in this summer institute has been a positive experience	Aligned	0	1	19	4	24
	Not Aligned	1	2	8	2	13
	Ambiguous	1	1	9	2	13
	Total	2	4	36	8	50
The institute has shown me some new ways to teach math to my students.	Aligned	0	1	17	6	24
	Not Aligned	0	0	8	5	13
	Ambiguous	0	0	9	5	14
	Total	0	1	34	16	51
I feel like I learned about algebraic thinking in this summer institute.	Aligned	0	0	16	8	24
	Not Aligned	0	0	11	2	13
	Ambiguous	0	0	12	2	14
	Total	0	0	39	12	51
The summer institute was useful to me.	Aligned	0	2	15	5	22
	Not Aligned	1	1	9	2	13
	Ambiguous	1	0	12	1	14
	Total	2	3	36	8	49

## **C**HAPTER 26

# **A TEACHING PORTFOLIO FOR THE ACKNOWLEDGEMENT OF THE TEACHING PROFESSION**

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### **Abstract**

I describe a new approach to the use of the teaching portfolio aimed at strengthening teachers' professional growth and to enhance the appreciation of the teaching profession; I therefore report the main points of an experience conducted with student teachers at the University of Trento in the project VASTT (Valuing School Talents and Training). I start from the premise that a better acknowledgment of teaching by the official bodies and society gives them more authority and that means more effectiveness of the school education system, in my opinion. There is lack of studies in this field, however, countries with PISA high scores respect and appreciate their teachers. The methodology of this work is descriptive and interpretative; the results can be seen in a long term perspective. The VASTT portfolio is an opportunity for reflection looking for

individual and group strategies to improve the status and the social recognition of teachers, who are the first actors for improving their professional prestige, undertaking, reporting and discussing in the portfolio, actions for establishing a new understanding of the teaching profession, with high qualifications and good teaching practice, with entrepreneurship, fostering policy measures, especially being aware of the high profile of their activity.

## **Keywords**

Teacher training – education – portfolio

## **Introduction**

This paper aims at exploring the use of portfolio, in order to improve school education, teaching and learning through professional quality of the teachers/educators, reached, among others, through enhancing their self-confidence and prestige.

In comparable learning conditions, effective teachers can raise scores; the quality of teachers contributes more to learners' achievement than any other factor, including class size, class composition.

In this paper I deal with the challenges of formal education in the XXI century and with the expected tasks of the teaching profession; analyze the structure and the purpose of a portfolio as a tool for professional development, as an opportunity for reflection, discussion and planning, focusing on the possible measures for enhancing the quality and the prestige of teachers by themselves, by the school authorities and by society.

The portfolio is a “structured history of a set of coached or mentored acts of teaching, substantiated by samples of student portfolios and fully realized only through reflective

writing, deliberation, and conversation” (Shulman 1998)<sup>1</sup>. That means analyzing the character of this job, the important role of education nowadays and the profile of qualified teachers, debating on the different forms of evaluation of the teaching profession and on the opportunity by teachers to be active agents of improvement.

## **1. The quality and the acknowledgement of education and teaching**

In the contemporary era a high level of education for all learners is required; studies and strategies are planned and implemented in several countries to improve the quality of the schools and the competences of youngsters and adults in a complex field of education and learning, where many factors influence processes and results.

McKinsey and others say: “the quality of an education system cannot exceed the quality of its teachers” (McKinsey 2007<sup>2</sup>: 16; Gurría 2010<sup>3</sup>), and great efforts are undertaken to improve the quality of teacher training and of the teachers profession.

It is not of much use recruiting high-quality teachers if those who are recruited are so frustrated by what they perceive as a mindless system of initial teacher

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<sup>1</sup> Shulman, L. S. (1998), Teacher Portfolio a theoretical activity. in With Portfolio in Hand. Validating the new teacher professionalism. ed. N.Lyons 23- 38. New York and London: Teachers College Press

<sup>2</sup> McKinsey & Company (2007), How the World’s Best-performing School Systems Come Out on Top, [http://www.mckinsey.com/client-service/socialsector/resources/pdf/Worlds\\_School\\_Systems\\_Final.pdf](http://www.mckinsey.com/client-service/socialsector/resources/pdf/Worlds_School_Systems_Final.pdf)

<sup>3</sup> Gurría, A., Introduction, in OECD (2010) PISA 2009 Results: What Makes a School Successful? Resources, Policies and Practices (Volume IV), OECD Publishing. <http://dx.doi.org/10.1787/9789264091559-en> (<http://www.oecd.org/dataoecd/11/16/48852721.pdf>)

education that they will not participate in it and turn to other professions (OECD 2010)<sup>4</sup>. In fact, the quality and the acknowledgment of teachers' profession affect not only the learning of the student teachers, but also the attractiveness of the teaching profession.

The prestige of the educators is not an individual privilege, it is a pre-requisite for effectiveness of education and teaching. The daily experience and the results of some surveys about the self perception of teachers (Cavalli & Argentin 2010) prove that teachers in Italy have very low self esteem<sup>5</sup>; that implies low motivation and low authoritativeness which are devastatingly negative premises for successful education.

Countries with OCSE-PISA high scores show appreciation for their teachers; which is sometimes traditional, as in Finland, sometimes intentional part of the policy measures for a better school. Although there is lack of surveys and studies on this topic, it is not unreasonable to suppose that the prestige of the teaching profession, together with its high quality, contributes to the improvement of pupils' learning and of their balanced growth.

Many studies on the professional burn out syndrome (Vandenberghe & Huberman 2006) remind us that workers whose basic need to be recognized as competent is not met, will be less satisfied with their job, less efficient and have reduced well-being, leading

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<sup>4</sup> OECD (2010), PISA 2009 Results: What Makes a School Successful? – Resources, Policies and Practices (Volume IV) <http://dx.doi.org/10.1787/9789264091559-en>

<sup>5</sup> Cavalli, A. & Argentin, G. (eds) (2010), *Gli insegnanti italiani: come cambia il modo di fare scuola. Terza indagine dell'Istituto IARD sulle condizioni di vita e di lavoro nella scuola italiana*. Bologna: Il Mulino

to negative effects on their performance<sup>6</sup>; that is true first of all for people having a job which involves the whole personality as is the case for teachers.

To improve the level of learning and to face the problem of under-achievement, a wide range of strategies are undertaken by governments and by teaching institutions; reforms and studies are changing the school systems mostly focusing on a wide assessment of the output achieved by the students and on the evaluation of the teachers.

The task of building evaluation systems is as difficult as it is important; only if it is well done, can teacher evaluation be a real lever for teacher and school improvement. Many hurdles stand in the way of rating teachers on the basis of their students' achievement; the same for pupils', peers' (and parents', headmasters') assessment.

Some writers have expressed concern about the use of standards, fearing that they encourage a 'technicist approach' (Pearson 2007: 26)<sup>7</sup> rather than a focus on the values of the pedagogical principles. Gruschka writes critical judgments against reductive empirical methods in educational research and evaluation reminding us of the high complexity of the educational activity (Gruschka 2011)<sup>8</sup>.

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<sup>6</sup> Vandenberghe, R. & Huberman A.M. (2006), *Understanding and Preventing Teacher Burnout: A Sourcebook of International Research and Practice*. Cambridge: University Press

<sup>7</sup> Pearson, S. (2007), *Exploring inclusive education: early steps for prospective secondary school teachers*. *British Journal of Special Education*, 34 (1), 25-32

<sup>8</sup> Gruschka, A. (2011), *Pädagogische Forschung als Erforschung der Pädagogik. Eine Grundlegung*. Opladen: Verlag Barbara Budrich

Using quantity standards alone is a threat to the acquisition of non-measurable competences, like reliability, creativity and innovation. The danger is common to those competences that are more easily measurable, since they receive more attention, both from policy makers and from teachers. There is lack of reliable tools for measuring "soft" competences in education and teaching; enthusiasm, freedom, love for teaching risk being suffocated by a tightened approach to supervision.

Most teacher evaluation processes put teachers in a passive role, forgetting that improvement can only be achieved actively by the teachers themselves; on the contrary, in self-assessment procedures they play an active function. Methods like observation, portfolios, self/peer evaluation, used in concert and multiple times, are good options.

As the portfolio emphasizes teachers' independence and the teacher's own mindset, cooperation in stating the indicators to be followed in order to monitor the practice is needed. It can contribute much more to the improvement of teaching than drive-by evaluations or test scores alone, with standards and scoring rubrics.

There are different types of teaching portfolios used for different purposes, applied for training newly-appointed teachers and for reference in teacher promotion; in this paper I take into consideration a portfolio as a tool for professional development, not as an evaluation or accreditation measure.

It is an approach to portfolios designed to analyze (besides teaching competence), the main traits of the teaching status as well; looking for strategies to improve the status and the social recognition of teachers and the school.

The European Commission Communication, 'Improving the Quality of Teacher Education' (3/08/2007), calls for different policy measures on the level of member states in order to adapt the profession to meet the new challenges of the knowledge-based economy<sup>9</sup>. An appropriate policy framework is needed to facilitate the changes required in teacher education to support the move towards a more self-confident interpretation of the teachers' profession.

In everyday discussion, terms such as prestige and dignity are used almost interchangeably. *Prestige* is understood as 'influence, reputation or popular esteem derived from characteristics, achievements, association' (New Shorter Oxford English Dictionary 1993), and *professional dignity* is defined as 'a sense of self-respect, confidence and value of a teacher's own experience which he or she gains through practice' (Gouda & Banks 2006: 98)<sup>10</sup>.

Portfolios are helpful when they are results of a voluntary process by teachers, convinced of the importance of using this tool; it means a new culture of professional development. Amado and Ambrose (2001: xviii) state in their introduction to the book, *The Transitional Approach to Change*: "You cannot alter people's deep-seated habits by directives, only they can do it themselves, when they really want to, when they themselves experience a strong need to do

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<sup>9</sup> Commission of the European Communities (2007), Communication from the Commission to the Council and the European Parliament: Improving the Quality of Teacher Education 3/08/2007 Link: [http://ec.europa.eu/education/com392\\_en.pdf](http://ec.europa.eu/education/com392_en.pdf)

<sup>10</sup> Gouda, A. & Banks, F. (2006), The impact of professional dignity on the development of teacher knowledge, *Progressio* 28 (1 & 2), 97-110.

so"<sup>11</sup>. That is why a key preliminary challenge is to win the hearts and minds of teachers and school staff and build ownership of tasks, reforms, and innovative projects.

The use of the VASTT portfolio aims to increase the attitude of the teachers, pre-service teachers and teacher trainers to be reflective about their own behavior for professional growth and professional status. They need to be active agents of change, in order to improve their quality and their appreciation, and to attract and maintain the best graduates in this career.

Nowadays, teachers have a very difficult job, much more than in the past. The OECD Report 2005 'Teachers Matter' recognizes that the demands on schools and teachers are becoming more complex as society now expects schools to deal effectively with different backgrounds, be sensitive to culture and gender issues, promote tolerance and social cohesion, respond effectively to disadvantaged students and students with learning or behavioral problems, and to keep pace with rapidly developing fields of knowledge and approaches to student assessment<sup>12</sup>. They have influence on the development of the identity of pupils, and contribute to the building of a future society.

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<sup>11</sup> Amado, G. & Ambrose, A. (2001), Introduction. In G. Amado & A. Ambrose (Eds.), *The transitional approach to change*. London & NewYork: Karnac Books

<sup>12</sup> OECD (2005), *Teachers Matter. Attracting, Developing and Retaining Effective Teachers – Final Report: Teachers Matter*. Available on line from:  
[http://www.oecd.org/document/52/0,3343,en\\_2649\\_39263\\_231\\_34991988\\_1\\_1\\_1\\_1,00.html#EO](http://www.oecd.org/document/52/0,3343,en_2649_39263_231_34991988_1_1_1_1,00.html#EO)

## **2. Quality of the teaching profession and the portfolio**

Schools have to achieve good results and at the same time cope with a wide variety of differences between students; disadvantaged, special needs etc., and who require innovative ways of teaching, new approaches to the curriculum, high quality teachers.

It is difficult to gain consensus around the traits of the teachers' quality. Although educational researchers have frequently considered the definition of a 'highly qualified' teacher and the characteristics of quality teacher education, the debate today takes place in a political, economic and cultural context which plays a strong influence on the situation. Teachers, therefore, need confidence in their ability, knowledge and skills to meet the challenges that they encounter in the present school climate.

Referring to literature on professionalism, an elementary definition of a profession is related to a job in which a person is allowed to rely on his or her knowledge and then to exercise his or her will and wisdom in making decisions. Professionals are capable of making judgments, applying their skills and reaching informed decisions in specific situations in their field. A teachers profession implies many traits of a profession in daily life, like responsibility, decision making, initiative; although teacher autonomy is limited by the rules and regulations of governments in specific countries, teachers have to take personal autonomous decisions every second.

The word *profession* may refer to occupations in general, anyway it was originally used for high status professions like medicine or law. An important characteristic of classical professions is academic knowledge, formal knowledge or technical knowledge

(Goodson & Hargreaves, 1996)<sup>13</sup>; the knowledge level of teachers is generally high, and it is not only formal and academic but the result of experience and reflection as well.

A feature of the liberal professions is that members do not have a job contract but are independent and self-employed, besides that they have a prominent role regarding the entry requirements and the further professional development of individual members. Professions also have the power to judge, and subsequently even to exclude, members who do not adhere to the professional standards. That is not the case of the teaching profession.

An important part of the acknowledged professions is that they have an ethical code that has at least two important aims: it is a means to win the trust of the general public and public bodies and serves as a guideline for good conduct of members of that particular profession. In many countries teachers have a professional code, not always with the same functions.

Teaching is a very demanding task, which requires great knowledge and skills; there are good premises in the field of the competencies to consider teaching as a profession, although teachers can't be regarded as members of liberal independent professions, as the classical ones, being paid by the school institutions.

The word '*professional*' is often used as a synonym of '*quality work*', extends beyond one's ability to understand content, assuming that professional

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<sup>13</sup> Goodson, I. & Hargreaves, A. (1996), *Teachers' Professional Lives: Aspirations and Actualities*. In I. Goodson & A. Hargreaves (eds.), *Teachers' Professional Lives*. London: Falmer Press

workers are able to handle difficult situations, to prevent and manage extraordinary tasks, and most episodes in the classroom require highly complex and quick thinking.

When competencies are formulated, they generally include terms related to knowledge, understanding, dispositions, skills, attitudes and values. I adopt the following definition of the concept of competence offered by the European Tuning project: "Competencies represent a dynamic combination of will to learn, knowledge, understanding, skills, abilities and values. Fostering these competencies is the object of educational programs. Competencies will be formed in various course units and assessed at different stages." (Gonzales & Wagenaar 2005)<sup>14</sup>.

The status and the prestige of the teaching profession has to do with how teachers work, with how they are valued, trained and compensated. Portfolios encourage teachers (and student teachers) to reflect on what went well and what could have been improved, to reach reliable solutions. Portfolio entries include self-reflections, work experiences strategic plans, resources and summaries of performances, documented proposals.

A good portfolio is a tool that empowers the teachers, and help them reshape their professional identity; it leads the authors to higher levels of observation, meta-thinking and criticism instead of passivity (being passive in waiting for external judgment), to readiness for initiative.

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<sup>14</sup> Gonzales, J. & Wagenaar, R. (2005), Tuning Educational Structures in Europe II: Universities' Contribution to the Bologna Process. Bilbao: University of Duesto & University of Groningen

But portfolio, itself, does not control the quality of reflection; discussions, feedback and co-operation with others are essential to maximize the process of quality assurance. The process of self-assessment with the portfolio is more reliable if colleagues also, the supervisor, parents and other partners in cooperation take part in the evaluation. Mentors or supervisors provide feedback about quality on each domain within the portfolio.

Comprehensive classroom evaluation systems are more time-consuming and expensive than once-a-year principal evaluation or evaluations based only on student test scores; the portfolio process, although more authentic, is likely to be greatly labour intensive for tutors than traditional exams. To decrease subjectivity, specific evaluative criteria may be introduced.

Teacher profiles include a number of areas, and core skills which can be divided into five groups: (a) knowledge of the students and of society, awareness of self and own ideas on the importance of education for the development of society, scientific training including theory- practice relation; (b) subject knowledge, excellence in disciplinary and interdisciplinary skills; (c) pedagogical skills, educative attitudes and values; analysis of educational human and social relationship, communication; (d) advanced and methodological competence and teaching skills to work effectively with a wide range of students and colleagues; e) efforts to raise professional quality and prestige; it implies entrepreneurship, and self-accountability, nurturing and continued development of talents and leadership abilities.

Having good teachers depends not only on how you select and train them; teaching can become a career choice for top graduates when its extraordinary

meaning is recognized, acknowledged in its high quality and prestige.

In the portfolio, teachers systematically analyze teaching and learning, re-embrace reaction and event experiences with rational thinking through self exploration and situation analysis, learning, planning and reflecting about one's own attitudes and possible action patterns. This assists individuals in realizing what would otherwise be missed due to former habits, or become non professional instinctive behavioural reactions that again undergo rational questioning and re-arranging.

### **3. A Portfolio for the acknowledgement of the teaching profession**

Working with the portfolio, teachers proactively and selectively collect a variety of meaningful and valuable data, improve their awareness of their own teaching style, own educational and relational pattern, through continuous self-reflection and peer dialogue processes. They thoroughly comprehend and annotate the strengths and weaknesses of their professional status as well. The teaching portfolio is a short document in page numbers, but may have annexes which are collected documents proving the claims made therein.

The combination of extensive evaluations and coaching helps make the teachers' activity and their working conditions more professional. It aims to be a continuous cycle of construction, growth, management, increasing quality, good practice and prestige. Peer tutoring and/or supervisor, in turn, learn to be responsive, mediate and lead the authors of the portfolio to higher levels of observation, meta-thinking and criticism.

The VASTT portfolio is an opportunity for teachers (and teacher candidates, teacher educators) to organize their work, to conceptualize it, and to reshape their professional identity.

According to the main future of the teacher profile listed above, a teaching portfolio includes the five following major areas:

a) Portfolio becomes an important tool for reflecting on their own conceptions and teaching beliefs, of their own value system relating to education (inclusion, attention to linguistic, religious, socio-economic backgrounds, etc.), fostering consciousness of the importance of education and learning, the need for teachers to be highly qualified workers, able to perform difficult tasks.

This means establishing a new understanding of the teaching professional, with high initial qualifications, continued professional development, good teaching, entrepreneurship and leadership capacity, networking, support from the policy makers.

Teachers reflect on their own individual interpretation of society, the understanding of ethical and political issues associated with education, the priorities of education at national and European level. They report on their knowledge of studies in the field of school development and quality assurance, on their engagement in classroom research as part of their career-long professional development in order to find explanation for what they know from experience.

In the portfolio “experience-focused” learning can be recorded so that competent professional teachers document their high level of theoretical knowledge, how they are capable of combining theories and practices, taking advantage from the results of the

most updated research, so that relevant practice can be promoted into the content of personal theory.

Teachers report how well-informed they are on current affairs in their own country and abroad, what they know about the community, and the historical, socio-cultural and ideological contexts, awareness of the ever-changing demands of information on society in the interdependent world.

Among the professional skills required from teachers there are understanding of the students, knowledge of how do they learn best, ability to recognise and support gifted and DSA pupils, appreciating individual differences, believing in every child, being able to use strategies to work with "at-risk" kids, helping each one to be the best they can be and be included.

(b) An evident way to improve the prestige of teachers is via disciplinary competence, including interdisciplinary skills; teachers gain more respect if they have a degree in the content area in which they teach, show interest and keep themselves updated in cultural developments. In our knowledge-intensive society lifelong learning is becoming essential for one's career-long professional development and is vital for teachers.

(c) Teachers have to be expert in education, to master teaching and social tasks at school, conscious of being a role model, using inter-personal skills, human and social relationship in establishing and maintaining a safe and attractive, supportive and friendly school environment, in fostering appropriate collaborative attitude with other teachers, and professionals, with headmasters, parents and the community, in creating a social atmosphere appropriate for a learning climate in the classroom.

In teaching and coaching the learners, they trust and develop empathy with them, encourage them to arouse the desire to learn, to be aware and responsible for their learning, foster skills of self-regulation and self-evaluation.

Teachers aim for the development of responsibility and solidarity, work for the prevention of violence at school, resolve conflicts, deal with bullying, adherence to values, norms of school discipline and participation so leading to develop civic skills, sense of justice, democracy, sustainable development.

In addition, skills on intercultural learning are reported in the portfolio, to examine and reassess their own attitudes towards other cultures, for interreligious dialogue, using strategies to deal appropriately with prejudice at school and to make good use of the resources that minority learners bring to the classroom. They foster participation, build partnership with the actors from the community using face to face communication and social networks, establishing links between formal, non-formal and informal learning.

(d) Major contents of the teaching portfolios are advanced teaching and organizational skills, processes and curricular planning, team work, and class management. Teachers design effective learning environments for pupils, support them in building personal development plans, and figure out how their varied competence calls for appropriate individual action.

They master situations where they give their student groups different parallel assignments, can use new technologies, multimedia, produce traditional teaching materials, adapting them to student needs, in order to achieve high learning goals.

Authors of the portfolio report on habits in monitoring, and giving feedback on student work, according to age, grade and individual learning styles, using process oriented support diagnostics and new forms of assessment, to detect individual learner's response mode during the learning process and therefore provide feedback, evaluation and support.

Qualified teachers have meta-competence about their own education and teaching practice, are able to critically evaluate their own methods, and to defend them if necessary; they establish a professional atmosphere in schools, building collaborative professional communities.

e) In the last part of the VASTT portfolio, authors analyse possible strategies for contributing to the individual and collective professional development, to their authoritativeness and prestige; teachers describe their commitment to raise their professional quality and dignity, keeping themselves informed about the decisions in the school context and giving their contribution to the development of the school policy, even participating in school organization and in professional teacher organisations.

Documented and critical constructive knowledge are needed in the school system of their own country, in the official regulations by the National and Local School authorities, the basic Recommendations of the International bodies like UNESCO, and the Council of Europe, etc..

Qualified teachers commit themselves to an ethic code of their profession, care for active participation in school/community life, cooperate in projects and develop partnerships, International Networking and mobility practice across borders. They also continue to inform society about the high level of teaching and the

importance of it, participating in public debate on educational topics, writing to daily papers.

Besides more entrepreneurship by teachers, greater support by the school authorities is needed for teachers throughout their careers paying attention to: recruitment, initial training; mentoring and induction of the service; continuing in training, salary, reward measures, opportunities for valuing practice of the teacher.

Policy makers and society should be aware that the dignity held in the teaching profession, trust teachers, care for their professional accountability without frustrating and humiliating them. Without well-qualified, caring, and committed teachers, respected with dignity, neither improved curricula nor more precise assessments will ensure that our children are prepared for the challenges and opportunities of today's (and tomorrow's) globalized world.

Working with a portfolio helps individual teachers to become self-conscious of the own educational role for the present and the future of the pupils, of their professional needs, and the self-motivation, support them to trust in the chance of improvement, contrasting resignation.

## **Conclusion**

In this paper I have discussed one of the possible ways to enhance the quality and the dignity of the teaching profession, establishing a premise for long-term professional development and quality in school: the use of the portfolio within a renewed school policy and evaluation cultures.

Taking for granted that the quality and the well-being of teachers is a good premise for successful education,

I argued that teachers should be reflexive and strive to gain the acknowledgement of their professional level, being aware of their high mission and confident of their competences.

The purpose of the VASTT portfolio is twofold; on the one hand, it seeks to increase the meta competence of the student teachers (and teachers), and to explain how their teaching contributes to achieving the intended learning outcomes; on the other hand, it aims to be the starting point for evaluating the teaching profession and for the improvement of the prestige of the teaching category, in an entrepreneurship plan.

Teachers are entrusted with the task of ensuring children's human and intellectual growth and preparing them to meet the challenges of the future; good teachers are giving their kids a chance while everyone else writes them off. Such important work has to enjoy high status and considerable respect and reward within the society; institutions, parents and community ought to be aware that teachers are professionals doing important work.

Professional dignity needs to be considered a part of the identity of teachers, as an explicit component of their professional development, essential for the effectiveness of their work. The strategies for evaluating teaching/learning output can't become an attack on trust in teaching and school systems.

A high appreciation of teachers by themselves, by the Institutions and society contributes to enhancing the authority level necessary to allow effectiveness of teaching. More sophisticated knowledge is needed in this context, even if it is difficult to measure exactly how much teachers prestige contributes to the

improvement of the learning by the pupils and how a portfolio can encourage such a process.

The goal of enhancing the quality and the prestige of the teachers requires priority of research, measures by the policymakers, involvement of the families and the communities, quality, self-esteem and entrepreneurship by the teachers. In this contribution I underlined the importance of self-confidence by the teachers to change their professional status, the help of the portfolio in reflecting of the own professional identity and qualification, together with the awareness of the own responsibility as potential agents of change.

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## CHAPTER 27

### THE LANGUAGE AWARENESS OF FOREIGN LANGUAGE STUDENT TEACHERS

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#### **Abstract**

The purpose of this study was to describe the language awareness of a group of foreign language student teachers. I approached my research task from the point of view of the emergence of language awareness in the students themselves and from their readiness to raise the language awareness of their future pupils. The theoretical framework of my study was structured on the basis of research from cognitive psychology, philosophy, and language pedagogy. My data consists of the responses of student teachers of various foreign languages to two questions. The first question was related to the emergence of language awareness in the students themselves, which I studied with the help of a linguistic problem-solving task. The second question was related to the issue of how the students propose to raise the language awareness of their future pupils. The analysis suggests that the language awareness of the student teachers is based on intuitive knowledge. Simply on the basis of intuitive knowledge it was difficult for them to plan teaching that would improve the explicit knowledge of the language of their pupils.

## **Keywords**

language awareness - raising language awareness - intuitive knowledge - explicit knowledge

## **Introduction**

The purpose of this study was to describe the language awareness of a group of language student teachers of different foreign languages. 'Language' and 'awareness' are concepts that are difficult to comprehend fully. Both can be defined from a primarily *cognitive* (intrapersonal) or *social* (interpersonal) perspective (van Lier 1998).

Aaltonen (2009: 16) defines language as a system of language symbols and rules, which corresponds to the term *la langue* by de Saussure (1972: 25). A language may serve as a topic of scientific research - as a language described by grammar. A novice with no prior knowledge of a language can "enter" an unknown language by way of speech, as explained by Iivonen (2009: 40). Speech to de Saussure (1972: 24) is language usage, *le langage*, which in quotidian life is referred to as language. It is a social construct based on conventions.

Dufva (2000) discusses metalinguistic awareness. It manifests itself through the ability of the language user to consciously observe the language properties related to both form and function. In the context of language instruction, Dufva also uses the term "language sense". She has committed herself to the ways of thinking that emphasize the significance of improving language sense in native language and foreign language instruction. According to James and Garrett (1992: 4), a person with language awareness is able to easily intuit and understand how language functions in human interaction.

In my own research, language awareness is the metalinguistic awareness of language based on the views of Dufva (2000). I approach language awareness on the basis from cognitive psychology, philosophy, and language pedagogy. My research data consist of the responses given by student teachers of various foreign languages to two questions. The first question was associated with the emergence of the students' own language awareness, which I studied with the help of a linguistic problem solving task. The second question was associated with the issue of how the students propose to raise the language awareness of their own pupils. When raising the language awareness of pupils, the teacher deliberately selects a part of language as the focus of selective attention - "attentiveness is selection, consciousness is subjective experience", as Koivisto (2006: 287) has explained. James (1998: 260) stresses the difference between the emergence of language awareness and the raising of language awareness. Awareness raising is the outcome of teaching - a process wherein a teacher has to have explicit mastery of the subject material.

## **1. Methods and data collection**

My research can be considered a case study. The case study is the most common strategy of data acquisition in qualitative methodology - almost all qualitative research consists of case studies (Kansanen 1984; Metsämuuronen 2006: 92). My own case study, using definitions found in Syrjäla (1994: 13), is a limited whole, a descriptive study in which I aim to find explanations for the actions of foreign language student teachers. I focus my attention on exploration and description and on proving views based on earlier studies, not on the discovery of a universal, generalizable truth. My approach also corresponds to the view of Denzin and Lincoln (2005: 5) on the

nature of socially constructed reality and on the close relationship of researchers to the study subjects.

In the spring of 2011, at the beginning of a lecture on foreign language subject didactics at the Department of Teacher Education of the University of Helsinki, I presented two questions to all foreign language pedagogy students who were attending the lecture. The first question focused on the English language through the following two sentences: "a) Before Louis finishes work, he will give us a call. b) Before Louis will finish work, he will give us a call." The students were to decide which sentence was produced by a native speaker of the language and justify their answer. Odlin (1994) used the same sentences to clarify the difference between grammatical rules and the idea involved in those rules. The second question was: "How should the problematics inherent in the sample sentences be dealt with in language instruction?" I received responses from 36 students (26 women and 10 men). All of the students had studied English in primary and secondary school. They had completed at least two years of university studies in the language that they represented.

I accepted for this study only the students who had responded to both questions. Responses by 24 students (17 females and 7 males, 9 English and 15 other languages) met my criteria. I rejected twelve students for my research as they responded only to my first question. Their answer failed to comply with school grammar (Silk, Mäki & Kjisik 2005). Most likely, they did not respond to the second question because they found it difficult to pedagogicize something they had not understood.

In order to meet the purpose of my research to describe the language awareness of foreign language student teachers that were guided by the theoretical framework of this study I considered two questions. The questions are as follows:

1. How does the language awareness of foreign language student teachers manifest itself?
2. How do foreign language student teachers plan to raise the language awareness of their pupils?

## **2. The language awareness of the student teachers**

Answering the first question about how language awareness emerges in foreign language student teachers requires metalinguistic awareness (James & Garrett 1992: 4). A student cannot invent teaching material. The student can, however, build a picture of the language by examining the rules and conventions of that language. First I present the answers of the English student teachers to my first question. I use the following abbreviations: **No.=student number**,

f/E= female/English, m/E=male/English.

### **2.1. English student teachers**

Only one English student teacher (No. 9. m/E) gave an answer corresponding to the English language grammar book written by Silk, Mäki and Kjisik (2005: 24) used in school: "A. B has an ungrammatical 'will' in the sentence beginning with 'before', which is redundant (before already expresses time)." Dirven (1990) has paid attention to the position of the grammar book in school in his survey on the hierarchical nature of various grammars. He has placed it visually closer to descriptive grammar rather than to pedagogical grammar.

Answers by other English student teachers reveal uncertainty: "Both, but A is more common" (No. 4. f/E); "In principle either one would do, but probably A" (No. 6. m/E); "A, because a foreign language learner is more likely to use the word will in a sentence with the future tense" (No. 7. m/E); "Because the present and future tenses have been paired and expressed correctly" (No. 2. f/E). The answer of one student (No. 5. m/E), "Tenses of the verbs correlate as spoken by a native speaker", does not reveal which sentence is meant. Answers by three students seem to be based on linguistic intuition: "I cannot justify other than that B sentence sounds wrong/awkward" (No. 1. f/E); "A sounds more fluent. Using the future tense will does not feel correct in this case" (No. 3. f/E); "A was produced by a native speaker. Too much repetition of the future tense 'will' in sentence B and the sentence is less stylish" (No. 8. m/E). Intuition is useful information based on experience that a person is not aware of possessing and cannot verbally describe but which helps that person to manage quotidian life (Spinney 1999). However, a teacher cannot structure teaching on the basis of intuition (James 1998: 260).

To be able to solve the problem that I presented, the students would need knowledge contained in a normative grammar for situations where the future tense is not used. According to Odlin (1994: 4), a native speaker of a language is able to form a grammatically accepted future tense and is also able to use it correctly, but will not necessarily be able to explain why a given solution is correct. I present below the answers of the student teachers of other languages. I use the following abbreviations for them:

No.=student number,

f/s=female/Swedish,  
m/g=German/male,

f/g=female/German,  
f/f=female/French,

f/S=female/Spanish,      m/S=male/Spanish,  
f/l=female/Latin.

## **2.2. Student teachers of other languages**

Uncertainty was evident in the answers of the student teachers of other languages as well: "In my opinion A. Somehow I would think a native English speaker would choose the more straightforward and economic alternative" (No. 11. f/s); "A sentence is more logical in its tense and there is no repetition" (No. 19. f/f); "A is grammatically correct but B could also be produced by a native speaker because they don't always use grammatically correct language" (No. 15. f/g); "I think A is grammatically correct but B is a more typical, easier structure for a native speaker" (No. 16. f/g); "A is a simpler way of saying it" (No. 21. f/f); "I think A. Don't know how to justify it" (No. 22. n/S). The answer of the student (No. 14. f/g) was according to school grammar (Silk, Mäki & Kjisik 2005: 24): "A, because the main clause requires the future tense and the subordinate clause the present tense".

The answers from some of the students reflected unawareness in addition to uncertainty: "A is a more compact, economical expression, more economic for speech. B is formal, written standard language" (No. 12. f/g); "A. No two *will* words required? Honestly, I don't have a clue" (No. 13. f/g); "Temporally there is still time before work is finished, therefore the future tense. But this is just based on logic in language, I don't know for a fact which one is the correct answer" (No. 17. m/g). Three students (No. 10. f/s, No. 23. m/S, No. 24. f/l) gave a short answer: "A sounds better." Their answers were based on linguistic intuition.

The answer of a student (No. 20. f/f): "A. I have lived in the U.S.A. and there at least they said it like that

and not like in B", corresponds to the learning process model by Gass and Selinker (2001): *input* considered meaningful by the learner, *input* understood by the learner, *intake* internalized by the learner, integrating the intake, and *output*. The student has learned to apply grammatical rules in a foreign language in the same way as a child applies grammatical rules in the native language in an acceptable way without consciously acknowledging the associated formal rules - an issue that Vygotsky (1982: 193-196) has examined as well. The answers of the other students reflect school culture in foreign language teaching. Comprehension of language presupposes that a person is being guided towards a conceptual transformation.

### **3. Raising language awareness**

In this chapter I discuss how do foreign language student teachers plan to raise the language awareness of their pupils? First, I present the answers of the English language student teachers to the second question.

#### **3.1. English student teachers**

In order to raise the language awareness of their pupils, the English language student teachers would in their teaching use (i) authentic listening and reading comprehension exercises: "In classes pupils should listen to/read as much authentic language as possible, so that grammar would be internalized as a 'side product'. The goal is for the pupils to learn to 'hear' correct structures without having to learn the rules of grammar by rote too much" (No. 1. f/E); (ii) associated metalinguistic rules: "First I would try to use the associated metalinguistic rule. Exercises help pupils use it automatically and then the rule can be even forgotten." (No. 9. m/E); (iii) grammar books to check for grammatical correctness: "Grammatical correctness should be checked in the grammar book

and the differences explained with sample sentences to the pupils" (No. 2 f/E); (iv) comparisons between tenses and their meanings: "Differences between tenses, or rather their differences in meaning, could be dealt with by comparing sample sentences with each other and at the same time by explaining the different nuances they contain" (No. 3. f/E); and (v) comparisons between the target language and Finnish: "Explain for instance by comparing to the Finnish language" (No. 4. f/E). According to James (1999), a teacher can use the native language of the pupils as a vehicle for raising the declarative knowledge of their target language towards procedural knowledge. This can be realized only if a bridge is built between these two items so that the language knowledge of both the native and the foreign language meet: "*MT and FL in tandem*" (p. 104).

One student (No. 6. m/E) would emphasize strategies and communicativeness: "Grammar should of course be covered but I think it is more important to focus on communicative strategies and the delivery of the message." It was difficult to deduce from the response of one student how he would raise linguistic awareness in his pupils: "Even in your native language 'good language' is not whatever any native happens to say" (No. 7. m/E). I did not understand what another student (No. 5. m/E) meant by "explain in words of one syllable" nor what student (No. 8. m/E) meant by the *chunk* phenomenon in this context: "Although the sentences are grammatically correct, they are not necessarily as likely produced by native speakers. Teaching should take into account the so-called *chunk* phenomenon, or the fixed/semi-fixed expressions that the speech of native speakers is riddled with." DeCarrico (1998: 127–148) speaks about phrasal units and their role in discourse. She thinks that an adequate description of those units requires a redefinition of the distinction between syntax, lexis

and discourse. However, the redefinition is not an easy task, for two reasons: First, the redefinition has important implication for L2 vocabulary studies. Second, with respect to theories of grammar, such a redefinition cannot take place in a vacuum, but must be justified in relation to existing theories of grammar.

### **3.2. Student teachers of other languages**

The answers of the student teachers of other languages revealed an emphasis on language correctness: "Rules must be clearly explained by using sample sentences so that the pupils themselves learn to understand them" (No. 14. f/g); "To recognize forms + differences in translation and meaning" (No. 16. f/g); "Sample sentences should be chosen well and cover a lot of ground so that they can be memorized and they contain crucial building blocks" (No. 17. m/g); "Well for sure at least one should keep in mind the fact that grammatically correct language often differs from colloquial speech (and that these differences should be pointed out to the pupils so they would not learn mere written language" (No. 20. f/f). Two of the students would compare the difference between the target language and the native language: "By comparing to one's native language/? Without understanding the language?" (No. 13. f/g); "By comparing the differences between the native language and the target language" (No. 24. f/l); "The future tense is not used in Finnish so maybe it is best to stress the differences in language structures" (No. 21. f/f). The students' answers were often vague: "Future vs. present – how they can be used in the same situations" (No. 10. f/s); "Teach both and explain the difference in use" (No. 11. f/s); "Near future, main clause, subordinate clause" (No. 18. f/f); "Authentic sentences" (No. 23. m/S); "Stress that grammar is rarely black and white" (No. 22. f/S). Two of the students would emphasize linguistic

communication: "How language is used in real communicative situations" (No. 12. f/g); "Bring attention to the fact that it is important to convey a message" (No. 15. f/g). However, they did not explain how they would link linguistic awareness, or the raising of it, and linguistic communication to each other. One student simply stated: "I cannot tell" (No. 19. f/f).

Teaching is not transferring knowledge to the mind of a pupil with the principle that *input* produces an identical *output*. The answers of the students could be compared with the research results of Burgess and Etherington (2002). Over half (56%) of the teachers participating in their study were of the opinion that mastery of the formal forms of language promotes the linguistically correct use of language.

## **Conclusions**

The purpose of this study was to describe the language awareness of a group of foreign language student teachers. The theoretical part of my study based on previous research literature. The emergence of awareness does not, however, mean that they would be aware of their own activity (Järvillehto 1994: 189, 193; 1995: 132). Guided by the framework of reference, I presented two questions to the student teachers of English and other languages.

Contrary to my preconceived notions, there was no significant qualitative difference in the answers of the English and of the other language student teachers. The analysis of the answers revealed that the metalinguistic awareness of the student teachers of English and of other languages was inadequate. Their language awareness was based on intuitive knowledge. Simply on the basis of intuitive knowledge it was difficult for them to plan teaching that would

raise explicit knowledge of the linkage between the form and function of foreign language in human interaction. English student teacher (No. 5. m/E) gave a vague answer to my first question: "Tenses of the verbs correspond to those spoken by a native speaker." This is demonstrated by his response to my second question on how he would raise the language awareness of his pupils: "Explain using only one-syllable words." Another English student teacher (No. 9. m/E) gave an answer corresponding to the English school grammar (Silk et al., 2005, 24). He understood the linguistic problem involved in my question. Based on his response to my second question, I could conclude that he would be able to create a teaching session that would raise his pupils' awareness of the topic to be taught.

Some of the students implicitly mentioned using dialogue as a teaching method. The ideas of the science teaching researchers Leach and Scott (2003) are also suitable for teaching foreign languages. The task of a teacher is to speak and function so that the knowledge to be taught will become, based on the original meaning of the word consciousness, knowledge that is shared in common between the teacher and the pupils in social negotiation, an issue that Järvillehto (1994: 185–188) has also presented in his consideration of the development of meanings and the interpretation of linguistic symbols.

This study suggests that it does not seem to be relevant to examine the relationship between learning a language and awareness. Instead, from the point of view of learning a language, it is important to examine how the active teaching of a language promotes learning that language. The answer to this question is quite straightforward - active teaching certainly promotes learning. Several psychological studies on memory have shown that memorizing a specific item

is aided by conscious effort, such as using mnemonics or repeating the item to be learned in one's mind. Although subliminal learning occurs constantly, it is clear that by focusing attention on the item to be learned, the learning process gains power and the memory traces are strengthened. Pedagogically interesting questions follow from this: Is it possible to teach learning strategies to a student that the student can use to focus attention on the factors that are most crucial for learning? What might these strategies and crucial factors be? For instance, could metaknowledge about the structures and rules of language help direct a student's attention? The questions I posed may be answered by van Lier's (1998; 2000; 2004) ecological and socio-cultural theory - meaningfulness in social actions.

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## CHAPTER 28

### **MODELLING CONDITIONS FOR TEACHER'S PROFESSIONAL DEVELOPMENT: FOCUS ON EXPERT EVALUATION**

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#### **Abstract**

Contemporary democracy is generated by the transition from opportunity to choose towards qualities and purposes in the context of cultural and educational globalization. This shift changes the nature of Europe as well as education and culture. For the development of education and culture change in the constantly changing environment conditions for teacher's professional development become particularly important. The aim of this chapter is to analyze expert evaluation of the conditions theoretically modelled for teacher's professional development. The study involves a process of analyzing the meaning of the key concept *professional development*. Moreover, the study demonstrates how the key concept is related to the idea of *conditions for development*. Qualitative evaluation research has been used. The present empirical study was conducted

from 2008 to 2011. The sample involved 10 experts. The non-structured interviews were aimed at revealing expert evaluation of the conditions theoretically modelled for teacher's professional development. Summarizing content analysis was implemented for data analysis. The findings of the research allow conclusions to be drawn on positive evaluation of the conditions theoretically modelled for teacher's professional development. Pedagogical guidelines are elaborated.

## **Keywords**

Professional Development, Conditions for Development, Expert Evaluation

## **Introduction**

The transition from opportunity to choose towards qualities and purposes changes the nature of Europe as well as education and culture. Modelling of the change of the society and within the society has become of increased interest to many researchers.

Social nature of change and, consequently, teacher's professional development has been revealed (Leont'ev 1978) as a perspective that focuses solely on the individual learner may lose sight of the common (social and/or professional in the context of the present research) perspective that insists on a specific direction of development and problem solving (Aase 2006: 6). Thus, not all development is equally valuable (Aase 2006: 6). For the development of education and culture in the constantly changing environment, conditions of teacher's professional development have become particularly important. Therein, the research question is as follows: What is the expert evaluation of conditions theoretically modelled for teacher's professional development?

The aim of the research is to analyze expert evaluation of the conditions theoretically modelled for teacher's professional development. The study involves a process of analyzing the meaning of the key concept *professional development*. Moreover, the study demonstrates how the key concept is related to the idea of *conditions for development*. The study presents how the steps of the process are related and shows a potential model for development: teacher's professional development → conditions for teacher's professional development → empirical study within a multicultural environment.

The methodological background of the present research is based on System-Constructivist Theory introduced as New or Social Constructivism Pedagogical Theory formed by

- Parsons's system theory on any activity as the system (Parsons 1976),
- Luhmann's theory on communication as a system (Luhmann 1988),
- theory of symbolic interactionism (Mead 1973),
- theory of subjectivism (Groeben 1986).

System-Constructivist Theory and, consequently, System-Constructivist Approach to learning introduced by Reich (Reich 2005) emphasize that human being's point of view depends on the subjective aspect:

- everyone has his/her own system of external and internal perspectives that is a complex open system and
- experience plays the central role in the knowledge construction process (Maslo 2007: 39).

The methodology based on the methodological background of the present research is identified as development of the system of external and internal perspectives. Therein, the term *perspective* in the present research means to embody certain

fundamental assumptions (Barry 2002: 3). The components of the development of the system of external and internal perspectives based on findings of Vygotsky (Vygotsky 1934/1962) and Robbins (Robbins 2007: 49-54) are shown in Table 1.

Table 1: Components of the system of external and internal perspectives

<b>External Perspective</b>	<b>Development of the system</b>	<b>Internal Perspective</b>
<ul style="list-style-type: none"> <li>- meaning</li> <li>- denotation</li> <li>- scientific</li> <li>- whole</li> </ul>	<ul style="list-style-type: none"> <li>- schemas</li> <li>- chunks</li> <li>- gambits</li> <li>- concept system</li> <li>- grammar</li> <li>- new type of function</li> </ul>	<ul style="list-style-type: none"> <li>- sense</li> <li>- personal meaning</li> <li>- spontaneous part</li> <li>- connotation</li> </ul>

The methodology of the development of the system of external and internal perspectives proceeds from the external perspective to the internal perspective through the phase of unity of external and internal perspectives (the system of interacting phenomena) as demonstrated in Figure 1.

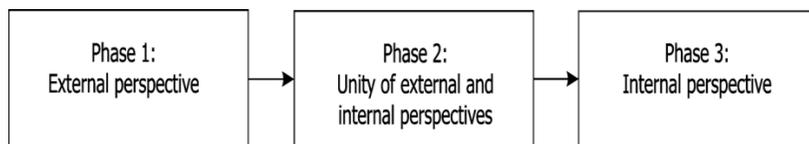


Figure 1: Phases of the development of the system of external and internal perspectives

Moreover, the authors' position based on the methodology of the development of the system of external and internal perspectives is reflected in the principles of mutual sustainability and mutual complementarity. The principle of mutual sustainability

means to provide a complex of possibilities to learn for everyone, and reflected principle of complementarity reveals that the opposite things (perspectives in the present research) supplement each other for finding the truth.

The remaining part of this paper is structured as follows: Section 1 demonstrates theoretical framework on teacher's professional development and its conditions. Section 2 presents the empirical study. Afterwards, conclusions on expert evaluation of the conditions theoretically modelled for teacher's professional development are given. Finally, some concluding remarks and a short outlook on interesting topics for further work are elaborated.

## **1. Theoretical Framework on Teacher's Professional Development and its Conditions**

Professional development in pedagogy is determined as a qualitative change taking place in the professional involving process, growth, expansion, and striving for perfection in his/her professional activity, with regard to the conditions, opportunities, and needs of society, and the situation of the profession (Kacapa 1999: 26). Thus, professional development is defined as a process and activity. Diversity in forms of professional activity within professional development is considered as following (Wright 1998: 2; Kramina 2000: 40):

- studying psychology – self and others,
- managing stress,
- motivating self and others,
- physical and psychological well-being,
- learning about learning itself,
- analyzing the relationship between spiritual and moral issues to teaching,
- attending lectures, seminars and conferences,
- reading professional journals, books, etc.,
- participating in projects,

- preparing academic written work (essays, applications, letters, e-mails, course reports) and
- presenting research papers, etc.

It should be mentioned that continuing professional development is regarded as lifelong learning (European Commission 2004: 53). Thus, learning is already the process of teacher's professional development (Žogla 2008: 29). In other words, professional development proceeds, if only professional learning takes place. However, teacher's professional development is based on conditions. In the present research conditions are regarded as the development of psychological processes for experience improvement.

The source of psychological development is determined as social situation (Surikova 2007: 254). Social situation is also defined as situation of interaction, social interaction or social-cultural environment (Surikova 2007: 254). Therein, the terms "social situation", "situation of interaction" and "social interaction" should be used synonymously.

Social situation is centred on the social *activity*. It should be mentioned that the Activity Theory by Leontyev (Leont'ev 1978: 7) made a distinction between the individual's *action*, and the social *activity* of which it is a part (Leont'ev 1978: 7) and which gives it meaning (Blunden 2009: 10). Although Activity Theory is associated with the name of Leontyev rather than Vygostky, the *activity* concept originated with Vygotsky (Blunden 2009: 10).

In order to determine a mechanism of the development of social situation for theoretical modelling conditions for teacher's professional development, Vygotsky's Law of Development or interiorization (Vygotsky 1934/1962: 89) is analyzed.

Law of Development is defined by Vygotsky as transformation of the external culture into the individual internal (Wells 1994: 3) that means that any function in the individual cultural development appears twice or on two planes (Wells 1994: 3): *first, on the social level and later, on the individual level.* The social level (the external perspective) accentuates social interaction of development (Surikova 2007: 253). Therein, social interaction is determined as the unity of outside developmental circumstances and individual psychological characteristics in his/her experience (Surikova 2007: 253). The individual level (the internal perspective) focuses on cognitive activity (Surikova 2007: 253). Cognitive activity refers to the unity of processes of sense, perception, attention, memory, thinking, speech and imagination, by which people perceive, remember, think, speak, and solve problems. In other words, any function in the individual cultural development appears at the beginning between people (as interpsychical or intermental category), and then – on the intrinsic level (as intrapsychical or intramental category) (Wells 1994: 3). As the process, the development of social situation has its cyclic nature. Hence, the development of social situation proceeds from individuals' social interaction to their cognitive activity as depicted in Figure 2.

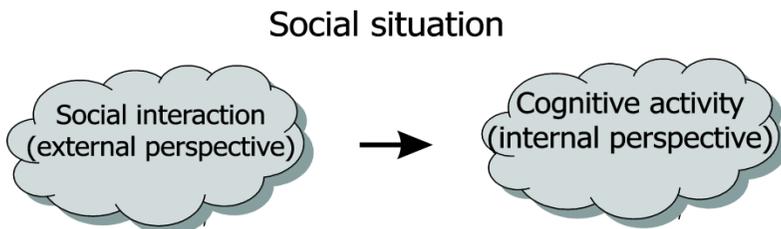


Figure 2: Development of social situation in psychology

Moreover, the sub-phase between the social level (the external perspective) and the individual level (the

internal perspective) is determined as the phase of unity of external and internal perspectives (the system of interacting phenomena) as shown in Figure 3.

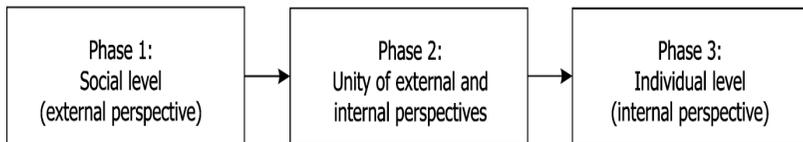


Figure 3: Phases of development of social situation

Thus, the development of social situation proceeds from the external perspective through the phase of unity of external and internal perspectives (the system of interacting phenomena) to the internal perspective as demonstrated in Figure 3.

Another important condition for teacher's professional development is reflection.

Reflection provides an individual with the ability to improve continuously in the domains of personality, professionalism and creativeness (Kepalaite 2008: 83). Reflection in psychology is a process through which an individual cognizes his/her own mental actions and states (Kepalaite 2008: 84). Three types of reflection (Shon and Felix by Kacapa 1999: 29) are shown in Figure 4.

Two forms of reflection are considered by Kepalaite (Kepalaite 2008: 84-85):

- content reflection directed to the investigation of perception, thinking, feelings and actions and
- process reflection aimed at investigating how perception, thinking, feelings and actions proceed and evaluating efficiency of these mental processes.

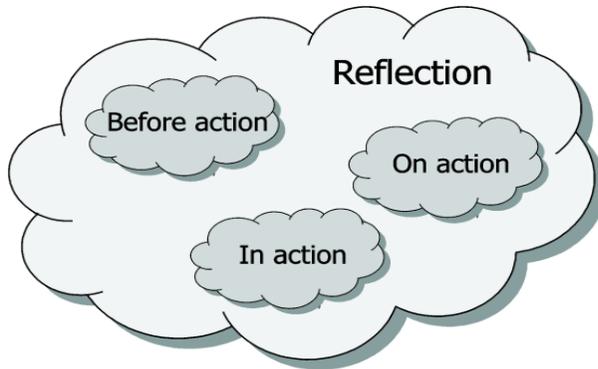


Figure 4: Types of reflection

Reflection on content and process enables change in a person's specific beliefs, which are referred to by Mezirow as meaning schemes where reflection on assumptions or critical reflection creates conditions to change the fundamental system of beliefs. Value orientations, therefore, is an important factor for personal development (Kepalaite 2008: 85).

Thus, conditions for teacher's professional development demonstrated in Table 2 include

- teacher's social interaction,
- teacher's cognitive activity and
- teacher's reflection.

Hence, these findings allow re-defining teacher's professional development as qualitative change of teacher's professional experience based on teacher's social interaction, cognitive activity and reflection in the professional environment.

Table 2: Conditions for teacher's professional development in the professional context

Professional environment		
External perspective		Internal perspective
Opportunities to construct experience in social interaction		Opportunities to construct experience in cognitive activity
Mastering constructive strategies and techniques of social interaction in General English and Academic Native Language, English for Academic Purposes and Mother Tongue and its use in real life		Mastering constructive strategies and techniques of cognition in General English and Academic Native Language, English for Academic Purposes and Mother Tongue and its use in real life
Teaching	Peer-Learning	Learning
Interpersonal dialogue	Study cultural dialogue	Individual internal dialogue
Scientific and professional concept	Quasi-concept	Spontaneous concept
General English and Academic Native Language	English for Academic Purposes	Mother Tongue
Establishing social purposes, social interaction planning and organizing	Establishing joint purposes, collaboration planning and organizing	Establishing personal purposes, individual planning and organizing
Social decision making	Joint decision making	Individual decision making
External evaluation	Mutual evaluation and self-evaluation	self-evaluation

## **2. Empirical Study**

The design of the present empirical study comprises the purpose and question of the present empirical study, sample and methodology of the present empirical study.

The present empirical study was conducted from 2008 to 2011. The aim of the empirical study was to reveal expert evaluation of conditions theoretically modelled for teacher's professional development in order to validate theoretical modelling of conditions for teacher's professional development. The research question is as follows: What is the expert evaluation of conditions theoretically modelled for teacher's professional development?

It should be mentioned that

- by expert a professional who obtains extensive experience based on research in a particular area of study is meant, and
- by evaluation the process of examination and its results are considered.

Interpretative research paradigm which corresponds to the nature of humanistic pedagogy (Lūka 2008: 52) has been determined. Moreover, the researcher is the interpreter. Interpretative paradigm is characterized by the researchers' practical interest in the research question (Cohen, Manion et.al. 2003).

Explorative research has been used in the empirical study. The explorative research in the present empirical study is aimed at developing hypotheses, which can be tested for generality in following studies (Mayring 2007: 6). Therein, the empirical study consisted of the following stages:

- survey preparation,
- data processing, analysis and data interpretation,

- analysis of the results and elaboration of conclusions and hypothesis for further studies.

The qualitatively oriented research allows the construction of only few cases (Mayring 2007: 1). The cases themselves are not of interest, only the conclusions and transfers we can draw from this material (Mayring 2007: 6). Selecting the cases for the case study comprises use of information-oriented sampling, as opposed to random sampling (Flyvbjerg 2006: 229). This is because an average case is often not the richest in information. In addition, it is often more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur (Flyvbjerg 2006: 229). Random samples emphasizing representativeness will seldom be able to produce this kind of insight; it is more appropriate to select some few cases chosen for their validity. Thus, the present empirical study involves 10 respondents who are experts in the field of educational research.

The choice of experts was based on two criteria, namely, recognized knowledge in the research topic and absence of conflict of interests (Lopez & Salmeron 2011: 202) as depicted in Figure 5.

The number of experts depends on the heterogeneity of the expert group: the greater the heterogeneity of the group, the fewer the number of experts (Okoli & Pawlovski 2004: 20). Thus, 10 is a good number of experts for the study (Lopez & Salmeron, 2011: 202). Therein, the empirical study comprises 10 researchers from different countries. It should be mentioned that all the researchers who participated in the evaluation of the research results are professors in the fields connected with educational research. All the 10 researchers have decisively contributed to their fields of research. For example, the present research

employs the finding of a researcher on the *quasi-concept*. Another investigates use of external and internal perspectives in empirical studies, namely, the external perspective means viewing the world from the researcher's or scientist's view and the internal perspective – from the subject's view. All the 10 researchers have got extensive research experience.

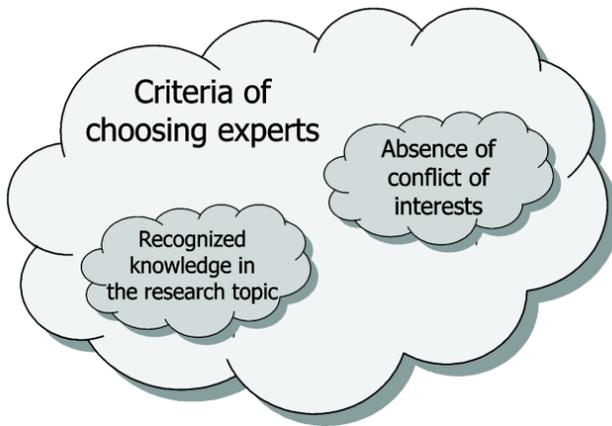


Figure 5: Criteria of choosing experts

Analysis of the evaluation of the research results comprised non-structured interviews of one question as following: What is the researcher's view on the conditions theoretically modelled for teacher's professional development? The aim of the non-structured interviews was to reveal the researchers' evaluation of the conditions theoretically modelled for teacher's professional development.

The experts' expressions from the non-structured interviews were systematized according to two constructs: the construct of positive evaluation and the construct of negative evaluation.

Researcher 1 emphasized use of the conditions theoretically modelled for teacher's professional

development in specialists' professional development of other professions. The researcher underlined that they are clearly- and well-presented. Researcher 1 considered that the conditions provide teacher's professional development.

Respondent 2 considered the conditions theoretically modelled for teacher's professional development to be a transformative methodology. The researcher stressed the following advantages of the conditions:

- focus of establishing a system,
- viewing the overall personality of the learner,
- the fact that educators can indeed change the typical classroom environment,
- good point to connect the external with the internal,
- Vygotsky's Law of Development selected,
- the scheme titled Conditions for teacher's professional development in the professional context including both external and internal factors,
- the essence and sequence of the implementation of the conditions for teacher's professional development in the professional context and
- the teacher having the "ability to create knowledge".

Researcher 3 revealed that the conditions include a great deal of valuable discussion.

Researcher 4 emphasized that the proposed conditions are important for the innovative process in education.

Researcher 5 found the approach used for teacher's professional development "promising and worthwhile".

Researcher 6 revealed the present research on the conditions theoretically modelled for teacher's professional development to be "argumentative in which both the methodological and theoretical underpinnings are described".

Researcher 7 emphasized use of the conditions in master and PhD studies.

Researcher 8 considered the present research to be very interesting and thought-provoking considerations for the practice of language teaching at university level in particular.

Researcher 9 found the research to be "a very well conducted piece of research, which reaches some interesting conclusions. The analysis is comprehensive, and the conclusions are viable".

Researcher 10 thanked for submitting a very interesting proposal. The researcher was also interested in hearing more about the study.

The data were processed applying AQUAD 6.0 software. The determined constructs were systematized into the codes corresponding to a construct, namely, positive and negative evaluation.

Most of the experts' expressions were categorized to the construct *Positive Evaluation*. Frequencies were determined to reveal the experts' evaluation. The survey showed that the experts had given their positive evaluation to the conditions theoretically modelled for teacher's professional development most frequently as demonstrated in Table 3.

Table 3: Frequency of experts' evaluation

<b>Construct</b>	<b>Construct Domain</b>	<b>Number</b>	<b>Percentage</b>
Evaluation	Positive evaluation	10	100%
	Negative evaluation	0	0%

The summarizing content analysis (Mayring 2004: 269) of the data reveals that the respondents evaluate the

conditions theoretically modelled for teacher's professional development positively.

## **Conclusion**

The findings of the research allow conclusions to be drawn on positive evaluation of the conditions theoretically modelled for teacher's professional development.

Moreover, validity and reliability of the research results have been provided by involving other researchers into several stages of the conducted research. External validity has been revealed by international co-operation as follows:

- The research preparation has included individual consultations given by the Western researchers,
- The present contribution has been worked out in co-operation with international colleagues and assessed by international colleagues, and
- The research has been presented at international conferences.

Therein, the researchers' positive evaluation of the conditions theoretically modelled for teacher's professional development validates the findings of the present research.

The present research has *limitations*. The inter-connections between teacher's professional development and conditions for development have been set. Another limitation is the empirical study conducted by involving experts only. If the evaluation by educators and student teachers had been available for analysis, different results could have been attained. Therein, the results of the study cannot be representative for the whole area. Nevertheless, the results of the research - definition of teacher's professional development and the explorative research

design - may be used as a basis for teacher's professional development. There is a possibility of continuing the study.

The following pedagogical guidelines on the conditions theoretically modelled for teacher's professional development are elaborated: professional activity proceeds from Phase 1 *Teaching* aimed at determining the notion of constructive social interaction and its organizational regulation through Phase 2 *Peer-Learning* designed for the teachers' analysis of an open academic problem situation and their search for its solving that provide each teacher with the opportunity to construct his/her own social experience to Phase 3 *Learning* focused on the teachers' self-regulation with use of evaluation of the process and self-evaluation of the result.

Thus, the following hypothesis has been put forth: teacher's professional development is successful if it is provided by teacher's personal experience in social interaction as a condition for creation of new knowledge.

Another hypothesis has been proposed: teacher's social experience in social interaction, cognitive activity and reflection develops if

- teachers' needs are met, and
- support system – professional activity - implemented in phases of a certain sequence is designed.

Prospects for development are considered as theoretical modelling professional activity based on the conditions for teacher's professional development.

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## **C**HAPTER 29

# **QUALITATIVE RESEARCH DURING PEDAGOGICAL PRACTICUM: DEVELOPING 'CRITICAL AWARENESS' IN UNIVERSITY STUDENTS**

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### **Abstract**

The author is a supervisor of teaching practicum at two universities and systematically monitors the effectiveness of student training by means of evaluating semester-long and year-long training of students from evening and morning courses studying pedagogy and specializing in pre-school and early education. On the basis of the research findings the author discusses the quality of teacher education at Polish universities, and thereby identifies the areas in which the system changes are necessary. The study presented in the article shows that the method of equipping Polish students for their professional work as primary school teachers does not meet the demands of school

environments. They try to hand down their own "limited" way of perceiving the world to children. The suggestions for solving problems faced by the students in their teaching practicum on a daily basis may prove to be interesting when considering questions regarding the identity of the contemporary university. They may also be considered in challenging the unfortunately still popular myth in Poland regarding the separation between theory and practice. Perhaps the suggestions will facilitate the mental and/or cultural change or the application of innovative solutions in the baccalaureate programs.

## **Keywords**

Qualitative research – neoliberalism– reflecting education

## **Introduction**

The research studies that pertain to the effectiveness of teacher training should become a priority in order for decisions to serve as the basis for satisfying the needs of independent institutions in adequate preparation of students for teaching. Only the data from reliable research studies, rather than political or populist endeavours, may constitute a legal basis and standards which would meet the challenges of contemporary education, especially European education. One should concentrate on studying the moment of transition to reflective practice. However, my research study reveals that students find it extremely difficult to apply the knowledge gained in the process of education to any local context or everyday situation – it is very difficult to become a reflective practitioner.

Gaining useful knowledge is closely connected to the ability to function intelligently in unpredictable circumstances and holistic examination of individual educational occurrences/behaviours and integrating theoretical practical knowledge in action are essential elements of gaining the competencies of a reflective

practitioner (Castello 2011). Considering the abovementioned context action research seems to be most effective.

### **Neoliberal “culture” at universities**

One of the paradoxical consequences of globalization is the limited functioning of an individual as a citizen. Democracy can spread only in a society which is educated, well-informed, ready to participate in public debates and decision-making and guarantees freedom of choice. However, in today's capitalism, in a time of market democracy, the status of a citizen is being increasingly replaced by a consumer's status (Wnuk-Lipiński 2004, Harvey 2005). Neoliberal market democracy needs consumers who do not take much time to deliberate over their choices – consumers who seemingly make decisions, are manipulated by advertisements, and selfishly seek their own comfort and benefits. Corporate neoliberal principles and neoliberal “culture” have spread so widely in contemporary societies that we no longer investigate them. We have failed to notice that corporate strategies have also emerged in education reforms (Hursh 2011). The role of education is becoming less relevant to the shaping of a conscious citizen who is morally, intellectually and creatively competent regardless of his individual ability to cover his education expenses and yet it is increasingly connected with educating a productive, subordinate individual devoid of reflection (Harvey 2005).

Corporatism has an impact on the teaching and learning culture, which is becoming instrumental, unilaterally practicum-oriented and therefore infantilized and passive. The scope of influence of neoliberalism includes universities (which are to become entrepreneurial), which brings specific individual and social consequences (Potulicka &

Rutkowiak 2010). The main task of pedagogy and education, in the context of neoliberal "culture" dominance, is to "develop new critical awareness. It may be developed only through an improved approach to education. [...] The opposing standards of perfection in the market include good sales, and in education – critical thinking. This opposition leads to antagonistic freedom standards. Market freedom is the ability to buy merchandise and services. Freedom in education is the ability to ask, seek answers and engage in discussion" (Potulicka & Rutkowiak 2010: 9).

The model of teacher education at universities in Poland followed those trends primarily through concentrating on equipping teachers with formal qualifications and the knowledge (which rapidly becomes obsolete) what schema/model to use in certain educational situations (which, after all, are mostly/always vague, unique, and unpredictable). The selection of the content of the practical courses taught at universities is often in the zero-one form, which highlights the simplified image of the world which does not require critical thinking, reflection, consideration of situations and events from various perspectives. An inevitable effect of saturating teaching with informational content is creating in the minds of students uniformed, standardized and general ways of thinking as well as – from a different perspective – "creating mass individuals" who think the same and are easily managed. These human masses, on the other hand, become an inertia, a zero power, a figure which resists all systems of meaning (Baudrillard 2006).

Teaching technique-based professionalism, poor reflection on one's own professional conduct or a lack of interpretation of the effects of own decisions has led to a "production" of a professional group unified in terms of mentality, accustomed to a reduced mental and developmental effort, eager to operate with

generalizations, lacking a broad horizontal view of the educational reality, and hence susceptible to an easement to the neo-liberal culture (Zbróg 2011). Teacher training of early education students in particular is connected with the frequent (compared with other fields) making of arts and crafts, practical teaching of children games, songs, etc. There is significantly less intellectual effort, reflective thinking and seeking solutions to problems. However, it is an essential pro-development element which is significant in learning to think outside the box (Rutkowiak 2010). In pedagogical training we must definitely move away from the unilateral focus on the teaching material and teach students to make an effort to understand and reflectively interpret educational situations. This can be achieved through gaining personal experiences while observing behaviors and situations, seeking their explanations using pedagogical theories familiar to the students, assessing situations and behaviors from different perspectives, assuming various approaches towards one's own experience and knowledge, modifying one's own behaviors and attitudes, identifying problems in everyday school and pre-school practice and seeking various solutions, applying the gained knowledge to new/unusual circumstances, and making an effort to identify and interpret emotions which accompany reflective self-learning. A written evaluation of the practicum may be an encouragement to engage in such reflection on the gained experience as the dynamic school environment requires ever new interpretations, modifications and reflections on one's activities. Reflection on the complexity of the situations which are encountered by every future teacher will certainly stimulate critical judgment of the specific educational activities assigned in the evaluation report.

## **2. Research methodology**

Action research allows for reaching a descriptive-diagnostic target (*How is it?*), explication-interpretation (*Why is it so?*), and practical targets (*How to change what exists?*). Action research is considered the typical research paradigm in education and professional and organizational development. The cognitive aspects of this procedure may turn it into a valuable and interesting element of academic teacher training. It must be stressed that it is a unique nature of examining individual cases. The research procedure is based on discovering specific attributes of a given part of one's own current practice through a multifaceted analysis. Changes in personality dispositions, social relationships or the content or organization of work may be the subject of the analysis (Silverman 2005).

Recognizing the characteristics of student behavior during practicum was possible due to narratives which facilitate understanding of stories, spoken description of an action which makes use of natural colloquial language or due to presenting one's thoughts, observations and reflections in an essay. The research focused specifically on experiences as if they were reported by subjects in their everyday language. However, the researcher did not consider speculations concerning that which the other person was experiencing. The students were required to write an evaluation of the practicum, which stimulated students to systematic reflection over their career-related activities. Reflection on the complexity of the occurrences faced by all prospective teachers has certainly provoked critical judgment over particular educational activities as listed in the evaluation form.

### **3. Research sample**

The author is a supervisor of teaching practicum at two universities, monitoring their effectiveness by annual evaluation. Every year approximately 200-250 students participate in their K-12 (kindergarten and school) practicum. In the article the author will present the results of questionnaires and interviews that refer only to several hundred respondents. The action research was conducted in groups of 10 in the years 2010-2011. As the research is still being conducted, the summary presented in the article will deal with partial analysis of the data. However, it is plausible to recapitulate the analysis of the students' written evaluation as well as of group discussions which used the objective hermeneutics method. The research results are presented in the form of a short summary of the responses to specific questions included in the evaluation form or essay part.

### **4. Results (selected questions)**

*What is the most difficult aspect of the practicum for you?*

Most students (65%) admitted that they have difficulty in applying the pedagogical-psychological knowledge gained at university to their practice. In the course of independent teaching, they focus primarily on the contents or on fulfilling their tasks one after another. They do not pay much attention to the children reaching their goals or respond to their questions. Neither do they consider their personal knowledge. They are stressed and "glued" to their desks and their lesson plan. The usefulness of the activities suggested to the children and their developmental value are not a priority in their agenda. The ability to quickly react to situations in the classroom, to predict and effectively function in different challenging teaching and educational

contexts and to identify and become aware of the numerous conditions of effects of teacher activity requires a much longer contact with the children than the practicum can provide.

*What aspects of work with a child may be improved? What concerns you most (as a student) in the activities of the observed teachers? What could you suggest to improve the educational process?*

The analysis of student responses unambiguously indicates that in their educational activities teachers are motivated by primarily through colloquial pedagogy, methodological stereotypes, didactic formalism, undertaking didactic activities in different areas of education without due consideration. The students indicated primarily the insufficient number of situations in which children could experience the world and make independent conclusions.

According to constructivists (Piaget, Bruner, Wygotski) every child has natural explorative capacities (Schaffer 2004). They are based on independent exploration of the world and gaining knowledge based on personal experiences, which often involves the social context. However, most Polish teachers in their mentality do not see the possibility to explore the world without teacher guidance, without asking questions, without giving advice and hints before a child makes exploration attempts. In an everyday teaching environment children are observers of a model presented by the teacher, or what is worse, they are asked to write down the result of the experiments in their notebooks instead of engaging in simple experiences themselves, which would take no more than several minutes. Hardly ever do children try to make independent conclusions. According to modern psychology, it is clearly caused by neglect on behalf of the teachers. The studies conducted over a number of

years by researchers from Bielefeld and Freiburg University in Germany prove that children as young as 4 or 5 years old can predict the results of an experiment and then verify their opinions based on observation and practical activities and are able to draw logical conclusions. According to J. Piaget (Lück 2003; Thimm 2004) children under 7 years old can engage in operational thinking, which is the basis for critical thinking and conclusion-making which enables one to make observations from different points of view. Moreover, teachers do not offer support during the process of knowledge acquisition as by support they often understand providing children with ready-made answers.

*How did you collaborate with the teacher? How did your lesson preparation and feedback session look like? How did the teachers react to your innovative ideas?*

The problem that hinders students from engaging in reflection is the lack of satisfaction from the collaboration between teachers and practicum supervisors in school or kindergarten. This pertains not only to theoretical knowledge of the teachers but also their work responsibility. The practicum supervisors admit that they do not always adhere to the practicum program (as many as 58%), which they received from the university. As many as 61% of the students are dissatisfied with the student-supervisor relationship.

The students mostly indicate that the teachers prefer authoritarian teaching style in their work with children (more so in school than in kindergarten) and try to impose this teaching style on the students through giving them instructions (Don't become too familiar with the children or they will take advantage of it) or

criticizing the trainees for their failure to maintain discipline in the classroom even during group work.

The supervisors often provide detailed instructions as to how to write a report and what conclusions should be reached. *This must be done, and if you run out of time, you must finish it the next lesson. You have to go over all the exercises from page 123. As long as you stick to what I photocopied for you from the guide, you should be fine.* Original lesson ideas that reached beyond completion of exercises from student books in particular met with disapproval: *You think that you're going to have fun with the kids and later I'll have to do all the exercises from the book for you?*

The teachers make sure that the trainees deliver the lessons in the same way they would deliver them themselves (*I don't have the time to make any corrections*). It was evident that the trainees had to adhere to the course book and student books. As a result, in some classes the students "learned" by completing "work cards." It is unacceptable if a person doesn't conform to the teaching practice strictly prescribed by the authors of the course book or teacher's guide. Therefore, the research shows that the work style preferred by the teacher does not only limit the cognitive abilities of children, but it is also detrimental to the teacher's and teacher trainee's professional development. In everyday kindergarten and school practice ready-made handouts and lesson plans are often photocopied and any attempts made by the trainees that reflect independent thinking are not always welcome.

It seems as though the only effective solution in the case when the students must deal with the teachers' unprofessional approach to work is a reflection on professional dilemmas. Defining the relationship between the current practice and what it is supposed

to be like may become the subject of discussion in an academic setting. The issue to be analyzed: should I meet the requirements of the practicum supervisor or fight for my own independence, which may result in a low mark or unpleasant interactions. This problem must be solved individually by every student depending on the circumstances and personal experiences. This should be coupled with self-development which stems from reflective understanding of a teacher's responsibility for the children that have been entrusted to him. Certainly, it would be beneficial to eliminate from the practicum the ready-made lesson plans which are used on a daily basis. Perhaps we should also change academic instructions for pedagogy practicum and include guidelines/requests for work with students specializing in teaching.

The questionnaire results have revealed significant deficiencies in the teacher-practicum supervisor discourse regarding the classroom behaviors and situations that were observed during the lessons. Direct motivation-oriented relationship with the practicum supervisor is limited due to the frequent unwillingness on the part of the supervisor to spend time with the students and provide feedback after the lessons. It also seems that there is no sense of responsibility for the professional training of the future teacher.

*In your opinion what kind of changes in the university teaching program are necessary?*

The most measurable positive results were obtained through engaging the students immediately following the first mid-term practicum in developing a training program that would help them better cope with the direct contact with children during further teaching practice. Their experiences have allowed them to

better identify their own expectations regarding teaching and have contributed to the increase of their self-reflection and involvement at every stage of the training process. Moreover, participation in action research has encouraged students to reflectively plan their own work and to discuss it in a critical, honest and open way.

As a result of discussions held in groups of 10 a decision was made that the changes in the teaching program should primarily focus on introducing new courses:

1. courses related to a gradual start of school education by six-year-old children, the need for diagnosing a child's readiness for school, comprehensive preparation of pre-school children to learn reading and writing at an early age and systematic monitoring of their development: preparation for teaching reading and writing, assessing a six-year-old's readiness for school, early therapeutic intervention.

2. courses that focus on the most important needs of a pre-school and early education children: childhood games and activities, stimulating strategies in pre-school and early education, creative activities in early childhood education.

3. subjects that complement knowledge of future teachers: relationships with parents, a disabled child in a peer group, first aid.

Another innovative course which should be included in the curriculum and is worth highlighting is "The teacher in the labor market." During this course students would learn about the legal options for establishing associations that would be responsible for running schools in villages (schools which are going to

be closed down by local governments), establishing kindergartens, day care facilities, which undoubtedly reflects the real needs of the education market. It is important in that most students come from small towns and villages where there are no kindergartens or nurseries.

During the discussions both academic teachers and students realized that the demographic and structural changes in educational politics as well as the continuous transformations in the labor market call for the need for developing one's competencies, which in the future may aid them in becoming more flexible and adapting more easily to the ever-changing career environment. There is no doubt that the basic job requirements in many different fields include knowledge gained in university courses. This includes information technology, training in the widely used (in business and government offices) computer software and fluency in English.

Contrary to the predictions – and we may say – the popular tendencies to evoke critical awareness in students, developing/stimulating their ability to reflect over their own practices, students do not appreciate the usefulness of humanities, which by definition were supposed to prepare them to develop their “critical reflection.”

As the study reveals, the trainees experience strong negative emotions such as fear, anxiety or at least nervousness before they begin their practicum. The practicum in their opinion is an opportunity for experiencing their helplessness. According to the students, these negative feelings stem from the inadequate preparation they receive at university regarding the building of a direct relationship with children. They believe that since baccalaureate programs are meant to equip them for their careers

the focus should be primarily on the methodology of individual courses or types of education (Polish, mathematics, life sciences, music, art, etc.) In the meantime, during the first year students *waste their time* on countless hours of philosophy and sociology (*useless and absurd theories*) and next *they are thrown into a kindergarten or school* before they have completed all the courses in which they would learn *step by step how to work children*. They also pose questions like: *How am I supposed to teach children songs or play the flute if we started music education the same semester as the practicum? I haven't even held a flute in my hands. How am I supposed to play with the children if I have only learned one game and 3 songs myself. It's a nightmare. It's like throwing someone in at the deep end. Since university officials know that our kindergarten practicum begins in the third year, why don't we have methodology courses the first two semesters instead of wasting time on boring lectures from which we can't benefit. We can learn a lot more from the Internet or some encyclopedia. But encyclopedism was supposed to end!*

It is difficult to consider this type of reflections a result of developing critical thinking in academic classes which focus on school teaching. Rather they are an indication of an ordinary, colloquial and critical attitude of students to the program curriculum.

The basic claim by the students relates to the reintroducing of practical, career-oriented courses to the university program. There are opinions that the knowledge that students "receive" at university should be a source of methods and tips as to how to react in a given situation. They are not aware of the fact that the reaction models and patterns of behavior do not reflect the actual situations as there is no single effective way of dealing with children for example

*when they don't listen.* Every child is different and every group of children behaves in a different way. Every situation is different, too. The challenge for every student and teacher is to be able to deal with this type of problems through searching for different solutions. However, in order for this to take place, they need to realize what type of problem they are addressing, think critically and take action to solve the problem using a wide range of methods.

*How should then students be encouraged to reflect and what should be done to help them become reflective practitioners? How could we shift the focus from expecting to be "taught by someone" to "learning yourself" through independent search for knowledge and gaining skills?*

The students are undoubtedly right with regard to fact that since *baccalaureate* programs, which are classified as vocational<sup>1</sup>, are meant to prepare them for the teaching career they should primarily include courses that equip them for work as a teacher. After all the students express this quite vocally. Master's programs should – in their opinion – have a more general focus and provide opportunities for deepening one's general knowledge of the humanities. Currently in Poland baccalaureate programs at universities are theoretical even though they are called vocational. The discrepancy between the program and the actual situation that students have to face in their practicum must be the reason for their dissatisfaction. The feeling that they are inadequately prepared from their

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<sup>1</sup>The Prawo of Szkolnictwie Wyszim Act from 2005 unifies all baccalaureate programs classifying them as vocational programs. According to Polish regulations, as a result, programs that prepare for a specific work are in the same group as general university programs that aim to prepare students for further education.

career is evident. As suggested by the report "Perception of Higher..." (2007) this is not only the case in Poland.

*What would you change in the practicum program to be better equipped for the teaching career?*

The practicum should then be organized in educational institutions that have been checked where the staff exhibit a professional approach to their responsibilities and the teachers are engaged in supervising students, are willing to share their knowledge and are open to innovative ideas. Currently this takes place only during the mid-term practicum organized for student groups by academic instructors. The location of continuous practicum is selected by the students themselves – the lack of supervision by academic instructors is the result of the insufficient number of academic staff who are to oversee hundreds of participating students. It is clearly an element which has a negative impact on the quality of the practicum (as many as 80% of students are not satisfied with the level collaboration between their university and the hosting school during the practicum; not all school teachers have a responsible approach towards their duties related to overseeing the students even though they receive extra remuneration; according to the students, the rapport of an academic instructor with the school practicum supervisor would encourage everyone to improve their work.) A good solution may be to present the students with a list of institutions in the province where they could do their practicum – institutions that have been approved by the university.

All changes in developing the student practicum programs should also be based on the results of empirical studies. However, it is not always the case as universities have full autonomy in their development. Promoting research analysis that relates

to the course and results of practical teacher training may be helpful. This may take numerous forms: publications, workshops for institutional practicum supervisors and joint consultations of academic instructors, practicum teacher-supervisors in schools and kindergartens as well as students. This would aid in identifying the expectations of each of the stakeholders, explaining the numerous conditions of student training and the various allusions and identification of the obvious gaps and faults of this training (Michalak 2010).

## **Conclusion**

Teaching practicum is a course in which students may confront their image of a teacher against the everyday reality of the work in a kindergarten or school. The experience gained during the first practical encounter with the teaching profession has encouraged students to participate in action research and thus in learning about the profession through action.

Based on the observations made as well as the interesting or astonishing recordings, expressions and/or situations, discussions, etc. students have learned to provoke themselves to critical reflection and to see problems from numerous perspectives. A greater focus on learning, modification of one's own practice, freeing the mind from schematic thinking, reflection on automatic and thoughtless educational activities which discourage questions, formulating non-standard answers and undertaking innovative activities – are the result of engaging students in action research.

Action research and effects, which are seen in the self-development of students, give us a chance to resist any influence of the neoliberal ideas on the minds of future teachers. These ideas saturate contemporary

culture as well as experience in important institutions of public life, including universities which are also seen – often without much reflection (as is the case with neoliberal culture) – as a place of weakening reflectivity, criticism and alertness. The ability to verify the influx of information which evaluates the assessment of one's experiences is an introduction to educating an individual who is wisely functioning in the society of the future.

The research findings regarding educating future teachers at universities prove that the tradition in academic education is far from the actual reality of school, not only in Poland but also in other European countries (Hudson, Zgaga & Åstrand 2010; Schratz & Kraler 2011). The most feasible ways of dealing with this issue concern: training academic instructors and that involves raising their awareness of the importance of critical thinking regarding their work and methods how they can teach future teachers to think critically. They should also know how to reflect on their own teaching behavior. Therefore, it is necessary to raise their interest in school practice. To make it possible it is necessary to narrow the gap between academic discussions and school practice. Research, teachers and students should exchange their opinions and experiences. As a result of this collaboration they may conduct a joint research based on their experiences, one relating to the actual school life. Publishing such research findings and reflections on their own behaviours would lead to a change in university syllabi so that they better reflect school reality.

Involving students (after the first teaching practicum) in creating their own education syllabus for the next practicum yielded the most satisfactory result. The practical experience gained not only has enabled them to better identify their needs associated with schooling. It has also helped me (a teacher educator)

to reflect on reasons for taking some actions. It has also led to a verification of some requirements set for both students and teacher trainers, a change of conditions of peer learning and hence to modification of some university courses. Finally, it encourages some academic teachers to reflect on vocational/pedagogical education of teachers and students. All this resulted in innovations introduced into university syllabi.

The action research procedure is part of the subject paradigm of educational programs – the student is simultaneously the subject who is learning about his position in a given situational/social context, an executor of practical events and its researcher.

Therefore, we may state that thanks to the evaluation as described above, all the stakeholders of the research situation and social (educational) interaction discover new areas of knowledge, learn new behaviours, verify their usefulness in new circumstances, discover the influence of the contextualization of the learning process and its numerous conditions, which may be considered from various points of view, while at the same time avoiding unnecessary generalizations of conclusions and bias in describing the educational reality.

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## CHAPTER 30

### **DEVELOPING A QUALITY CULTURE IN INITIAL TEACHER EDUCATION IN CHILE: CURRICULAR AND PEDAGOGICAL ASPECTS RELATED TO ICT INTEGRATION**

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#### **Abstract**

Society is demanding from education systems a continuous improvement for preparing new generations to take full advantage of new social, cultural and economic global conditions. Considering the widely recognized impact of teachers on students' performance, education systems worldwide are shifting their attention to their Initial Teacher Training (ITT) and specifically to the role of ICT<sup>1</sup> in improving educational quality, efficiency and equity. This chapter presents the main results of the implementation in

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<sup>1</sup> Information and Communication Technologies

46 Chilean ITT institutions of the international study "ICT in Initial Teacher Training" conducted by the OECD<sup>2</sup> in 2009.

Results show that institutional contexts are auspicious for ICT integration in ITT. However, the level of development of formal policies on this matter is still low and a cross-curricular integration of ICT is not being implemented so far. Although teachers tend to use ICT resources frequently in 'traditional' activities, there is no evidence of ICT contributing to the implementation of innovative activities. Also, results show that most of the students aren't being adequately taught how to use ICT in teaching. These findings might be particularly relevant for developing conditions that promote a research-based quality culture, in a constantly changing field as Initial Teacher Education.

## **Keywords**

Initial Teacher Education - Quality Culture - Initial Teacher Training – ICT – Chile – Curriculum

## **Introduction**

This work presents the most outstanding results of a study conducted in Chile for inquiring into the process of ICT integration in Initial Teacher Training institutions. This research is a component of the international study "ICT in Initial Teacher Training" developed by the OECD's Centre of Educational Research and Innovation (CERI) for describing the scenario in several European OECD member countries and Chile, related to the preparation of future teachers to integrate ICT in their professional practices in compulsory education (primary and secondary). It aims to analyse the collected data from a comparative perspective in order to formulate a set of recommendations on applicable policies and intervention strategies on this field (Ananiadou & Rizza, 2010).

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<sup>2</sup> Organization for Economic Co-operation and Development

The Ministry of Education of Chile, through its Centre for Education and Technology (CET) decided to participate in this study in order to know more deeply the national situation as well as to obtain relevant information for designing national policies that contribute to develop a quality culture in this domain. Among the main research questions addressed in the study are: a) What are the national and institutional frameworks, contexts and requirements regarding the use of ICT in initial teacher training in teacher education institutions? b) In what ways and to what extent are students being prepared to integrate technology in teaching in initial teacher training institutions?; and c) What pedagogical practices are being performed in these institutions?

In trying to answer these questions, relevant information was obtained for describing the main dimensions underlying this education level, including infrastructure factors, curriculum related issues, and pedagogical practices.

This chapter starts by presenting some general information about the national background of the initial teacher training process in Chile and several topics related to quality assurance in this education level. After describing the method of the study, it presents the corresponding results, highlighting those related to the institutional contexts, curriculum and pedagogy related aspects. Finally, it presents the main findings and their contribution to support a quality culture in initial teacher education in Chile.

## **1. National background**

### ***1.1. Initial Teacher Education in Chile***

The Initial Teacher Education in Chile can be only conducted by higher education institutions officially

recognized by the State: Universities and, in certain cases, Professional Institutes (National Congress of Chile, 1990). The autonomy of these institutions (both public and private) is granted by the Government through an autonomous public entity, the Higher Education Council, allowing them to create careers and to issue nationwide official certificates and degrees (including Initial Teacher Education programs). Currently, there are about 65 initial teacher education institutions in Chile, offering more than 700 programs. The structure of this offer is based on the corresponding education levels (preschool, primary, and secondary teachers), under two main modalities: 1) Concurrent Training, offering simultaneously a general training in a discipline, pedagogical training and specific preparation regarding the educational level in which future teachers will work; and 2) Consecutive Training, oriented to professionals in any discipline for obtaining a teaching degree for secondary education (this shorter programs include training in pedagogy and specific didactics).

### ***1.2. Quality assurance in Initial Teacher Education***

The quality of teacher education has been a matter of debate at international level for more than a decade. For example, the Bologna Declaration called in 1999 for promoting European co-operation in quality assurance in education systems; however, regarding teacher education, the process is challenged by the diversity of the co-existing approaches (Eisenschmidt & Löfström, 2011). Although policies on quality assurance in higher education in general (and particularly in initial teacher education) does not seem to have yet a high priority in the educational agendas of Latin America and the Caribbean countries (Bizzozero & Hermo, 2009), Chile do consider them as an important matter in its political agenda (Hopkins,

2006; Ministry of Education, 2010). In fact, Initial Teacher Education is recognized in Chile as a level that has specific requirements of quality. For example, the accreditation is a quality certification issued by the State regarding the quality of internal procedures (involving two scopes: institutional accreditation and career/program accreditation). This process is voluntary for higher education institutions in general, whereas it is mandatory for Initial Teacher Education institutions (National Congress of Chile, 2006).

In this context, the nationwide INICIA program was launched in Chile in 2009 for transforming institutions, curricula and practices in Initial Teacher Education, aiming at strengthening the professional quality of graduate teachers. This initiative proposed a set of standards related to different skills and knowledge that every future teacher should develop during its teacher education. The program is based on three main components:

- Curricular orientations and standards for teacher training programs: This component proposes a new general curriculum and a set of standards to be implemented into the initial teacher education.
- Assessment of students' attainment: This module foresees the assessment of teacher education students, regarding the skills associated to the following dimensions: disciplinary knowledge, pedagogical knowledge, written communication skills, and basic ICT skills in pedagogical environments.
- Initiatives for supporting the strengthening and upgrading of Teacher Education institutions.

At a national level, the results of the institutional evaluation processes are publicly disseminated every year. They may be used in different ways, not just as a feedback for the institutions stakeholders and an input for policy-making, but also as relevant

information for the academic ambit and the general public.

### ***1.3. ICT integration in Initial Teacher Education in Chile***

In addition to the aforementioned context, the integration of ICT emerges as a strong demand to education systems, which could become a significant resource for achieving the goals posited by a globalized knowledge society. Framed on the OECD's international study, Chilean policies are considered as belonging to two categories related to: a) Presentation of recommendations at national level but no obligation of training; and b) Implementation of competence frameworks (Rizza, 2011). In this context, and although the first strategies implemented at the beginning of the past decade did not include explicit references to ICT (Ministry of Education, 2000, 2003), during the last years, the Chilean Ministry of Education has been developing and implementing new initiatives oriented to establish a set of standards for integrating ICT in Teacher Education: the "ICT standards for the Initial Teacher Training" (Ministry of Education, 2006) and the "Functional Map of ICT skills for Teacher Education" (Ministry of Education, 2007). These strategies aim at guiding the decision-making processes associated to the design and implementation of an efficient, effective and high quality teacher education curriculum, for providing future teachers with those skills required to adequately perform their profession in the 21st century. These initiatives are based on a framework structured in five functional dimensions, representing the most important aspects to be assessed: 1) pedagogical; 2) technical; 3) ethical and legal; 4) managerial; and 5) professional development. Although the implementation of this framework is still voluntary, it has a new relevance since the

accreditation process is currently compulsory for Initial Teacher Education: This aspect might contribute significantly to the impending development of a new quality culture in this education level.

In addition, the "Inicia" program is applying a test since 2010 to assess students' (and recent graduated) level on ICT-related pedagogical skills. Preliminary results from its application in 2011 show that 58% of the evaluated future teachers for primary education have an "acceptable" performance level on ICT skills, whereas the remaining 42% have a level characterized as "insufficient" (Ministry of Education, 2012). Further studies, currently in progress, might shed light to the relationship between these results (as well as those corresponding to other dimensions, such as disciplinary and pedagogical) and the students' preparation during its ITT.

## **2. Conceptual framework**

The conceptual framework used in this study is based on a widely known general model (Kozma, 2003; Law, Pelgrum & Plomp, 2008) which integrates different factors clustering them in 3 levels: macro level (factors related to the education system: national mechanisms of institutional evaluation, formulation of standards, etc.); meso level (associated to institutional factors: infrastructure and support, availability and access to ICT resources, curricular integration; institutional policies, among others); and micro level (aspects related to teaching and learning practices: frequency of ICT use, types of practices, teachers' vision, etc.). These factors are numerous (Mumtaz, 2000; Drent & Meelissen, 2008) and they are linked by dynamic interactions (ten Brummelhius, 1995; Janssen Reinen, 1996) that shape future teachers' skills and competencies for teaching with ICT.

This framework was modified and complemented by adding some references related to the main dimensions involved, namely: curriculum, policy, infrastructure, teachers' professional development, and pedagogical practices (see Figure 1). It was also added to the framework a reference to students' outcomes, although this study did not collect information about them: Further research for inquiring into the relationship between data from this study and the results from the INICIA test (assessing students' ICT-related pedagogical skills) are being developed to show a more complete picture describing the nexus between the preparation in Initial Teacher Education and future teachers' level of ICT knowledge and skills, to be utilized for pedagogical purposes.

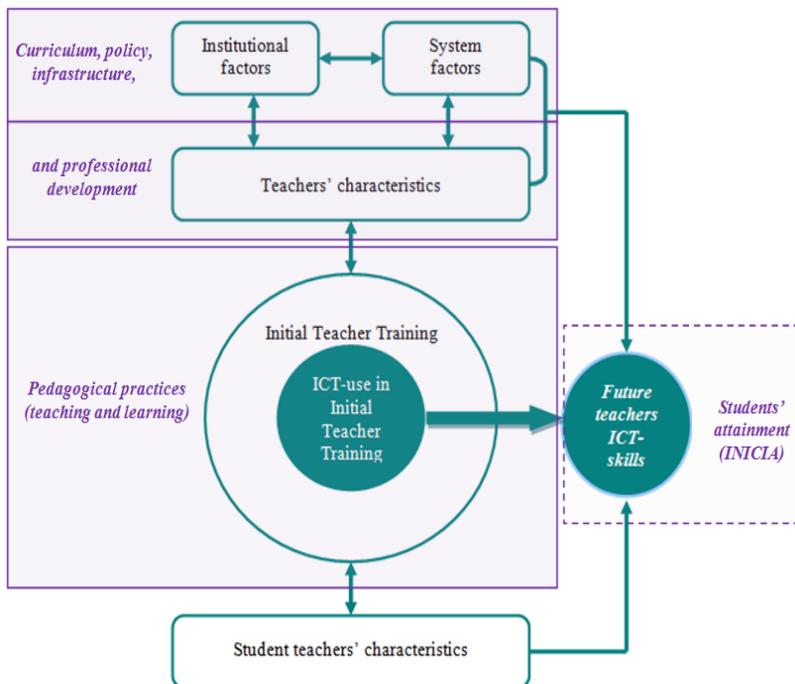


Figure 1: Conceptual framework

In consequence, results of the study will be further shown structured in two subsections: 1) Curriculum and other institutional factors (policies, infrastructure and teachers' professional development) 2) Pedagogical practices (teaching and learning activities).

### **3. Method**

This study adopted a methodological strategy that combines both quantitative and qualitative data collection techniques. The main activities conducted were: 1) A survey applied on voluntary basis (through printed questionnaires) to the actors from 46 teacher training institutions (almost 75% of national total), viz.: 46 deans; 495 teachers; 164 mentors; 1675 students; 233 recent graduates and 50 technical/pedagogical responsible; and 2) Case studies, carried out in five institutions (selected according to specific criteria); including individual interviews, focus groups, classes observations and documental analysis.

Based on the international research design developed by the CERI, questions of the instruments covered different issues namely: policies, curricular integration, ICT infrastructure and support, frequency of ICT-use, teaching and learning activities, enablers and barriers to ICT integration, among others; they aimed to get an overview of the pedagogical use of ICT in Initial Teacher Training. In Chile, the international instruments were firstly translated into Spanish; then, adapted to the particular characteristics of the national context; and finally, complemented by adding some additional questions considered particularly relevant for the national interests.

The performed analyses involved statistical methods, which mainly included descriptive and correlation

analysis. Fieldwork was conducted in mid 2009, and it was coordinated by the Institute for ICT in Education (University of La Frontera) as part of the Centre for Research on Educational Policy and Practice (CEPPE).

## **4. Results**

This section presents the results of this study, structured in the aforementioned two subsections.

### ***4.1. Curriculum and other institutional factors***

#### *4.1.1. Curricular integration of ICT*

Although results show a mixed picture, ICT is mostly integrated into the curriculum just in some specific subjects rather than in a cross-curricular way (according to 83% of the consulted deans). The inclusion –or not– of ICT as a separate subject in the Initial Teacher Education curricula, also has implications for the organizational arrangements within teacher training institutions, for instance as regards the existence of ICT labs or separate classrooms.

In addition, 56% of the surveyed deans reported that objectives related to students' ICT related pedagogical skills are explicitly present in less than half of teacher education syllabi. In this sense, evidence from the case studies seems to suggest that the process of curricular integration in ITT is taken more as a recommendation than as a compulsory requirement. Nevertheless, 63% of teachers considered as "very important" the existence of policies related to the curricular integration of ICT, as a way to foster its adoption in Initial Teacher Education.

Finally, only 13% of the deans reported the application of standards (almost exclusively the "ICT standards for

the Initial Teacher Training”; see sub-section 1.3.) as references to frame curricular initiatives and reforms, or as part of evaluation processes (it should be noted that private institutions reported a more frequent application of standards than the public ones). This finding shows that the use of standards is not yet a usual practice in Initial Teacher Education institutions.

#### *4.1.2. Policies for supporting ICT integration on pedagogical practices*

The aforementioned national recommendations are adopted and/or accompanied by local policies. In this vein, nearly 63% of the deans reported the existence of a specific institutional policy oriented to foster teaching innovations based on the use of ICT. Moreover, almost 70% of such authorities reported the existence in their institutions of a department dedicated to support pedagogical innovations (including those based on the use of ICT resources). However, the level of perception about the existence of these policies was significantly lower for teachers (only 49% of them reported the existence of such institutional policies; this opens a space for reflection about the "institutional visibility" of policies related to technology-based innovations).

In addition, the overall results show that the process of ICT integration is not conceived, in general, as an organizational demand: although the majority of ITT institutions promote and/or support initiatives oriented to integrate technologies in teaching, they are mostly formulated as recommendations instead of as a formal or compulsory requirement.

#### *4.1.3. ICT infrastructure and support*

The main infrastructural indicators show a relatively auspicious context: the average of the students per computer ratio is 17 (students' personal laptops are not included in this figure; therefore, the true ratio is even lower); all the institutions have a website and provide access to the Internet (96% of them supply broadband access and 91% have a Wi-Fi network); 59% of them reported to have a LMS/VLS system supporting about 53% of their courses; and almost 75% of teachers have their own personal computer available in their institutions.

In addition, the most available and accessible ICT resources for teaching and learning purposes are computers and projection systems (more than 80% of teachers reported their availability, at least in some of the classrooms); conversely, the resources with the lowest availability are interactive whiteboards, video-conferencing systems, digital cameras and mobile devices.

Finally, 95% and 80% of teachers reported the existence of technical and pedagogical support, respectively. According to the different surveyed actors, the quality of the technical support is slightly better rated than the pedagogical support; however, they were both ranked between "medium" and "good" quality.

#### *4.1.4. Teachers' professional development on ICT*

Most of the institutions provide ICT related courses for teachers as optional activities. This predominant approach leaves teachers' professional development depending on their individual level of interest, commitment and/or responsibility. In fact, over 60% of the institutions provide optional courses for

teachers in the basic and/or pedagogical use of ICT, whereas 13% of them provided mandatory courses on the basic ICT use and barely 3% have offered opportunities to acquire skills for teaching with ICT. In addition, almost 20% of the institutions did not provide any course or workshop for teachers' learning about the pedagogical use of ICT resources. Paradoxically, most of the deans reported to assign high priority to teachers' acquisition of ICT related competences in aspects such as teaching innovation by using ICT, integration of ICT by specific actions, and identification of good pedagogical practices in ICT use.

In this context, is not unexpected that only 54% of the teachers reported the participation in a workshop or course on ICT (about its basic and/or pedagogical use) and just 27% reported having been personally engaged in a project involving an innovative use of ICT in teaching. This is rather coincident with the results of the international study TALIS (OECD, 2009), where teachers reported to have a strong demand for ICT teaching skills; considering the availability of training in the pedagogical use of ICT as a very important factor for ICT integration in teaching. Nevertheless, results showed that teachers assigned higher levels of importance to the use of ICT as a management or administrative tool, over its pedagogical utilization.

#### **4.2. Pedagogical practices**

The study also inquired about teachers' and students' pedagogical activities and practices, both using ICT and overall (regardless the use of technological resources), considering three groups: 1) teaching activities; 2) learning activities; and 3) teachers' individual activities (related to the preparation and analysis of teachers' work). Another particularly

relevant aspect addressed by the study was the existence of specific practices aimed at teaching students how to use ICT for teaching (i.e. its pedagogical use). The corresponding results will be shown in the following subsections.

#### *4.2.1. Teaching activities*

The most frequently performed activities, regardless the use of ICT resources, were: search for information (76% of teachers reported to promote this activities at least once a month); development of products/reports (63%); and learning assessment (66%); whereas the least frequent were those associated to teaching practices in the lab (18%); extra-institutional activities (19%) and communication with other experts/teachers (31%).

In general, as Figure 2 shows, the frequencies of these activities when performed with ICT seem to follow a similar pattern. However, some of them (e.g. research projects) show smaller differences between the frequencies of implementation overall and with ICT, which reveals that they are most likely being performed with ICT.

#### *4.2.2. Learning activities*

Results show that the most frequently performed activities were: making presentations (75% of students reported to carry out these activities at least once a month), working as a group in class at same pace (70%) and the development of learning materials (67%). Conversely, the least frequent were associated to communications with other actors (34%) and the contribution to the community (36%).

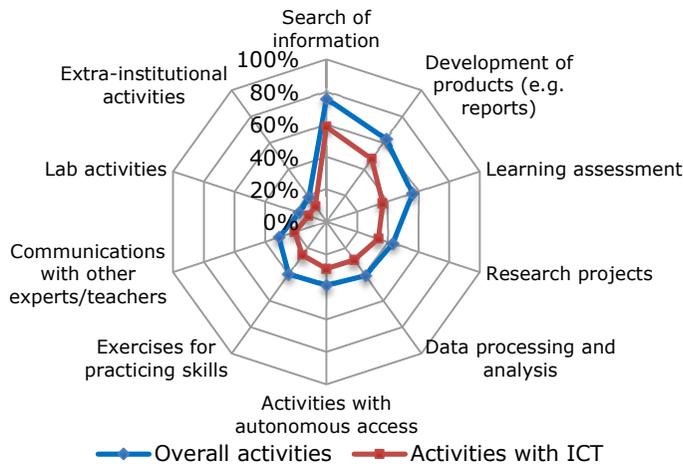


Figure 2: Percentages of teachers performing teaching activities, overall and with ICT, at least once a month

A comparison between the overall frequencies of these activities and their performance with ICT (see Figure 3) reveals some particular differences that suggest a relatively more frequent use of ICT resources in certain activities, namely: communication with external actors, contribution to the community through learning activities and making of presentations. Conversely, ICT is relatively less frequently used in activities such as the participation in collaborative projects, working individually in class at own pace, and self or co-evaluation. These findings open a space for discussion about the role of ICT use in some specific learning activities.

#### 4.2.3. Teachers' individual activities

The most frequently performed activities regardless the use of ICT are: preparation of general classes (92% of teachers reported to perform this activity at least once a month); searching of useful learning resources (87%); communication with students (87%) and colleagues (86%); organization of teachers' work

(85%) and design of own learning resources (83%). On the other hand, the least frequently carried out were: participation in courses or workshops (24%) and in collaborative projects (37%); as well as the identification of adequate pedagogical situations for using ICT (51%).

Comparing these frequencies with those performed by using ICT, they follow a similar pattern (Figure 4). This result is noteworthy since it indicates that ICT is not being used more frequently in any particular activity more than in others.

Summarizing, results show that teachers tend to use ICT in a consistent way across their individual activities and in most of their teaching practices, without significant evidence of ICT contributing more to the implementation of some specific activities compared to others. Nevertheless, ICT use in learning activities has shown some evidence of differentiated roles regarding certain specific activities.

#### *4.2.4. Use of ICT in teaching vs. teaching the use of ICT*

The study also asked teachers about their pedagogical practices, for knowing to what extent they use ICT in teaching and they teach students how to use ICT resources for teaching. The use of different ICT resources in the classrooms in Initial Teacher Education is considered as a key contribution to students' learning about its subsequent pedagogical use, under the assumption that they will learn how to teach with technologies on the basis of two different processes: through modeling (while watching how their teachers use ICT), and through direct teaching (while they are being explicitly taught how to implement ICT supported didactic strategies).

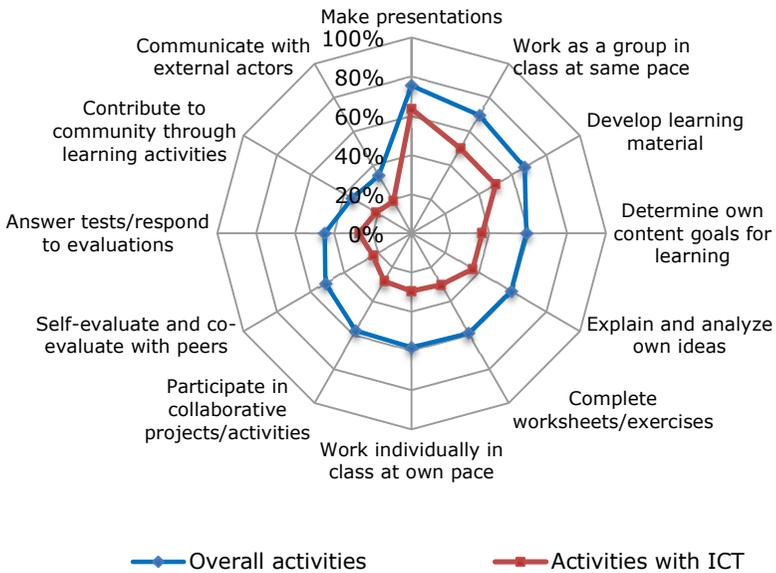


Figure 3. Percentages of students performing learning activities, overall and with ICT, at least once a month

Figure 5 shows the comparison between the percentages of teachers reporting to perform practices (with a frequency of half of classes or more) involving, on one hand, the use of ICT resources in teaching and on the other hand, the implementation of practices aimed to teach students how to use ICT resources in teaching (such percentages were calculated over the total amount of teachers declaring that each ICT resource is available “in at least one classroom”). As it can be seen, the resources most frequently used and taught in class by teachers are computers and projection systems; nevertheless, the percentages corresponding to their use in teaching (modeling) duplicate those related to the direct teaching about how to use them to teach.

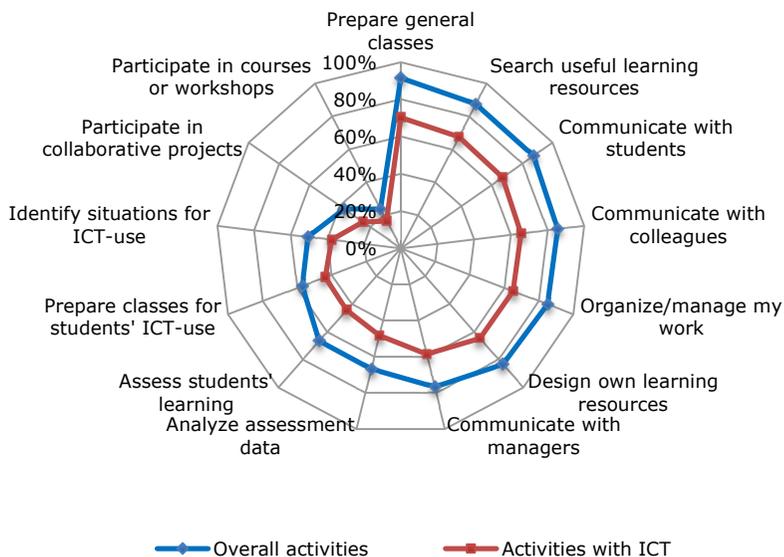


Figure 4: Percentages of teachers performing individual activities related to their teaching work, overall and with ICT, at least once a month

In relation to other resources (such as educational software and digital cameras) both frequencies are similar (and significantly lower). Moreover, whereas about one third of teachers reported to teach their students how to use computers and projection systems in teaching in half or more of their classes, less than 10% of them reported to teach their students the pedagogical use of other ICT resources: This would be insufficient to fully provide students the adequate environment for acquiring the levels of knowledge and skills required to teach with ICT in their future classes.

In summary, results show that teachers tend to use quite frequently computers, projection systems and, to a lesser extent, e-learning systems (LMS/VLS); nevertheless, they do not teach their students

habitually how to use these –or other– ICT resources in teaching. Consequently, ITT institutions wouldn't seem to be taking advantage of their ICT infrastructure: This could explain, to some extent, the lack of confidence revealed by many students regarding the use of technologies in their future teaching activities, since they reported to feel unprepared to use some ICT resources (e.g. digital whiteboards).

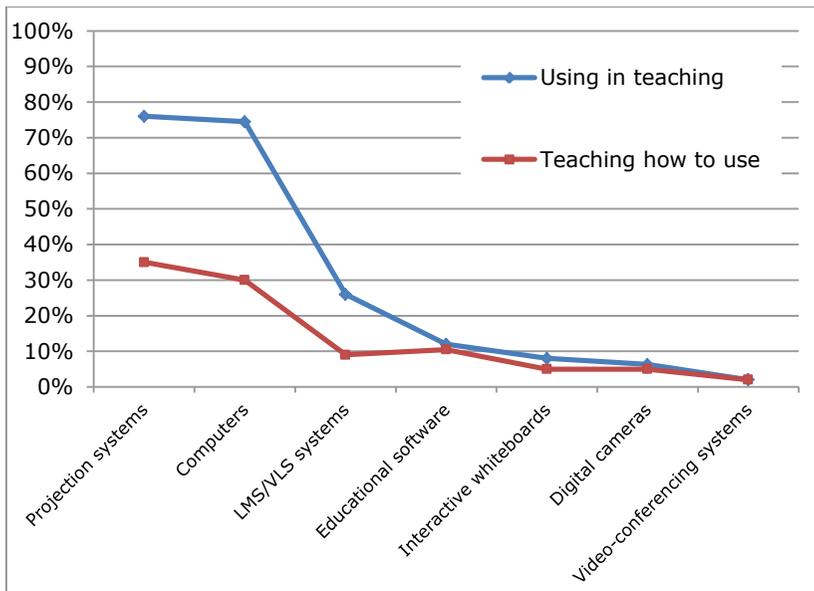


Figure 5. Percentages of teachers performing practices oriented to teach students the pedagogical use of ICT, half of the classes or more

## 5. Conclusions

The most significant findings emerging from this study are summarized as follows.

### 5.1 Curriculum and other institutional factors

Regarding the curricula in Initial Teacher Education, the majority of the institutions include ICT as specific

contents in certain courses rather than doing transversally in different subjects; so far, this approach has not been enough to promote the effective integration of technologies in ITT (BECTA, 2006; Sardone & Devlin-Scherer, 2008).

In relation to institutional policies, although many ITT institutions have reported about their commitment for the integration ICT in their classes, just a few of them have formally transformed these intentions into practice; this shows that this issue is not among their highest priorities (this is consistent with the results from the policy review developed by Enochsson & Rizza, 2009).

About infrastructure and support, results show that institutions are generally well-resourced, presenting adequate levels of access and availability to ICT resources (mainly computers and projection systems), as well as technical and pedagogical support.

With regard to teachers' professional development, it was noted the importance of the provision of teacher training courses, since many ITT teachers do not seem to be able yet to integrate technology resources in their classes: This finding is concordant with the results from other studies (Jimoyiannis & Komis, 2007; OECD, 2009). In most of the institutions, training opportunities related to ICT are offered to teachers as optional activities. Results suggest that this would be associated to the relatively low level of teachers' participation in these courses and their even lower level of personal engagement in innovative projects related to the use of ICT in teaching.

Broadly speaking, institutional contexts can be characterized as rather auspicious for the integration of technologies in ITT. The overall ICT infrastructure, the level of availability and access to different digital

resources, and the availability and quality of technical and pedagogical support, have reached in many cases quite adequate levels, showing that these factors should not be cause of particular concern in this education sub-system. However, the level of development of formal policies on this matter is still low in the teacher training institutions and the process oriented to fully integrate ICT related contents in a cross-curricular way, is still an unaddressed issue in the ITT curricula.

### ***5.2 Pedagogical practices***

Regarding pedagogical practices, results reveal that teachers tend to use ICT resources habitually in their individual activities and in most of their teaching activities, without showing evidence of technologies contributing to the implementation of some activities more than others. Nevertheless, the use of ICT in learning activities do shows some hints about differentiated roles in some specific activities (such as “communicate with external actors”, “develop learning materials”, “contribute to community through learning activities” and “make presentations”). Most of these latter practices are clearly associated to a student-centered pedagogy, coinciding with the findings reported by Inan et al (2010), who sustain that the use of ICT resources helps to promote this pedagogical approach.

Nevertheless, the highest frequencies associated to the pedagogical use of ICT by teachers and students correspond to the most common and conventional activities, usually characterized as “traditional”, such as “prepare general classes” and “organize teachers’ work” (teachers’ individual activities); “search information” and “develop products” (teaching activities); “make presentations” and “work as a group at the same pace” (learning activities). This finding is

also consistent with previous studies (Trucano, 2005; Law et al., 2008) and particularly with those who posit that ICT should be considered as a pedagogical resource to support preexistent teaching activities (Ottesen, 2006) rather than to revolutionize teaching practices (Karasavvidis, 2009).

With respect to the use of ICT resources in teaching, although teachers seem to use them on regular basis, the practices associated to teach their students how to use these resources with pedagogical purposes are far less frequent (despite its fundamental role for teachers' training). This study found that ICT use would be rather scarce when compared to their availability (finding consistent with the review of Enochsson & Rizza, 2009); revealing a sort of underuse of these resources. Moreover, many of them (such as video-conferencing systems and mobile devices) are practically unused, whereas the use of computers and projectors is relatively too frequent (and almost exclusive). In consequence, teachers perform teaching practices in somewhat basic and undiversified ways, involving a relatively limited set of digital resources applied to the implementation of traditional teaching activities, while the more advanced and complex pedagogical practices are significantly less frequent. This would suggest that teachers are not taking advantage of the potential of ICT. Thus, although availability and access to ICT resources appear as necessary conditions, they would not be enough to promote an effective integration of ICT in teaching.

Generally speaking, it could be said that the foundations for a widespread integration of ICT in the ITT seem to be present, but they are not enough yet to fully harness the potential of ICT to support teaching and learning activities; this would be consistent with the preliminary outcomes of the Inicia

test on ICT skills (Ministry of Education, 2012). Although “pre-service teachers are expected to graduate (...) with the same competencies that working teachers have gained” (Fluck, 2002, quoted by Pearson, 2011), results show that expectations about the pedagogical integration of ICT in Chilean institutions of ITT are not been fulfilled yet, since most of the students aren’t being taught how to use ICT in teaching, and they aren’t experiencing situations in which digital technologies are used as innovative pedagogical tools for acquiring the specific knowledge involved in teaching as well as the full comprehension of its impact on learning processes.

The presented work aims to open a space for reflection and debate about the way in which the Initial Teacher Education is responding to the demands of today’s society, from a more complex and integral vision of ICT adoption, for preparing teachers with higher levels of professional competence, and enhancing the quality of ITT institutions. The results of this study might be particularly relevant for contributing to the development of the conditions that promote a research-based quality culture, in a constantly changing field as Initial Teacher Education. Given the strategic role assigned by the Chilean State to ITT as a key component of its education system, specific policies are required for establishing processes oriented to ensure the quality of the training and the professional development of future teachers. In this context, this work might provide relevant information for supporting the design and implementation of such policies (at a national and/or institutional level) as well as intervention strategies; contributing at the same time to shed light on several issues that could foster a more complete, updated, innovative and high quality Initial Teacher Education in Chile.

## **6. Acknowledgments**

Our thanks to the Ministry of Education of Chile, through its Center for Education and Technology (CET); and to the Centre for Research on Educational Policy and Practice (Grant CIE01-CONICYT), for supporting this research.

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# CHAPTER 31

## **BEYOND MEASUREMENT: SOME CRUCIAL QUESTIONS ON RESEARCH ABOUT PROFESSIONAL COMPETENCES OF TEACHERS**

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### **Abstract**

This chapter concentrates on the question of the measurability and empirical ascertainability of professional competences of teachers. We argue that teaching is a profession and elaborate its core features, emphasizing both the cognitive as well as the creative and intuitive qualities teachers need in their work. Current research programs are examined with regard to the kind of competences they seek to gather, how they do so and whether they are able to grasp the complexity of the requirements teachers have to cope with. The analysis reveals that large-scale assessment designs adopt a pragmatic and reductionist line, emphasizing cognitive knowledge while underestimating ability to reflect and capacity to act. The ability of teachers to cope with highly complex interactive situations and the dual uncertainty that characterizes their work requires different kinds of knowledge, namely cognitive knowledge

as well as the practical, embodied knowledge that is used intuitively. While this kind of knowledge is in principle discursively accessible, it needs to be tapped using qualitative methods. The paper shows that – given the complexity of teaching – elaborated research designs and research methods are necessary to meet the expectations of the profession.

## **Keywords**

Teacher professionalism – competences of teachers – uncertainty

## **Introduction**

If we think about teacher professionalism and try to explain all the things a teacher must be able to do, a cartoon springs to mind. It shows a teacher trying to juggle lots of different balls symbolizing curriculum, assessment, projects, pupils, headmaster, parents, new methods, school development, evaluation and so on. In other words: teachers are expected to manage many tasks in different social contexts in a professional manner, yet these situations are uncertain and can change quickly. That is the one side. The other side is the situation regarding research into teacher professionalism. If we look at the mainstream in international research, it becomes evident that there is a strong bias towards large-scale studies using questionnaires and focussing on the cognitive aspects of teaching and being a teacher. Bearing the above picture of the diverse tasks of teachers in mind, we have to question whether this kind of research reaches the core of teacher professionalism and the requirements of the teacher education community. Consequently, our guiding question in this paper is: Which kind of research is necessary to capture the specificity of teacher competences?

To answer this question, we will first take a look at what is meant by the concept of a 'profession' and then, presuming that teaching is a profession, try to critically analyse the current research discourse on teacher competences with its underlying assumptions. Finally, we will look at the blind spots produced in competence research and make some suggestions on how to cope with them.

## **1. Teaching as a profession**

"The idea of a 'profession'," writes Lee S. Shulman in a 1998 article in which he tries to clarify what is usually meant by a profession, "describes a special set of circumstances for deep understanding, complex practice, ethical conduct, and higher-order learning, circumstances that define the complexity of the enterprise and explain the difficulties of prescribing both policies and curriculum in this area." (Shulman 1998/2004: 529) He then goes on to identify the following six characteristics of a profession:

"[T]he obligation of *service* to others, as in a 'calling'; *understanding* of a scholarly or theoretical kind; a domain of skilled performance or *practice*; the exercise of *judgment* under conditions of unavoidable uncertainty; the need for learning from experience as theory and practice interact; and a professional *community* to monitor quality and aggregate knowledge." (ibid.: 530)

Accordingly, the role of professions in society is not simply to control expert knowledge – as is assumed in some accounts of professionalism – but has to be understood as the "organized practice of complex knowledge and skills in the service of others." (ibid.: 530) However, profession is "not 'objectively' definable precisely because of its power and importance in our culture," as Andrew Abbott (1988: 318) points out.

According to Abbott, the crucial question in connection with professions is "how societies structure expertise." (ibid.: 323) "As I have repeatedly argued, "Abbott continues, "expertise is also institutionalized in commodities and organizations. To ask why societies incorporate their knowledge in professions is thus not only to ask why societies have specialized, life-time experts, but also why they place expertise in people rather than things or rules." (ibid.) While Abbott's answer to this question is a systemic one – he argues that we have professions because our market-governed societies prefer personally held resources, whether of knowledge or wealth, to any other type of institutionalization (Abbott 1988: 324f.) – we ourselves would rather draw attention to the complex challenges of professionalism which cannot be met by any set of rules or any type of institution, but instead can only be safely dealt with by the complex capacities of individuals (also see Schritteser 2011: 95ff.).

A core function that seems to be irreplaceable in any type of society is usually seen to lie in successfully dealing with real or potential crises in highly sensitive areas of that society or culture – such as the legal and the medical systems. Today, in the so-called knowledge society, the education system must also be regarded as such a highly sensitive area when it comes to safeguarding social cohesion and development.

Against this background, professions have a mediating task between collective and individual interests and, as this task is case-oriented, it cannot be easily institutionalized. Teachers, for example, are expected to teach the young in order to make them valuable members of society. At the same time, they should also make sure that each child is perceived as an individual with his or her particular interests and talents. So, while trying to meet collective demands,

teachers are also expected to respect the individual student in his or her own right. This task requires not only an official licence, but also special competences – as pointed out in the above Shulman quote. Therefore, along with higher-order learning, each professional also has to acquire domain-specific expertise. The mediating task also asks for a dual commitment to both society as a whole and to the individual client the professional usually has to take care of – be it in a medical, legal or education context (Oevermann 1996). This case orientation again not only demands knowledge and expertise, it also implies a creative and intuitive dimension.

As an example, one of the most frequently named domains of professional competence is reflexivity, which is now almost a leitmotif in the debate on professionalism. From the point of view of the individual, this domain refers to the ability to pay critical attention to one's experiences in order to learn from them (Schön 1983). Yet it also asks for the rule-governed and systematic analysis of one's actions from different points of view (theory, methodology, one's own biography) in order to develop alternative strategies. To accomplish all this, routines and structures are needed which offer a basis for action. At the same time, the creative and intuitive dimensions of knowledge and action constantly redefine these structures, especially when it comes to balancing individual claims and particularities with general preconditions – such as, for example, those which have to be considered in the legal system or in compulsory education.

As a first conclusion, the focus of this concept of professionalism lies on its dynamic and *dialectic* structure and on its quality of drawing both on cognitive as well as on creative and *intuitive* dispositions.

## **2. Accounts of teacher professionalism: a description of the current situation**

The present discourse on teacher professionalism is neither uniform nor consistent. There are differences *between* countries, especially Germany, Austria and Switzerland on the one hand and the English-speaking countries on the other, as well as controversial discussions *within* countries.

In the current *German* discussion, two positions can be contrasted:

Firstly, there are the national research projects on teacher competences which emphasise the idea of being able to measure these competences (e.g. Zlatkin-Troitschanskaia et al. 2009). These are large-scale projects mostly commissioned by the OECD, such as the COACTIV study (focus on teacher skills in cognitive-orientated teaching) or the TEDS studies (e.g. TEDS-M: Teacher Education and Development Study in Mathematics, TEDS-LT: Teacher Education and Development Study – Learning to Teach). The projects also have an international element so that data can be compared (e.g. TEDS-LT).

Secondly, an increasing number of critical voices are emerging (e.g. Casale et al. 2010). There is the criticism that a new paradigm has been established as a new leading discipline with a focus on psychology-orientated research, whereas education-orientated research has been driven back. Signs of this change are new curricula for teacher education and the tendency to stress quantitative research, the idea behind which is that effects and outcomes of teacher education and teaching should be measured.

If we assume that certain competences – such as reflexivity – represent complex constructs with a tendency towards a “normative overhang” (Klieme &

Hartig 2007: 21), we also have to consider their measurability from this perspective. Education theory criticism of the wide range of practices currently used to measure competences picks up on exactly this point and emphasises that from an education theory standpoint any attempt to measure competences must inevitably constitute a reduction. In a pertinent article on competence concepts and their applicability in measuring competences, Eckhard Klieme and Johannes Hartig (2007) admit that any attempt at measurement is by necessity a concretion. They also note that the individual specificities of competences have to be determined clearly and empirically if competences are to serve as an empirical research object. Since competences are complex dispositions, a single observation (as in large-scale tests) does not suffice as evidence of a specific individual competence. Indeed, competences can only be gauged on a range of separate observations in different tasks and situations (Klieme & Hartig 2007: 21). According to Klieme and Hartig (ibid.), only a consistent compendium of separate observations can permit conclusions to be drawn about individual competences. Without such a measurement, any findings will at best be simply "casuistic interpretations of behaviour [...] not a systematic attribution of specific competences." The respective competence must first be defined adequately and specifically in a two-step process. A first step serves to define the relevant situations for the specific competence, which are in turn used to determine how it will be measured. A second step is then used to deduce what constitutes competent behaviour and to define which actions are to be seen as an indication of competence (ibid.). The more complex the characteristics, the harder this process becomes (Klieme & Hartig 2007: 25).

If we follow these guidelines, we find ourselves facing a dilemma when it comes to measuring *professional*

competences. On the one hand, we are told that concise measurement is a prerequisite for properly presenting competences in all their different variations. This, however, requires a precise definition of these competences. Yet on the other hand, competences are seen as complex action contexts, which can hardly be defined precisely. The more complex the context (as Klieme and Hartig admit), the harder it is to measure. As a solution to this dilemma, several approaches to measuring competences suggest reducing competences (e.g. to cognitive aspects). However, in the case of professional competences, a reduction of this nature would fail to heed the basic concept of professionalism, which – as shown above – precisely reflects the interweaving of the multi-layered aspects in such an action context. Extracting the cognitive aspects because they are easier to measure would, for example, result in an unacceptable distortion of the theoretical framework, since it would exclude relevant aspects – like the creative, reflective and intuitive components of professional action – from the resulting grid (Schrittesser 2011: 114).

Similar conclusions are reached by the authors of a study examining the development of professional competences of student teachers who had completed an extended work placement (Dieck et al. 2010: 100). In this study, Dieck et al. use a combination of quantitative and qualitative methods to measure competence development. In their conclusions to the initial study, they note that the quantitative methods had proved *less suitable* for measuring the development of the student teachers' competences during their sandwich year and concluded that suitable methods of standardising and measuring the development of teaching competences on a large scale "still have to be developed" (Dieck et al.: 108).

A feasibility study commissioned by the European Union on the measurement of professional competences also reports the difficulties involved in such an undertaking. Indeed, it would appear there is great demand for empirical evidence regarding the development of competences in vocational education and training (VET) in a broader, i.e. not exclusively educator, context. The European Union is currently pursuing such a goal in its efforts to initiate a so-called PISA-VET. The corresponding feasibility study concluded that while carrying out a large-scale international comparison of the performance of VET systems was difficult, it was nonetheless quite feasible from a research perspective (Baethge et al. 2006: 126). However, as far as a PISA-VET is concerned, there is currently neither consensus on the definition of the term 'competences' nor agreement on how to define and measure them (ibid.: 16). Since it is to be expected that competence measurement will also play an increasing role in VET in the future, the development of adequate concepts for doing so will be a challenging matter, as they will not only have to meet methodological quality criteria, but also have to produce an appropriate return on investment (Edelmann & Tippelt 2007: 143).

In other words, while scientifically legitimate competence measurement is possible in principle, methods which accommodate the complex dimensions of competences have yet to be developed. The construction of such measurements currently faces the dilemma that when the object to be measured reaches a certain level of complexity, it can then no longer be measured in its entirety. Consequently, the object to be measured has to be defined more closely – and thereby reduced – to make it measurable. While in many cases this reduction is presented in the subsequent analysis as a limitation to the findings and insights, the analysis nonetheless generally gives the

*impression* of being able to draw conclusions for the *complete* object.

We would like to offer two examples to illustrate this particular dilemma.

### *Example 1*

The first example involves a research project by Johannes König, Rainer Peek and Sigrid Blömeke, which sought to examine the opportunities for quality assurance in teacher education and develop an instrument to measure the pedagogical knowledge of student teachers (König, Peek & Blömeke 2010). To better illustrate our argument, we would like to provide a brief outline of this project, beginning with the authors' own description of their intentions:

"The long-term, global goals of this fundamental change [i.e. the increasing focus on standards and competences as an expression of the extension to the traditional input through output focus, IS] include the development and securing of high-quality teacher education which generates qualified, competent teachers and makes a substantial contribution to increasing the quality of schools and teaching." (ibid.: 73; translation IS) To ensure teacher education satisfies these demands, "suitable modelling and measurement methods are required to verify the goals empirically and thus provide differentiated insight into learning and education processes and the effects and characteristics of education programmes" (ibid.: 74).

In this context, the project's contribution can be seen to lie in the identification of the subject-independent pedagogical knowledge of prospective teachers.

Based on this intention, and in line with findings from education research, the project team defined five

contextual requirement areas which they considered decisive for professional teacher action: structuring of lessons, motivation, approach to heterogeneity, class leadership and performance assessment (ibid.: 75). These areas were determined by analysing pertinent documents, such as the education sciences curriculum, examination regulations, etc. Parallel to this, three cognitive dimensions – remembering, understanding/analysing and creating – were identified based on Bloom's extended taxonomy of cognitive processes (Anderson & Krathwohl 2001) and combined with the contextual requirements in a test matrix. One test question concerning performance assessment, for example, asks participants to name the quality criteria required when a "diagnostic assessment should be fair and exact" (König, Peek & Blömeke 2010: 77). The three quality criteria (objectivity, reliability and validity) are included in a multiple choice questionnaire; the corresponding cognitive process being tested in this case is "remembering". Another test question asks about phase model approaches to lessons and the function of the phases. In this case, the answer should take the form of a narrative. The cognitive processes examined in this question are "remembering" (listing the phase models) and "understanding/analysing" (naming the function of each phase). The survey was carried out on students with different teaching goals – primary, middle, comprehensive, special needs and grammar schools – at different stages in their degree, in order to identify their respective growth in knowledge and examine whether the various groups of students differ in the way they assimilate pedagogical knowledge. The results of the study confirm the initial hypothesis that differences in pedagogical knowledge do exist, above all between prospective grammar school teachers and other student teacher groups. The study also shows that all students expand their pedagogical knowledge over the course of their degree, with the exception of

prospective grammar school teachers, whose pedagogical knowledge is under-determined at the start of the degree and more or less stagnates throughout the duration of the course. These findings may be interesting in some respects, but only bear a loose relevance to the original intention of the study, namely to identify whether teacher education and training makes a substantial contribution to increasing the quality of schools and teaching (ibid.: 73). In their conclusions, the authors refer to the "limits of the selected method" and note that the "pedagogical knowledge measured in this study is only one example of the cross-disciplinary content of university level teacher education" (ibid.: 82). They also describe the limitations of the method, in particular the fact that the measuring of acquired pedagogical knowledge does not permit any conclusions to be drawn on the competences of prospective teachers and, consequently, on the *contribution to the quality of schools and teaching* (ibid.).

Yet it is precisely this sensitive, decisive area in school and teaching quality that should be secured through good education programmes – and measuring the extent to which this is achieved is one of the stated intentions (at least in the introduction to this study). Although profession and professionalism research has long discounted the notion that knowledge translates directly into competent action, this study indirectly assumes that cross-disciplinary pedagogical knowledge is directly linked to school and teaching quality. No indication is given of the actual form this relationship might take. Ultimately, we have to query the benefits of such an elaborate study and its results, if they do not actually get a firm grip on the matter in question.

The approach adopted in this study illustrates how measurement procedures repeatedly adopt a

pragmatic line<sup>1</sup>. Even when the research interest lies elsewhere (in this case the effects of teacher education and pedagogic education in particular), test designs ultimately resort to reduced areas which can be measured in a relatively solid manner.

### *Example 2*

The second example concerns the measurability of the ability to reflect – a core element in education professionalism. How can a “range of individual observations of different tasks in different situations” (Klieme & Hartig 2007: 24; translation IS) produce a consistent summary of the characteristics of reflexivity or its associated apparent competence without going down the same path as the previous example and not getting to the crux of the matter? Robert Kreitz takes an enlightening position on this issue in his critical analysis of the validity of the PISA tests. He begins by trying to show that, in many respects, the PISA tasks also represent a reduction in competence measurement similar to the above example. He subsequently notes that to determine which competences schoolchildren have – and don't have – we have to observe, document and analyse how they cope with the tasks they are set. You have to “do in standardised form what teachers would do in favourable circumstances during a lesson: observe and understand how their pupils are tackling the tasks they have been set” (Kreitz 2007: 132; translation IS). What is interesting here in our respect is the demand for a standardised method that does not

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<sup>1</sup> The authors would like to note that this question is being addressed in expanded and detailed form in the current “Longitudinal Measurement of the Pedagogic Competences of Student Teachers (LEK)” project sponsored by the German Research Foundation (DFG).

reduce the complexity of the subject matter – a line of attack that is also one of the intentions behind our own approach and concept. However, one claim pursued by PISA and similar tests remains unfulfilled: carrying out the large-scale observations referred to by Kreitz would be disproportionately more complex than the PISA tests themselves, and they are already extremely complex.

In an article addressing the measurability of reflexivity, Andreas Poenitsch argues in a fashion that builds on the position taken by Kreitz. Poenitsch argues that reflexivity can primarily be seen in the use of language or, more precisely, in the formulations a person uses (Poenitsch 2004: 452). In the empirical study of reflexivity, one could therefore assume that the aim was to examine “how and what someone says and does, how they formulate what they say and who they present themselves as” (ibid.; translation IS). According to Poenitsch, reflexivity can be equated to “an autonomy towards the many human labels influenced, for instance, by ‘emotion and passion’ or ‘tradition and convention’” (ibid.: 542; translation IS). Reflexivity in this sense has something to do with the “ability to abstract, create and tolerate distinctions and differences, as well as the ability to relate something specific to something more general” (ibid.; translation IS). When actually measuring reflexivity, one could determine, for example, “how often someone uses formulations that can be classed as expressions of reflexivity in line with predefined linguistic and grammatical syntactic and semantic criteria” (p. 453; translation IS). The level of objective rather than traditional, conventional or emotional deliberations could also be measured using the concrete formulations a person uses (ibid.). These deliberations open up a viable path towards measuring capacity for reflection *and* its related discourse. We try to follow this path with the intention that the exploration of the

field will not only reveal (or not reveal) the diverse forms of articulation used, but will also open

up new options for further concretion and operationalization of any domain-specific competence not revealed by conceptual means.

This approach means that the characteristics of, for example, reflexivity are supposed to show in professional practice in various perspectives and allow us to look for and detect the resulting evidence of this competence.

Indeed, this is how the analysis of statements by teachers on their own professional actions in response to the matter of "how and what someone says and does and who they present themselves as" (see above) should be understood. The use of this kind of multi-perspective – and extendible – method is designed to approach the issue from an initial linguistic- hermeneutic perspective, in order to ultimately – regardless of the difficulties and open issues that may arise – successfully design and obtain an increasingly more precise record of manifold individual observations in the Klieme and Hartig (2007: 24) "consistent compendium" sense and thus achieve a "thick description" which provides us with insights into the structures of meaning of the phenomena studied (Geertz 1983). This also brings us closer to capturing the range of professional activity via many routes encircling the respective phenomena.

### **3. Conclusions and an alternative example**

Two desiderata can be derived from the examples above. One is to show that meaningful designs for the measuring of more complex competences have not yet been found. The dialectic and dynamic structure of professional activity in particular is not captured by

the test methods applied so far. The other desideratum to which we would like to draw attention is the reduced concept of knowledge that underlies most of the evidence-based research activities on teacher competences.

One of the main characteristics of the work of teachers is uncertainty (see the Shulman quote above). Teaching has an *interactive* structure, and teachers depend on pupils, their motivation and capability to follow a lesson, as well as the social situation in which the teaching takes place. Neither the behavior of pupils nor the social situation can be planned in detail. There is no guarantee for success, neither for the results nor for the process of learning. Therefore teaching cannot be standardised, but is characterised by *dual uncertainty* (Rabe-Kleberg 1996, Kunter & Baumert 2011: 30).

The question we would then like to raise is: if *uncertainty* is a core feature of teaching, how do teachers cope with insecurity in a classroom context? Coping with uncertain situations requires *practical* knowledge (Schön 1983). This kind of knowledge is experience-based and becomes evident *in actu*, i.e. in the enacting process. It is "tacit knowledge", situated in the body, and usually remains implicit, although it can in principle be articulated. "What actors are 'able to say' about their activities is by no means all that they 'know' about them. Practical knowledge refers to tacit knowledge that is skilfully employed in the enactment of courses of conduct, but which the actor is not able to formulate discursively" (Giddens 1982: 31).

By way of evidence, we would like to give an example from our own research with teachers. The teacher in the following interview, Susanne, tries very hard to find words to explain crucial reference points in her

work with pupils. She starts out in correct German, but then resorts to a rather heavy regional dialect, which is however, not fully evident in the translation (Paseka 2011: 151).

**Interviewer:** What do you actually base your behaviour as a teacher on?

**Susanne:** *Hm, on my personality. Yep. I don't want to put on an act.*

**Interviewer:** Well, yes, but surely that is a very subjective term?

**Susanne:** *Behaviour you mean I suppose. [...]. Em, [short pause] hm, yep, I try to determine, when I explain something to the children, I look at them and I know if they are understanding something or not. That would be on a teaching or subject level. On a personal level, you just get a certain sense of how people react, what each person needs.*

**Interviewer:** So it's a kind of feeling. How do you recognise it?

**Susanne:** *You just do. I think you've either got that certain feeling for people or you haven't [short pause]. I mean in my case it is so, I am a very sensitive person and I just sense a lot. You, yep, [short pause], yep, you just sense it.*

**Interviewer:** How does this show itself?

**Susanne:** *Hm [laughs], if you ask me, you can't really describe it. It's just, just things [short pause], like I said, it's like when you're standing somewhere and get the feeling someone's looking at you from behind, and you get the feeling someone's watching you, so you turn around and there it is. These things are untangible [sic!]. You just simply feel them.*

So what actually happens in a *concrete* situation? What does Susanne base her actions on in very complex situations? She has no actual rules to hand, but her "eye for the situation" helps her. She doesn't think, she looks (Wittgenstein, cited in Combe & Kolbe

2004: 845). Susanne watches her pupils and then just knows "if they are understanding something or not". She simply has this knowledge, even if she can't explain where it comes from. She refers to her sense of intuition, her own feelings, and the fact that she considers herself to be a "sensitive person". She cannot say what is precisely going on in the knowledge generation process in this situation, because she cannot put it into actual words. She notes that "these things are untangible" [sic!], in other words, they are things that can only be sensed or felt. By listening to and giving recourse to her own feelings, she immediately finds the orientation she needs in the actual situation. She does not think such an ability can be learned, but instead suggests that "you've either got that certain feeling for people or you haven't".

Similar depictions are also found in other interviews. Looking carefully at what is going on is clearly a central aspect. It is not only what the children say that seems to be important, but their looks and their gestures. People use the responses in their own bodies – their gut reactions and intuition – as additional "senses" when working with others. Empathetic understanding allows teachers to recognise whether pupils are concentrating, whether they are having fun, or whether they have understood something. The signals given by these pupils or the people present in a concrete situation have to be "read" correctly to ensure this ability to act is maintained and allow the "reader" to make decisions. Our bodies and feelings become mediums which facilitate the concrete execution of pedagogic intentions, guidelines or (school-related) organisational action. They help people to make decisions in a flash at a specific moment, in situations of uncertainty or when doing so is unavoidable (Oevermann 1996: 82). Intuition, love and affection are described as necessary prerequisites

for creating this empathy and being able to correctly decode the messages sent.

To grasp this type of knowledge, we need to return to the selected interview passage and take a closer look at the use of language, the formulations and words used by Susanne (see Poenitsch 2004: 452). Some divisions can be recognised. Susanne uses a regional dialect, but tries for long stretches to speak standard German. Yet she does not succeed in doing so all the time. Whenever she departs from a cognitive level of explanation for her actions and tries to put her feelings into words, she lapses into her home dialect.

This language division indicates two levels of consciousness: discursive and practical consciousness. Discursive consciousness refers to forms of recall which can be put into words. Practical consciousness refers to those forms of recall which are available through experience without the actors being able to precisely say what it is that they actually "know".

"Between discursive and practical consciousness there is no bar; there are only the differences between what can be said and what is characteristically simply done" (Giddens 1984/2009: 7). Practical knowledge is thus incorporated knowledge, which shows itself in actions. It is also tacit (or silent) knowledge, because it virtually cannot be expressed in words. This "tacit-knowledge-in-action", "which does not stem from a prior intellectual operation" (Schön 1983: 51), is used spontaneously. "There are actions, recognitions, and judgments which we know how to carry out spontaneously; we do not have to think about them prior to or during their performance. We simply find ourselves doing them." (ibid.: 54) The actors are not aware of ever having acquired such knowledge. So they do not reflect on it – at least in the action itself. However, this knowledge is the prerequisite and

means of action in situations of uncertainty or when quick decisions are required. In contrast, discursive or declarative knowledge would appear to be of no relevance in concrete action – it remains inert. This means that teachers have to rely on themselves, their own feelings and their own bodies. These steer behaviour “in the act”, while structure-giving rules and resources elude conscious perception and form blind spots in the depictions.

#### **4. Some final remarks**

On the basis of three examples given above, we have tried to demonstrate the pitfalls which might occur when trying to capture the knowledge and competences of teachers in their full complexity. Our considerations reveal some desiderata, which proved to be a consequence of the applied research methods. Quantitative designs usually fail to capture all the dimensions involved in professional competences and tend to reduce them to cognitive and formal aspects. Qualitative designs, in turn, are more appropriate for in-depth evidence of professional behaviour, but usually lack the potential to cover large case numbers.

As pointed out, the current debate on teacher competences is primarily based on large-scale assessment tests. While capturing cognitive elements of teacher professionalism, they can scarcely grasp emotions, and they cannot reconstruct some of the central aspects of teaching practice, namely the dialectics of emerging emotions and coping processes. Therefore, in our view, more intricate methodological designs will be necessary in order to reconstruct the professional competences of teachers in their full complexity. We need a wider lens of inquiry, which will help us to focus on further aspects of teaching and to grasp the creative moment in situations of uncertainty.

There are a number of potential options available. One would be to work with case vignettes (written or visual), which allow dilemma interviews with teachers or associative thoughts.

The data could then be analysed in a more quantitative manner (Oser & Heinzer 2009, Voss & Kunter 2011) or by qualitative methods like "objective hermeneutics" or the "documentary method" (see example in Paseka 2011). Another option would be to resort to a more extensive use of multimethod research, and to cooperate more in the research communities and across methodological borders and beliefs by using all kinds of (meaningful!) combinations of qualitative with quantitative approaches in data collection as well as in data analysis. Indeed, as we have tried to show: complex research objects demand elaborate research designs to best answer the given research questions.

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## **C**HAPTER 32

### **RECOGNITION OF LEARNING BARRIERS IN TEACHING PRACTICE**

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#### **Abstract**

Two of the important factors influencing the lack of effectiveness of language learning are the mental barriers and limitations that students subconsciously create on their language production resulting in poorer performance. Understanding the nature of their learning limitations and knowledge of how to overcome them in everyday teacher work seem to be significant elements of the professional knowledge of teachers gained during the process of education, and which they have developed through reflection and practice. The research sought to explore what barriers and limitations influence language learning and what teaching strategies would help to overcome them. This chapter presents the results of research in which learners and teachers were sources of knowledge. It concludes that teachers should be well-equipped in knowledge of the barriers to improve the teaching process and to facilitate their learners' personal development.

## **Keywords**

Learning barriers- mental barriers- teaching and learning processes- teaching foreign languages

## **Introduction**

Over the past decade, there have been increasing attempts to improve language teaching and learning, and the key role of languages in the construction of European unity is widely emphasized. At the same time, modern societies have become dependent on the professions, and the teacher's professional knowledge receive more and more attention all over the world.

Deepening teachers' knowledge of language learning processes should then be one of the priorities of their education. A better understanding of language learning processes and the role of various factors influencing them result in much more effective learner education.

Two of the important factors influencing the effectiveness of language learning are the mental barriers and limitations that students subconsciously create on their performance and language production. Understanding the nature of the learning limitations and the knowledge how to overcome them in everyday teacher work seem to be significant elements of the professional knowledge of teachers built during the process of education, and developed in reflection and practice.

Besides the gaining of knowledge useful in life, one of the fundamental goals of the school teaching process is the intellectual and mental development of learners. This goal can be achieved with the collaboration of educators, teacher-practitioners and psychologists, who drawing from their theoretical knowledge and reading subject literature as well as

experience gained through practice should make an attempt at integrating the abovementioned areas. One of the aims of both the research and theoretical studies should be to explore mental barriers, which repeatedly disrupt the process of gaining knowledge and skills or significantly impede student development and the use of their abilities.

The research described here focuses on the problem of learning barriers of EFL learners. The research questions were:

What kinds of personal learning barriers hinder and disturb learners in developing their abilities and language competence?

Does a change of teaching practice help in surmounting the learning barriers and to what extent?

The research project consisted of two main phases: diagnosis of learning barriers and the experiment that aimed at surmounting them in teaching English.

## **1. Literature Review**

The word "barrier" and its synonyms are frequently used in everyday speech with regard to various aspects of life. The primary meaning (from French) of this term signifies a bar blocking entry. In all aspects of life the use of this word brings to mind the blocking or withholding of something. For example, in medicine there is the concept of a "blood-brain barrier," which is used to describe the system which separates blood from nervous tissue while blocking toxins and hormones. On the other hand, "the sound barrier" (from aviation) is a term used to describe a set of occurrences that pertain to breaking the speed of sound, such as the increase of aerodynamic resistance and navigability disruptions. The term "Coulomb

barrier" used in physics denotes a barrier of the potential energy around the nucleus which must be overcome by a charged particle. The term "barrier" is also used frequently in economics. There are non-tariff barriers (restrictions limiting import), "knock-in and knock-out barriers" ("factors that hinder and sometimes impede the undertaking of a given type of business activity or withdrawing from it"<sup>1</sup>) as well as the well-developed typology of "the barriers to economic growth" (or conditions that stifle economic growth).

Since there are numerous factors that can constitute a mental barrier, in social studies the term "barrier" is collective. It encompasses such factors as: defensive personality reactions, unfavourable approaches, stereotypes, defence mechanisms, wrong attitudes, stress-generating factors, inertia, the rigidity of imagination and thinking, fears, underestimating one's abilities, negative transfer, functional fixations, complexes, crises and others. Due to mental barriers a person does not seize objective possibilities for action, both potential subject possibilities (for example, the knowledge and skills one possesses and the professional experience one has gained) as well as external conditions (such as the current state of science, technology, economic possibilities, etc.)

Contemporary research and psychological experiments in Poland have become the basis for developing a theory regarding mental barriers and subjective limitations which prevent an individual from developing and fully using his potential. They originate in human psyche and prevent an individual from undertaking activities or achieving success even though his knowledge and skills would certainly allow so. These inhibitors are called subjective despite the

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1 Encyklopedia Gazety Wyborczej, Kraków 2005, volume 2, p.163.

fact that an individual is not aware of how they can influence his development and activity. Dobrołowicz (1993: 29) outlines four categories of such barriers:

1. Perceptive barriers – barriers in problem perception and the possible solutions; for example, attitude, or the readiness to spot a problem and react in a certain way<sup>2</sup>,
2. Mental barriers – barriers connected with imagination and mental activities; for example, an absence of imagination, inertia of mental processes, their inactivity and lack of flexibility in thinking or relying on certain preconceived notions in problem solving, and the inability to change or reject the once established form of activity. It is also the difficulty of adapting to different situations.
3. Emotional – motivational. Not only do emotions influence the course of every human activity, but they also account for a major part of the activity. They have a stimulating and motivating function, and with regard to creativity, they even steer the process. On the other hand, negative emotions (for example, frustration, stress, fear-based attitudes, fear of failure) disrupt cognitive processes and decrease motivation to undertake a task. Thus they constitute strong mental barriers.
4. Personality barriers that result from the relationship between personality traits and thinking, creative activity or interpersonal relationships; for example, personality type “bound by barriers”, compulsive personality, also known as “rigid”, which is overly cautious, neurotic and abrasive. It has been noted that low self-assessment, insecurity as well as low self-esteem are the causes of egocentric motiva

tion,<sup>3</sup> which lowers the level of creative thinking. The most important personality traits of learners from

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<sup>2</sup> P.G. Zimbardo, *Psychology and Life*, Glenview, IL: Scott, Foresman, pp. 294–295.

<sup>3</sup> K. Kmiecik, *Informacje oceniające, samoocena i poczucie kontroli a myślenie twórcze*, PAN, Wrocław 1983, p.13.

the perspective of learning a foreign language is extroversion/introversion. It is easier for an extrovert to practice authentic speaking as he is more willing to express himself spontaneously. However, it is more difficult for him to complete individual tasks and he may find reading for detail quite challenging. Introverts, on the other hand, focus more on their inner thoughts and feelings and thus it is more difficult for them to speak and communicate even though they tend to perform better with regard to reading comprehension.

## **2. Research and Data Analysis**

### ***2.1. Diagnosis of The Learning Barriers***

In the first the stage the research was aimed at gaining knowledge of learning barriers. In order to achieve the aim three sources of knowledge were used:

1. teachers (142) who recognised the learning barriers by observation of their learners' behaviour and described them in the questionnaires,
2. the researcher who conducted lesson observations in several classes (25 lessons together),
3. the learners (167) who expressed their opinions about themselves, their feelings and reasons for their own classroom behaviour in the questionnaires.

The first part of the research was conducted among 142 teachers of foreign languages, working in different schools (primary, secondary and high schools), teaching learners of various ages and levels of proficiency (from beginners to upper-intermediate). After a short explanation of the theoretical background

of the issue in question, they expressed their opinions regarding the mental barriers they were observing in classes and wrote the examples and their remarks about the particular behaviour. The information given to the teachers at the beginning enabled them to classify the intensity of each barrier by using a 3-point-scale, in which:

- "1" meant only short and weak existence of the barrier in the form of an oral remark or a student's gesture, while the problem was easily overcome and the learners started performing the action very quickly;
- "2"- stronger influence of the barrier revealed by a short period of hesitation or unwillingness to perform an action; however, the barrier was overcome, either by the learners themselves or with help from other learners and the teacher, and the learners finally performed the action;
- "3" meant that the learners did not start to fulfil the task or do the exercise, and expressions and excuses used by the learners revealed the existence of a very strong influence of a mental barrier. After 3 or 4 weeks the teachers returned the questionnaires, sometimes wrote extra paragraphs about their doubts or expressed their personal opinions.

The next part of the research was conducted by the researcher on her own. It resulted in a detailed description of classroom behaviour of learners that might be associated with existence of mental barriers.

Those two phases allowed the researcher to recognize and describe the seven main barriers, and only those were investigated further among the learners. They were (in order of importance as suggested by the teachers) poor interpersonal skills, shyness while being assessed and observed, schematism of perception and rigid thinking, lack of courage to take a risk, low self-esteem and a lack of self-confidence,

poor cognitive motivation in the form of a lack of cognitive curiosity, and excessive self-control.

The final part of the research was conducted among 167 learners aged 15-18, who were asked to complete a questionnaire whose aim was to determine which mental barriers were experienced or subjectively recognized by the learners and had some impact on their behaviour. The questionnaire was prepared by the researcher and carefully piloted. It covered all the seven barriers and consisted of 28 different statements linked to the barriers (4 to each). The example statements are "I strongly control what and how I speak English" (excessive self-control), "I have to know which grammar form I am expected to use, if not -I will say nothing" (schematism and rigid thinking), "I am afraid I will make a mistake when the teacher asks me" (shyness while being assessed and observed), "I do not like guessing words from the context" (lack of courage to take a risk), etc.

The respondents evaluated all the statements and categorized them according to how often they experience the particular feeling/thought. The categories included: always, very often, often, sometimes, rarely and never. The maximum number of points attached to a particular barrier by one student was 20. The more points the learners assigned to a particular barrier, the more recognizable it was, and more often, according to the learners, it influenced their English learning process.

The mental barriers being investigated pertain to aspects in which, to a certain degree, an individual is able to analyze his feelings and can understand the change in his behavior which results from the barriers. There were seven barriers recognized by learners, who assigned 12,082 points to all the barriers (100%). The points assigned to each barrier were ranked. The first

item in each ranking is the barrier that was given the highest number of points, while the last item is the barrier that was given the smallest number of points. Moreover, for each barrier, the percentage of total points was calculated. The barriers recognised by the learners were:

1. Lack of courage to take a risk – 2,074 points – 17.17%
2. Poor cognitive motivation – a lack of cognitive curiosity: - 1,914 points –15.84%
3. Poor interpersonal skills -1,844 points –15.26%
4. Schematism of perception and rigid thinking - 1,726 points -14.29%
5. Shyness experienced due to a situation in which a person is assessed and observed by others – 1,682 points –13.92%
6. Excessive self-control -1,580 points –13.08%
7. Low self-esteem and a lack of self-confidence - 1,262 points –10.45%

Figure 1: The ranking of barriers according to the learners.

The most influential barrier is the fear of taking a risk and unwillingness of using language intuition. Those features were analysed under the label "Lack of courage to take a risk" that ranked the highest and is superior to all the barriers in respect of its role in learning. The majority of learners try not to guess or take a risk, they prefer using acquired knowledge and familiar solutions. The learners explain that they usually omit the exercises which are new and previously unknown because they are afraid of failure or any troubles.

The next barrier is the one called for the research purposes "Poor cognitive motivation – a lack of cognitive curiosity". The questionnaire focused mainly on the aspect of courage and willingness to ask

questions. The learners explain that they do not usually ask many questions even if they are really interested in a particular topic. The tendency that hinders them from asking questions and being curious is then regarded as a very strong and influential learning barrier.

The next barrier is "Poor interpersonal skills". The learners regard the feature as a very significant barrier that limits and disturbs their learning. Probably, such a high position of the barrier is very reasonable. Language learning is strongly connected with communication, and if learners have difficulty expressing their feelings and thoughts in their mother tongue it causes many problems and limits foreign language acquisition.

The first three barriers could be treated as the strongest blocks to learning, especially to creative and open-minded attitude towards learning and interpersonal relations.

According to the results achieved in the questionnaire, schematic thinking and inflexibility of thinking, which are two aspects analysed together under the label "Schematism of perception and rigid thinking", are important, though not absolutely essential barriers disturbing the learners in their learning and personality development. The number of points given to the feature (1,726 points, 15% of the total points) proves that the barrier is noticeable and quite significant as a limitation on learning.

The next barrier is "Shyness experienced due to a situation in which a person is assessed and observed by others"(1,682 points). The result is surprising and different from the researcher's real-life observation. What is more, the teachers regarded the barrier as the strongest and very common, and described it

thoroughly in their questionnaires. However, the learners may not be conscious of the changes that appear in their performance while answering questions and during exams. The questionnaire was based only on their impressions and opinions, so some discrepancies are possible.

The two barriers that are evaluated as the least important are "Excessive self-control" (1,580 points which gives 13.08%) and "Low self-esteem and a lack of self-confidence" (1,262, 10.45%). The results suggest that the features are rather subtly felt and recognised by people. What is more, a deep analysis of the features is possible only by the use of sophisticated and scientific psychological tools such as personality tests, etc. On the other hand, the results show that the learners are conscious of the barriers and their influence, because the respondents have assigned a significant number of points to each of them. The number of points in both cases is over 10% of the total number of points, which proves that the barriers exist and disturb learners in learning. The level of perception was not high; however, the researcher included them in further research as to check if the level might be lowered.

## ***2.2. Description of The Experiment and Teaching Practice***

The knowledge of learning barriers allow teachers to develop their teaching style and provide substantial reflection on how their everyday work might stimulate learners to develop their abilities and promote their personal growth. Hence, the researcher planned a set of teaching practices which would counteract the formation of mental barriers in learning or even weaken those already in place. The effectiveness of the teaching practice was examined based on a selected group of secondary school learners. For this

purpose, the experimental method was used and its aim was to reduce the impact of the learning barriers. There were two groups: experimental and control. The comparison of data gathered from both groups suggested enormous differences which allowed the researcher to assume the changes in the experimental group were due to the "remedial teaching".

The testing was completed before and after the experiment, based on a self-made questionnaire. It covered all the seven barriers, previously diagnosed, and consisted of 28 different statements linked to the barriers (exactly the same as in the final diagnosis among the learners) . The respondents evaluated all the statements and categorized them according to how often they experience the particular feeling/thought. The categories included: always, very often, often, sometimes, rarely and never. A set of exercises and tasks prepared for the experimental group (167 individuals) was aimed at overcoming the existing barriers and was the basis of the experiment. The experimental/remedial teaching lasted 12 weeks (2 English lessons per week) and was based on a set of techniques and the mandatory English teaching curriculum. It consisted of three main stages and had a specific function linked to overcoming the barriers:

The initial stage consisted of four lessons and was centred around activities aimed at stimulating interpersonal skills, boosting self-esteem and weakening excessive self-censorship. One lesson combined the techniques from different groups, which facilitated problem solving in groups. The task was to construct a trash disposal machine. In this process various techniques were implemented, all aimed at stimulating the courage to take a risk, weakening schematic thinking and using some humour to combat the fear of criticism.

The middle stage consisted of four lessons which featured activities concerning motivation (mostly stimulating cognitive curiosity), the ability to “think outside the box,” to think logically as well as overcome barriers.

The final stage also called the “collective mind stage” was based on two lessons that featured activities from different topic groups and aimed at solving problems first in groups and then with the whole class. Their goal was to integrate skills acquired during the lessons. The final lesson was similar to the first in regard to the aim and tasks chosen. It was a type of a repetition and provided the teacher (and surely the learners as well) with the opportunity to compare their language skills before and after the experiment and encouraged the learners to work on themselves.

The lessons in the experimental group were to a large degree the researcher’s own invention but also based on psycho-didactic principles of creative lesson delivery as depicted by K.J. Szmidt (1997:39-50.):

1. the principle of facilitation as the process of knowledge acquisition was facilitated and a pleasant group atmosphere was created.
2. the principle of personal creativity of the teacher
3. the principle of play – numerous teaching game-like situations were arranged
4. the principle of variety - various teaching techniques were used
5. the principle of non-assessment - as the basis of “brainstorming”
6. the principle of enhancing the creative process - through posing open-ended questions and rewarding creative expressions or original thinking
7. the principle of counteracting the hindrances; for example, highlighting even the least significant successes through offering a wide range of praises, encouragement and prizes, a careful selection of assignments and adapting them to the learners’

abilities, organizing group exercises and team activities, etc.

The basis for the experimental techniques was "brainstorming" due to the obligatory rules during all the lessons. Based on creativity trainings a diverse set of techniques was created that aimed at weakening the inner censorship and delaying assessment. These techniques were based on the division of the thinking process into two stages:

1. The green light stage when all ideas were accepted. During this stage a green poster was hung on the blackboard that indicated full freedom of expression without assessment or marking.
2. The red light stage (suggested by the use of a red poster on the blackboard) when the learners were assessed and ideas and solutions were constructively criticized.

The next principle of "brainstorming" was quantity counts (in accordance with the principle that the greater the number of ideas, the easier it is to select the best one). We focused mostly on student activity and fluency of thinking. The learners were given more freedom than during the standard process of English language teaching - the freedom to generate ideas, which was introduced based on the third principle of "brainstorming." This freedom mostly pertained to the selection of topics, words, exercises as well as the choice of friends.

The principle of introducing a diverse combination of solutions was also included in the lesson plan and the ideas of others were improved on numerous occasions. In the case of group work, the learners were divided into groups of four if the task was communicative or groups of six or eight if the goal of the task was problem solving. The learners were also asked to work in pairs.

Throughout the experiment the standard language teaching model was supplemented by various creative techniques. They were an integral part of the model and all tasks were performed in English using the lexical and grammatical concepts as prescribed by the school curriculum. The sample techniques used are as follows:

1. Creative problem solving: language warm-up, analyzing problems and posing questions, which provided a focus for the thought process. and providing visual stimulus.
2. Dissecting the problem: making a list of attributes and conducting morphological analysis.
3. Creativity trainings: it was stipulated that these trainings would influence student behaviour and personality traits in the following areas: interpersonal relationships, identity, self-awareness, motivation, overcoming obstacles and creativity barriers that result from schematic thinking and abilities.
4. Free-writing techniques: individual interests, talents and passions of learners were addressed. These techniques were based on free verbal expressions; for example, the learners engaged in free-writing activities within a given timeframe (the so called "five-minute writing"), with a set number of words (for example, the learners had to include 25 adjectives in their texts). They also wrote stories about general issues in the style of their choice (for example, about cycling).
5. Suggestopedia: in particular it served in the organization of the teaching process in such areas as the use of music, elements of humour, games, boards and posters which included all the necessary information for the learners, boosting their sense of security and reducing stress, etc.

### **2.3 Research Findings**

The process of school education, and language teaching in particular, should provide learners with

opportunities for developing communication and expression skills. However, school curricula in Poland still too often include only encyclopaedic knowledge, complicated grammatical structures and scientific theories with no consideration for the individual personality development of learners. Thus, learners are aware of their shortcomings with regard to interpersonal communication. They are not used to analyzing real problems, expressing personal opinions, communicating expectations, asking or offering help. Quite often they do not know how to lead a discussion as they think they have nothing to contribute. The research shows that youth are aware of this problem, both in their relationships in and outside of school. Introducing minor changes to the teaching process has reduced the impact of the barrier resulting from the lack of interpersonal competence. Moreover, the improvement of interpersonal relationships between learners will bring further positive changes. The amiable atmosphere during the learning process will certainly translate into better learning outcomes in language learning and beyond.

The next barrier that was examined was shyness experienced due to a situation in which a student is assessed and observed by others, which translates into the fear of being criticized. The result of the first study was quite surprising as the learners did not consider this barrier a major obstacle. The conclusion is also surprising and rather inconsistent with the observations of the teaching process. However, the aim of the research was to weaken the negative influence of mental barriers and student behaviour. Therefore, it was the change of the influence that mattered, not its magnitude. This aim has been achieved as in the final survey the barrier was described as significantly weaker and less bothersome. This is confirmed by the effectiveness of the experimental techniques used, in particular

brainstorming, which was the basic method aimed at weakening the impact of this particular barrier.

The research findings pertaining to “the lack of courage in risk taking” confirm that school education stifles the courage to make guesses and attempts at solving untypical problems. In the first survey the learners acknowledged that they feel insecure when they cannot use the previously acquired knowledge but are expected to create new and original solutions. They cannot think creatively and are not interested in anything new. In particular, they have the sense that they should not be speculating. Moreover, they are unwilling to undertake activities which are connected with risk as they have a great fear of failure. According to the respondents, in a school setting they are expected to provide only correct answers that are based on factual knowledge. Learners are discouraged from creating and testing new theories, solving problems using a new approach and, what is more, such inclinations are quite often negated.

The next barrier that was examined was “schematic thinking” (based on schematic perception and rigidity of thinking) as a mechanism restricting creative and lateral thinking. Because of the fear of failure learners often choose not to undertake activities or try to use familiar methods or solutions that have previously been used. Two aspects of schematic thinking were considered in the study: lack of flexibility in thinking – as learners tend to quickly assess a situation, form opinions about it, create solutions, make conclusions, adhere to them and are unwilling to modify them even if new information is provided. The other aspect is creating mental schemes – learners create their own new and simple schemes that guarantee success and then use them in all the situations they encounter. The change in how the barrier is perceived was important; however, the

learners still feel that schematic thinking stifles their creativity with regard to how they approach learning.

The two barriers "low self-esteem and lack of self-confidence" and "excessive self-control" are closely intertwined with the learners' personality. Hence, overcoming these barriers posed a serious challenge. The findings from both studies suggest that the learners have experienced the examined barriers and in the final stage of the experiment they felt more confident, were more aware of their competences and abilities and more willingly engaged in activities without a prior in-depth analysis of what they may gain or lose or the potential failure or success.

School is also conducive in enhancing the barrier called "lack of cognitive curiosity," analyzed primarily as a tendency to ask questions, conduct an in-depth analysis of concepts and searching for their meaning. These barriers scored the highest in the initial survey, which proves that the learners feel the need to use their creative abilities satisfying their curiosity and the need to discover, speculate and seek new tasks and solutions as well as use intuition. However, based on the data analysis even introducing experimental techniques for teaching foreign languages is not sufficient. The barrier proved unaffected by the influence of experimental teaching. One should certainly analyze its nature in greater detail and create techniques or methods that would exert a greater influence. This concept may certainly become the topic of further analysis and research. As revealed by the analysis of the discrepancies of the results obtained in the initial and final test, the experimental techniques used in the lessons yielded quite significant changes. All the investigated barriers were weakened to some extent. This is shown by the findings from the final text, in which the barriers were assessed as significantly weaker. At the same time the findings

revealed the meaningfulness of using experimental techniques in school teaching, which result not only in still knowledge but they also allow for overcoming limitations imposed by the psyche. The research focused only on seven mental barriers mentioned in psychological literature. To obtain a more complete picture of personality limitations one should conduct more research studies using various methods and diverse research techniques.

## **Conclusion**

The research focused only on seven mental barriers, recognized by the teachers and learners themselves, as well as mentioned in the psychological literature. The learning barriers diagnosed and investigated are certainly culturally-based and specific for the context of teaching in Poland. The research, however, was conducted to obtain a general picture of personality limitations and possibilities of overcoming them through teaching practice and a teacher's personal involvement. There is still a strong need for further research and studies by means of various methods and diverse research techniques. This concept may certainly become the topic of further analysis and research to describe other barriers that restrict learning. An interesting issue would also be to investigate the learning barriers that might appear while teaching other subjects, not languages. Additionally, educators willing to overcome the mental barriers of their learners might search for other teaching methods.

The research findings revealed the meaningfulness of gaining research-based knowledge to be able to overcome limitations imposed by the individuals over their learning and school performance. Teacher education curricula and programmes often neglect the problem of learning barriers and limitations that

influence learning. However, teachers should be well-equipped in knowledge of the barriers as well as abilities of using effective techniques to overcome them. The research-based knowledge might also be used in teacher education reform, as it provides recommendations related to what teacher education should include for helping teachers work and succeed in teaching.

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# CHAPTER 33

## **PREPARING A PROFESSIONAL DEVELOPMENT ORGANISATION TO OPERATE IN A CONTESTABLE FUNDING ENVIRONMENT BY IDENTIFYING EFFECTIVE FACILITATOR PRACTICE**

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### **Abstract**

The majority of government funded professional development support for practicing teachers in New Zealand is provided through regionally based School Support Services (SSS). The present investigation, located within the largest of these SSS providers, aimed to identify collective organisational thinking about effective facilitator practice for in-service teacher professional development.

This paper describes the use of a three-phase Delphi questionnaire (after Goodman, 1987) to determine expert opinion about effective facilitator practice when providing in-service teacher professional development. Analysis of the questionnaires identified a number of categories for effective facilitator practice. The findings were used to continue building organisational capacity by building new

knowledge, improve service delivery, and develop a set of draft professional standards for effective facilitator practice in preparation for a market driven contestable funding environment. These findings are supported by a national research project (Ministry of Education, 2008).

## **Keywords**

Effective facilitation practice, organisational, service

## **Introduction**

Team Solutions is the professional unit within the Faculty of Education at The University of Auckland delivering the Ministry of Education's SSS professional development contract to a third of New Zealand's practicing primary and secondary schools and teachers. The Auckland based contract is the largest government funded SSS provider in New Zealand and is one of six such regional contracts.

In 2008, 160 in-service teacher education facilitators with specific professional expertise were employed by Team Solutions across a range of leadership, curriculum, and other high-priority specialist areas of education. Schools are supported in both rural and urban settings across a wide geographic area from the New Zealand's northern most school to schools 600 kilometres to the south. 'In-service' teacher education refers to ongoing professional development expected of New Zealand teachers once they have completed their teaching qualifications and hold teaching positions in schools, whereas 'pre-service' refers to the teacher training programmes leading up to a teaching qualification prior to employment in schools.

Team Solutions support and challenge education professionals to enhance student achievement, using a learner centred and inquiry based approach. Team

Solutions employ expert facilitators from various educational sectors who are knowledgeable, flexible, research informed, and adaptable to respond to the diverse needs of teachers. In the past five years there has been a focus on supporting and challenging school leaders and teachers to use evidence based practice to improve teaching and learning. Team Solutions, being part of The University of Auckland, are well placed to collaborate and to strengthen the links, networks and relationships between schools and other educational organisations necessary in a competitive educational business environment.

Historically, almost all in-service teacher professional development was funded through the SSS contract. In 2000, the organisation was restructured and rebranded to prepare for a fully contestable funding environment that was being suggested by the government of the day. Since 2000, there have been a small number of contestable teacher development contracts that have been awarded to private businesses.

The current situation sees a changing economic and political climate in New Zealand with schools increasingly being given the autonomy and funds to select from both private and government funded professional development providers. Any increased funding to schools for the purchase of professional development means there will be less government directed funding to SSS. It is within this context that Team Solutions began to refocus on ensuring that its service continued to be viewed by schools as the preferred provider of teacher professional development.

To ensure on-going quality of service, and remain a preferred provider of teacher professional development in a totally contestable environment, it

has been necessary to explicitly identify effective facilitator practice. Once effective facilitator practice has been identified, a sustainable process for maintaining and raising facilitator expertise and capabilities, to meet the needs of clients, could be instigated. It is proposed that these changes will be better positioned for the organisation to be successful in a contestable funding environment.

## **1. Literature**

Team Solutions initially reviewed existing research of teacher professional development and effective facilitator practice. Research into teacher practice and improved outcomes for students in New Zealand has been well served with the publication of several government funded Best Evidence Synthesis documents (Aitken & Sinnema, 2008; Alton-Lee, 2003, p. 21; Biddulph, Biddulph, & Biddulph, 2003; Timperley, Wilson, Barrar, & Fung, 2007). However there was a paucity of research conducted into the way in which facilitators supported and challenged teachers to improve their practice.

In 2005, a government funded research project In-service Teacher Education Practice (ISTEP) began. In 2006 the research produced a draft framework titled 'Towards a Framework for Professional Practice' (Ministry of Education, 2006) which used an evidence based approach for improving professional practice. The project drew on current best evidence and generated, used and disseminated new knowledge about what constitutes effective facilitator practice. At the end of the first phase of the project a range of dimensions were proposed that were most likely to be evident in the practice, of ISTE's (Ministry of Education, 2006). These dimensions are shown in Figure 1.

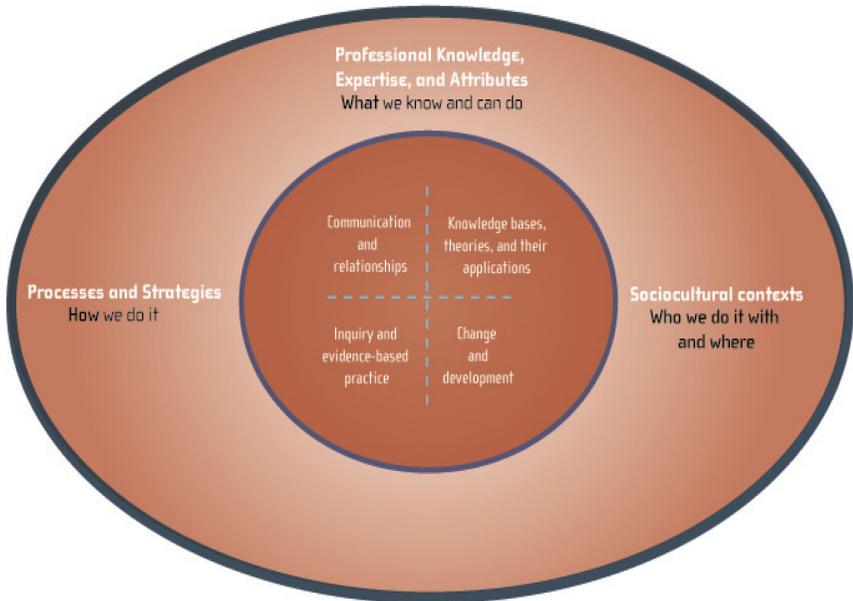


Figure 1: A Conceptual Framework for the Practice of Inservice Teacher Educators

The second and third phases of the research explored the proposed dimensions in more detail through a series of smaller projects, culminating in the publication of *Ki te Aoturoa: Improving Inservice Teacher Educator Learning and Practice* (Ministry of Education, 2008).

In 2009, additional information about effective facilitator practice was also gathered from an independent evaluation of the organisation as part of the Ministry of Education's monitoring process of Team Solutions' effectiveness in delivering professional development. This evaluation was in the form of an on-line Principals' Satisfaction Survey undertaken by independent evaluators, Martin Jenkins and Associates (Dundon- Smith & Harding, 2009). The principals

invited to complete the online survey were clients of Team Solutions over a number of years. The survey provided important information about facilitator effectiveness from the clients' viewpoint.

## **2. Research design, methods and analysis**

The Team Solutions project built on the INSTEP (Ministry of Education, 2006) research and was designed to support the quality assurance work that Team Solutions undertakes to increase facilitator capacity and capability. The professional learning required of facilitators as part of their conditions of employment is a part of the Ministry of Education's SSS contract, in addition to the provision of service to teachers and schools. The project provided opportunity for all Team Solutions 160 facilitators to identify ideas about effective facilitator practice for the purpose of improving in-service professional development for teachers.

The significance of this research project for Team Solutions, as a learning organisation, was that it:

- Sought to establish an evidence based profile of effective facilitator practice;
- Provided a basis for continued development of induction and professional appraisal of facilitators;
- Contributed to an, as yet, limited body of knowledge about effective adult (teacher and school leader) education and facilitation practice;
- Contributed to a growing demand from schools and the wider education sector for a national framework for facilitator practice.

To capture the ideas of all participant facilitators anonymously, a Delphi questionnaire process was used (Goodman, 1987). It was the distinguishing characteristics of Delphi questionnaires – anonymity, iteration with controlled feedback, and expert opinion -

that led to the decision to use this particular tool. Of particular importance was the anonymous nature of questionnaire which allowed facilitators to express their expert opinion without influence from external factors. A series of three iterative 'Delphi' questionnaires were used to enable each facilitator (expert) to express a degree of preference for, or dislike of, an item without having to choose any particular item at the expense of another (Goodman, 1987). The iterative questionnaires provided the process for the gathering of expert opinion, ideas, analysis and refinement of understandings about effective facilitator practice from participant facilitators.

The design of the research project was informed by INSTEP (Ministry of Education, 2008), and the *Best Evidence Synthesis: Teacher Professional Learning and Development* (Timperley et al., 2007) as both included a focus on reflection and inquiry learning to enhance effective practice.

The Delphi questionnaire is a tool 'originally conceived as an intuitive exploratory method to solicit and synthesize information from groups of experts regarding the application of carefully derived collective judgment' (Kurth-Schai, Poolpatarachewin, & Pitiyanuwat, 1991). Using a three-stage sequential questionnaire provided for the systematic collation, analysis, and modification of each subsequent questionnaire to build consensus and enhance understandings of the complexities of effective facilitator practice (Okoli & Pawlowski, 2004; Van de Ven & Delbecq, 1974). An additional advantage of the Delphi questionnaire is that it provided opportunity for the experts to contribute to the nature and the content of the successive questionnaires. As the expert group in this research were facilitators, then content validity can be assumed (Goodman, 1987).

The project began on day one of a two-day professional development meeting with a presentation to the organisation about the purpose of the research and the anonymous nature of the process that would take place to collect the information. Information sheets were distributed prior to the participants being asked to complete the first questionnaire. Those who choose not to participate were able to leave the venue for an hour.

The Delphi questionnaire, part one, stated, "The purpose of the first part of the questionnaire is to gather your ideas regarding effective facilitation practice. Please brainstorm as many ideas as possible that you consider contribute to effective facilitator practice. Ideas do not need to be fully developed but can be expressed as one brief statement or phrase. Your ideas will be included anonymously in the part of the questionnaire." A formatted page was provided for individually written responses.

101 responses were received with most participants contributing at least ten separate ideas. A third party, not involved in the research, collected the completed responses. The researchers then grouped over a 1000 ideas into categories that aligned with the dimensions communication and relationships, knowledge bases, theories and their applications, change and development, inquiry and evidence based practice (Ministry of Education, 2006). These categories informed the structure of the second phase of the questionnaire. Where there were substantial numbers of statements these were categorised according to key phrases. A small number of statements with related intent but different wording were grouped into a broad category. Statements that were repeated by many participants remained as the intended statement. This resulted in 54 main ideas remaining for the next iteration of the questionnaire.

The categorised main ideas formed the basis of the second questionnaire iteration which was distributed on the first day of a two-day professional development meeting three months later. The participant facilitators were asked:

- To decide whether or not they considered each idea to be part of effective facilitator practice. (Yes/No)
- For those ideas you consider acceptable please record how much value you place on these practices by circling the response that most closely reflects the value you place on this practice. (Not Necessary, Useful, Important, Very Important, Critical).

Again to maintain confidentiality, a third party not involved in the research, collected the completed questionnaires. The researchers collated only those main ideas identified as 'Critical' and 'Very Important'. The 20 ideas that greatest number of facilitators identified as critical and very important became the basis for the third iteration of the questionnaire. As these 20 ideas were unevenly distributed across the dimensions headings used previously, the decision was made to remove the category headings as the researchers wanted facilitators to prioritise actual practices rather than global dimensions.

The third and final questionnaire was distributed to facilitators on the second day of the two-day professional development meeting. In the third iteration facilitators were asked:

- To narrow their selection of the most important features of effective facilitation practice to just ten ideas from the list of 20 below.

The completed final questionnaires were handed to an independent third party for the researchers to collate the top 10 ideas of effective facilitator practice. The results of the final questionnaire were shared with the

whole organisation for final comment prior to the development of draft standards of effective facilitation practice.

Although the third and final questionnaire identified 20 ideas of effective facilitator practice, these needed to be analysed and defined in an integrated way. Any attempt to define individual characteristics or prioritise is complex. The inter-relationships of processes, skills and attitudes are inherent in effective facilitation practices, therefore facilitators were asked to select the ideas which best represented the integrated nature of facilitator practices.

### **3. Research results**

The final phase of the Delphi questionnaire asked facilitators to identify their top ten ideas about effective facilitator practice from the list of 20. The top 10 ideas are listed below:

- To be a critical and reflective thinker about one's own practice;
- To be culturally inclusive in their practice (for example promote the value of diversity, accept or tolerate difference, have an awareness of biculturalism and multi-culturalism, take responsibility for and use cross cultural understandings and opportunities for learning;
- Have the skills to build, establish and maintain effective relationships with teachers/people in the school community (clients);
- Have specific and relevant pedagogical content knowledge;
- Support teachers to use evidence to improve students outcomes;
- Has a clear sense of purpose of the facilitation role to effect changes in teacher practice which in turn contributes to improved student outcomes;
- Can manage difficult conversations and situations in a way that progress can be made;

- Personal attributes and pro-social qualities that encourage the development of relationships (for example patience, persistence, acceptance, open and honest, remain calm, show respect, non judgemental, caring, sensitive, warm, empathetic, approachable, integrity, impartial, positive, trusting, friendly, humble, willing to be wrong);
- To have the necessary knowledge, skills and understandings to contribute to shifts in teacher practice;
- Has the skills to ask challenging questions in ways that are constructive and productive.

The second ten ideas identified were:

- Modelling best practice when working with teachers;
- To be able to guide teachers in their own teaching inquiry process;
- Have the skills of an effective listener;
- Be able to give effective feedback;
- To give collegial support to and receive the same from other Team Solutions staff members;
- Have empathy for and understanding of commitment to Maori education;
- Allow time for planning;
- Have empathy of and understanding of commitment to Pasifika education;
- To be an agent of change;
- Communicate respectfully.

#### **4. Discussion and conclusion**

It was during the analysis of the Team Solutions research data, that the final document Ki te Aoturoa (Ministry of Education, 2008) was released. The four dimensions from the draft INSTEP materials (Ministry of Education, 2006) were replaced with five principles of ISTE professional learning and practice that lead to:

- Improvements in teacher practice and student outcomes.
- Are underpinned by inquiry and research evidence.

- Are developed through collaborative relationships.
- Are influenced by and responsive to context and culture.
- Provide and build leadership in a range of contexts.

These principles were considered as part of the analysis of the Team Solutions research to distinguish new or additional ideas that may be important in building effective facilitator practice. The most important characteristic identified by Team Solutions facilitators was the need to reflect critically about their own practice.

“The theory of improvement that emerged from INSTEP’s research (Ministry of Education, 2006) attempts to capture what’s involved in the deep learning that leads to improved ISTE practice, which, in turn , can lead to deep learning for teachers and students.” (Ministry of Education, 2008).

When facilitators reflect on their own practice as part of meeting the professional development needs of schools, they are more likely to be able to identify their role and its impact on the change. In addition, facilitators involved in self-inquiry are more likely to identify when and where they need to do things differently or make changes in order to maximise the required impact on teacher practice and student learning. It is expected that the learning from any facilitator self-inquiry will be utilised in future situations thus increasing facilitator knowledge, understanding and application of effective facilitation.

The second most important idea, identifies the ability of facilitators to work within a range of cultural contexts particularly Maori and Pasifika students.

“A core concern of the Ministry of Education is the failure of the New Zealand education system to equitably meet the needs of Maori and Pasifika

student needs” (Ministry of Education, 2007, p.20).

The identification of this idea reflects facilitators’ awareness of the need to work with schools to improve learning for underachieving students from various cultural groups.

“Effective, contextually responsive decisions should lead to improvements in teacher practice and student outcomes.” (Ministry of Education, 2006, p.15)

Ideas 3 to 10 reflect the variety and integration of facilitation processes and professional attributes necessary for effective facilitation. It is the ability to use and move between these ideas in response to changing context, whilst remaining focussed on the overall professional development goals of schools, that describes effective facilitator practice.

Comparing the top 10 ideas, the second 10 ideas, the INSTEP dimensions (Ministry of Education, 2006) and the Principals’ Satisfaction Survey reflects the alignment of thinking about effective facilitator practice as shown in Table 1. The comparison shows alignment with the majority of areas. The one characteristic that the principals’ survey did not identify as important in service delivery is that of facilitator inquiry into their own practice. Self-inquiry is an important internal organisational practice that if successful will be reflected in the quality of the service that external clients receive. Therefore it is unlikely that principals would be aware or even interested in the characteristic of inquiry into facilitator practice.

Table 1: Comparison of Delphi Questionnaire and Principals' Satisfaction Survey

<b>Ministry of Education research (2006) and phase one questionnaire categories (2008)</b>	<b>Phase 3 questionnaire top 10 priorities (2008)</b>	<b>Phase 3 questionnaire second 10 priorities (2008)</b>	<b>Martin Jenkins &amp; Associates - Principals satisfaction survey (2009) – importance of service delivery</b>
Communication and relationships	<ul style="list-style-type: none"> <li>• To be culturally inclusive in their practice.</li> <li>• Have the skills to build, establish and maintain effective relationships with teachers/ people in the school community (clients).</li> <li>• Can manage difficult conversations and situations in a way that progress can be made.</li> <li>• Personal attributes and pro-social qualities that encourage the development of relationships.</li> </ul>	<ul style="list-style-type: none"> <li>• Have the skills of an effective listener.</li> <li>• Have empathy of and understanding of commitment to Pasifika education.</li> </ul>	<ul style="list-style-type: none"> <li>• Building rapport with teachers [most important].</li> <li>• Building rapport with principals [very important].</li> <li>• Facilitator availability [very important].</li> </ul>
Knowledge and theories	<ul style="list-style-type: none"> <li>• Have specific and relevant pedagogical content knowledge.</li> <li>• To have the necessary knowledge, skills and understandings to contribute to shifts in teacher practice.</li> </ul>	<ul style="list-style-type: none"> <li>• Modelling best practice when working with teachers.</li> <li>• To give collegial support to and receive the same from other Team Solutions staff members.</li> <li>• Allow time for planning.</li> <li>• To be an agent of change.</li> <li>• Communicate respectfully.</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitator knowledge [most important].</li> <li>• Facilitator knowledge of pedagogical tools and materials [most important].</li> <li>• Facilitator knowledge of latest research [most important].</li> <li>• Facilitators able to work alongside staff in the classroom with students [very important].</li> <li>• Facilitator having a history with the school [least important].</li> </ul>
Change for improvement	<ul style="list-style-type: none"> <li>• Can support teachers to use evidence to improve student outcomes.</li> <li>• Has a clear sense of purpose of the facilitation role to effect changes in teacher practice which in turn contributes to improved student outcomes.</li> <li>• Have the skills to ask challenging questions in ways that are constructive and productive.</li> </ul>	<ul style="list-style-type: none"> <li>• To be able to guide teachers in their own teaching inquiry process.</li> <li>• Be able to give effective feedback.</li> </ul>	<ul style="list-style-type: none"> <li>• Overall quality of professional development [most important].</li> <li>• Facilitator able to challenge staff [most important].</li> </ul>
Inquiry and evidence based practice	<ul style="list-style-type: none"> <li>• To be a critical and reflective thinker about one's own practice.</li> </ul>	<ul style="list-style-type: none"> <li>• Have empathy for and understanding of commitment to Maori education.</li> </ul>	

The research results have guided and informed the development of draft standards of effective facilitator practice for Team Solutions improved service to schools. The wording of the draft standards has been taken from the 20 ideas identified through the Delphi questionnaire. In the first stage of development, these are:

- Be a critical and reflective thinker about one's own practice.
- Support and guide others to inquire into their practice.
- Be culturally inclusive in their practice by demonstrating understanding and commitment to increasing outcomes for Maori and Pasifika students.
- Have interpersonal and communication skills necessary to build, establish and maintain effective relationships within an educational community (clients).
- Have specific and relevant pedagogical content knowledge and the necessary knowledge, skills and understandings that contribute to changes or shifts in teacher and/or leader practice.
- Modelling best practice when working with teachers and/or leaders.
- Can support teachers or leaders to use evidence to inform teaching and learning that improves student outcomes.
- Can manage difficult conversations, give effective feedback, and ask challenging questions in ways that constructive progress can be made.
- Has a clear sense of purpose of the facilitation role to effect changes in teacher and/or leader practice which in turn contributes to improved student outcomes.

The development of the standards will be explored to ascertain whether there is evidence in practice that supports the expert opinion of effective facilitator practice identified in the Delphi questionnaire. Research reported in the Best Evidence Synthesis (MoE, 2007, p.xxvi) describes how improved student outcomes can result from teachers working towards a set of professional standards through their own self-

inquiry processes. Similar improvements could be expected when facilitators work towards meeting a set of facilitation standards through self inquiry. Internal Team Solutions quality assurance processes will be reviewed and amended where necessary.

These standards could also contribute to wider education community thinking about a possible national framework for facilitator practice. The Team Solutions standards will initially be used to guide facilitator appraisal using an inquiry approach. Team Solutions managers will use the standards to monitor the effectiveness of service delivery to clients, and report on effectiveness to clients contracting Team Solutions for professional development support.

With the demand on the New Zealand government from a number of providers of teacher professional development to make all contract funding contestable Team Solutions will need to maintain and strengthen service delivery through continuous improvement in an increasingly competitive market. The ongoing process of building capability through effective facilitator practices positions the organisation favourably to remain the preferred provider of professional development whilst maintaining financial viability.

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Andreas Ahrens was born in Wismar, Germany, in January 1971. He received the Dipl.-Ing. degree in electrical engineering from the University of Rostock in 1996. From 1996 to 2008, he was with the Institute of Communications Engineering of the University of Rostock, from which he received the Dr.-Ing. and Dr.-Ing. habil. degree in 2000 and 2003, respectively. In 2008, he became a Professor for Signal and System theory at the Hochschule Wismar, University of Technology, Business and Design, Germany. In February 2012, Andreas Ahrens was awarded expert rights in Electronics and Telecommunications by the Latvian Council of Science, Riga, Latvia. He is author and co-author of more than 60 peer-reviewed publications including conference and journal articles, book chapters, invited papers as well as books. His main field of interest includes error correcting codes, multiple-input multiple-output systems, iterative detection for both wireline and wireless communication as well as social computing. He has been a visiting professor at different universities around the world, including the Riga Technical University, Riga, Latvia, and the Universidad Politécnica de Madrid, Madrid, Spain.

### ***Orit Bar: Beit-Berl Academic College, Israel***

Orit Bar was born and lives in Israel. She received her PhD in Education in 2009, from Tel Aviv University. She is the Head of Steps-leadership and management models (Business & public sector).

From September 2012, Orit will be the head of The Center for Curriculum Planning, Instruction and Evaluation, Beit-Berl Academic College, Israel. For a number of years Orit has worked at the interface of professional development and organizational career paths. In her previous position as the Head of the Center for Entrepreneurship and Innovation in Education (Ministry of Education) she had partnered with The Center of Future Education, Ben Gurion University, in a

joint research project with the European Community, which dealt with the creation of meaningful learning processes.

Her research into fostering higher order thinking in young children was a base for a wide project in kindergartens in Israel. Orit writes for the Israeli HR professional magazine. Her publications focus mainly on organizational learning and cultural transformation. Her current areas of research include Role Perceptions career development and Identity Dilemmas among Teachers, Fostering higher order thinking tendencies and strategies, cultural transformation-values driven organization, a cross cultural perspective of learning, leadership and team working.

***Martin Bayer: Department of Culture and Identity, Roskilde University, Denmark***

Martin Bayer is associate professor and Head of Department of Culture and Identity at Roskilde University, Denmark. He was previously (2001 – 2010) associate professor and Head of Department of Curriculum Research at the Danish University of Education. Having received his PhD in Educational Studies at University of Copenhagen in 2000, he now works on teacher education, teachers' professional development and careers. He is author and co-author of some 50 books and articles on teacher education, teachers' professional development, teachers' careers and curriculum studies; though his recent and most influential publication is probably 'Teachers' Career Trajectories and Work Lives' published at Springer. Recent articles include 'Newly qualified teachers' careers in the first 18 month' in 'Becoming a Teacher' (ÅboAkademi University 2011) edited by Ulla Lindgren, Finn Hjärdemaal, Sven-Erik Hansén and KajSjoholm. He has also earned a communication award for his development of teaching material in cooperation with "Danish Emergency Management Agency" Danish Ministry of Defence 2009.

***Marie Josée Berger: Faculty of Education, University of Ottawa, Canada***

Marie Josée Berger is the Dean and a professor at the Faculty of Education, University of Ottawa. In addition to

her expertise in reading, Marie Josée Berger has worked in teaching, learning evaluation, and professional development (specifically for minority communities). She has played a major role in the overhauling of Ontario's curriculum, both at the elementary and secondary levels. She has not only contributed to linguistic actualization, French-language development, and to the growth of the French programs through the editing of memoirs, but has also been involved in the training of teachers in order to encourage reform.

Her most recent research centres on the portfolio, language skills, as well as on specialized reading intervention from Kindergarten to Grade 8. In cooperation with the Ministry of Education, she has developed a frame of reference for reading that has enabled the training of reading specialists in minority communities and the creation of reading intervention material.

Her inter-provincial research on secondary analyses regarding reading and writing tests has encouraged the development of paths for the betterment of education and evaluation. Her expertise in measure and evaluation helped contribute to the creation of the OQRE and she has, following this accomplishment, contributed to many of the organisation's research projects: *Apprentissage des mathématiques chez les élèves franco-ontariens des années préparatoires et de formation*, *Réponse de la communauté éducative aux recommandations de l'OQRE*.

She believes that the key to the successful teaching of any subject depends on continuous teacher training and development. This is precisely the reason why she has done considerable research in this area and published such articles as: *Mise à jour des pratiques pédagogiques du personnel enseignant en actualisation linguistique (ALF)*, *Exploration du portfolio de l'enseignement comme outil de réflexion et de mise en oeuvre du curriculum*.

She has published different reading curriculum materials such as: *Trousses d'apprentissages spécifiques en lecture, écriture et mathématiques aux cycles primaire, moyen* for students with learning disabilities. She has been a diagnostician for the project "Soutien à l'amélioration du

rendement en lecture” and works with a team that assists weaker performing schools to better utilise reading strategies from Kindergarten to Grade 8. She also contributed to the report entitled: *Littératie pour tous* in 2005.

She has been the principal investigator for diverse projects for the Ontario Ministry of Education as well as for the Council of Ontario Directors of Education and the Literacy and Numeracy Secretariat, the Ministry of Community and Social Services. Most of these projects are related to leadership, diversity and curriculum implementation.

### ***Olga Bombardelli: University of Trento, Italy***

Olga Bombardelli is a professor of Educational Studies at the University of Trento (Italy). She has been involved in several European consultancies such as the Comenius multilateral project ECLIPSE (European Citizenship Learning in a Programme for Secondary Education) 2011-2014 and the Tempus Programme with the Slovak Republic. Olga Bombardelli is the author of over 100 peer-reviewed publications. Two of her recent publications are '*Insegnanti europei per una scuola di qualità*' (Trento, 2011) and 'Lifelong learning and life-wide learning for sustainable development' in N.A Lobanov and V.N. Skvortsov, *Lifelong learning: continuous education for sustainable development* (Saint-Petersburg 2011).

### ***James Brescia: California Polytechnic State University (Cal Poly), San Luis Obispo, California, USA***

Dr. Brescia is a visiting professor in the Educational Leadership and Administration Program at the California Polytechnic State University, San Luis Obispo, and he currently serves as the superintendent of the Cayucos Elementary School District. He enjoys teaching organizational theory, educational leadership, educational finance, school site leadership, and instructional evaluation. Dr. Brescia's writing and research interests include: school leadership, instructional leadership, and problem-solving-based training of educational leaders. Dr. Brescia has peer

reviewed articles published in both national and international journals.

Dr. Brescia holds a bachelor's degree in Psychology from the University of California, San Diego; a master's degree in Humanities from California State University Dominguez Hills; a master's degree in Educational Administration from Cal Poly San Luis Obispo; and a doctorate in Educational Leadership from the University of California Santa Barbara. He earned his basic teaching credentials from the University of California San Diego, and his California Professional Administrative Services Credential from Cal Poly San Luis Obispo.

***Rachael Eriksen Brown: Knowles Science Teaching Foundation, Moorestown, New Jersey, USA***

Rachael Brown is a mathematics teacher developer at the Knowles Science Teaching Foundation. She received her Ph.D. in Mathematics Education from the University of Georgia in 2009. Dr. Brown's dissertation research investigated the practicality of the development of a mathematical community of practice among middle school teachers participating in professional development. This study provides an example of success of community of practice development within a PD setting with a facilitator intent on not only improving teachers' mathematical understanding but also attempting to cultivate a community. Her research interests are mathematics teacher learning, professional development, and community development.

***Mario Brun: Institute of ICT in Education, University of La Frontera, Chile***

Prof. Mario Brun is an educational researcher of the Institute of ICT in Education at the University of La Frontera in Chile and at the Centre for the Study of Educational Policy and Practice (CEPPE). During the last few years he has acted as senior or associate consultant for international agencies such as: United Nations Economic Commission for Latin American and the Caribbean (ECLAC), UNESCO, Inter-

American Development Bank (IADB) and the Organization of Ibero-American Countries (OEI), among others. He has conducted different research projects (e.g. the application in Chile of the International OECD's study: ICT in Initial Teacher Training); he has published in a number of international journals and lectured in international events. He has degrees in Teaching and Computer Sciences and post-graduate qualifications in ICT in Education, Exact Sciences Teaching and Educational Research, and the use of ICT in Education (particularly in Initial Teacher Education).

His most recent publications include:

Brun, M. (2011). Information and Communications Technologies in Initial Teacher Education in Latin American and the Caribbean. Santiago: Economic Commission for Latin American and the Caribbean (ECLAC).

Brun, M. & Hinostroza, J.E. (2011). Research on ICT integration for enhancing quality in teacher education: nationwide policy or global challenge?. En E. Eisenschmidt & E.Löfström (Eds.), *Developing Quality Cultures in Teacher Education: Expanding Horizons in Relation to Quality Assurance* (pp. 99-118). Tallinn: OÜ Vali Press.

Hinostroza, J. E., Brun, M., Labbé, C., San Martín, E., Vargas, J., Fryer, M., et al. (2011). *The relation of the availability and use of computers with students' and teachers' performance in secondary schools in Barbados*: Inter-American Development Bank; Office of Evaluation and Oversight.

***Richard Butt: Faculty of Education, University of Lethbridge, Alberta, Canada***

Richard Butt, Professor of Education at the Faculty of Education of the University of Lethbridge, Alberta, Canada is the Coordinator of the PhD Program in Education and former Assistant Dean of Graduate Studies in Education. His main interests have been emancipatory forms of learning, teaching, leadership, development and research.

During his forty year career, his core focus has been teacher education, professional learning, school improvement and change through building professional

learning communities as a teacher, consultant and researcher in Europe, Australia and Canada. He has held Visiting Research/ Teaching Fellowships at Southern Cross and Sir Charles Sturt Universities in New South Wales, Australia.

Despite the fact that his research origins lie in science, his more than 90 publications in education, while reflecting some quantitative research methodologies, mostly emphasize qualitative inquiries into the nature of educational phenomena, particularly the nature of teacher's professional knowledge and teacher's development from their perspective using autobiographical research methodologies and data. This work has helped in his re-conceptualizing how to successfully facilitate professional learning and school improvement.

Recently, he has evolved his collaborative autobiographical research methodology into a form of narrative therapy that enables teachers, and other professionals, to create professional healthy lifestyles through addressing stress, burnout, and issues such as workaholism and perfectionism.

***Tara Concannon-Gibney: Adelphi University, New York, USA***

Dr. Tara Concannon-Gibney is an assistant professor at Adelphi University in New York where she teaches courses in literacy assessment and instruction. She previously taught literacy methods courses as both an adjunct and visiting professor at St. Patrick's College in Dublin, Ireland and is also an experienced elementary school teacher. Dr Concannon-Gibney received her PhD in education from University College Cork in Ireland. Her dissertation focused on the professional development of teachers in reading comprehension instruction. She has co-authored numerous peer-reviewed journal articles and has presented her research internationally. She was a member of the 'Reading Expert Group' for the National Assessment of English Reading in Ireland 2009. She is currently a member of the International Reading Association, New York State Reading Association and Nassau Reading Council. She is past president and a former member of the executive committee

of the Reading Association of Ireland. Her current research interests include reading comprehension instruction, effective writing instruction, content area reading and the professional development of teachers.

***Clare Conway: School of Language and Culture,  
Auckland University of Technology, New Zealand***

Clare Conway is a Senior Lecturer in the School of Language and Culture at AUT University, New Zealand. Clare is Programme Coordinator, Master of Professional Language Studies in Language Teaching and Co-Programme Coordinator, Master of Arts Applied Language Studies. Clare comes to her current positions after leading programmes at AUT University in Language Teacher Education at Graduate Diploma and Certificate levels. She has had experience teaching languages in France, Finland and New Zealand. At AUT her teaching experience includes papers on the Master's and Graduate Diploma and undergraduate papers on the BA English and New Media Studies, as well as Academic Literacies, English for Business Studies and general English language at all levels.

Clare's contributions to the community include writing and editing for Password Magazine, a magazine for new speakers of English, and a position as Auckland Team leader for University of Cambridge ESOL Examinations. Her research interests include linking theory and practice in intercultural language teaching and reflective practice. Clare Conway is a member of the Language Teacher Education Research Group. She has recently reported - together with Dr. Sharon Harvey, Heather Richards and Annelies Roskvist - on a Ministry of Education funded project: An Evaluation of the Teacher and Professional Development Languages (TPDL) in years 7-10 and the impact on language learning opportunities and outcomes for students. She has published and presented nationally and internationally in the areas of developing intercultural competence and building language teacher capabilities. Clare is currently involved in further analysis of data from the project. She is also involved in a collaborative self-study/action research project with Heather Denny on the teaching of reflective practice in the one-year Professional Masters.

**Paul Conway: School of Education, University College Cork, Ireland**

Paul Conway, is a Senior Lecturer in the School of Education, University College Cork, Ireland, where he is Director of the Cohort PhD in Education programme, as well as Associate Director of UCC's university-wide Centre for Global Development (CGD). From 2008 to 2010, he was President of the Educational Studies Association of Ireland (ESAI) and is currently a member of the Council of the World Education Research Association (WERA). He is Co-editor of *Irish Educational Studies* (a Social Science Citation Indexed (SSCI) journal) and an Associate Editor of *Teachers and Teaching: Theory and Practice*. He is widely published (books, chapters, peer reviewed journal articles, commissioned research monographs) in the areas of teacher learning, teacher education policy and e-learning.

Some of Paul's recent publications include: *The Digital Pencil: One-to-one Computing for Children* (Lei, Conway and Zhao, 2008: Routledge), a major nine-country comparative study of teacher education (*Learning to Teach and Its Implications for the Continuum of Teacher Education: A Nine-Country Cross National Study*. Report commissioned by the Teaching Council, Ireland) and *Learning to Teach Study (LETS): Developing curricular and cross-curricular competences in becoming a 'good' secondary teacher*. Department of Education and Skills-funded study (Conway et al, 2010). He was Co-Chair of the European Association for Research on Learning and Instruction's (EARLI) SIG on Teacher and Teacher Education from 2005-09.

**Christopher DeLuca: Queen's University, Kingston, Ontario, Canada**

Christopher DeLuca is an Assistant Professor at Queen's University in Kingston, Canada. Previously, Christopher worked at the University of South Florida (Tampa, USA) and in the United Kingdom at the Association of Commonwealth Universities. His research interests include pre-service and in-service assessment education and the application of contemporary validity theory to assessment and educational

programs. His research has been published in leading international journals including, *Assessment in Education*, *Educational Assessment*, *Educational Research*, and the *Canadian Journal of Educational Administration and Policy*.

***Helen Donaghue: Sharjah Higher Colleges of Technology, Sharjah, United Arab Emirates***

Helen Donaghue is the Coordinator of the Centre for Teaching and Learning at Sharjah Higher Colleges of Technology, UAE. Her current job involves faculty support and consultation with follow up action such as observing classroom teaching and providing feedback with suggestions for improvement or problem solving, delivering orientation workshops and providing on-going support for new faculty, providing and delivering professional development workshops and programmes to meet the needs of the college, departments and individual faculty to ensure improvement in teaching, learning and assessment. She is a founding member and Co-chair of the TESOL Arabia Teacher Training and Development SIG.

Helen Donaghue has worked as an ELT teacher and teacher trainer for over 20 years in Hungary, Scotland and the UAE. She is a CELTA trainer and has designed and delivered both pre-service and in-service teacher training courses. She has written resource books for teachers and published papers in refereed journals as well as presented her work and research at international conferences. She is currently a doctoral student researching the discourse of post observation feedback.

***Alida J. Droppert: Central College, Pella, Iowa, USA***

Alida J. Droppert is an Assistant Professor of Education at Central College, Pella, Iowa. She has wide international teaching experience having taught in several international schools in Europe: Budapest, Hungary and Sofia, Bulgaria; in Asia: Jakarta, Bandung, and Sumbawa, Indonesia; Kaohsiung, Taiwan; and in Africa: Lusaka, Zambia. Her journal publications focus on teaching for cultural diversity, the impact of collaborative clinical experiences on pre-

service teacher training and the development of literacy reading strategies.

***Si Fan: University of Tasmania, Australia***

Dr Si Fan completed her PhD at the University of Tasmania, Australia, in 2011. She is currently working as a lecturer and academic researcher at the same university. She has participated in a number of university research projects. Dr Si Fan has a wide range of publications in web-based learning, teacher education and ESL education and has contributed to several chapters in T. Lê, & Q. Lê (Eds.), *Technologies for Enhancing Pedagogy, Engagement and Empowerment in Education: Creating Learning-Friendly Environments*. Hershey, PA: Information Science Reference.

***Sheila Flihan: College of Saint Rose, Albany, New York, USA***

Sheila Flihan is an Associate Professor of Teacher Education at The College of Saint Rose in Albany, N.Y. USA. She specializes in research, theory and practice related to the teaching and learning of language and literacy. Her current research explores 21<sup>st</sup> century literacies. She frequently presents her work at regional, national and international conferences and often provides staff development programs for teachers in New York's Capital Region. Sheila Flihan earned a Ph.D. in Curriculum and Instruction with a specialization in Language in Education from the University at Albany, State University of New York where she was a Title VII Bilingual Fellow and a Research Assistant for the National Research Center on English Learning and Achievement (CELA). She also holds a Master of Arts in English from the University at Albany and a Bachelor of Arts in English and Philosophy from LeMoyne College, Syracuse, NY. As a former high school and middle school teacher in New York's public and private schools, she is a New York State certified teacher of English, English as a Second Language and Elementary Education.

***Renée Forgette-Giroux: Faculty of Education,  
University of Ottawa, Canada***

Renée Forgette-Giroux Ph.D. is an adjunct professor at the Faculty of Education, University of Ottawa. Her research interests and academic activities revolve around grading practices in the classroom as well as on a larger scale. She is particularly interested in politics, practices, strategies, and in the metrological properties of evaluation tools. She has published several articles on the portfolio, practical assessment, research and evaluation. Her most recent work focuses on grading and academic performance amongst Francophone minority students on a national and international level. She is currently working with the Literacy and Numeracy Secretariat at the Ministry of Education of Ontario and has just finished studying the evaluating practices employed by the teachers of the Conseil scolaire de district catholique du Centre-sud as part of a teacher support program.

Professor Forgette-Giroux is an expert in academic evaluation and quantitative and qualitative methodology. She just completed two reports for Ontario's Ministry of Education on the revision and actualization evaluation grids for concentration programs. These reports are entitled « Etude critique des composantes actuelles des grilles d'évaluation du rendement du curriculum de l'Ontario » and « Grille d'évaluation du rendement du curriculum de l'Ontario : paramètres d'actualisation ».

Her work on the portfolio is well known and is considered to be pioneering in francophone research. Her work has also been published in many scientific journals and has been presented to provincial, national and international assemblies. Her commitment to teaching both undergraduates and graduate students has been very beneficial to her research.

Many of her grants stem from public institutions directly connected to the school populations she studies. The work realised thanks to this funding has allowed for a more profound understanding of the content and functions of Canadian and international testing programs.

***Kristi Fragnoli: College of Saint Rose, Albany, New York, USA***

Kristi Fragnoli is an Associate Professor in the School of Education at The College of Saint Rose. Dr. Fragnoli has been involved in multiple forms of research and educational community dialog. She co-authored the chapter, "Social Studies Assessment," in the book, *Social Studies Curriculum: Purposes, Problems, and Possibilities*, edited by Wayne Ross. Dr. Fragnoli was the lead educator in the development of the New York State Archives web-based teacher resource, *Throughout the Ages*, which was awarded the American Association for State and Local Leadership in History Award of Merit. She has presented at international, national, state and regional conferences for the National Council of Social Studies, the National Council of History Education, and the American Association of College for Teacher Education. Her prior teaching experience includes, Assistant Professor at the State University of New York at Cortland and adjunct teaching at Syracuse University. Her dissertation work was completed at State University of New York at Binghamton and focusing on New York State mandated assessments.

***Sandra Kemp Geisler: Citizens Property Insurance. USA***

Sandra Kemp Geisler is a Personal Lines Underwriting Consultant for Citizens Property Insurance. She earned her PhD in Instructional Technology in 2009 at the University of Georgia. Her dissertation was focused on change management and professional development, with a primary focus on the implementation of new state standards in Georgia. Dr. Geisler is interested in helping businesses improve their organizational responses to today's marketplace challenges.

***James Gentilucci: California Polytechnic State University (Cal Poly), San Luis Obispo, California, USA***

Dr. Gentilucci is an associate professor of Education and the coordinator of the Educational Leadership and Administration Program at the California Polytechnic State

University, San Luis Obispo. Prior to his university work, Dr. Gentilucci served for 23 years as a teacher, principal, chief business officer, and assistant superintendent of schools. Dr. Gentilucci's writing and research interests include: student perceptions of schooling and learning; science, technology, engineering, and mathematics (STEM) leadership; instructional leadership of school principals; and national and international K-12 school reform and improvement. Dr. Gentilucci has published in multiple peer reviewed journals both nationally and internationally.

He received his bachelor's degree in Geography from California State University Northridge and master's and Ph.D. degrees in Educational Leadership and Organization Theory from the University of California Santa Barbara. He also holds three additional master's degrees in the areas of Information Management (M.S.), Business Administration (M.B.A.), and Computer-Based Education (M.A.). Dr. Gentilucci holds Multiple and Single Subject Teaching Credentials as well as the California Professional Administrative Services Credential.

***Christina Gitsaki: Sharjah Higher Colleges of Technology, Sharjah, United Arab Emirates***

Dr. Christina Gitsaki, is the Associate Academic Dean of English at the Higher Colleges of Technology. Over the past 3 years she served as the UNESCO Chair in Applied Research in Education at the Sharjah Higher Colleges of Technology (SHCT). Prior to coming to the UAE, she was faculty at the School of Education, at the University of Queensland (UQ), Australia, where she educated pre-service ESL teachers and supervised Master's and Ph.D. students in language education research. Dr. Gitsaki has worked with Education Queensland and The Learning Federation of the Curriculum Corporation on state and federal education projects. During her term as the UNESCO Chair at SHCT she fostered partnerships with the wider academic community to strengthen national capacity to offer quality education. Under her leadership, the UNESCO Chair Program offered teacher professional development programs to over 220 primary and high school EFL teachers and runs a series of Open Lectures on topics targeting the needs of UAE

educators and students in all education sectors. Dr. Gitsaki has presented her research at International Conferences, has been an invited speaker at various professional events and she has published numerous papers in refereed journals and book chapters on language acquisition and pedagogy. She is the author, editor or co-editor of six books on language education research.

***Anne Graham: School of Education, Southern Cross University, Australia***

Anne Graham, is Professor of Childhood Studies and Director of the Centre for Children and Young People at Southern Cross University, and former head of the School of Education. She has developed and implemented a range of professional development programs in schools that are experientially based. Anne has extensive experience working both in undergraduate and postgraduate teacher education. Anne's background is in education and sociology. Her research and professional interests include children's social and emotional well-being, children's rights (especially concerning their participation), ethical issues in researching with children & young people, and teacher learning. Anne developed a highly successful loss and grief education program, 'Seasons for Growth' which supports children, young people and parents who have experienced significant change in their family due to death, separation or divorce. More than 150,000 children and young people in 5 countries have participated in the program. One of her recent publications is:

Nisbet, I., Graham, A., & Newell, S. (2012), 'A letter from Australia – The potential of a 'wraparound' approach to reducing juvenile offending in New South Wales', *Crime Prevention and Community Safety*, vol. 14, no. 3, pp. 225-234.

***Lynne Grant: School of Education, University of the West of Scotland***

Dr Lynne Grant is a lecturer in the School of Education at the University of the West of Scotland, UK, where she is responsible for Social Subjects and Leadership for Learning.

Lynne gained her PhD in 2007 from the University of Strathclyde. Prior to joining University of the West of Scotland, Lynne held senior management posts in a primary school and worked at education authority level. Her research interests are varied and include moderation for accountability and improvement, quality assurance and assessment, educational effectiveness, and the impact of social capital on young people's educational attainment. Lynne is the author of more than 20 published materials including peer-reviewed articles, chapters, reviews, and abstracts.

***Nancy Grigg: Faculty of Education, University of Lethbridge, Alberta, Canada***

Dr. Nancy Grigg, B.Ed., M.Ed., Ph.D., is an education professor and program co-ordinator, and has been a member of the Human Subject Review Committee, and the University Liaison for the Special Education Council, Alberta Teachers' Association.

***Sharon Harvey: School of Language and Culture, Auckland University of Technology, New Zealand***

Dr. Sharon Harvey is Head of the School of Language and Culture and Deputy Dean (Research and Postgraduate) in the Faculty of Culture and Society at AUT University. Sharon researches, publishes and supervises in the areas of higher education policy, language teacher development, intercultural competence, discourse analysis and critical language studies. Sharon was an ESOL and workplace literacy teacher for many years. Over the last 15 years she has been closely involved in the development of postgraduate programmes and a research culture at AUT. From 2007-2011 Sharon led three national Ministry of Education research evaluations in the areas of ESOL paraprofessionals and building language teacher capacity in New Zealand schools.

Sharon's research and supervisory interests cover critical language and migrant studies, discourse analysis, language learning and teaching, curriculum studies, language policy, intercultural communication and competency and language

teacher development. Sharon also has a strong research interest in the fields of research policy, knowledge and national science and one of her recent publications is:

Guy, S. & Harvey, S. (2012), Going it alone: New Zealand company-sponsored language, literacy and numeracy (LLN) training in an era of government funding. *Journal of Education and Work* pp 1-24.

***Hanna N. Haydar: Brooklyn College, City University of New York, New York, USA***

Hanna Haydar is an assistant professor and Head of the Program in Childhood Education - Mathematics at the City University of New York-Brooklyn College. He was previously the Curriculum Standards and Professional Development adviser at RAND Education and the Supreme Education Council in Doha- Qatar. Dr. Haydar received his PhD in Mathematics Education from Columbia University, NY, USA in 2002. His research interests and publications focus on educational policy, beginning mathematics teachers, inclusion, lesson study and teachers' response to mathematical errors. Dr. Haydar has also taught in Lebanon, Kuwait and United States. His international experience includes research studies and consultancies in the Middle East, Europe and the United States.

***Juan E. Hinostroza: Institute of ICT in Education, University of La Frontera, Chile***

Juan E. Hinostroza Dr. J. Enrique Hinostroza is the Director of the Institute of ICT in Education of the Universidad de La Frontera in Temuco, Chile and associate researcher of the Centre for the Study of Educational Policy and Practice (CEPPE). During the last decade he has acted as senior consultant for the Chilean ICT in Education Program Enlaces as well as for other countries in Latin America and the Caribbean region, including Bahamas, El Salvador, Costa Rica, Jamaica, México, Nicaragua, Trinidad and Tobago and Paraguay as well as consultant for international agencies, including UNESCO, ECLAC, World Bank and Inter-American Development Bank. He has conducted several national and international research projects and published in a number of

international journals. He has professional qualifications in Industrial Engineering (1998), a Master's degree in Computer Science (1990) and a PhD in Information Technology in Education (1999 - Institute of Education, University of London). His research interests are related to the design and evaluation of educational software and of ICT in education policies and practices. Current research projects include the Design and development of digital textbooks for schools and the investigation of teaching and learning strategies of students' 21st century skills.

His most recent publications include:

Hinostroza, J. E. & Labbé, C. (2011). Policies and practices for the use of information and communications technologies (ICTs) in education in Latin America and the Caribbean. *Políticas Sociales*. Santiago: Economic Commission for Latin American and the Caribbean (ECLAC).

Hinostroza, J. E., Labbé, C., Brun, M., & Matamala, C. (2011). Teaching and learning activities in Chilean classrooms: Is ICT making a difference? *Computers & Education*, 57, 1358-1367

Hinostroza, J. E., Jara, I., & Brun, M. (2011). Chapter 6: Case Study: Uruguay. In R. B. Kozma (Ed.), *ICT Policies and Educational Transformation* (pp. 125-164). Paris: UNESCO.

### ***Frida Hristofski: University of South Australia***

Frida Hristofski is a well-qualified and committed educator and researcher. She holds a Master's in Education (Health Education) from the University of Sydney and has completed her undergraduate degree in teaching health and physical education. She is currently completing her PhD through the University of South Australia. Frida has extensive knowledge of contemporary health and educational issues in Health and Physical Education which has led to securing positions as Health Discipline Coordinator, unit coordinator and lecturer at various universities over the last ten years. Additionally she has sixteen years' experience in teaching Health and Physical Education in schools.

Frida has presented at numerous international, national and state conferences, published academic papers for peer-reviewed journals, authored several secondary school PDHPE text books and has been invited to participate on various panels. She has provided expertise knowledge and guidance to the development of new Health and Physical Education degrees, created new units, and successfully met external agencies' criteria for the accreditation. Furthermore, Frida contributes to numerous professional associations including the European Network for Social and Emotional Competence, the Australian Council of Health, Physical Education and Recreation Member and the Hunter Institute of Mental Health's Response Ability Academic Advisory Panel.

***Janette Hughes: University of Ontario Institute of Technology, Canada***

Janette Hughes is Associate Professor at The University of Ontario Institute of Technology, where she teaches Literacy education in the B.Ed. and M.Ed. programs. Previously a classroom teacher of English for 18 years, Dr. Hughes received her PhD in Literacy Education at the University of Western Ontario in 2006. Her research focuses on digital literacies and she has authored or co-authored more than 40 peer-reviewed journal articles, book chapters, and invited papers and she has presented her work at international conferences in Canada, the U.S., England, China, Israel, Brazil, and in several European countries. Dr. Hughes is the recipient of five grants from the Social Sciences and Humanities Research Council of Canada and she was recently awarded the Early Researchers' Award from the Ministry of Research and Innovation in Ontario, Canada.

***Harald Jarning: Oslo and Akershus University College of Applied Science, Norway***

Harald Jarning is professor in education at Oslo and Akershus University College of Applied Science Norway. He has worked extensively with teacher education, educational research, and science policy questions. His main research interests are didactics and pedagogy, historical studies of

schooling and higher education, and intellectual history of education. He has been editor of the norwegian yearbook for educational history, *Skolen*, and has published on didactical and historical issues in Norway, as well as internationally.

***Konstantina K. Kiriatzakou: Experimental Primary School, Evosmos Thessaloniki, Greece***

Konstantina Kiriatzakou is a teacher at the 3rd Experimental Primary School in Evosmos Thessaloniki, Greece. She has completed her master's course in Educational and Social Policy specializing in 'Adult Education' at the University of Macedonia, Thessaloniki. Her dissertation investigates the administration model of the principals of primary schools in Thessaloniki, Greece. She is a PhD candidate in Educational Administration at the Department of Educational and Social Policy, University of Macedonia, Greece.

***Aurika Komsaare: University of Tartu Viljandi Culture Academy, Estonia***

Aurika Komsaare is a lecturer of intercultural communication at the University of Tartu Viljandi Culture Academy, Estonia. She has worked in Viljandi Culture Academy since 2000. In 1993, right after graduating from the University of Tartu (MA on Russian language and literature), she started her career as a social worker in Viljandi Juvenile Prison, and proceeded as an Estonian language teacher in Narva Soldino Gymnasium, one of the Russian speaking schools in Estonia. In 2008 she defended her second MA (on Educational sciences). Her current research interests include intercultural communication and non-formal methods in formal education. One of her most influential publication is:

Komsaare, A. (2009). The communication choices of Russian-speaking students as factors that influence their acculturation: The case of the University of Tartu Viljandi Culture Academy. *The International Journal of Learning*, 16.

Recent conference presentations of particular note were:

Komsaare, A. (2011). Experiential learning methods in teacher education. EAPRIL Conference 2011. and

Komsaare, A. (2011). Adventure-Based Learning Techniques in Service of Practicing Intercultural Communication. 18th Learning Conference. , 2011.

***Feiming Li: National Board of Osteopathic Medical Examiners, Chicago, USA***

Feiming Li is a Psychometrician at the National Board of Osteopathic Medical Examiners. She completed her PhD at the University of Georgia in Research, Evaluation, Measurement, and Statistics. Dr. Li has had an active record of scholarship on a variety of topics related to measurement.

***Craig Loewen: Faculty of Education, University of Lethbridge, Alberta, Canada***

Craig Loewen teaches mathematics education in the Faculty of Education at the University of Lethbridge, located in southern Alberta, Canada. Dr. Loewen has been with the faculty for 25 years, and in addition to teaching and research has served as the Assistant Dean, Student Programs as well as the Associate Dean of the faculty. He is currently finishing a term as the Interim Dean. Dr. Loewen completed his PhD at the University of Alberta in 1992 where he specialized in Secondary Mathematics Education. He is particularly interested in researching methods of teaching mathematics to enhance student understanding and enjoyment in their learning. Dr. Loewen has been presented both the Alberta Teachers' Association Educational Research award and the University of Lethbridge Distinguished Teaching Medal.

***King Luu: Queen's University in Kingston, Canada***

King Luu is a graduate student at Queen's University in Kingston, Canada. His current research interests include assessment in higher education and computer-based assessment systems.

***Zita Lysaght: Special Education Department, St. Patrick's College, Dublin, Ireland***

Zita Lysaght has been a member of the Special Education Department, St. Patrick's College, Dublin since 2006. Zita has worked in primary level education at home and abroad (Tanzania) in various capacities (teacher, deputy-principal, founder and director of an international school). Her prior experience at third level includes early years' curriculum design and development (Mary Immaculate College, Limerick), project management and evaluation (Centre for Research in Technology in Education, Trinity College Dublin) and, at national level, Zita worked as an assistant national co-ordinator with the Leadership Development for Schools Programme.

Throughout her career, Zita has remained focused on, and committed to, education for social inclusion and personal empowerment and this is reflected in her teaching and research portfolio. Current teaching and research interests include assessment for learning, instructional and distributed teacher leadership, educational disadvantage, social, emotional and behavioural difficulties, information and communications technologies/blended learning and mixed-methods research design and methodology.

***Joanna Madalińska-Michalak: Department of Didactics and Teacher Education, Faculty of Educational Studies, University of Lodz, Poland***

Joanna Madalińska-Michalak, is Professor and Chair of the Department of Didactics and Teacher Education at the Faculty of Educational Studies, University of Lodz, Poland. Joanna has been working at the University of Lodz since 1996. She has long-standing research interests in comparative education, teacher education research, policy of teacher education, teacher's professional development and learning, exemplary teachers and leaders, teacher's success and its conditions, educational leadership, ethics and professionalism of teaching.

At the present time she is developing her research interests around the quality of teacher education, the quality of the

relationships in educational settings, school development and school leadership and management, and the school-university partnership.

Joanna is author of 11 books and author and co-author of more than 150 peer-review journal articles and book chapters. Her recent publications are:

Michalak, J.M., Kwiatkowski, S.M., Nowosad, I. (eds). (2011). *Przywódcztwo w szkole i jej otoczeniu* [Leadership at school and its surroundings]. Wydawnictwo Difin, Warsaw;

Michalak, J. M., Kwiatkowski, S. M. (Eds.) (2010). *Przywódcztwo edukacyjne w teorii i praktyce* [Educational Leadership in Theory and Practice]. Fundacja Rozwoju Systemu Edukacji, Warsaw;

Michalak, J. M. (ed.) (2010) *Etyka i profesjonalizm w zawodzie nauczyciela* [Ethics and professionalism in teaching]. Wydawnictwo Uniwersytetu Łódzkiego, Łódz.

Professor Madalińska-Michalak has been active in Polskie Towarzystwo Pedagogiczne (Polish Pedagogics Association) and served as a member of Executive Body in 2007-2011. Now she is Vice-President of Polskie Towarzystwo Pedagogiczne (Polish Pedagogics Association). She has served as a Member of Council Board of European Educational Research Association since 2008. She has taught at many universities in Europe: Sheffield Hallam University, University of Aveiro, Valencia University, University of Latvia, University of Tallin, State College of Teacher Education in Linz and Akdeniz University.

***Marcia Margolin: College of Saint Rose, Albany, New York, USA***

Marcia Margolin is an Associate Professor in the School of Education at The College of Saint Rose. Dr. Margolin's research on teacher induction and in-service evaluation of instructional practices has been presented at state, national, and international conference venues. As a teaching fellow at the University of Albany, New York, Dr. Margolin completed an extensive dissertation investigation on the validity of

teacher evaluation criteria. For the past eight years Dr. Margolin has served as co-director of two public school-college partnerships to provide academic mentoring for at-risk, inner-city youth. Dr. Margolin's most current research focuses on digital literacy, online teacher evaluation, and a special education/general education degree program as part of a multi-year federal grant award team.

***Yonah H. Matemba: School of Education,  
University of the West of Scotland***

Dr. Matemba, from Malawi, is a lecturer in the School of Education at the University of the West of Scotland, UK, where he is responsible for Religious Education and Health & Wellbeing. He obtained his first degree in education at Andrews University, USA, followed by a Master's degree in History at the University of Botswana and, later completed a Master's degree in Theology and Religious Studies at the University of Malawi. In 2007 he won a scholarship to study for a PhD in Religious Education at the University of Glasgow where he graduated in 2011. Previously he taught Religious Education at the Botswana government's Molepolole College of Education, then History at the University of Botswana and finally, Religious Studies at the Catholic University of Malawi. He is the author of more than 20 peer-reviewed articles, book chapter, reviews and books. His most recent (2011) book, *Religious Education in Comparative Perspectives: Curriculum Developments in the Secondary School Sectors of Scotland and Malawi, 1970-2010*, is published by Lambert Academic Publishing, Germany. In 2010 he served as a peer reviewer for the *Journal of Moral Education* and currently is a member of the Association of University Lecturers in Religion and Education (AULRE).

***Gerald McConaghy: Faculty of Education,  
University of Lethbridge, Alberta, Canada***

After completing high school near Grande Prairie, Gerald McConaghy attended the Northern Alberta Institute of Technology and received a Diploma in Business Administration. He spent one year working for the Toronto Dominion Bank and then worked for Alberta Power Ltd.

During that time he completed a B.Ed. at the University of Alberta. He was a Business Education teacher in Camrose and Devon and then returned to the University of Alberta to complete a M.Ed. Realizing how many questions he had about teaching and learning, he remained at the University of Alberta and completed a Ph.D. Gerald McConaghy has a special interest in teacher identity formation.

***Gayle McIlraith: University of Auckland, New Zealand***

Gayle McIlraith is a Literacy Programme Leader at The University of Auckland where the primary focus of her work is supporting school leaders to lead learning, change teacher practice and accelerate student achievement. Gayle has managed Reading Recovery tutors in the Northern region of New Zealand for the last two years and managed Literacy and Mathematics in-service for teachers for the Faculty of Education's School Support Services contract. Prior to working in the University of Auckland, Gayle held a number of leadership roles in the primary (years one to eight) education sector.

In 2007 Gayle completed a Master's of Educational Administration at Massey University and is currently working towards completing a Doctorate of Education. The focus of her research is an exploration of what cues teachers pay attention to, when they make an overall teacher judgement in reading.

Gayle was one of twelve national facilitators selected to participate in the In-service Teacher Educator Professional Development Project (INSTEP). Participation in the research project provided the opportunity to combine interests in Literacy and in-service teacher education. This work contributed to the publication:

Ministry of Education. (2008). *Ki te Aoturoa Improving In service Teacher Educator Learning and Practice*. Wellington: Learning Media.

**Regina M. Mistretta: School of Education at St. John's University, New York City, USA**

Regina Mistretta, Ed.D., is an associate professor of mathematics education and program coordinator in The School of Education at St. John's University. She previously taught at Wagner College and Brooklyn College, and has served as a classroom elementary, middle, and high school mathematics teacher over a period of 13 years. Her doctoral degree was earned at Teachers College, Columbia University. Her research primarily focuses on teacher preparation and parental engagement. She has presented her work at national and international conferences, and is author of the book *Teachers Engaging Parents in Mathematical Learning: Nurturing Productive Collaboration* (Rowman & Littlefield Education, 2008). Her most recent article, entitled: "We Do Care: What Parents Say," is in press with the journal *Teaching Children Mathematics*.

Dr. Mistretta serves as the co-chair of the Mathematics Teacher Special Interest Group of the Association of Teacher Educators, and has reviewed articles for the National Council of Teachers of Mathematics for twenty years. In addition, she has served as co-editor of a feature in *Teaching Children Mathematics*, entitled: "Math By The Month."

Dr. Mistretta's achieved federal and private grant funding has been allocated to mathematics professional development programs, as well as family initiatives in mathematics and science.

**Brian Murphy: School of Education, University College Cork, Ireland**

Dr. Brian Murphy teaches in the School of Education, University College Cork (National University of Ireland) where he is also course leader for the Master's in Education programme. His teaching responsibilities are in the areas of language teaching methodology, literacy and teaching studies. His current areas of research interest include the pedagogy of language and literacy development, second language teaching and learning, gender and language

learning, language policy and teacher education issues. As well as being a member of the Executive Committee of the Reading Association of Ireland, he is also the nominated literacy expert member of the OECD PISA National Advisory Committee for Ireland and a member of the Irish Department of Education and Skills National Implementation Advisory Committee for the country's recently published National Literacy and Numeracy Strategy (2011). One of his recent co-authored works with Dr. Tara Concannon-Gibney was shortlisted for the *UKLA/ Wiley-Blackwell Research in Literacy Education Award 2011*.

***Rosaleen Murphy: School of Education,  
University College Cork, Ireland***

Dr. Rosaleen Murphy is a researcher in the School of Education, University College Cork. She received a PhD from the National University of Ireland on the topic of parental involvement in early-years education in 2000, followed by post-doctoral research on the same topic funded by a fellowship from the Irish Research Council for the Humanities and Social Sciences. Her research interests include early childhood education and care, curriculum development, and the professional preparation of teachers. She published "Exploring Children's Lives, a Handbook of Early Childhood Research" in 2005, and co-authored "Loris Malaguzzi and the Reggio Emilia Experience" (2010), Vol 23 in the Continuum Library of Educational Thought.

Dr. Murphy has also co-authored several book chapters, and has worked on many important commissioned reports for public bodies in Ireland including the Teaching Council of Ireland and the National Council for Curriculum and Assessment (NCCA). She was part of the team that produced *Aistear, the Early Childhood Curriculum Framework* for children from birth to six (NCCA, 2009). She has served on the Irish national committee of OMEP, the World Early Childhood Organisation since 2005, and been the editor of *An Leanbh Óg, the OMEP Ireland Journal of Early Childhood Studies* since 2007.

***Chandra Hawley Orrill: University of Massachusetts, Dartmouth, USA***

Chandra Hawley Orrill is an Assistant Professor in STEM Education at the University of Massachusetts Dartmouth. She is a mathematics educator with a focus on teachers' understanding of mathematics in grades 3-8 and the design of professional development to support better understanding. Dr. Orrill was a Research Scientist at the University of Georgia for 9½ years. There she was Principal or Co-Principal Investigator on 26 grants related to professional development, teacher knowledge, and teacher practice. Dr. Orrill earned her Ph.D. in Instructional Systems Technology at Indiana University in 1999 where her dissertation focused on the design of professional development to support implementation of problem-solving simulations into middle school classrooms. Her current research is focused on the ways in which teachers have organized their understanding of mathematical concepts and the ways in which that shapes the teachers' instruction. Dr. Orrill is the recipient of a National Science Foundation CAREER grant to support this research.

***Jill Parfitt: University of Auckland, New Zealand***

Jill Parfitt works at the University of Auckland, New Zealand as a Team Manager with TEAM Solutions.

***Angelika Paseka: University of Hamburg, Germany***

Prof. Dr. Angelika Paseka is professor for profession research and professional development of teachers at the University of Hamburg, Germany. She was previously a professor for educational sciences at the University College of Teacher Education, Vienna, where she was also a member of the academic advisory board. Additionally she taught at the Universities of Vienna and Linz. Dr. Paseka received her PhD at the University of Vienna in sociology. Her habilitation/postdoctoral thesis, which was accepted by the University of Linz, dealt with questions of organisational development, school-development and teacher professionalism in connection with gender mainstreaming. Her research specialises in professionalism research,

qualitative methods with a focus on the documentary method and gender mainstreaming. Her most influential publications to date are about teacher professionalism co-edited with Michael Schratz and Ilse Schrittmesser (2011) and gender mainstreaming in the context of teacher education (2008). In addition she is co-editor of the Zeitschrift für Bildungsforschung. Her recent articles address questions of competences of teachers, structure and professionalism especially in the context of school-development as well as gender and professionalism.

***Esa M. Penttinen: University of Helsinki, Finland***

Esa Penttinen is adjunct professor at the University of Helsinki and teaches foreign language didactics. One of his most influential publications is to "Deepen the understanding of the significance of grammar instruction in the context of German instruction in the upper secondary school". His current research interests include developing of foreign language student teachers into practicing teachers.

***Renata Phelps: School of Education, Southern Cross University, Australia***

Renata Phelps is a senior lecturer with Southern Cross University's School of Education and a Research Associate with the Centre for Children and Young People, Australia. Her research and teaching focus on educational information technology, and in particular, teacher professional development and the integration of ICT in primary, secondary, and tertiary education environments. Her passion for learner-centred pedagogy and self-regulated learning led to the development of a metacognitive approach to technology learning, which has been implemented in pre-service, postgraduate and whole-school contexts. Renata has also conducted research with children and young people, including with children in rural Vietnam focused on their learning in and out of school.

**Jens Rasmussen: Department of Education,  
Aarhus University, Denmark**

Jens Rasmussen is professor at the Centre for Compulsory School Research, Department of Education, Aarhus University, Denmark. He is also currently national curriculum advisor in Vietnam. He has been a visiting Professor for the Institut für Bildungswissenschaft, Universität Wien (2008) Professor-2, Institute of Pedagogics, Norwegian University of Science and Technology (NTNU) (2002) and Fulbright Visiting Professor, College of Education, University of Georgia, USA (1999). Having received his PhD in Educational Studies from the Royal School of Education in 1987, his main research areas are international comparative education policy, especially teacher education, learning and learning theory and curriculum development. He is author of more than 100 research articles and several books, his recent main publications being the books *Undervisning i det Refleksive Moderne* [Education in Reflexive Modernity] and *Viden om Uddannelse* [Knowledge about Education] co-written with Claus Holm and Søren Kruse; and

Rasmussen, J. (2012). Teacher education policy in Scandinavia as challenged by the knowledge society and global competition: How tradition blocks development. In O.-S. Tan (Ed.), *Teacher Education Frontiers. International Perspectives on Policy and Practice for Building New Teacher Competencies* (pp. 193-210). Singapore: Cengage Learning.

**Heather Richards: School of Language and  
Culture, Auckland University of Technology, New  
Zealand**

Heather Richards is a Senior Lecturer in the School of Language at AUT University, New Zealand. Heather Richards came to AUT University after working in Deaf Education and Language Teaching in the private sector. She has had experience teaching languages in Australia, Japan, China, and New Zealand. At AUT University her teaching experience includes papers on the Masters and Graduate Diploma and undergraduate

papers on the BA English and New Media Studies, as well as Academic Literacies, English for Business Studies, English for Hospitality Management and general English language at all levels. Her contributions to the community include writing and editing for Password Magazine, a magazine for new speakers of English, and as an examiner for University of Cambridge ESOL Examinations. Heather is an experienced language teacher educator who has worked in both the private and public sectors. Her research interests are in learning transfer, teachers' and learners' perceptions of learning gains, and developing learner intercultural competence and her publications include:

*Richards, H., Harvey, S. & Stacey, K. (2009). 'Have You Seen a Cotton Plant, Romila?': An Examination of Paraprofessionals' Questioning Practices in Initial EOSL Reading Programmes. New Zealand Studies in Applied Linguistics, 15(2), 1-14.*

**Annelies Roskvist: School of Language and Culture, Auckland University of Technology, New Zealand**

Annelies Roskvist is the Associate Head of the School of Language and Culture. She is a member of TESOLANZ (Teachers of English for Speakers of Other Languages, New Zealand) and AKTESOL (Auckland Teachers of English for Speakers of Other Languages). She has research interests in several areas related to language and language teaching and her current research interests include immersion/study abroad programmes for teachers of languages, and the teaching of intercultural competence. One of her noted publications is:

Roskvist, A., Corder, D., Harvey, S., & Stacey, K. (2011). Developing language teacher capability through immersion Programmes and the impact on student language learning, cultural knowledge and intercultural competence. In A. Witte, & T. Harden (Eds.), *Intercultural Competence. Concepts, Challenges, Evaluations* (Vol. 10, pp. 209-224).

***Ilse Schritteser: Department of Teacher Education, University of Innsbruck, Austria***

Prof. Dr. Ilse Schritteser University of Innsbruck Ilse Schritteser is professor for Teaching and Learning Research at the University of Innsbruck, Austria and is there Head of the Department of Teacher Education & School Research.

She previously was a tenured associate professor at the Faculty of Education and Philosophy at the University of Vienna and Head of the Department of Education.

She was also Head of the Bologna Office (2006 – 2009) and Deputy Head of Studies (2008 – 2010) at the University of Vienna

Dr. Schritteser received her PhD at the University of Vienna in Language Teaching and Teacher Education. Her habilitation/postdoctoral thesis dealt with "The Potentials and Limits of Organization Development in Education Systems".

Her research fields are in teaching and learning theories, qualitative research with a focus on interpretative methods, professionalism research and university development.

Her most influential publications are currently on the perspectives of university development in the 21<sup>st</sup> century – "University goes Bologna" (2010) –, together with co-authors Angelika Paseka and Michael Schratz on teacher professionalism (2011) and on "Innovative Learning Environments" (2012) in the context of an OECD-project.

She has published various studies on how teachers acquire competences and on how institutional structures influence learning processes in school.

***Athina A. Sipitanou: Department of Educational and Social Policy, University of Macedonia, Greece***

Athina Sipitanou is Assistant Professor in the Department of Educational and Social Policy of the University of Macedonia, specializing in "Adult Education" and her main teaching

duties and also her research interests are in Continuing Education and in Lifelong Learning. She has participated in more than 90 congresses and scientific meetings both in Greece and abroad while she has also represented Greece in several international meetings as an expert. She has more than 55 publications both independently and in cooperation with other scientists in her field, while she has also translated and has been responsible for the text editing of 20 books.

Athina participates in European University networks of studies and research as well as in committees of the University of Macedonia. Furthermore, she is a reviewer of scientific magazines and books published by Greek research centres. She was president of the Administrative Board of the Branch of Macedonia and member of the Administrative Council of the Greek Pedagogical Association, and since its inception in 1997 she has been a member of the Administrative Board of the Balkan Society for Pedagogy and Education, while also being a member of other educational, cultural and charitable associations.

***Marco Snoek: The Hogeschool van Amsterdam, University of Applied Sciences, Amsterdam, Holland.***

Marco Snoek is leading a research group on teacher professionalism and teacher's professional development at the Hogeschool van Amsterdam university for applied sciences. He is a member of the European Commission's Thematic Working Group Professional Development of Teachers, representing the Dutch government. His research interests focus on teacher training, teacher professional development and teacher leadership. He has a particular interest in the role of teachers in school development and policies. Marco Snoek has been a member of the Boards of the Association for Teacher Education in Europe (ATEE) and of the Dutch Association for Teacher Education (VELON). He has participated in several major innovation programs in teacher education in the Netherlands.

***Youyi Sun: Foreign Languages Department,  
Shanghai Finance University, Shanghai, China***

Youyi Sun is currently a PhD candidate at Queen's University in Kingston, Canada, and Associate Dean of the Foreign Languages Department, Shanghai Finance University in Shanghai, China. His major teaching experiences include teaching English as a foreign/second language and English language teacher professional development in Canada and China. His research interests include language assessment, second language acquisition, classroom-based assessment and large-scale assessment. His research has been published in leading international journals including the *Canadian Journal of Applied Linguistics*.

***Agnieszka Szplit: Institute of School Education,  
Jan Kochanowski University, Kielce, Poland***

Agnieszka Szplit received her Ph.D. in Pedagogy in 2006 at The Maria Grzegorzewska Academy of Special Education and Master of English in 2000 at University of Silesia. She worked for a number of years as a teacher of English, and now she is an Assistant Professor in the Jan Kochanowski University in Kielce, Institute of School Education. She is an editor of "English Language in Primary Education" in a national quarterly publication "Nauczanie Poczatkowe" ("Primary Education") and a member of the editorial board of "Pedagogical Studies - Social, educational and art problems" - the journal of pedagogical studies.

She has published over 40 papers concerning Pedagogy and Education in Polish and English. Her current research interests include quality control in education, psychology-based didactics, comparative studies and Teacher Education.

She is an examiner of The Central Examination Board, a member of Polish Pedagogical Association, Polish Association of Comparative Pedagogy and the individual member of EAQUALS. She is a school inspector, as well as a teacher educator and trainer and she has conducted many training workshops for a variety of teachers and schools.

She has taught at several universities in Europe within the ERASMUS project.

***Sarah Tolley, University of Ontario Institute of Technology, Canada***

Sarah Tolley is a Teacher of Secondary School English and Mathematics. She graduated from the B.Ed. program at The University of Ontario Institute of Technology (UOIT) in 2009 and currently teaches Mathematics in the UK. Previously a research assistant for Dr. Hughes, she has also received the Student Training Assistantships in Research (STAR) Award from The University of Ontario Institute of Technology (UOIT). Sarah recently completed her MA in Education and Technology, focusing on digital numeracies and social justice. She has co-authored five peer-reviewed journal articles and conference papers and has presented this work in the US and Paris. She is planning on starting a PhD with research interests that focus on new literacies and numeracies.

***Ping Wang: School of Foreign Languages, Ludong University, China***

Dr. Ping Wang is a Lecturer in the School of Foreign Languages at Ludong University, China. She has extensive experience teaching English as a Foreign Language. She has worked as an ELT teacher at tertiary level for 15 years. She also educates pre-service ELT teachers and supervises Master's students in Applied Linguistics and language education research. She holds a Ph.D. in Education from the University of Queensland, Australia. Her research interests include teacher education, second language acquisition, and English Language Teaching. Dr. Wang has published papers on teacher education, presented her research at international conferences, and her book, *Teacher Professional Development through CoPs: A Case Study of Chinese EFL Teachers*, was recently published by the Shanghai Foreign Language Education Press.

***Jeļena Zaščerinska: Centre for Education and Innovation Research, Riga, Latvia***

Jeļena Zaščerinska received the diploma in Russian Philology in 1994 from the Daugavpils University, Daugavpils, Latvia, Master Degree in English Philology in 2002 from the University of Latvia, Riga, Latvia. In 2011 she was awarded Dr. paed. Degree for her promotion thesis "Development of Students' Communicative Competence in English studies for Academic Purposes". In February 2012 Jeļena Zaščerinska was awarded expert rights in pedagogy by the Latvian Council of Science, Riga, Latvia. Jeļena Zaščerinska worked for a number of years at the interface of pedagogy and philology, and is now a senior researcher at the Centre for Education and Innovation Research, Riga, Latvia. She is author or co-author of some 40 contributions on teacher and engineer education. In 2012 she received a research grant for young scientists from the German Academic Exchange Service (Deutscher Akademischer Austausch Dienst (DAAD) for her project "Latvia's Perspective in the Tempus Project ECDEAST: A Model-Driven Comparative Analysis of Engineering Curricula". She is a founding member and the Chair of the Board of the Centre for Education and Innovation Research, Riga, Latvia. In addition to holding posts, she has been serving as an invited lecturer at the Universities of Rostock and Wismar, Germany.

***Zuzanna Zbróg: Institute of School Education, Jan Kochanowski University, Kielce, Poland***

Zuzanna Zbróg is a doctor of Pedagogy. She works at the Jan Kochanowski University in Kielce (Poland), Institute of School Education. She was previously a teacher at a non-public primary school and an editor in a national quarterly publication "Primary Education". Her scientific interests are Primary Education, Pedeutology, Sociology of Education. In 2005 she became the Ministry of Education expert on course books for the first level of education, since 2009 she has been a member of the editorial board of "Primary Education".

She is a speech/language pathologist as well. In this field, she is interested in psycholinguistic and pedagogical conditioning of reading and writing learning.

She has published over a dozen children's books for reading learning and orthography, which are used in Polish schools in several countries in Europe (e.g. in France, Finland, Romania), over 70 papers, she is also a co-author of 7 monographs. She has recently published her book "Identification and meeting social needs in non-public primary schools" (Cracow 2011).

Since 2009 she has been a member of the International Association for the Improvement of Mother Tongue Education.



## **Introductions to our Associate Editors**

### ***Roberto Albarea: Faculty of Education, University of Udine, Italy***

Roberto Albarea (Ph.D, University of Padua) is Full Professor of Education and Vice Dean of the Faculty of Education of University of Udine in Italy. He is a member of the European Network on Comparative Education and has been Coordinator for the Education area in the Postgraduate Teacher Training School (Udine). His main interests concern: Philosophy of Education, Comparative Education and Intercultural Studies, Lifelong Learning, Aesthetic and Music education. He has been a member of Italian and European Research projects and has published a variety of articles, books and essays, at national and international level, writing in particular on the Philosophy of Education of Jacques Maritain, on Sustainability in Education and Creativity, and on the professional identity of teachers.

### ***Christine Armatas: Victoria University, Australia***

Dr Christine Armatas is currently a Senior Lecturer in the Faculty of Business and Law at Victoria University in Australia. She is an experienced educational designer, having worked on curriculum development projects involving single subjects, major areas of study and whole degrees. Her research interests include the use of educational technologies to enhance teaching and learning and designing learning activities that support development of employability skills such as teamwork and problem solving. In 2009 she was Senior Project Fellow for the 3C Project at the Hong Kong Polytechnic University which was an institutional initiative designed to increase the use of blended learning by teachers to enhance students' learning outcomes and create a better learning experience. This project was the winner of the 'Educational Organization of the Year' category in the Asia Pacific FutureGov 2011 awards.

**Walter W. Cannon: Central College, Pella, Iowa, USA**

Dr. Cannon is Professor of English at Central College. He teaches early modern literature, especially the drama of Shakespeare and his contemporaries, and a variety of writing courses including writing for non-profit organizations and poetry. He is the co-editor of and contributor to *Who Hears in Shakespeare? Auditory Worlds on Stage and Screen*, and has published essays and reviews in *Cahiers Elisabethains*, *Theatre History Studies*, *The Upstart Crow*, and *Inside Shakespeare: Essays on the Blackfriars Stage*.

**Catherine Chen: Ball State University, Indiana, USA**

Catherine Chen is Associate Professor at Ball State University, USA. Chen has published many referred articles on effective teaching strategies based on relevant learning theories, including constructivism, experiential learning, problem-based learning, self-regulated learning, and cognitive-load theory. Her articles entitled "Self-regulated learning strategies and achievement in an introduction to information systems course" and "A constructivist approach to teaching: implications in teaching computer networking" were widely cited.

**David Crabbe: Victoria University of Wellington, New Zealand**

David Crabbe is an Associate Professor of Applied Linguistics at Victoria University of Wellington, New Zealand. His writing and research interests are in the field of second language education. He has used the notion of learning opportunity as an organizing principle for curriculum development and published on this in *TESOL Quarterly* and the *English Language Teaching Journal*. Related to the notion of learning opportunity is his work on the notion of learner autonomy and how that is fostered in second language classrooms. He is currently the Assistant Vice Chancellor (Academic) at Victoria University with a broad brief to support teaching and learning at the University through policy and encouraging good practice. He has previously lived and worked in France, Nigeria, the UK and

Singapore and has undertaken curriculum assignments in a number of other countries.

***Therese Day: Special Education Department, St. Patrick's College, Dublin, Ireland***

Therese Day is a Senior Lecturer and Director of the Master's in Special Educational Needs (MSEN) in the Special Education Department at St. Patrick's College, Drumcondra, Dublin 9, Ireland. Her teaching and research interests are in the areas of: Special and inclusive education, Teacher collaboration, Language and literacy, Literacy and disadvantage; Research methods in special education. Her most recent journal publications are:

Day, T., & Travers, J. (Eds.), (2012) *Special and inclusive education : A research perspective*. Oxford : Peter Lang. Manuscript in preparation for publication in October 2012;

Day, T., Prunty, A., & Dupont, M. (2011) Responding to Students' Needs in Special Schools in Ireland and England: Findings from Two Schools, *Journal of Research in Special Educational Needs*, 12(2), 1-10; and

Day, T. (2010). Learning from Learning Support Teachers: Lessons for Continuing Professional Development. *Oideas*, 55, 20-30.

***Marcelo I. Dorfsman: Hebrew University of Jerusalem, Israel***

Dr. Dorfsman, holds the following positions: [Hebrew University of Jerusalem](#), [Melton Centre for Jewish Education](#), Director of the Technology-Based Jewish Education; [EMEDUC Educational Initiatives Ltd.](#) CEO - Academic Director. His recent Publications include:

Dorfsman, M. (2012). About the influence of contents, interaction and tutor's role in an on-line teaching model. *Revista de Educación a Distancia*, 30. Murcia University, in [http://www.um.es/ead/red/30/marcelo\\_red30.pdf](http://www.um.es/ead/red/30/marcelo_red30.pdf).

Dorfsman, M. (2012). The teaching profession in changing contexts: The global teacher in the Information Society. *RED Docencia universitaria en la Sociedad del Conocimiento*, 6, Magazine about Distance Education. Publication on line. Murcia (Spain). 11th Year. [http://www.um.es/ead/reddusc/6/marcelo\\_dusc6.pdf](http://www.um.es/ead/reddusc/6/marcelo_dusc6.pdf) and

Dorfsman, M. (2011). The Experiential Component as a Central Factor in Integrating Technology into Teaching and Research". *Revista de Educación a Distancia*, 29. Murcia University, in <http://www.um.es/ead/red/29/dorfsman.pdf>

***Toni Downes: Faculty of Education, Charles Sturt University, NSW. Australia***

Professor Toni Downes is Dean of the Faculty of Education at Charles Sturt University, NSW. Professor Toni Downes has worked with universities, educational systems and schools, for nearly 30 years in the pursuit of improving education through the effective use of new information and communication technologies. Her work has included numerous research and professional projects, over 70 publications, many keynote addresses, professional presentations and workshops and over \$1 million in grants and consultancies. She has been a keynote or distinguished speaker at international conferences in New Zealand, US, England, Switzerland, Hungary, PNG, Thailand, Hong Kong, Wales, China, Finland and Norway.

Currently Professor Downes is President of the Australian Council of Deans of Education. She is leading this national organisation as the sector moves, with some difficulty to an Australian Curriculum, to National Standards for Teachers and to the national accreditation of teacher education programs. In her role as president she has been able to combine her leadership and expertise in ICTs in Education and teacher education through the collaborative development of a national project. This \$7.8 Million project, funded by the Australian Government, involves every Australian University with pre-service teacher education programs building their capacity to graduate beginning teachers who are confident and competent to use ICT for improved learning outcomes of children in our schools. In 2011 she was made a fellow of the Australian Teacher

Education Association and the Australian College of Education for her career-long achievements in teacher education and the field of ICT in education.

***Dennis M. Doyle: Central College, Pella, Iowa, USA***

Dennis M. Doyle, Ph.D. is Professor of Communication Studies, Central College Faculty Liaison to the London Study Abroad Program. He received his B.A., from University of Northern Iowa; M.A., from North Texas State University; and Ph.D., from Southern Illinois University. He is the Author of Holistic Assessment and the Study Abroad Experience. *Frontiers: The Interdisciplinary Journal of Study Abroad*. (Fall 2009). Vol. XVIII. Pgs. 143-157.

***Janis Dzerviniks: Faculty of Education, Rezekne Higher Education Institution, Latvia***

Janis Dzerviniks, Dr.paed., is associate Professor and Dean of the Faculty of Education and Design at Rezekne Higher Education Institution. In 1993 Janis graduated from Daugavpils Pedagogical University and received the qualification of physics and mathematics teacher. Since 2000 Janis has been Council Chairman at RHEI Faculty of Pedagogy. Janis' scientific research focuses on Demonstrative experiments in mechanics for the school physics curriculum.

***Allyson Eamer: University of Ontario Institute of Technology, Oshawa, Canada***

Allyson Eamer teaches, researches and writes in the area of second language acquisition, language and identity negotiation, online language learning and information literacy. Her research interests include synchronous online language learning, language acquisition and identity negotiation, immersion education, ethnolinguistic vitality and mother tongue education. Allyson is also interested in how digital literacy supports self-directed learning, how cyber colonialism impacts distance education through the dominance of English on the web, and how corporate

outsourcing has changed English as a Foreign Language (EFL) teaching.

Allyson's current projects include Digital Multimedia Identity Projects with Elementary ESL students: This project explores the role of language, music and image in negotiating and representing evolving identities for new Canadian children; and Language and Identity Negotiation in the 1.5 Generation: This study explores how newly immigrated teens use the languages in their repertoires to achieve or maintain insider status with various peer groups in the complex terrain of secondary school where social capital is intertwined with a student's sense of being competent/successful and where competence/success informs one's beliefs about the accessibility of post-secondary education.

**Marion Engin: Zayed University, United Arab Emirates**

Marion Engin has been teaching and training for 25 years at primary, secondary and tertiary levels. She is currently Associate Professor in the Department of Languages teaching at Zayed University. She has an Ed.D from Bath University and her particular interests are in applying socio-cultural theories to teacher education practice. Her recent publications include :

Engin, M. & McKeown, K. (2012). Cultural influences on motivational issues in students and their goals for studying at university. *Learning and Teaching in Higher Education: Gulf Perspectives*, 9(1).

**Jim Gleeson: Department of Education and Professional Studies, University of Limerick, Ireland**

Dr. Gleeson is a Senior Lecturer in the Department of Education and Professional Studies at the University of Limerick. His main areas of interest are: curriculum development, evaluation and policy; teacher education; vocational education and training. Some of his recent publications are:

Gleeson, J. (forthcoming, 2013). The European Credit Transfer System and curriculum design: product before process? *Studies in Higher Education*. iFirst. ;

Gleeson, J. & McCormack, O. (2013) Exploring Masculinities: Curriculum politics, ownership and ideology *Irish Educational Studies* iFirst.; and

Gleeson, J. (2012) The professional knowledge base and practice of Irish post-primary teachers: what is the research evidence telling us? *Irish Educational Studies* Volume 31, No. 1, 1-17.

### **Donald Gray: University of Aberdeen, Scotland**

Donald Gray is a senior lecturer and joined the School of Education at the University of Aberdeen in 2005. He has a background in science education, curriculum development and educational research. He has worked for the Scottish Council for Research in Education, been involved in an international study of Civic Education based in Humboldt University Berlin and was Faculty Research Co-ordinator in Strathclyde University Faculty of Education. He has a particular interest in complexity, science and sustainability issues, environmental education and outdoor learning. He was Research Director for the Scottish teachers for a New Era initiative and is currently Director of Research Degree programmes. His publications include the book:

Gray, D., Colucci-Gray, L. & Camino, E. (2009). 'Science, Society and Sustainability: Education and Empowerment for an Uncertain World'. Routledge Research in Education, Routledge, and

Colucci-Gray, L., Das, S., Gray, D. S., Robson, D. & Spratt, J. C. (2011) Evidence-based practice and teacher action-research: a reflection on the nature and direction of 'change', *British Educational Research Journal*, DOI:10.1080/01411926.2011.615389

### **Cindy Gunn: The American University of Sharjah, United Arab Emirates**

Dr. Cindy Gunn is Director of the Faculty Development Center and Associate Professor in the Department of English at the American University of Sharjah *in the United Arab*

*Emirates*. Her main research paradigm is Exploratory Practice focusing on the contributions teachers and learners make to classroom research. Recent publications include an article in *Language Teaching Research* (2010) entitled, Exploring MATESOL students' 'resistance' to reflection, an edited book entitled, *Exploring TESOL practices in the Arabian Gulf* (2009) and an article in *The Buckingham Journal of Language and Linguistics*, (2008) entitled, Emerging pedagogies in the Middle East: Enhancing student autonomy using Weblogs (blogs).

***Kathy Hall: University College Cork, Ireland***

Kathy Hall is Professor of Education and Head of School. Previous appointments include Professor of Education at The Open University, Professor of Childhood Education at Leeds Metropolitan University, and Senior Lecturer in Education Studies at Christ Church, Canterbury. Prior to her work in higher education, she had the roles of class teacher, deputy principal and principal. Her research seeks to develop sociocultural understanding of learning and pedagogy and she has published widely in these areas.

***Stewart Hase: Southern Cross University, Australia***

Stewart is a psychologist with an interest in individual and organisational adaptation. Some current issues he is researching are consulting and teaching about are developing capability, learning and learning organisations, quality of working life and leadership. In 2000, Chris Kenyon and Stewart developed the concept of heutagogy, which has gained something of an international following. Stewart has a background in health care, counseling psychology, consulting, management in a commercial environment, and higher education. His work on *heutagogy* has been published in journal articles, such as:

Hase, S. (2010), Learner defined curriculum: Heutagogy and action learning in vocational training, *Southern Institute of Technology Journal of Applied Research*. Special Edition on Action Research, available at <http://sitjar.sit.ac.nz> and

Hase, S. & Kenyon, C. (2010). Andragogy and heutagogy in postgraduate work. In T. Kerry (Ed.). *Meeting the challenges of change in postgraduate higher education*. London: Continuum Press.

***Amanda Howard: Faculty of Education, British University in Dubai, United Arab Emirates***

Amanda Howard PhD is an Assistant Professor in the Faculty of Education at the British University in Dubai, responsible for the English language teaching (TESOL) elective courses and students at both EdD and MEd level. Her publications include:

Howard, A. (2011). What does classroom observation really tell us? In Coombe, C., Stephenson, L. and Abu-Rmaileh, S. (eds) *Leadership and Management in English Language Teaching*. Dubai, UAE: TESOL Arabia Publications, and

Howard, A. (2010) Is there such a thing as a typical language lesson? *Classroom Discourse*. 1(1): 82-100

***Emily Kang: Adelphi University, New York, USA***

Emily Kang is an Assistant Professor of Science Education at Adelphi University in Garden City, New York, USA. Her research revolves around inquiry-based science instruction, supporting English Language Learners in science classrooms, and designing effective models for teacher education and professional development. Dr. Kang is currently providing professional development to New York teachers around the newly adopted Common Core Learning Standards. She recently co-authored a book chapter entitled: *Relationships among science language, concepts and processes: a study of English learners in junior high school science classrooms*.

***Tuula Keinonen: School of Applied Educational Science and Teacher Education, University of Eastern Finland***

Tuula Keinonen is professor in research on general education especially science education for the University of Eastern Finland, School of Applied Educational Science and

Teacher Education. She holds PhDs in Physics and in Education. Professor Keinonen's research interest relate to Science and Environmental education focusing on students' perceptions of sciences, teachers' growth and environmental education. She supervises PhD students and has experience in pre- and in-service teacher training. She has written in cooperation with teachers, science exercise books for students and related books for teachers for use in school. She currently coordinates an international project the "Northern Environmental Education Development" (NEED) in the EU's Northern Periphery Programme.

***Hanna Komorowska: Warsaw University, Poland***

Hanna Komorowska is full professor at Warsaw School of Social Sciences and Humanities (SWPS) and at Warsaw University (UW). She is a former vice-President of Warsaw University, the Polish delegate for the Council of Europe, and member of the EU High Level Group on Multilingualism. She is now a consultant to the European Centre of Modern Languages in Graz, publishing widely in the field of FLT methodology and teacher education. Professor Komorowska is co-author of the *European Portfolio for Student Teachers of Languages*. She recently edited *Issues in Multilingualism*. Warsaw: FRSE (2011) and, with L. Aleksandrowicz, *Coping with Diversity. Language and Culture Education*. Warsaw, ACADEMICA (2010).

***Tamar Levine: Tel-Aviv University, Israel***

Tamar Levine is Associate Professor of Education and Chair of the Department of Curriculum and Instruction in the School of Education, Tel-Aviv University. Prof. Tamar Levine was awarded a PhD from the University of Chicago in 1975. Her fields of Instruction are: Research methods; evaluation and measurement. Her main research areas: Study achievement: measurement and significant factors. Professor Levine is also co-author of the book 'The Innovative School: Organization and Instruction published by Praeger

**Marina Mattheoudakis: School of English,  
Aristotle University of Thessaloniki, Greece**

Marina Mattheoudakis is an Assistant Professor at the Department of Theoretical and Applied Linguistics, School of English, Aristotle University of Thessaloniki. She holds an M.A. in TEFL from the University of Birmingham, U.K. and a Ph.D. in Applied Linguistics from the Aristotle University of Thessaloniki. She teaches courses in second language acquisition and language teaching methodology at both the undergraduate and graduate levels. She has been the National Contact Point of the European Centre for Modern Languages in Greece and member of its Governing Board for two years (2009-2011). Her main research interests lie in the areas of second language learning and teaching, corpora and their applications. She has presented her research work at several national and international conferences and has published in international journals, books and conference proceedings. Her most recent work includes the following:

Nicolaidis, K. & M. Mattheoudakis (to appear). The PRO-VOC method: combining pronunciation and vocabulary teaching. In *IRAL*;

Mattheoudakis, M. (2011). A word-association study in Greek and the concept of the Syntagmatic-Paradigmatic shift. In *Journal of Greek Linguistics* 11 : 167-197; and

Mattheoudakis, M. & T. Alexiou (2009). Early foreign language instruction in Greece: Socioeconomic factors and their effect on young learners' language development. In M. Nikolov (ed.) *The age factor and early language learning* (Studies on Language Acquisition). Mouton de Gruyter, 227-252.

**Laura Muresan: Bucharest University of  
Economic Studies, Romania**

Prof. Dr. Laura Muresan is the Director of the interdisciplinary Masters' Programme 'Research & Teacher Education for Business and Economics' in the Dept. of Modern Languages and Business Communication at the Bucharest University of Economic Studies in Bucuresti, Romania. She holds a doctoral degree from the Babes-Bolyai University in Cluj Napoca. She is also a founding

member of the Association PROSPER-ASE Center for Languages and of the Association of QUEST Romania. Ms. Muresan is member of several Germanistic associations as well and of the Scientific Council of the Goethe Institute in Munich.

Professor Muresan's intense research programme is substantiated by publications, research projects and participation in international programs focuses on the application of quality management, with emphasis on quality assurance in teaching foreign languages and in university activities, respectively, as well as on the description and self-assessment of skills in the teaching process and on the preparation for a professional career. As a docent of the MBA program, Ms. Muresan works within the module "Introduction to scientific research".

***Erna Nairz: Educational Sciences Group, Vienna University for Economics and Business, Austria***

Erna Nairz-Wirth is associate professor of education and Head of the Educational Sciences Group at Vienna University for Economics and Business. Her research and publications have a strong theoretical focus and include the following fields: Sociology of Education; Educational Inequality; Teaching and Habitus. She has designed, coordinated and published numerous qualitative studies in Austria, with the recent ones being: Recommendations on Policies to reduce Early School Leaving; Professionalization of Teachers and School Leaders: A Key Factor For Dropout-Prevention; Early School Leaving: A longitudinal study; Denial of Education as Habitus. A social sciences study; and Socio-Spatial and Scholastic Segregation Trends in the Metropolitan Areas. Erna Nairz-Wirth has also published numerous books and other articles.

***Yngve Troye Nordkvelle: Lillehammer University College, Norway***

Dr. Yngve Troye Nordkvelle is Professor of Education at Lillehammer University College in Norway. Dr. Nordkvelle is an educator who carried out most of his initial research work in the field of international education and development

education. He focused on social studies textbooks and how they portray the "Third World". A book, "The global school", was issued in 1994. His second field of interest, research in comparative education, has dealt with issues in education relating to the Southern Africa, but also in a Nordic and Northern European context. His most recent research is in the area of distance education and the history of education. He has been a member of the board of the Nordic Association of Educational Research, and he directed a Centre for Media education at the college for some years. He is in charge of training newly employed colleagues in methods of teaching and learning. In addition, he edits two journals: one e-journal called Seminar.net and a paper journal: UNIPED. His most significant publications include: Technology and didactics: Historical mediations of a relationship. *Journal of Curriculum Studies* Vol. 36, no. 4, p. 427-444.

***Karine Oganisjana: Faculty of Education,  
University of Latvia***

Dr. paed. Karine Oganisjana, researches at the University of Latvia Faculty of Education, Psychology and Art, Riga, Latvia. Karine Oganisjana defended her PhD thesis in pedagogy "The development of students' enterprise in study process" in the University of Latvia in 2010. Her professional interests and expertise encompass the elaboration of holistic interdisciplinary teaching and learning methodologies, providing them with appropriate mixed qualitative-quantitative research methods for promoting and monitoring the development of teachers and students' practical creativity, entrepreneurship, problem solving skills and ability to deal with uncertainty.

Karine Oganisjana's book "*The Matter and Development of Enterprise and Entrepreneurship*" (in Latvian) which integrates both the theoretical findings of her PhD research and the practical interdisciplinary material and problems elaborated and tried out for many years of pedagogical work, is accepted for publication in RaKa Publishing House in Riga. A recent paper published in English is:

Oganisjana, K. & Koke, T. (2012). Does Competence-Oriented Higher Education Lead to Students' Competitiveness? *Engineering Economics*, Vol. 23 (1), pp. 77-82. Thomson Reuters, EBSCO, SCOPUS. ISSN: 2029-5839,  
<http://www.inzeko.ktu.lt/index.php/EE/article/view/1228/1222>

***Michael O'Leary: St. Patrick's College, Dublin, Ireland***

Michael O'Leary is Director of Post Graduate Studies in Education at St Patrick's College, Drumcondra, Dublin, Ireland. He holds a PhD in Educational Research and Measurement from Boston College. His area of interest is on assessment at the classroom, national and international levels. He has acted as Ireland's representative on the OECD's Network A and was a member of the Board of Participating Countries for PISA. Currently, he is a member of the Child Development and Education Panel of the National Longitudinal Study of Children in Ireland.

***Jim Paul: Faculty of Education, University of Calgary, Alberta, Canada***

Dr. Jim Paul is currently serving as Associate Dean International, Faculty of Education, University of Calgary. Dr. Paul's most impactful educational work has been in international capacity development projects focused on teacher education, office and school-based leadership, innovative information technologies, and outcomes-based curriculum design, development, implementation and assessment, and learner centred instruction. These education projects for sustainability development have taken Dr. Paul to South Africa, Western China, Kosovo, Belize, Nigeria, and Afghanistan.

***Gillian Peiser: Liverpool John Moores University, England***

Dr. Peiser is a Senior Lecturer in Teacher Education at Liverpool John Moores University. She teaches on a variety of postgraduate and undergraduate modules in teacher education. Gillian's research interests are in intercultural

languages learning and teacher development. Her most recent publications include:

Peiser G. and Jones M. Rhetoric or Reality (in press) Intercultural Understanding in the English Key Stage 3 Modern Foreign Languages Curriculum. *The Curriculum Journal.*;

Castle, C., G. Peiser and E. Smith (in press) Teacher development through the Masters in Teaching and Learning: a lost opportunity. *Journal of Education for Teaching*; and

Peiser, G. and Jones, M. (in press) The significance of Intercultural Understanding (IU) in the English Modern Foreign Languages curriculum: a pupil perspective. *Language Learning Journal.*

***Terri Peters: Monmouth University, New Jersey, USA***

Dr. Terri Peters is an Associate Professor in the Department of Educational Leadership, School Counseling, and Special Education at Monmouth University, West Long Branch, New Jersey, USA. She has published several articles and book chapters on contextual factors (e.g., race, disability, teacher and counselor characteristics) that affect student learning, as well as best practice for online learning. Recently (2012) she published an article entitled, "Experiences of a course on the culture of Whiteness in counselor education" published in the *Journal of Multicultural Counseling & Development*. This new line of research represents Dr. Peters' interest in the cultural differences between counselors/teachers and students, how White teachers/counselors develop their racial identity and the impact of race on communication and learning. She has also recently (2011) published an article, "Criteria for assessing, student satisfaction with online courses," published in the *International Journal for e-Learning Security*.

**Jennifer Jensen Prusaczyk: McKendree University, Lebanon, Illinois, USA**

Dr. Jennifer Jensen Prusaczyk, earned her Ph.D. degree in Education – Curriculum and Instruction from Southern Illinois University Carbondale and began her career at McKendree University. Her research interest involves teacher change: namely the change represented by coherence between expectation and opportunity as represented by teachers' descriptions of fundamental classroom features - the roles of teachers, the roles of students and what it means to teaching for understanding. A secondary interest involves the development of abstraction skills for adolescents and adults when their mathematical success does not develop beyond a typical algebra sequence.

**Jenny Robertson: Faculty of Education, University of Auckland, New Zealand**

Dr. Jenny Robertson works on Monitoring and Evaluation in the Faculty of Education at the University of Auckland, New Zealand. She has two strands to her professional work. The first is evaluation of large-scale Ministry of Education funded contracts aimed primarily at raising levels of achievement for students currently underserved by the schooling system. The evaluation and reporting process requires supporting a team of professional learning and development facilitators to collect a wide range of data (using a diversity of data collection methods as part of an inquiry process) to show evidence that their work in schools has made an impact on teacher and leadership practice, which in turn has had a positive impact on student achievement and engagement. These contracts give high priority to supporting underachieving students in schools which, in the NZ context, are our Maori students (our indigenous population) and parts of our immigrant population, particularly our Pasifika students. Her role is to combine all this evidence for evaluation purposes in preparation for reporting to the government.

The second is her other role in Health Education where she has been involved in the development of *The New Zealand*

*Curriculum* (2007) document, resource development to support the implementation of Health Education in NZ secondary schools, and the development of Achievement Standards and assessment resources in Health Education for NCEA (National Certificate of Educational Achievement, which is the national qualification for secondary school students in NZ), and teacher education in relation to all of these areas. This work with a specific aspect of the curriculum provides a lens to look at the big picture work of her evaluation role.

***Lorayne Robertson: University of Ontario  
Institute of Technology, Oshawa, Canada***

Dr. Lorayne Robertson, BA, BEd, MEd, EdD is Graduate Program Director at the Faculty of Education, University of Ontario Institute of Technology, Oshawa, Canada. Her research involves critical media literacy, digital literacy and multiple literacies in four main areas: 'New literacies/digital literacy' - a three-year self-study investigating how pre-service teachers interact with new literacies and with new technologies. This afforded a research window on her practice as a professor in pre-service education, as well as publications and presentations; 'Digital literacies and digital technologies' - All graduate courses at UOIT are offered in the online, synchronous mode. Research focuses on professor, graduate and pre-service student transitions to e-learning as well as investigating how the intersections of technological and pedagogical competence parallel intersections of technology and adult learning. Of particular interest are the transformative aspects opened at the intersections; 'Technology affordances' - Investigating how technology assists tertiary institutions meet mandatory quality assurance requirements.

For future work we will continue to examine the constraints and potential of the affordances of technology for collaboration, setting goals and reflection outside of mandated accreditation and review processes; and 'Critical Health Literacy/Media Literacy' - Through a KNAER grant, designing a website for body-positive curriculum and research dissemination (knowledge mobilization) and offering an upcoming CSSE pre-conference on critical health

literacy. Two books on are in progress: critical media literacy for classroom teachers; and a pan-Canadian perspective on critical health literacy. Dr. Robertson's recent publications include:

Robertson, L., Hughes, J., & Smith, S. (2012). Thanks for the assignment: Digital literacy in teacher pre-service. *Language and Literacy*. 14(1)1-13. And

Robertson, L., & Thomson, D. (2011). Watching bald eagles change shifts: Seeking Digital Curriculum Access across Canada. *Alberta Journal of Education Research (AJER)*. 57(3) Fall 2011, 316-335.

**Michael Schratz: Department of Teacher Education and School Research, University of Innsbruck, Austria**

Dr. Michael Schratz is Professor of Education at the Department of Teacher Education and School Research, University of Innsbruck, Austria, and is presently Dean of the Faculty of Education and involved in teacher education reform projects. He is a scientific director of the Austrian Leadership Academy. Professor Schratz has been involved in many research projects on educational leadership and policy development and his publications have been translated into several languages:

Schratz, M., & Walker, R. Research as social change: New opportunities for qualitative research. London u.a.: Routledge.

Schratz, M. (Ed.) (1993). Qualitative voices in educational research. London u.a.: Falmer.

Schratz, M., Schwarz, J. F., & Westfall-Greiter, T. (2012). Lernen als bildende Erfahrung: Vignetten in der Praxisforschung. Innsbruck: Studien Verlag.

**Beverly S. Smith: City College of New York, New York, USA**

Beverly S. Smith has an Ed.D from Columbia University is an Associate Professor in Urban Education at The City College of New York. Her recent publications include:

Foote, M.Q., Smith, B., & Gellert, L. (2011). The evolution of mathematics teacher identity in an urban context. *Journal of Urban Mathematics Education*, 4(2), 67-95;

Foote, M. Q., Brantlinger, A., Hadar, H., Smith, B., & González, L. (2011). Are we supporting teacher success: Insights from an alternative route mathematics teacher certification program for urban public schools. *Education and Urban Society* 43(3). 396 – 425; and

Posamentier, A., Smith, B., & Stepelman, J. (2010). *Teaching Secondary Mathematics: Techniques and Enrichment Units*. 8<sup>th</sup> Ed. Upper Saddle River, New Jersey: Merrill - Prentice Hall.

***Joan Stephenson: Mary Immaculate College,  
University of Limerick, Ireland***

Joan Stephenson is currently an adjunct research fellow at Mary Immaculate College, University of Limerick, and an International Educational Consultant. Formerly Head of the Education Department at De Montfort University, her career in Teacher Education has addressed teaching and research at the interface between theory and practice in international perspectives, including comparative Education; Mentorship; Values Education; Partnership; In-service Education; Management; Accreditation, Evaluation and Assessment.

***Karen Swabey: University of Tasmania, Australia***

Associate Professor Karen Swabey, Head of School, Faculty of Education, University of Tasmania. Dr. Karen Swabey is an Associate Professor in Health and Physical Education Pedagogy in the Faculty of Education. Before entering the university sector in 1994, she had an extensive career in primary, secondary and senior secondary teaching and school leadership in Tasmania in both state and independent schools. Her undergraduate teaching currently focuses on health and physical education pedagogy, specifically social and emotional wellbeing. At the postgraduate level she coordinates two health and physical education focused units and also supervises a number of research higher degree students. Her areas of research interest are in social and emotional wellbeing and student preparedness for teacher education. Dr. Swabey's

publication output includes book chapters, academic journal articles and peer-reviewed conference papers. She is a Consulting Editor for the AJTE journal and reviews for a number of international journals.

***Nikos P. Terzis: School of Philosophy and Education, Aristotle University of Thessaloniki, Greece***

Nikos P. Terzis is Professor emeritus in the School of Philosophy and Education at Aristotle University of Thessaloniki. Prof. Terzis is a graduate of the School of Philosophy of Aristotle University of Thessaloniki and has a Ph.D in Economics and Social Sciences from the University of Heidelberg. His research interests focus on History and Sociology of Education and aspects of Educational Policy and Comparative Education. He is the founder and was the chairman (1997-2009) of the Balkan Society for Pedagogy and Education.

***Paul Throssell: University of Tasmania, Australia***

Paul Throssell, *Ph.D.*, is a lecturer in TESOL, a life coach and writer on global educational change. He believes strongly in enabling people to choose and build better personal futures, to develop ways to make lives more successful. He also believes that learning to achieve what we want in our lives should be enjoyable, stimulating and purposeful. Paul has lectured at university on TESOL teaching and learning for many years, specializing in innovative ways to engage learners. Moreover, he has also written and presented internationally on areas related to lifelong learning and been a ministerial appointee on Home Education. He has achieved a doctorate focused upon agelessness transformation, on breaking our stereotypes of age and living agelessly.

***Fernando Vidal: Max Planck Institute for the History of Science, Berlin Germany***

Fernando Vidal is research scholar at the Max Planck Institute for the History of Science. He studied psychology and the history and philosophy of science at Harvard University, the University of Paris and the University of

Geneva, and works on the history of the human sciences since the 16th century. He has published on such topics as the early development of psychology; sexuality in the Enlightenment; the history of psychoanalysis, psychiatry, and the progressive education movement; miracles as epistemic things; and the *longue-durée* history of the "cerebral subject." His books include "Piaget Before Piaget" and "The Sciences of the Soul"; he has edited Jean Starobinski's writings on the history of the body (in Spanish), "The Moral Authority of Nature" (with Lorraine Daston), "Believing Nature, Knowing God" (an issue of "Science in Context", with Bernhard Kleeberg); "Neurocultures" (with Francisco Ortega) and "The Early Modern Origins of Psychology" (2011, original French 2006).

Fernando Vidal was born and raised in Buenos Aires (and later became Swiss), was an undergraduate at Harvard, did graduate work in developmental psychology and the history and philosophy of science at the Universities of Geneva and Paris, received his PhD from Geneva, and a Habilitation from the Ecole des Hautes Etudes en Sciences Sociales. He has been a Guggenheim Fellow, as well as an Athena Fellow of the Swiss National Science Foundation. He has worked on various topics in the history of the human sciences, including the early development of psychology and anthropology, sexuality in the 18th century, psychoanalysis and psychiatry in the early 20th century, the progressive education movement in the interwar years, and miracles and science in the early modern period and the Enlightenment.

Dr. Vidal is currently writing a book on the historical emergence and contemporary forms of the "cerebral subject" - from film and science fiction to neurobics and neurophilosophy - to understand the emergence and contemporary forms of the belief that the brain is the only part of the body we need in order to be ourselves. He is interested generally in the *longue-durée* history of the relations between notions of bodily continuity and personal identity. He also coordinates the projects "Endangerment and Its Consequences." "The Cerebral Subject" and "Working Group." His publications include:

Vidal, F. (2009). Brainhood, anthropology of modernity. *History of the human sciences*, 22(1):

Daston, L. & Vidal, F. (Eds.). *The moral authority of nature*. Chicago: Univ. of Chicago Press, 2004. :Vidal, Fernando. "Brains, bodies, selves, and science: Anthropologies of identity and the resurrection of the body. *Critical Inquiry*, 28 (4).: and

Vidal, F. (2006). *The Sciences of the Soul: the Early Modern Origins of Psychology*. Chicago: University of Chicago Press, 2011 (French, 2006).

### **Andrew Vincent: Victoria University, Australia**

Andrew Vincent is an Educational Developer in the Faculty of Business and Law at Victoria University, Australia. He was previously a Research Fellow in the School of Accounting and Business Information System at the University of Melbourne. He is currently a member of the International Editorial Review Board of *the Journal of Business Systems, Governance and Ethics* and his recent publications include Leveraging the Collaborative and Interactive Potential of 21st Century Learning Spaces: Victoria University's Student Business Innovation and Incubation Space. The International Journal of Learning, [Volume 18](#), [Issue 2](#), 2011. pp.133-142

### **Tobias Werler: Faculty of Humanities and Education, Volda University College, Norway**

Prof. Dr. Tobias Werler, works as Professor in General Didactics and Professor of Education at the Faculty of Humanities and Education at Volda University College in Norway. Tobias Werler is originally from Germany, where he graduated in pedagogy, philosophy, sociology and theology. He took his doctorate (Dr. phil.) at University of Leipzig.

Professor Werler works in fields that are associated with teacher professionalism, public education, school, (international) education policy and basic educational concepts. His current work focuses on special education, and strengthening the dialogue between general education and special education through teacher training,

professionalism, comparative education and education policy. His recent work includes:

Werler, T. (ed.) (2011). Heterogeneity. General Didactics Meets the Stranger. Münster, Waxmann.

As his on-going research he would like to develop a contemporary theory of culture and education in the context of welfare state transformation from a cultural and empirical-comparative perspective.

***Felicity Wikeley: Christ Church University, Canterbury, Kent, England***

Professor Felicity Wikeley is attached to the Research Centre for Children, Families and Communities, Canterbury Christ Church University, North Holmes Campus, Canterbury, Kent, UK where she has taught on research methods programmes for undergraduates and post-graduates and contributed to Childhood Study programmes at both undergraduate and Master's levels. she has taught on research methods programmes for undergraduates and post-graduates and contributed to Childhood Study programmes at both undergraduate and Master's levels. She currently has 5 PhD students having successfully supervised 4 PhD students and 3 EdD students in such areas as: *Parental Choice of Preschool in Taiwan, School Drop-out in Ethiopian Schools, and Learner Identity in International Schools.*

Felicity started her career as a primary school teacher in London. Her first move was into community education as primary school development manager at a comprehensive community school in Liverpool and then Family Workshops Manager for the YWCA of Great Britain. She moved into academia as a Research Fellow at the University of Exeter and then Lecturer at the Institute of Education, University of London and Senior Lecturer in the Department of Education at the University of Bath. She joined Canterbury Christ Church University in June 2010 as Professor of Education in the Research Centre for Children, Families and Communities.

Over the past 20 years her research has incorporated studies of parents and their educational relationships with their children and with their children's schools; parental choice of school; educational relationships and learning outside school; the effects of poverty on children's engagement with learning; the personalization of learning; educational relationships in schools and teacher appraisal; school effectiveness and school improvement.

Over the past 10 years she has been the Principal Investigator on such projects as: *Out-of-school activities and their impact on poverty* for the Joseph Rowntree Foundation (2005 -2006) ; and *Boys Writing at Key Stage 3*; an ESRC funded Knowledge Transfer Partnership with Bath and North East Somerset Local Authority (2004 – 2007). Felicity is a member of the British Educational Research Association; the European Education Research Association; the American Educational Research Association; the International Congress on School Effectiveness and Improvement and the European Association Research into Learning and Instruction. Felicity is on the Editorial Board of *Global issues in Childhood* and *Improving Schools* and was its Executive editor from 1999-2000. In 2005 she was Guest Editor of the Special Edition of *School Effectiveness and School Improvement*. Her books include:

Bullock, K. and Wikeley, F. (2004) *Whose Learning? The Role of the Personal Tutor* Maidenhead: Open University Press

and her best journal articles include:

Bullock, K., Muschamp, Y., Ridge, T. and Wikeley, F. (2010) Educational Relationships in Out-of-school-time Activities: Are Children in Poverty Missing Out Again? *Education, Citizenship and Social Justice* Volume 5 Issue 2, and

Wikeley, F., Bullock, K. Muschamp, Y. and Ridge, T. (2009) Educational relationships and their impact on poverty *International Journal of Inclusive Education* Volume 13 No 4 pp377-394.

**Arnd Witte: National University of Ireland  
Maynooth, Ireland**

Dr. Arnd Witte is Senior Lecturer and Head of the German Department at the National University of Ireland Maynooth (Ireland); He has published widely in the area of second language acquisition, particularly German as a Foreign Language. His specific research area is the acquisition of intercultural competence. He is series editor (with Theo Harden) of the Peter Lang book series "*Intercultural Studies and Foreign Language Learning*". A recent work (co-edited with Theo Harden) is "*Intercultural Competence. Concepts, Challenges, Evaluations*". Oxford/Bern: Peter Lang 2011.



**Series Editor Guy Tchiboza – Cultures of Education Series.**

This series looks at what we do in education from different cultural perspectives. Each volume in the series illustrates by examples culturally different values, attitudes and purposes that stakeholders in education bring to common issues we all face in the now global enterprise of Education. The fundamental purpose of the series is for our readers to not only compare how our colleagues in other countries approach our common problems, but to appreciate why they do it their way and, perhaps, for us to realise that we might need to question the meanings of what we do and why we do it.

**Guy Tchiboza** is a Professor of Education at The University of Limoges, France. He has worked at Strasbourg University and also worked as an expert in the field of vocational education and training research at the European Centre for the Development of Vocational Training (CEDEFOP). His teaching and research address the relationships between education and work; in particular individual and institutional processes and strategies and policies in the fields of school-to-work transition, vocational education and training.

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**Béatrice Boufoy-Bastick** is an International University Exchange Coordinator and Senior Lecturer in French and TESOL at the University of the West Indies, Trinidad. She is an experienced academic writer and empirical researcher on culture in its multifarious forms. She has explored comparative cultures and shared her fascination with cultural diversity through her lecturing in different cultural settings across four continents. These rich cultural experiences have focused her pluri-cultural pedagogic research and led her to initiate the research field of Culturometrics.

ISBN 979-10-90365-02-5



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