

## **‘Retooling or renaissance?’: teacher education, professional knowledge and a changing landscape**

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### **Abstract**

As governments and professional communities engage in consultation on the future of education, curriculum, pedagogy and tools for learning beyond our current horizons, how might the teacher education community identify questions for research, reflection, and challenge? This paper will contribute some reflections on how research in teacher education might conceptualise teaching as creative endeavour which calls upon complex professional knowledge and confident agency in ‘reading the world’ within a changing landscape. It can be argued that there are links between understandings of creativity and didaktik analysis, encompassing imagination, purpose, originality and value in teachers’ praxis (Loveless, Turvey, & Burton, 2007). Our models of professional knowledge acknowledge the interactions between understandings of ‘what, how and why’ in situations which are authentic and relevant to teachers (Ellis, 2007; R. T. Putnam & Borko, 2000; Shulman & Shulman, 2004). The landscape of teacher education is changing, not only in the purposes of and policies for education systems, but also in some of the tools available for teacher learning, namely digital technologies (Pachler & Daly, 2006). In these changing times, Fisher, Higgins and Loveless (2006) call for an approach to teacher learning that is a ‘renaissance’ rather than a ‘retooling’. This would acknowledge teachers as actors in cultural changes in the profession, rather than instruments redesigned when the requirements of the production line change. The paper will offer a discussion of the research questions which might underpin a renaissance in a research-informed profession.

Keywords: professional knowledge, creativity, didaktik, teacher education, research, renaissance

### **Introduction: approaching the margins**

The recent McMaster report on ‘Supporting Excellence in the Arts’ in the UK describes society in Britain as arguably the most exciting it has ever been, and suggests that the arts have never been so needed to understand the deep complexities of Britain today (Harris, 2008b; McMaster, 2008). The report itself is controversial, offering some radical understandings of ‘excellence’ and being presented at a troubled time for the arts, yet James Purnell, the Culture Secretary, claims to draw attention to quality rather than targets, and uses the language of ‘taking risks’, ‘pushing boundaries’, and ‘asking difficult questions’ (Harris, 2008a). This paper is a contribution to the TEPE conference on mapping the landscape and looking to the future, activities which require, in the spirit of the McMaster report, an understanding of the posing of questions, the representations of boundaries and the taking of risks.

At present, government policies are addressing the purposes of education, the curriculum for the demands of the 'Knowledge Society', and the nature of the workforce engaged with children and young people. Many people are asking many questions. In the UK the teacher education community is identifying research reviews and questions at macro, meso and micro levels of policy, practice and praxis (see <http://escalate.ac.uk/4103>). The Primary Review, lead by Professor Robin Alexander at the University of Cambridge, although not specifically focused on teacher education, has clearly identified a range of questions powerful in scope and depth (see <http://www.primaryreview.org.uk/>), It addresses 3 review perspectives: children and childhood; culture, society and the global context; and education. Within this framework there are 10 review themes: purposes and values; learning and teaching; curriculum and assessment; quality and standards; diversity and inclusion; settings and professionals; parenting, caring and educating; beyond the school; structures and phases; funding and governance. The recent and ambitious research projects of the Teaching and Learning Research Programme (TLRP) have identified a wide scope of methodologies and findings about learning and teaching, from group work in the early years to learning lives through the lifecourse (see <http://www.tlrp.org>). These responses, reviews and research projects are taking place against the wider backdrop of restructuring of the welfare state in education in Europe. (Goodson & Norrie, 2005; Muller et al., 2007).

In this paper I try to conceptualise teaching in the 'Knowledge Society' as a creative endeavour which involves imagination and value, as well as tensions and contradictions. This approach looks again at teacher learning and professional knowledge in the landscapes of education in our complex societies. In an attempt to promote discussion, I highlight 4 themes:

- The place of teachers in a changing landscape of workforce, curriculum and pedagogy;
- Teachers' learning with digital technology tools;
- Teachers as creative professionals;
- Retooling or renaissance?

I argue that we might usefully think of reconceptualising the professional identity of teachers from instruments to be 'retooled' for an education production line, to creative, critical educators acting to shape culture in changing learning environments; and I suggest that we might do this by moving to the edges of the map - "*hic sunt dracones*".

### **The place of teachers in a changing landscape of workforce, curriculum and pedagogy**

The landscape which we are attempting to map is dynamic, if not tectonic in the opening up of pedagogical spaces (Edwards & Usher, 2008). For over twenty years, writers and researchers have been predicting and describing some of the economic and social changes associated with constructions of a 'Knowledge Society': from the effects of the structural changes on work, institutions and cultural values (Webster, 2002), and the sources of power in the control of information (Castells, 1999); to the rise of the so-called 'creative class' (Florida, 2003), and the changes in associational life and levels of trust which lead Americans to 'bowl alone' (R. Putnam, 2001).

The recent Professional Knowledge project, funded by the European Commission, explored the implications of welfare state restructuring on teaching and nursing professions in European contexts in an ambition to understand knowledge "at work" among professional actors situated between the state on one side and the citizens on the other side (Goodson & Norrie, 2005). The literature reviews raise questions about the nature of changes in the design and experience of teacher education. They indicated that the trajectories and social construction of these professions in different countries in North and South Europe were very different, yet there were similarities in issues of decentralization, privatization, marketisation, labour supply, increasing secularism, new public management, the use of information technologies, and feminisation in these professions. Norrie and Goodson draw attention to the generational divide in the professional identity of teachers, and Goodson (2003) highlights both a 'crisis of positionality' as personal visions of change respond to external initiated changes rather than internal ideals, and a 'memory and mentoring loss' as retention difficulties with groups of both experienced and

younger teachers affect the knowledge and wisdom in the teaching community. Their study of English primary teachers' biographies indicated how teachers' professional lives reflect shifts in a more materialistic and individualistic society. Younger generations of teachers are less resistant to prescription and inspection of pedagogy and curriculum, yet are now experiencing some tensions and anxieties in the contradictions between more recent policies for creative, integrated approaches within unchanging contexts of assessment and monitoring (Norrie & Goodson, 2007).

In the English education system, reconceptualisation of teaching as a profession is taking place not only in the wider context of economic and social restructuring, but also against a national backdrop of New Labour's changes in the policies for children and families, curriculum, strategies for pedagogy, and models of teacher education. We have been recently been responding to policy initiatives and strategies such as Every Child Matters, The Children's Plan, Creative Partnerships, Nurturing Creativity in Young People, Prosperity for All, The Innovation Gap and Harnessing Technology, to name a few. (Creative-Partnerships, 2007; DCFs, 2007; DfES, 2004, 2005; Leitch, 2006; NESTA, 2006; Roberts, 2006) The role of digital technologies in teaching and learning is also considered as a 'given' in policy development despite research findings and reviews which indicate the relationship between technology, pedagogy, environment and pupil performance to be complex (Somekh et al., 2007; Webb & Cox, 2004).

### **Teachers' learning with digital technology tools**

Digital technologies have an effect on 3 aspects of the practice of teaching in economically developed societies. They play a role in the acceleration of many aspects of social, professional and economic life and thus the intensification of much of teachers' work (Gleick, 1999); they can have a didactic relation with the 'what, how and why' of teaching and learning (Hudson, 2007), and they can support and shape teachers' own learning and professional development (Fisher et al., 2006).

Many of the digital tools offered to teachers to 'transform' their practice, are in fact tools for intensification in efficiency and productivity. Such activities can include registration and record keeping, access to materials and resources, organization of curriculum resources and pupil work, and monitoring, analysis and presentation of performance data. The pacing and boundaries of teachers' work and time can also be made both more flexible and more disrupted by access to digital technologies and networks through increases in the pressure for immediate responses to parents and outside agencies (Fisher, 2006).

Digital technologies have played a role in supporting learning and teaching in education systems for over a quarter of a century, yet understandings of the relations between technologies, subject content domains and pedagogy are still emerging. The affordances of digital technologies from desk top computers to mobile devices, to support activities such as finding things out, communicating and sharing information, developing ideas and making things happen, are well documented and reflected in government policies for the use of digital technologies in the school curriculum (see for example the National Curriculum for ICT in England DFEE/QCA, 2000; Loveless, 2003b). Hudson (2007) suggests an integrative didactical framework for describing the relations between subject content, student and digital technologies in terms of the interactions with design, content and pedagogical use. This is helpful in describing a range of uses of digital technologies in teachers' work, from edutainment software for spelling, to the use of digital video and editing software to communicate meaning in movies.

As well as being tools in the teaching of the curriculum with pupils, digital technologies can also support and shape teachers' learning. A recent review of teacher learning with digital technologies outlined different models of teacher professional knowledge (Fisher et al., 2006). It focused on a model by Shulman and Shulman (2004) describing a 'nested' conceptualization of 3 levels of analysis – individuals acting in communities within the context of policy, for which they use the metaphor of 'capital' in the allocation of resources. Fisher and his colleagues described how the affordances of digital technology supported 'clusters' of activities in teacher learning:

- *Knowledge building*: adapting and developing ideas; modelling; representing understanding in multimodal and dynamic ways;
- *Distributed cognition*: accessing resources; finding things out; writing, composing and presenting with mediating artefacts and tools;
- *Community and communication*: exchanging and sharing communication; extending the context of activity; extending the participating community at local and global levels;
- *Engagement*: exploring and playing; acknowledging risk and uncertainty; working with different dimensions of interactivity; responding to immediacy.

These activities with digital tools play a role in supporting teachers being 'ready, willing and able' to teach. They support vision for education; motivation to learn and develop practice; professional knowledge, understanding and practice; reflection and learning in community. There is also a need for teachers and school communities to have a sophisticated understanding of the opportunities and constraints that digital technology tools afford for learning and teaching in order to make informed decisions, and resist 'bandwagons and snake-oil sellers'.

### Teachers as creative professionals

I suggest that teaching can be a creative endeavour for teachers and learners, expressing the creative interaction between individuals, communities, ways of knowing, creative processes and tools, and culture (Loveless, 2003a). Discussions of understandings of creativity and the development of creative teaching, teaching for creativity and creative learning are well rehearsed in the literature (see for example Craft, 2005; Craft, Cremin, & Burnard, 2008; Jeffrey & Woods, 2003), but in this paper I will focus on creativity as embodied in individual teachers and their learning communities and networks.

Robinson describes creativity as 'original ideas that have value' – a pithy phrase which is packed with understandings of realizing imagination in cultural contexts (Robinson, 2001). In the UK the report of the National Advisory Committee on Creative and Cultural Education, defined creativity as, '*imaginative activity fashioned so as to produce outcomes that are both original and of value*' (NACCCE, 1999 p29). This definition, although somewhat linear in presentation of the creative processes, is helpful in that it expresses characteristics of creativity which can be considered for individuals as well as the local and wider communities and cultures in which they act:

- *Using imagination* – the process of imaging, supposing and generating ideas which are original, providing an alternative to the expected, the conventional, or the routine;
- *A fashioning process* – the active and deliberate focus of attention and skills in order to shape, refine and manage an idea.;
- *Pursuing purpose* – the application of imagination to produce tangible outcomes from purposeful goals. Motivation and sustained engagement are important to the solving of the problem. A quality of experience in the creative activities of fashioning and pursuing purpose have been described as 'flow', where the person's capacity was being stretched despite elements of challenge, difficulty or risk (Csikszentmihalyi, 1996);
- *Being original* – the originality of an outcome which can be at different levels of achievement: individual originality in relation to a person's own previous work; relative originality in relation to a peer group; and historic originality in relation to works which are completely new and unique, such as those produced by Fermat, Hokusai and Thelonius Monk;
- *Judging value* – the evaluative mode of thought which is reciprocal to the generative mode of imaginative activity and provides critical, reflective review from individuals and peers.

Understandings of Didaktik are helpful in recognizing the focus on the wider cultural values and purposes in education and the contexts and settings in which teachers practice. I have argued elsewhere that there are connections between open-mindedness of Didaktik analysis and preparation to teach, and teachers' capabilities for imagination and improvisation (Loveless,

2007). Teachers need to be able to engage, not only with the wider purposes and place of the content, but also with the ways in which such content is authentic and relevant in the pupils' experience. This requires imaginative thinking and activity to represent such content appropriately for the pupils (Klafki, 2000).

We suggest that Didaktik analysis itself is creative: imagination in a meaningful context is able to make connections, often novel, between concepts and metaphors, analogies, phenomena and examples, and thus create the representations and transpositions of content and substance. These are then fashioned purposefully in the design of teaching-studying-learning experiences and environments. Originality may lie either in the experience of the teacher making these connections for the first time in developing professional knowledge, or in the moments of improvisation from the 'draft' character of preparation. Value is closely linked to the local and wider purposes of education, of Bildung, in which Didaktik is expressed. (Loveless et al., 2007 p8)

A view of teachers as creative professionals is, of course, not unproblematic. Understandings of originality and value in particular education systems will be contested, and, in England for example, official encouragement from some quarters to take risks, move boundaries and ask questions is offered alongside a different context of performativity, prescription of teaching strategies, inspection and the consequences of league tables, as well as the changes of perception of the professional identity of teachers (Troman, Jeffrey, & Raggl, 2007). Yet creativity can often emerge in sites of tension or contradiction, and creative people find spaces and niches in which their ideas might flourish and be valued.

### **Mapping the landscape - retooling or renaissance?**

It is, of course, easier to map the landscape of teacher education in our times, than to glimpse and translate the terrain beyond the horizon. The current models that are in place for teacher education are considered to be effective in producing teachers for current systems and strategies. Our models of professional knowledge acknowledge the interactions between understandings of 'what, how and why' in situations which are authentic and relevant to teachers (R. T. Putnam & Borko, 2000), yet our appreciation of authenticity and relevance is being challenged in our complex societies. The role and identities of teachers in formal and informal educational settings are being reshaped - in policies for educational workforces and learning environments, and in concepts of relationships in knowledge, pedagogy and partnerships (Ellis, 2007) . The landscape of teacher education is changing, not only in the purposes of and policies for education systems, but also in some of the tools and environments available for teacher learning, namely digital technologies (Pachler & Daly, 2006).

A view of teacher education as a system to produce members of a workforce which 'delivers' education is limited and inadequate to the task. It attempts to 'capture, copy and disseminate elements of "good practice", out of the context in which they were developed, in order to refresh the educational process as if retooling an industrial production line' (Fisher et al., 2006 p39). The metaphor of retooling is also recognized in models of CPD for teachers where skill levels are 'topped up' to augment existing practices, rather than generate professional engagement in authentic, relevant and changing situations (Triggs & John, 2004; Watson, 2001).

Fisher et al (2006) call for a 'renaissance', a cultural change in the teaching profession, which enables high levels of agency to deal with complexity and flexibility – intelligent action in fast changing contexts. Such a 'renaissance' would encompass Hargreaves and Goodson's seven principles of 'postmodern professionalism' (1996):

- Opportunities and responsibility to exercise discretionary judgement;
- Opportunities and expectations to engage with moral and social purposes;
- Commitment to working collegially within collaborative cultures;

- Occupational heteronomy rather than self-protective autonomy;
- A commitment to active care and not just anodyne service for students;
- A self-directed search and struggle for continuous learning;
- The creation and recognition of high task complexity.

How then might we engage in research questions and explorations that open up a different landscape for teacher education? How might we focus our research interests again not only on 'learning to learn', but also on 'learning to teach'?

### **Moving to the margins of the map**

This paper has presented a hastily sketched map, drawing attention to four features: the challenges and changes in the 'Knowledge Society'; the role of digital tools in teachers' learning and practices; a conceptualization of teachers as creative practitioners; and metaphors for models of teacher education and professional knowledge in our times. As a community of researchers and teachers we have experience, expertise, collegiality and commitment to shape future developments by taking risks and asking questions on the boundaries, on the edges, in the margins of our practice as teacher educators.

I suggest that we can learn much about teaching and education by turning our gaze to creative educators who work on the margins of our mainstream systems, institutions and learning environments. These educators often work in communities and networks of artists, musicians, artisans, sports players, actors, environmentalists, political activists, development workers, hobbyists, and enthusiasts for topics from archaeology to zymurgy. The mapping of their activity indicates that they work in the contexts of our times, they use tools and technologies to support their activities, and they realise their ideas creatively both in their own practice and in the teaching of others. They may not be formally accredited, but they are recognized in their communities as being teachers in meaningful ways, engaging in reflection, dialogue, human presence, experience, memory and mentorship, and deep understanding of their field. We can learn from them, through creative conversations, narrative, and research methods which resonate with their fields and the questions that they ask about the things that matter to them. They can offer insights into their expertise, integrity, ways of knowing, relationship with others, commitment to process and substance. They can demonstrate how to embody being a teacher for different purposes, in different environments, and in different situations from one to one encounters, group work, teams, master classes, and whole classroom teaching, to communicating online. They can offer, not delivery of learning objectives 'beyond the school', but alternative views of being a teacher which help us to reconsider our practices in institutions and professions.

I suggest that such creative conversations can help us to think again about the identities of teachers in our changing society and systems, and contribute to a more radical charting of the landscape of teacher education. We need critical, creative teachers who are prepared not only to deal with what *is*, but are also sustained in asking questions, envisioning alternatives, embodying praxis, and reading the world with political awareness of their professional identity and agency.

We have begun to engage in such work in the University of Brighton, drawing upon expertise and interest in narrative and arts based research methodologies. I hope that this paper will act as a catalyst in the conversations and collaborations we might have at the TEPE conference to extend the boundaries of such work.

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Definition: Professional development among teachers is defined as the activities that develop an individual's skills, knowledge, expertise and other characteristics as a teacher. 7. the purposes of this article, professional development for teachers is defined by the Organisation for Economic Co-operation and Development (OECD). Increasingly, states and nations are defining teacher effectiveness as a combination of knowledge and expertise, changes in classroom practices, and impact on student learning, thus professional development must address all of these critical elements. Design Elements of Professional Development. The professional development literature includes many perspectives on characteristics of. Policy Information Report. Teacher Quality in a Changing Policy Landscape: Improvements in the Teacher Pool. This report was written by LEADING, PRAXIS I, PRAXIS II, and THE PRAXIS SERIES: PROFESSIONAL ASSESSMENTS FOR BEGINNING TEACHERS are registered trademarks of Educational Testing Service (ETS). PRAXIS and THE PRAXIS SERIES are trademarks of ETS. The Praxis I tests measure basic academic skills, and the Praxis II tests measure general and subject-specific knowledge and teaching skills. are large for the world of education policy and have occurred over a relatively brief time span. Seldom have changes in education policies been associated with such positive impact in so short a time. Introduction. The professionally oriented approach to the teaching of a foreign language in technical universities, which provides for the formation of the ability of students to communicate in specific professional, business, scientific spheres and situations, taking into account the peculiarities of professional thinking, is of particular relevance. Vocational-oriented is understood as learning, based on the needs of students in the study of a foreign language, dictated by the characteristics of the future profession or profession. Professional-oriented teaching of a foreign language is now recognized as a priority in the renewal of education. Non-verbal communication becomes an essential component of the professional activity of specialists. Professional development support and teaching resources to teachers. Learning and career planning for year 10 students. Individual career guidance for students at risk in years 11, 12 and 13 (delivered directly to students by Career Services consultants). In each region, Career Services staff developed a Professional Support Plan with pilot schools in their area. That plan outlined agreed support for the school. The findings showed that the impact of the project went beyond the specific intent, to influence broader staff knowledge and attitudes towards career education. Participants reported positively on the value and impact of the pilot. 11. Changing context, changing landscapes. A review of teacher education in Norway and England. In P.-M. Rabensteiner & G. Rabensteiner (Eds.), Education. Internationalization in teacher education (Vol. 3, pp. 48-67). The shape of teacher professionalism in England: Professional standards, performance management, professional development and the changes proposed in the 2010 White Paper. British Educational Research Journal, 37(5), 851-870. CrossRefGoogle Scholar. Flores, M. A. (2000).