

Improving education through research: the relationship between research and teaching

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ABSTRACT

This paper is based on a keynote address to the 2012 Scottish Educational Research Association Annual Conference. It explores the relationship between research and teaching, particularly in the context of teacher education in Scotland but also in terms of wider implications. The paper begins with a discussion of how key terms such as education, teaching, learning and research are approached. The relationship between the tasks of teaching and research in UK teacher education and higher education generally is initially considered from the perspective of Skelton's 'three identities' for university tutors. The paper moves on to analyse the role which research could play in each of Winch's three models of the teacher: the craft model; the technology model; the professional model. The paper concludes that the craft and technology models provide only limited roles for research, while the professional model requires more significant research skills in methods, theory and scholarship. This model will apply to teacher educators, university teachers more generally, and to the wider teaching profession.

INTRODUCTION

In my address to the SERA Annual Conference in Ayr 2012 I explored the relationship between research and teaching responding to the Conference strap line 'Improving education through research'. I have maintained the discursive style of the presentation as I recreate the presentation here. I have welcomed the opportunity to clarify and augment some of the points I made in response to the feedback I received following the discussion at the conference.

The statement, 'improving education through research' not surprisingly for a research organisation (SERA) privileges the role of research. Research is the active agent in this phrase. We can read the statement as both process 'what we do' and 'aspiration' 'what we are trying to achieve'. It is a relationship that is particularly relevant to many of our institutions where not only is research privileged above teaching but is also separated from it. I explore this relationship and the extent to which research in education is shaped by the model of teaching that dominates our institutions. I will try and build an argument to show why research has a part to play in the role of the teacher in school, college or university. I tend to use teacher education in Scotland as my context because this is of particular interest to me but I attempt to build an argument which has implications for spheres beyond this.

SOME KEY TERMS: EDUCATION, TEACHING, LEARNING AND RESEARCH

To begin I would like to focus briefly on how key terms are used in our field and how I use them in this paper. Education is essentially an 'achievement word.' Richard Peters made this point in the 60s in his 'achievement -task' analysis of the nature of education. He argued education is therefore an outcome albeit with an added values dimension:

..to educate someone implies not only some sort of achievement, but also one that is worthwhile (p.26 Peters 1970)

The logic and heritage of this argument is that you do not teach someone to be educated; you arrive at this state obliquely through tasks. It is this observation that underpins the insistence by teacher educators that they are involved with initial teacher education and not teacher training. Obliquity is also a very useful concept which provides an alternative perspective on bringing about educational achievement and one that is increasingly receiving attention in education. The concept is not new. Later on I show how this concept has been central to teaching approaches for many years. What then are the key tasks which support and lead to the achievement of being educated? From my perspective the tasks I hear used most frequently are teaching; learning; training; and development. Whereas teaching and training are both easily seen as tasks which contribute to the outcome of being educated, I find both learning and development less helpful because they can both relate to process and to outcome. All the more surprising then that learning is now so ubiquitous and can claim a higher status than teaching itself. Ingrid Carlgren (2011) asks if this is an attempt to remove the teacher from the learning process as in the therapeutic professions or an attempt to direct the teachers' thoughts onto outcomes. The term learning may threaten to reduce the role of the teacher but it also helpfully ensures the role of the student is integral to the process of becoming educated. These key tasks then are teaching, training and learning. In my experience, research is used less often, it stands apart. Research as a term, feels comfortable both as a task and an achievement which shows how well it is regarded. It is not the servant of education- we do not primarily do research to become educated, research usually serves a different purpose.

THE RELATIONSHIP BETWEEN THE TASKS OF TEACHING AND RESEARCH, AND SKELTON'S THREE IDENTITIES FOR UNIVERSITY TUTORS

An exploration of the relationship between the tasks of teaching and research within the context of teaching and teacher education can be explored from the perspective of the researcher and the teacher. (I am using 'teacher' here in the widest sense) This relationship is the focus of much discussion generally and in particular from the perspective of the tensions which can exist between teachers and researchers whatever the institution. Researchers may ask why their research is not read more widely by teachers - teachers may ask why researchers do such irrelevant research. Skelton's (2012) work on teacher identity reveals some of the complexities of this division and shows that these divisions are far greater than different perspectives, but have become manifest in different roles for university tutors. He argues that three identities have emerged within UK universities, the 'teaching specialist', the 'blended professional' and the 'researcher who teaches' (p.24). These differing identities are clearly visible within Scotland's teacher education community. In my own institution within teacher education I can identify all three identities with a predominance of the first, the teaching specialist, although a significant move towards the second, the blended professional, is underway. The third category can be found but is still relatively rare and is limited to those whose profiles remain outwith teacher education.

Skelton argues that this division is found within teacher education but is in fact general to higher education across the UK. In his historical account he attributes the growth of teaching-only contracts to initiatives such as the creation of the Quality Assurance Agency (QAA) and the Institute for Learning and Teaching in Higher Education (ILTHE) which aspired to create university teaching as a profession in its own right and to enhance individual practice. However Skelton argues that these initiatives did not always produce the desired effect. For example the creation of Centres for Excellence in Teaching and Learning (CETLs) prompted a response from many research-intensive universities expressing concern that the establishment of a CETL could undermine their reputational status (p.25). He concluded that a 'world-class' approach to teaching and learning in UK higher education may still be an aspiration rather than a reality (p.25). He argues that paradoxically the growth of teaching-only contracts may be seen as a success in that it is now possible to "carve out clear territory for oneself as a university teacher" allowing

teaching specialists to “excel in different aspects of academic practice” (p.26). On the other hand the growth of teaching only posts may be indicative of deepening divisions of labour which reduces the status of teaching. Skelton’s research reveals that in some instances the staff who receive teaching awards may even see these as a ‘poisoned chalice’ perceived by significant others as evidence that one has little interest in disciplinary research (Skelton, 2012, p.26).

WINCH’S THREE MODELS OF TEACHING AND THE ROLE OF RESEARCH WITHIN THEM

What then for Scotland’s teacher educators and practitioners who wish to engage with research? Can we ensure that this trend towards teaching only contracts can be a success by supporting the teaching specialist to carve out their own territory? Does the emergence of separate identities inevitably lead to a polarisation of teaching and research? In order to respond to this I would like to focus on the model of teaching which dominates both teaching in schools and teacher education. I would argue that it is the view we have of the teacher which determines the capacity for research to be included in this role. I’d like to illustrate this with different views of the teacher. I am grateful for a paper given by Chris Winch (2012) which set out three models of the teacher which influence initial teacher education and teacher education generally and are relevant to the teaching education posts held in our universities. I intend to look at each of these in turn and build into Winch’s analysis the role that research plays or could play in each model. The models are the craft model; the technology model; and the professional model.

The Craft Model

Winch argues that teacher education and in particular initial teacher education in the UK is dominated by the craft model of training. This is characterised by training conducted by using a predominantly modelling approach with an emphasis on practice. I recognise this approach. I would argue that the Lave and Wenger’s communities of practice literature, (Lave and Wenger, 1991; 1998) stemming from the work-based apprenticeship model, is linked to this approach. The promotion of more school based initial teacher education, already arrived in England and being promoted to a certain extent by the Scottish Government, reinforces this model of teacher education. Research is not central to this model. However research activity does exist and can be found under another names, for example, problem solving. Problem solving is a well-established pedagogical device. Problem solving can be synonymous with research and therefore an integral part of teaching. For example the work of Janet Moyles on active learning, locates this centrally in the work of the teacher or lecturer (Moyles, 2001).

Other research related activities include reflexive practice and practitioner research, although I am worried that qualifying research with the term ‘practitioner’ in this way sounds a little apologetic and at worst may appear to release this research from a rigorous approach. Even Kemmis in his discussion of research into practice places research in a hierarchy above that of teaching. He defines the relation between the two in terms of meta-practice - one practice which shapes and influences another. He argues that research and evaluation shapes and influences initial and continuing education (Kemmis, 2012, p.886). By placing research above teaching within his ‘practice architectures’ Kemmis is not however arguing a higher status. He sees research and teaching as complementary practices. His research also demonstrates the importance of perspectives

practice seen from the inside is the most important version of practice to connect with, to engage, and to develop if we are to change the world by researching educational practice (Kemmis 2012, p. 893)

So in the craft model it is possible to find research related activity but the craft model does not promote research per se. The craft model is a narrow form of training because of its overemphasis on practice - it is 'training' not 'education'.

The Technology Model

In Winch's second model the teacher is seen as technician and the model is dominated by prescribed methods and curricula. There is an emphasis on national strategies and teaching schemes. We would all recognise schemes such as synthetic phonics in schools or e-learning technologies in universities which fit into this model. The model is supported by the literature on 'best practice' and the 'what works' policies. To a certain extent it is also supported by a philosophical approach which highlights the role of the academy and the ways in which this is taken up by subject specialists in attempts to define independent and objective bodies of knowledge. This stance can appear at odds with social constructivist accounts of learning which comprise pupil centred pedagogies (Rata, 2012). Rata argues for a knowledge product that can be known objectively and that is independent of the knower. Her call for knowledge to be subject to objective and authoritative validation implies a separation of the teacher educator from the practitioner. Her argument establishes a role within the academy for teacher educators where their knowledge must exceed that gained in their experiential learning in the classroom. Rata appears to criticise practitioner knowledge as subjective and idiosyncratic and yet it is this expertise which the practising teacher is required to bring into teacher education either as a student or as a tutor. Rata's argument provides a strong rationale for the technology model of teaching and to an extent reflects some of the negative aspects of educational policy where serious efforts are made to design materials and pedagogic strategies to constrain teachers. At worst this includes the concept of teaching materials which are 'teacher proof'. I refer you to Robin Alexander's work if you want a further critique of this approach (Alexander, 2000). In my experience it is always possible to find this as the preferred option in Government policies be they of the left or right. Much of my own research has been evaluating these types of strategies. The reference I made earlier to the use of the term 'learning' and Ingrid Carlgren's paper is also relevant here - as she too asks if this is an attempt to remove the teacher from the learning process.

The role of research in this model is to inform. At best this is intelligent evidence informed activity and at worst research is limited and reduced to finding out 'what works'. Also the research activity is undertaken outwith this model - by experts who know best.

The Professional Model

Winch's third model is that of the professional. Despite the sometimes over-use of this term the essential aspect of being a professional is the autonomy that it brings. However with autonomy comes responsibility. In order to be responsible, a professional holds an expertise which informs decision making, including making decisions about practice, and which provides credibility in leadership. The acquisition of this professional expertise and the resulting autonomy, like 'education', is an 'achievement' state. Priestly *et al* (2012) through their research conclude that, in Scotland, this autonomy is under threat. Their review of research reveals how an increase of surveillance of teachers has reduced the autonomy of teachers to engage in experimentation and describes how accountability regimes have eroded responsibility and autonomy among those working in education. It is inconceivable to imagine that the expertise required to become a professional teacher with the autonomy implied through the new school curriculum, *Curriculum for Excellence*, and the responsibilities that will be required by the General Teaching Council for Scotland's professional update procedures can be acquired without research skills (see GTCS 2006 and 2011 for recent relevant Council developments). Even if the professional role does not require the role holder to be research active, it will require the professional to be able to read, interpret and evaluate research findings. Research skills are therefore essential.

Having made the case for teaching to be seen as a professional activity and therefore one requiring research skills - I ask what level of research skills is required by the professionals within the context of professional education and training? My conclusion would be that a professional model requires more than those found in the craft model and those which inform and stand outside the model of teacher as technician. I would suggest that the professional is confident in three aspects of research methodology: methods; theory; and scholarship. By methods I mean methods of data collection and analysis, including statistics! This component is the most straightforward. The second component is theory.

Theoretical underpinning is often absent in the craft model. Teaching may be seen as non-theoretical in practice but this need not and should not be the case. Kemmis in his research into practice shows how the very ordinary 'sayings' 'doings' and 'relatings' of everyday practice shaped into 'practice architectures' provide a theoretical account of teaching (Kemmis 2012, p. 886; Kemmis and Grootenboer, 2008).

Kansanen (1999; 2011) referring to the work of Lee S. Schulman reminds us that teaching is the intersection between content and subject knowledge and notes these are research areas in their own right. This raises the question of whose role it is to research and update this body of knowledge. Priestley *et al's* (2012) case studies of teachers led them to conclude that accessible research findings constitute a powerful means of encouraging teachers to introduce change to their practice (p.280). However in the technology model responsibility for understanding and evaluating research, as we have seen, lies with someone other than the teacher.

For experiential knowledge to be accepted under Rata's terms as objective and contributing knowledge to the academy, research into practice must engage with the range of theoretical perspectives which shape and inform education. For example, consider a teacher-researcher addressing the problem "What is wrong with school uniform?". The approach from a philosophical perspective would be very different from the approach if taken from historical, psychological or sociological perspectives. If you approached this from the perspective of research methodology, then issues of objectivity, validity and reliability would need to be addressed. However most teachers would be confident to address this topic with their observations of the 'sayings' 'doings' and 'relatings' which their experience of schooling had brought them. Their experience would allow them to construct Kemmis' practice architecture around this and many other mundane aspects of school life. Because educational theory integrates these approaches, the practitioner's experience, education and training would also enable them to move freely between the psychological aspects of an analysis of uniforms to the cultural and historical. A quick look at any abstract in an educational journal and you will see that most studies in education combine theoretical perspectives. (The first I looked at in BERJ was a study of identities of disability and music. It combined a philosophical defence of music's importance; the design elements of specialised musical instruments; the psychological aspect of the element of shame which accompanied a reduced standard of living with a disability and concluded with a policy issue relating to the provision of resources.) This kind of research is not about identifying Rata's underlying universal laws, it is about perspective "look at it this way". Do we require the teacher and teacher educator both to be able to recognise, understand and use these theoretical perspectives? Without this understanding, decisions are made at the parochial level of "We've always done it this way" of the craft model and the "We have to do it this way" of the technology model.

I come now to the concept of scholarship which I would like to propose as a third component within research training. This is a term that is often mis-used and underrated and for some viewed as rather old-fashioned. Scholarship is often used as the alternative to research as in teaching only contracts within teacher education, the 'teaching specialist' of Skelton's three identities. I would prefer to see it used as complementary. Scholarship suggests serious academic study, it suggests a specialist expertise underpinned by theory, whether this be curriculum subject knowledge; philosophy; pedagogy or social science. I believe that scholarship is the most important aspect of the role of a university and it is the

university's responsibility to contribute this quality to both professional education and training and to educational and pedagogic research.

This contribution to research is recognised in the Research Excellence Framework-defining scholarship for the Research Excellence Framework as

... the creation, development and maintenance of the intellectual infrastructure of subjects and disciplines, in forms such as dictionaries, scholarly editions, catalogues and contributions to major research databases. (HEFCE, 2011, p.48)

Where within professional education and training are the professionals who are maintaining the intellectual infrastructure of subjects and disciplines? Where are university educators contributing to major research databases? Is it important to develop the insider perspectives argued for by Kemmis to avoid the demeaning of personal and collective exploration of lived experiences (Kemmis, 2012, p.895). How universal is the action research which Colucci-Gray *et al* (2013) identify as integral to teachers' professional development in Scotland? The research undertaken by them confirms the importance of the role of action research or related research based activity in this development. They do not limit action research to the personal but include the professional and political. They do however argue for the link with everyday practice, reflecting Kemmis' call for the inside perspective:

for practicing teachers to understand the relevance of research., a place must be found for evidence that resonates with normal daily practice (Colucci-Gray *et al*, 2013, p.133).

The role of the university is important here but that's an issue for a future debate. In Scotland we have been discussing the role of the university in teacher education for two centuries - and there is still work to do.

CONCLUSION

In summary then, research is integral to professional education only if we see teaching truly as a profession. By seeing teaching as a professional activity the craft model and the educator as technician are left behind. Does SERA demonstrate that research is integral to professional education and training? Is this work informed by secure methodologies and underpinned by theory and is it scholarly? We should know this now by the extent to which our work is applied, disseminated and subject to scrutiny by public, professional and peer groups in both national and international contexts. Do we share a coherent view of the role of professional education and training in the university? Should we talk more about training and what is required to achieve the educated professional? Menter *et al* (2004) have shown in their analysis of Scottish educational policy that there has long been an emphasis on CPD which also pays attention to institutional developments. Scotland appears to have avoided the performance management culture of England (p.203). They argue that the policies to make significant pay awards to teachers encouraged teachers to approach professional development more systematically, and show that as a profession they were certainly trusted with such significant pay awards, whereas during this time teachers in England were only similarly rewarded if they were experienced and submitted themselves for assessment. Since this research, in Scotland, the concept of professional development has been moved forward even further by the Donaldson Review (Donaldson 2011) and by the embracing of professional update by the General Teaching Council for Scotland. However Priestley *et al*'s research shows the persistence of the universally familiar practices of schooling built on common place notions of knowledge construction and student-teacher roles and on prevailing classroom pedagogies. They cite the professional isolation of teachers and yet their research review suggests that a systematic approach to professional enquiry linked with effective professional development is a key ingredient in successful change strategies.

These developments in the teaching profession suggest that time is right for similar developments for teacher educators and for the development generally of the university teacher.

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