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THE SCHOLARSHIP OF TEACHING AND LEARNING FOR EDUCATIONAL TRANSFORMATION

OBJECTS OF LEARNING IN FOCUS

Ruksana Osman & Shirley Booth

BACKGROUND

This chapter is intended as a contribution to renewing meaningful conversations about the quality of teacher education and scholarship in teacher preparation. In a country such as South Africa, where multiple social inequalities are prevalent, quality education and quality teacher education are the challenges we face and must respond to appropriately. Systematic research and scholarship, grounded in the concerns and problems of educational practice, could make the difference in quality education and teacher education and it is this issue that we take up in this chapter. In this chapter we propose the Scholarship of Teaching and Learning (SoTL) in the context of teacher education as a major contribution to transforming education in the necessary direction and thence transformation of society.

A BRIEF HISTORY OF TEACHER EDUCATION IN SOUTH AFRICA

South African education is in a period of transformation, from a historically divided education system where some received the finest available and others received minimal training for what was considered suitable employment (Sedibe 1998). The school system is intended to move towards an equitable curriculum where critical understanding and lifelong learning are two of the key concepts. This means, in its turn, a change in curriculum for pre-service teacher education as well as a long-term programme of in-service development.

In the apartheid era, the four groups of people identified as belonging to different racial groups – White, African, Indian and Coloured – were serviced by different departments of education, with different principles and very different budgets (Ocampo 2004). A particular pedagogical ideology underpinned the schooling in

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the schools for black Africans, so-called Bantu schools – fundamental pedagogics – which “focused on control, absolute understanding of the world and a very authoritarian approach”.

The problem was that education departments and teacher training institutions in South Africa adopted or developed theories of learning that supported this idea that teachers should be controllers in the classroom, [...]. Teaching was seen as providing, in the classroom, well-established facts, exercises and mental drills which would get these [innate] ideas going. Knowledge came to be seen as fixed, innately known, and learning involved its repetition in order to get it out and get it going.

(Naicker 2007:3)

That started to change in the late nineties, when Curriculum 2005 was introduced in 1996, which “was described as a single curriculum that was learner paced, learner based and of an inclusive nature” (Naicker 2007:4). Although separate schooling has been abandoned altogether it has left a legacy of problems. The new curriculum was revised once again in 2002, “highlighting as principles inclusion, human rights, healthy environment and social justice” (Naicker 2007:4). Evidence suggests, though, that the range of educational opportunities offered children in the schools today still, however, differs widely, depending on the locality, history, teacher competence and leadership in the schools (Fleisch 2012). In general terms, rural schools are less well equipped than urban schools; schools that were formerly intended for white children have better resources than many others; private schools have better qualified teachers than many state schools where teachers without qualification are not unknown; and the culture of teaching and learning has to be reinstated in schools that were once hotbeds of political opposition to apartheid (Christie 1998).

Christie, writing of a period only shortly after the first democratic elections, speaks of ineffective schools visited by the Committee on the Culture of Learning and Teaching, with common features including:

[D]isputed and disrupted authority relations between principals, teachers and students; sporadic and broken attendance by students and often teachers; general demotivation and low morale of students and teachers; poor school results; conflict and often violence in and around schools; vandalism, criminality, gangsterism, rape and substance abuse; school facilities generally in a poor state of repair.

(Christie 1998:283)

She goes on to refine the notion of the culture of learning and teaching:

Talking of the ‘breakdown’ of the culture of learning and teaching should not in any sense be taken to mean the ‘absence’ of a culture of learning and teaching in these schools; what is implied, rather, is the development

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of a school culture which is inimical to learning and teaching. It is also necessary to recognise that learning and teaching were of doubtful quality, particularly in black schools, under apartheid, well before the notion of a breakdown emerged; thus the 'restoration' of a culture of learning and teaching, means in fact, its transformation.

(Christie 1998:286)

Christie writes ten years later of the differentiation that still exists:

In schools serving rich communities, parents tend to pool their resources to strengthen their schools [...]. In contrast, schools serving poor communities do not have these additional benefits. They are 'exposed sites' in terms of the demands of the curriculum [...]. Attempts to change classroom practices through Curriculum 2005 initially brought mixed results, but these are being continually addressed. However, as things stand, in most of South Africa's schools, teaching and learning struggle to meet the high quality necessary to provide students with the knowledge and skills they need to participate in the global world.

(Christie 2008:211)

Thus differentiation by ethnic or racial classification is being morphed into differentiation by socio-economic class, which for many in the South African population is exactly the same.

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With that as background, teacher education, now located in universities and recognised as an academic education rather than a training associated with teacher training colleges, has the task of wiping out old injustices and providing the country and its children with a school system that is fair and committed to "thinking consistent with learner centred theories such as constructivism or could be located with a critical paradigm that focuses on liberation, empowerment, emancipatory and a liberatory space [sic]" (Naicker 2007:5). The culture of learning and teaching has to be transformed in line with this ambition and vision.

In recent times the media has focused sharply on failing school learners, dysfunctional schools and the downfall of Outcomes Based Education, which formed the basis of the school curriculum in South Africa. Implicitly the media focus has also been on ineffective teacher preparation, raising questions about quality teacher training, the most efficient pathway for teacher preparation, the ideal location for teacher preparation programmes (universities or colleges of education) and issues of teacher identity and teachers work. This scrutiny is not going to go away – if anything it will become sharper and harsher in the next few years as market driven demands for accountability and efficiencies in teacher education become the order of the

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day, educational quality will be judged on the extent to which institutions comply with state policies, and programs will be judged on the extent to which the state is getting value for money invested in education. This state of affairs needs to be turned around; confidence and trust in teacher education needs to be rebuilt as teacher education has many stakeholders – parents whose children are going to be educated by these teachers, the state department of education that is funding the teachers in their studies and the universities where schools of education are located. While there may be many approaches one could take to rebuild the academic project of teacher education one that is being proposed here is to bring scholarship to teacher education. If schooling and teaching are to change and reform then teacher education must change.

The Bachelor of Education (B Ed) programme, a four-year programme for whichever stage of schooling the student is focusing on, is governed throughout South Africa by a comprehensive set of Norms and Standards laid down by central government (Department of Education [DoE] 2000). In 2000, the then Minister of Education, Kader Asmal, announced the new policy, directly for educators and indirectly for the programmes of teacher education.

The 2000 policy defined seven roles that an educator must be able to perform and describes in detail the knowledge, skills and values that are necessary to perform the roles successfully. The seven roles were: (1) Learning mediator; (2) Interpreter and designer of learning programmes; (3) Leader, administrator and manager; (4) Scholar, researcher and lifelong learner; (5) Assessor; (6) A community, citizenship and pastoral role; and (7) A learning area/subject/discipline/phase specialist role (DoE 2000). The main criticisms against the Asmal policy were that it was not possible to expect all teachers to be able to play all roles and that the roles were not in a hierarchy so that, for example, the pastoral and administrative roles were at the same level as the assessor and discipline specialist roles. This policy was extended and elaborated on in the new Department of Higher Education and Training (DHET) 2011 policy document, which defined the minimum requirements for teacher education qualifications (DHET 2011).

The curriculum for the B.Ed should both directly and indirectly support the acquisition of the competences needed to perform such roles. The future teachers will need to be prepared in a way that will enable them to respond to the learning needs of the students; decide which pedagogies are best suited and also prepare students to participate effectively as fully fledged citizens of a country that is attempting to transform itself in all spheres of life. These different layers of demands on teachers place a responsibility on teacher educators to ensure that university programmes that

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prepare teachers must resonate with the problematic of the practitioner and that such programmes produce teachers who can teach in all schools in the country, not just the elite schools reserved for the privileged few. The different layers of demand place disciplinary knowledge, or knowledge of school subject matter, of teachers as central to transforming teacher education and schooling.

In practice this means that scholarship in teacher education must improve in quality and it must inform and be informed by professional practice and educational policy. It must enable student teachers to ask questions about their practice and answer questions about professional practice in a way that is systematic and well informed by disciplinary knowledge. Such meaning-making by teachers is the base of a scholarly approach to their practice. A scholarly approach is proposed at three levels, each feeding into the other – from teachers in the classroom investigating their own teaching practices and their learners' learning, to undergraduate and postgraduate teacher education students investigating issues they meet in their studies and testing conjectures, to teacher educators as researchers involved in research which feeds back into the ideas about teaching and learning in the classroom. This amounts to learning to reflect on practice and to stimulating inquiry into one's practice. A tall order indeed, for universities and university-based teacher education. More so in South Africa, where widening participation for all students who were historically excluded from higher education due to apartheid now must be given not only access to higher education and teacher education, but who must also be given opportunities for success in higher education. This broader issue of equity, access and success for all the nations' children links directly with the transformation of society on the one hand, and with SoTL on the other.

WHAT IS SCHOLARSHIP? WHAT IS SCHOLARSHIP IN TEACHER EDUCATION?

Recent developments in teacher education worldwide recognise that inquiry is a vital part of teachers' work (Cochran-Smith & Lytle 1999; Darling-Hammond 1999; Venkat & Osman 2012). Further, there is greater recognition of teachers as researchers and of the transformative potential of research for teachers' practice and development (Clandinin *et al.* 1993). In the same vein, Grumet (1990) asserts that teaching, by its very nature, is congruent with reflection and research. Here we are asserting that for this scholarship to take hold in schools the link between teacher educators and schools needs to be strengthened. Through scholarship we could harness the transformative possibilities for schooling and teacher education and for teachers and students alike.

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Scholarship has come to have multiple meanings for many in higher education and in some instances lacks a shared understanding among academics. Responding to these multiple – and even in some instances contested – meanings, Shulman (2000), in trying to unpack scholarship, links it to: (1) professionalism in terms of our responsibility to our professional field and discipline; (2) pragmatism – our responsibilities to our students as their teachers; and (3) policy – our contributions to legislations as they relate to the enterprise of teaching, learning and education.

Huber and Hutchings (2005) identify four core practices that make up a scholarly approach: “framing questions, gathering and exploring evidence, trying out and refining new insights in the classroom, and going public with what has been learned in ways that others can build on” (p.22). Writing in the SoTL tradition (e.g. Kreber 2002; Trigwell & Shale 2004) takes up key features of scholarship to include a deep knowledge base, inquiry, critical reflectivity, peer review and publications. According to Andresen (2000) in scholarship there is an expectation that something can and will be achieved. In his words: “This is more than mere semantics. We are engaged in promoting a set of intellectual values contained within the meanings of the terms we articulate and use” (p. 138).

To us this suggests a move from scholarly teaching or from scholarship of teaching to scholarship *in* teaching which means developing a research-led culture and a research-based approach to teacher education as a field and as practice. And, concomitantly, it points to teacher educators who are able to pick up on this ethos in their curricular orientations and their emphasis on practice.

Despite the many challenges in research-led and research-based teacher education, such an approach would be a viable and useful way of approaching the teaching and training of school teachers, especially in societies where social and economic inequalities loom large and where the institutionalisation of quality teaching and learning is still a challenging task for policy planning and implementation. The emphasis on quick skills teacher training, which consist of transmitting a ‘bag of tricks’ or tips about what works in the classroom or, worse, a large set of untheorised and bureaucratically driven competences, can overshadow attention to deep knowledge, skills and dispositions which underpin research-led university-based teacher education. While the pervasive demands of the market must be recognised, the pressure for quality and scholarly teacher education in a developmental state must be ongoing and applied from different sectors – universities, schools, the state and civil society. It is only through a sustained approach to quality, and a multilayered approach to scholarship that the education crisis will recede.

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A possibility in this direction centres on the idea of developing the reflective or scholarly teacher educator, who is actively engaged in studying her practices as a teacher through the eyes and the learning practices of her students, and who feeds this knowledge back into the teacher preparation programme. This, ultimately, is a vision of teacher educators who study their practices in the context of higher education and teachers who are prepared to pursue issues that arise in classroom practice, through recourse to fieldwork, literature, and colleagues, teachers at all levels who are open to changing their conceptions of teaching after participating in a systematic study of how and what their students learn best.

Classroom research is an important and growing aspect of developing education, through the work of inquiring teachers, often in an action research spiral of investigation, growing understanding and implementation for change. Of particular interest in this approach to teacher education will be inquiry into disciplinary knowledge and the acquisition of disciplinary capabilities, or transforming disciplinary knowledge into pedagogical knowledge, sometimes referred to as pedagogical content knowledge.

TEACHER EDUCATION: THEORY OR PRACTICE

There is debate on the relation between theory and practice in teacher education as well as in teaching that has a direct bearing on our argument. There is a tradition of seeing teaching as a craft or skill, and teacher education (or “teacher training”) as a preparation for such teaching with emphasis on *method*. When the shortcomings in such an approach to teaching are considered – for example the difficulty of introducing new curriculum or considering new approaches to teaching for teachers with the skill mindset – there has occurred a polar shift to emphasise theory in teacher education, towards theory. Teaching can then be seen as needing the application of theory from what are seen as foundational disciplines of sociology, psychology and philosophy, and teacher education is subsumed under those disciplines. It is this seesaw that characterises South African teacher education: the colleges of education with a skill bias were closed in favour of university-grounded schools of education with a theoretical bias.

Should teaching and teacher education be biased towards skill with theory being brought in to justify the skills that are needed in the workplace, or should they be biased towards theory out of which skill will develop in the workplace? We are proposing that teachers and teacher educators need to overcome this dichotomy through the practices of action research, in which knowledge of and insight into education and educational issues come to the fore, both to underpin activity in the classroom and to build a knowledge base for teaching.

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We envisage a mode of teacher education where issues of teaching and teacher education are the objects of ongoing study. Teacher educators could be engaged in studies at a high level, but looking less at theories from the foundational disciplines and more to the issues of teaching and teacher education themselves. Some would be investigating their own practices, again within the context of teacher education focusing on classroom practices. Others would be working with their students to study issues that arise for them in their teacher education. Thus a community of learning would be built in which student teachers and their educators work together to, on the one hand, build a knowledge base for teacher education where theory and practice are integrated and, on the other hand, offer future teachers a grounding in action research for their own future professional development.

THE OBJECT OF LEARNING AS CENTRAL TO SoTL FOR TEACHER EDUCATION

Such action research can focus on any number of issues of teaching, teacher education and teacher development, but we are proposing that the multi-level model that is emerging from our discussion should focus on the relation between teaching and learning. Central to this form of inquiry we propose that the “object of learning”, as introduced in the variation theory of learning (Marton & Booth 1997; Marton & Tsui 2004) and developed in the work on learning studies (Lo 2012), is made central to the scholarly studies, enabling knowledge developed in one study, at one level, to inform studies at other levels, leading to an integrated knowledge base for teaching and teacher education.

An object of learning “may be a specific knowledge, understanding, skill, value, or capability that the students are expected to develop during a lesson or during a sequence of lessons”. Pang goes on to distinguish between this concept and the learning objective thus:

The main difference between our concept of the object of learning and the far more common concept of the learning objective is that whereas the latter refers to goal, target or aim of learning, the former also refers to the conditions and outcomes of learning. The idea is to describe goal, conditions and results in commensurable terms.

(Pang 2006:41)

To this end, the object of learning is described in three different forms: the *intended* object of learning, the *enacted* object of learning and the *experienced* (or lived) object of learning. Thus studies framed around objects of learning are not only concerned with *what* is taught (as in curriculum development) or *how* it is taught (as in teaching method) but also the *outcome* of learning – all in commensurable terms through the

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common grounding in variation theory of learning and teaching (Lo 2012; Marton & Booth 1997; Marton & Tsui 2004). Teaching and learning are now brought into relation to one another, and the conditions for our goals are met.

A few words need to be said about this “variation theory of learning and teaching”, for as mentioned earlier we espouse an approach where neither practice nor theory were to dominate, but we were to focus on bridging the gap seen there? This “theory” is built on 30 years of studies of how learners conceptualise or understand or experience the things they are expected to be learning, whether facts, concepts or principles, skills or values. And a thread that runs right through these studies is that the objects of learning are conceptualised in qualitatively different ways, which can be described as less or more complex and/or complete ways. This variation can be turned either to understanding the learners better and assessing their learning in a more complex way than simply right or wrong, or to designing and assessing teaching to ensure that the variation in ways of understanding the object of learning are brought into play by bringing its salient attributes to focal awareness. So, we would claim, this “theory” is exactly that bridge that can overcome the gap between the theories of the fundamental disciplines (psychology, sociology, philosophy) and the practices of classroom teaching and learning.

Consider here the learning study approach which foregrounds the idea of teachers planning, conducting, reflecting on and analysing their own teaching for the purpose of enhancing the learning of their students. Groups of teachers – possibly including an expert in the subject area, or a teacher educator, an educational researcher – meet to design a lesson (the intended object) where the concepts of variation theory are brought to bear on the design to determine what is critical for learning. Patterns of variation and related invariance underpin the design, in order to bring the critical aspects sharply into focus. One by one the teachers put the plan into action (the enacted object) for the scrutiny of the others in the group. The lessons, as enacted, are analysed by the group for the varying degrees to which the object of learning was made accessible to the students; the extent to which learning has taken place – the experienced or lived object – is tested by relevant test questions or interviews. The design is then revised to take account of the feedback produced in the analyses of the enacted and the experienced objects.

Pang (2006) reminds us that a learning study is meant to enable teachers to test their practical knowledge and competence by sharing it within learning communities. In this process of sharing and critiquing practical knowledge there is an opportunity for teachers to produce professional knowledge about their fields and disciplines. Many

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see this approach to teacher learning as a key element for improving teaching in classrooms. He asserts:

Through being empowered to make use of the theoretical framework for learning to analyse their own teaching, teachers can develop an analytical awareness of teaching and learning, which in turn will enable them to transform their practical knowledge into professional knowledge.

(Pang 2006:28)

Pang's study that is being referred to extensively here focused on a group of ten high school economics teachers who worked on a learning study together with a teacher educator. The paper focuses on the teachers themselves and how they experienced teaching economics, before and after the learning study cycle. Five categories of understanding teaching economics were identified from interviews before and after, ranging from "Teaching as imparting concepts of the public examination syllabus" to "Teaching as facilitating the development in students of a reflexive awareness of the relevance of an economics way of understanding in different contexts" – a distinct shift of focus from the teacher to the students, from general educational issues to specific economics education issues, and from given simplicity to problematised complexity.

Three of the ten teachers showed no change in their ways of understanding teaching economics (which, in fact, were moderately complex from the start), four made a moderately positive change and three made a very positive change in understanding. Initially, two held the least developed understanding (teaching as imparting concepts of the syllabus) and none held it after the learning study. Initially, only one expressed the most complex way of understanding, while three were found to express it after the learning study. Here is evidence that focusing on the object of learning – as it is intended, enacted and experienced – is an effective tool for professional teacher development.

Initial teacher education has also been subject to studies where the object of learning is brought into focus. For example, Davies and Dunnill (2008) report on an intervention in a programme for student teachers of business and economics and of design and technology at secondary school level, to incorporate learning studies. The aim was to foster collaboration between students in planning, teaching and reviewing lessons, and to move students from less developed conceptions of teaching to more complex and complete conceptions, as derived from an earlier study. Here, the learning study cycle included, in addition to the stages described in Pang's work, an investigation of ways in which the targeted learners understood the object of learning during the planning stage. This enabled Davies and Dunnill to understand the variation of

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ways in which learners conceptualise that which is being taught (in contrast to the taken-for granted right and wrong), and brought focus to the object of learning in a nuanced way, to ensure that the learners moved on in their understanding. The point to note here is that the student teachers generally reported having moved in their own conceptions of what it takes to teach, within the hierarchy of an agent perspective (teaching as imparting knowledge), an act perspective (preparing pupils to use knowledge) and an object perspective (preparing students to understand and be aware of their own thinking and learning) (Davies & Dunnill 2008:8). This, then, indicates that bringing the object of learning into the focus of initial teacher education is instrumental in developing future teachers' professional competence.

As a third level of the three-level mode of teacher education we have teacher educators who are actively researching the notion of "object of learning" in teaching and learning at all levels of education, challenging their own teacher education practices with innovation and researching it. Pang (2006) and Davies and Dunnill (2008) are such researchers, as are many others, principally in Sweden, Hong Kong and the United Kingdom.

In South Africa such approaches to teacher education and to teacher professional development could potentially strengthen ties between schools and universities. These "teacher research groups" could have more long-term effects on teaching in the classroom – which certainly contrasts sharply with the professional development approach of short courses and quick fix approaches being taken by the state in its quest for school improvement. The experiences from Hong Kong, Sweden and Britain, however, show that improving learning in schools and developing teacher professional competence is not possible quickly as a learning study has necessarily to be spread over time, but that it is possible. Both school improvement and student learning hinge on teachers taking a scholarly gaze to learning and the object of learning.

RESEARCH-LED TEACHER EDUCATION OR SCHOLARLY PRAGMATICS?

There are, however, also different approaches of 'inquiry' and scholarship within teacher education, with differing aims, intentions, activities and products. Richardson (1994) distinguishes between research as 'practical inquiry' and research as 'formal research'. In each orientation or approach, the goal is different, the nature of the research activity is different, the communities engaging in this research are different and, of course, the product of such research is different.

Drawing on Richardson's distinction, Venkat, Adler, Rollnick, Setati and Vhurumuku (2009), making a case for incorporating research activity in a teacher education programme in South Africa, argue that 'practical inquiry' is at the heart of thoughtful

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pedagogic practice, teacher development and improvements in teaching and schooling. This, they point out, is the case whether practical inquiry is used as a guiding frame for teacher learning, or as a specific component in teacher preparation. While practical inquiry provides teachers with on the spot information about the next lesson, is it scholarly? It could be understood as pragmatic scholarship as proposed by Shulman (2000) – an approach that enables us to respond to the needs of our students and maybe our colleagues. The significant difference between such practical enquiry or pragmatic scholarship and the programme of scholarship we are proposing is that the former is individual, validated only by individual experience and undocumented while the latter is collegial, validated by the group and by rigorous analysis, and documented for further reference.

There are worrying trends in education systems and schools of many countries, including South Africa, to reduce teacher autonomy and to de-professionalise teaching. Exposing pre-service and in-service school teachers to scholarship, whether in terms of individual projects or communal studies, can nurture in them the possibility to grapple with questions of teaching and learning in such complex social environments as schools. It can allow South African teachers to imagine a progressive social vision, which could deepen their understanding of teaching in environments characterised by inequalities, and which are distinct and distant from the university classroom. More importantly, this orientation to their education could bring teachers closer to research and scholarship, rather than isolating them from it, as is the case traditionally. In South Africa, where education and teacher education were tools for domination, discrimination and exclusion, an orientation to scholarship in the schools and modelling it in teacher preparation programs sets up expectations of teachers different from those held under apartheid.

Such a shift in teacher preparation will take us a long way away from teacher training under apartheid aimed at creating ‘state functionaries’ (Sayed 2004) rather than scholars, and will give a way forward to a scholarly education system where teachers are imbued in the values of learning opportunities and knowledge creation. Transformation of individual students through enhanced learning opportunities, of teachers through collegial learning studies and of society through a better educated population is something that cannot be ignored, but must be retained as a vision for future teacher education. It is only when we have learning classrooms with learning teachers at all layers of the system – from students, to teachers to teachers educators – that we will see confidence in the profession and in teacher education enhanced. This process is incremental, it plays out in time and most importantly it is about teachers who take a learning approach to their teaching.

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