Knowledge Production in Initial Teacher Education: A South African Perspective

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Introduction

Teaching and teacher education are complex endeavours. Teacher education, therefore, plays a vitally important role in developing teachers who can meet the demands of the time. An investigation into school-based initial teacher (ITE) education was a necessity in the South African context. Some of the factors in teachers' lives and work in times of social change will be addressed in this paper. In many countries, governments are increasing the pace of reform in order to provide a better perspective on the requirements of initial teacher training. In South Africa, school-based initial teacher education was introduced in a number of schools. Teaching conditions in the 21st century differ in important ways from those that existed in the latter part of the last century and teachers – pre-service and in-service - will need, therefore, to be educated differently. In many countries, for reasons of supply and demand, or as part of a continuing movement by governments to raise standards, teacher educators are being encouraged or mandated to move from largely theory-laden teacher education programmes to practical, problem-based programmes (Day:2004:145).

School –Based Teacher Education

School-based teacher education or internships is a mode of delivering learning programmes in education in such way that theoretical knowledge is combined with practical experience. Pre-service or student teachers are unique in that they view the classroom through both the eyes of a student and the eyes of an aspiring educator. They have attained a substantive knowledge base in their coursework, but they still need to acquire practical or applied learning through first-hand experience in a school setting. Closely related to the dual role as student and teacher is pre-service teachers' developmental journey - from focus on self to concern for their students' learning and well-being (Nolan and Hoover 2005:241).

In 2001 the South African government kick-started a learnership programme as a critical intervention intended to address the existing skills shortage (Rees et al 2002:1-2). In recent years an attempt was made to insert pre-service teacher education more deliberately into strategies for the reconstruction and development of the country (Robinson 1990:190). School-based teacher education became necessary in South Africa. Learnerships target people who are unemployed in order to induct them into the world of work and into a career. People thus gain work experience and eventually enter a career better equipped whilst, at the same time, receiving financial and professional support (Rademeyer 2006:12). The present generation of South African student teachers constitute a unique group, in that these people teach in a context that is vastly different from the one in which they were schooled (Robinson 1990:192).

The Gauteng Education Department (South Africa) is developing and implementing a meaningful medium for a long-term strategy for teacher development. This will improve the quality of teaching and learning in the schools, promote and maintain high standards of professional practice (to meet the demands of the curriculum) and more adequately support students' learning and achievement. The Human Resource Development Strategy for South Africa (2001) noted that, although not all of the reasons for unemployment and poverty in South Africa have to do with people's capabilities, these are nevertheless a clear limiting factor in the attainment of socio-economic development. The Gauteng Department of Education's Human Resource Strategy (2003) indicated that:

> "A Human Resource strategy is an important factor or tool in promoting the economic and social success of any organisation. Lifelong development of skills and capabilities of the labour force and management should take high priority within an increasingly integrated and competitive world economy, especially in the South African context (3)".

The transformation of teacher education is regarded as something that overvalues system efficiency and effectiveness and undervalues other social goals, processes and content. It finds its genesis in the adoption, by the post-apartheid government, of policies and procedures that emphasise cost-containment through central control and regulation. Teacher education has shifted from its college base to universities. This in itself was driven by cost considerations. The case was thus made that universities would be more efficient for initial teacher training (Sayed 2004:250-251).

The Stakeholders in Teacher Education

The implication of "partnership" models for the key stakeholders in initial teacher education is important. The key stakeholders are: prospective students, higher education institutions (the providers), the schools themselves and the organisation sponsoring the students (Husbands 1995:19).

Student Teachers

Tomlinson (1995:7) uses the concepts student-teacher, student interns or mentees. In this paper the concept student teacher will be used, merely because it is the term most commonly used in the majority of academic institutions in South Africa. In countries such as South Africa, many schools in challenging urban and rural contexts spend a disproportionate amount of time socialising children and young people in order to educate them, because parents have either been unable to provide their children with appropriate or adequate social capital or the social capital they have provided matches ill with the dominant forms in the society in which they live. It is not only schools serving socially and economically deprived families that face problems of motivation, discipline and attendance. Children from the so-called affluent areas are disengaged from school learning, and their parents are often disengaged from their children. These are the contexts into which many student teachers will step and the contexts that these teachers therefore need to understand (Day 2004:148-149).

McIntyre (1997:7) states that since teacher education is, by definition, concerned with bringing about learning by student teachers, research that will give us an understanding of student teachers' learning must be among the most important kinds of teacher education research.

According to Harrison (1995:29):"Partnerships should be viewed more widely than the obvious link between schools and a university department of education. Partnership can be defined as *linked activity*, with the most important factor in the equation being the student teachers, who bring with them a myriad of experiences and skills, many very relevant to teaching."

However, publications world-wide propound the technological, economic and social challenges that schools, and therefore teachers, face in addressing both the knowledge economy and the knowledge society. In doing so, they implicitly broaden the role of teachers to include the fostering of care, self-esteem and identity alongside the development of marketable skills and qualifications. The teachers and their learners are confronted by a

number of changes that lead to apparently contradictory demands. In most of the industrialised world, there are signs of a loss of social cohesion and a statistical increase in crime, fatherless children, HIV/AIDS, drug dependency and addiction, reduced educational outcomes and opportunities, a decline in trust and confidence in institutions and politicians, and the breakdown of general rules of conduct as individuals strive to maximise their personal freedom. These and other social tensions impact upon parents, students and the communities where they live; and they materially affect teacher educators, teachers and, of course, schools (Day 2004:148).

In the South African context there are a number of critical teacher-related problems --- such as the severe shortage of teachers. The current teacher supply levels are very low by historical standards, with only 15% of matriculants choosing to study teaching at a higher education level. The existing teacher shortage and the HIV/AIDS pandemic will create a yearly deficit of 12 000 teachers between 2011 and 2015. In order to prevent this, the annual teacher output will have to increase to 57 000 by 2006/7. The urgency to train teachers are clear (Hofmeyer and Lee 2004:168).

Teacher training emphasises the fact that teacher preparation should, if anything, be geared towards practical teaching capability and perhaps going as far as to contend that 'teaching is a skill that can be trained' (Tomlinson 1995:11). Students should therefore be in a placement school within a few days of registering for a teacher's diploma or education degree, and early school-located experience is heavily weighted towards structured observation. Just as observation is structured, so is practice: team-teaching, small-group teaching, support teaching and whole class teaching all play an important role in teacher training. Observation of practice, linked to a programme of development, analysis and reflection in higher education, continues throughout the course.

Students' learning from practice is supported in four ways:

* through their observation of, and work with, experienced teachers in the school;
* through their observation of, and work with, their subject partner in the school;
* through their analysis of and reflection on their own practice in support-teaching, small-group and whole-class work; and

*   through the investigation and production, after their first period of 'block' placement, of a school-based research project.

Blake and Landsdell (2000:64) argue that excellent performance by student teachers in the classroom is based on the conditions of learning established in specific teacher education programmes. These are likely to be influenced by a set of principles developed in collaboration   by teams of teacher educators working with teachers. It is also likely that the best teacher educator teams will see teacher education and training as a distinct specialisation, one that draws on a tradition of theory and research to influence the creation of an effective theory.

The school-based educator learnerships for an initial teaching qualification will provide:

*   Supportive and relevant school-based employment opportunities for learners which offer work-based experience and structured learning relevant to the learnership qualification;
*   Supportive and relevant structured learning opportunities provided by an accredited and reputable teacher education provider that acknowledges and builds on the above school-based employment;
*   Appropriate marketing, communication and information strategies to meet learnerships' requirements, including collecting and distributing information about possible pathways for further employment and/or professional development opportunities following the completion of learnerships;
*   Co-ordination and management of the above to ensure coherence and effective implementation; and
*   Quality assurance, monitoring and evaluation mechanisms for all partners: employers (the schools), learners and/or employees, education providers and learnership facilitators (the operational project team) (Learnership Business Plan 2003:2-3).

School-based arrangements offer an unprecedented opportunity to help student teachers get into practice in supported ways that help them to actually learn through active participation. Two specific advantages are:

*   The perceived relevance of their tasks is virtually assured by being part of the teaching on offer to real pupils in an actual school.
*   It should be possible to introduce students gradually to certain aspects of teaching during the course of their school experience; this should mean that they are more successful in these aspects of

teaching and should also improve their ability to monitor and reflect on their own teaching practices (Tomlinson 1995:50).

The Education Providers

"One of the major challenges facing university supervisors and co-operating teachers today is how to effectively integrate reflective opportunities into preservice programs…providing preservice teachers with direct feedback about their lessons is helpful and supportive initially, but… continuing to supply all the answers is counterproductive. Instead they should overtly and explicitly model reflective decision-making" (Nolan and Hoover 2005:246). The Higher Education Providers provide the academic support. The Higher Education Institutions (HEI) partnership requires openness; it encourages cross-institutional resourcing and collaborative working. In the case of the HEI-school partnerships, this extends to urging the full sharing of resources and awareness across and within institutions (Tomlinson 1995:206).

A good teacher education programme is likely to include the following:

*   A model of the skilled reflective practitioner as an essential support construct.

*   Partnership of HEIs and schools in course design, management, delivery, assessment and evaluation.

*   Joint HEIs and school involvement in student teacher selection.

*   A skills and knowledge audit of student teacher at the beginning of the programme and regularly during the course of the programme.

*   A sequence of extended and serial workplace experiences which are carefully planned to interrelate with each other and with the experience in the HEI.

*   Challenging modules in the HEI that develop student teacher's intellect, confidence and professionalism.

*   A programme of workplace-focused directed tasks which relate knowledge gained in the HEI to the conditions of primary learning.

*   High quality staff development for HEI and school-based train-
        ers.

*   Self-evaluation of academic and professional development as a
        key component in student teacher learning.

*   A sophisticated yet transparent model of trainee assessment with
        excellent tutor feedback.

*   Engagement of HEI tutor, school mentor and student teacher in
        the assessment and evaluation of professional competence (Blake
        et al 2000:68).

The University of South Africa is a distance learning university. Student
teachers can do their teaching practice at a school of their choice. These
student teachers should be visited during the duration of their studies.
Such visits can be made either at the school where they are placed or at a
central location; the purpose of such visits is to monitor the training pro-
gramme (Rees et al 2002:1,5,7).

School visits

In a pilot study launched in 2006, students were visited by Unisa lecturers.
These were class visits where the student teacher had to present the les-
son. The purpose of these visits was to find out if a distance education
model can be used to train students.

A number of students have been visited during the past two years. This
pilot study included students from various provinces   (eg the Western
Cape, Eastern Cape, Kwazulu-Natal and Gauteng). Students were ex-
pected to present a class in either the Subject Didactic or the Learning
Area Didactics for which they were registered.

Individual discussions were afterwards held with the student to point out
the weaknesses and strengths of their specific lesson. A checklist was used
to ascertain the competency of the student teacher. I need to point out
here that lecturers visit student teachers to establish their classroom abili-
ties and not their competence in their specific teaching subject. Note also
that interviews were held with the mentors of these student teachers.

The Schools

Schools participating in initial teacher education are concerned that their learners, as well as the student teachers, will benefit from it. Data suggests that the learners themselves and their teachers believed that they benefited from the engagement (Cunningham 2007: 83-84). For some reason, teachers, until very recently, felt the whole job of teaching was theirs alone. They patiently graded all papers, filled in all forms, typed all worksheets, supervised all play periods, and then felt guilty because they could not find the time to diagnose and study the child's needs and develop a learning plan to meet those needs (Welty and Welty 1976:xi). Howe (1972:1) describes a student teacher as a good right arm; a helper who is capable of assisting with the mountain of educational tasks facing the instructor in the classroom. Learners trained in this way will become useful members of staff from the start because they have effectively undergone the initiation and orientation period during their training period (Learnership Business Plan 2003:9).

Working in more than one school can benefit the student teacher. In many areas schools are linked through cluster or grouping arrangements. By using such arrangements small schools, especially, can provide a wider experience for students by simply including them in cluster activities or by organising teaching experience in more than one school. Teacher development will take place more effectively in schools with a culture of collaboration, fostering pedagogic partnerships that not only counter professional isolation but also contribute to the enhancement of practice(Williams, Tanner and Jessop 2007:73).

Mentors

The very complex forms of skills characteristic of human beings (eg speaking, writing, social interaction, deployment of formal understanding) cannot be learned in isolation, but require input from others. That assistance is often informal, but it is nonetheless active (Tomlinson 1995:20 and Cunnigham 2007:86)). With a professional tutor on the school staff (to lead the school's professional teacher education work) and a mentor teacher in each subject department where student teachers are being placed, one has the basis for 'school practice' to become an institution for 'school-based initial teacher education'. The great advantage of mentors as teacher educators is that they are full-time practising teachers on hand, standing, in effect, right next to the student teacher (McIntyre 1997:10). Ideally, every student requires at least one mentor. Some schools have

found it useful to identify a main mentor and several subject or phase specific mentors.

Mentors should be aware that many students in the South African context come from very different environments from that of the school environment. Student teachers from rural areas may find urban contexts frightening and vice versa.

According to the mentor questionnaire, the students were very appreciative of what the mentors did to guide them as student-teachers. Some felt that they should get more guidance with their studies, given that this is distance education. The mentors at one school have a weekly seminar with the student teachers and the student teachers must keep a portfolio of the lessons they plan. Mentors interviewed also attended classes and afterwards gave feedback to the student teachers. This was done on a continuous basis. Observation reports were also given to student teachers.
This means that both the schools and the teachers were asked to undertake new roles in teacher training. Teachers in schools would be more closely involved in planning and supervising student teachers. New challenges in assisting student teachers face teachers who are vital and active partners in the professional development of teachers (Griffiths and Owen 1995:4).>

Challenges

Assisting student teachers

It can be a lonely, confusing and tense experience to join an established staff as a student teacher. The added responsibility of academic expectations may compound these difficulties. The challenges of studying are obviously increased if the student teacher also has to assist in a school. The main adjustment, especially for those new to university requirements, is the planning of a personal study programme. This is essential for distance education students. The student teacher will need discipline and guidance on how to plan his or her time (taking into consideration due dates for assignments for example). A keen student teacher may jeopardise her/his own chances of success by trying to please everybody. It is recommended that study sessions are scheduled into the student teacher's weekly routine (Davies 1997:22; Rees 2002: 6,2).

What needs to be "done " is the whole teaching skill cycle - for the development of intelligent artistry what is needed is repeated planning, active

attempts, monitoring and reflection, both in and after the action. Learning by doing really should mean doing all of the above on an ongoing basis (Haggarty 1997:61; Newton 1995:72).

Student teachers should be helped to learn through their own classroom teaching. 'Learning by doing' has become a very fashionable slogan and systematic research confirms that active attempts at, for instance, teaching are essential if student teachers are to become capable teachers. Student teachers need not only to become more efficient at particular subskills, but should also develop the ability to judge, select and combine substrategies. 'Higher processes' or decision-making skills are very much part of what a student-teacher has to attain in the process of actively participating in classroom teaching (Pendry 1997:83). Student teachers are frequently asked to do the most difficult things first, and with little or no practice, such as 'up front' teaching with expectations of, say, tight drilling and sensitive corrections. Easy tasks may include monitoring some easy-to-set-up groupwork, and going over exercises with one or two learners. These sort of tasks give student teachers greater sensitivity to the learners in the group; also, easier tasks take the pressure off student teachers to perform skilfully in techniques that they have not yet practised (Gower and Walters 1983:175-176).

Student teachers can be a bridge for raising discussion and debate on cultural diversity in our school staff environments. Issues of race and culture can be particularly challenging in the South African context, where many of our school staff seem to come from a homogenous group and can therefore be intimidating to a student teacher who comes from another context and life experience (Rees et al 2002:3,5).

Mentor Training

There is no prescription for an ideal mentoring model. There is not just one way of seeing this very distinctive mode of relationship, and mentoring is not the kind of skill that can be broken down into clear components and steps. In fact, mentoring depends on craft knowledge that is accumulated through experience and practice. Its central distinctive quality is that, like teaching, mentoring is a very subtle and sophisticated kind of knowledge which is enacted and performed, but which cannot be 'transmitted' as a concrete and clear guide for action (Windsor 1995:117-118).
Furthermore, there are many factors that could influence the process of mentoring, some of which are beyond the control of individuals. These factors include: the complexity of school contexts, the intensity of the

teacher's professional life, the scarcity of time during teaching hours for reflection and dialogue and the sheer complexity of teaching practice.

Mentoring also needs to help students to analyse and reflect systematically, not just after the teaching session or series of sessions, but also during the teaching itself (in other words, while they are close to the action). Student teachers need help not just to monitor, but also to explore, interpret and explain the how and why of what went on. This then flows naturally into the next phase of the teaching cycle, namely the (re-)planning of the next piece of teaching (Tomlinson 1995:44; Husbands 1995:31).

Conclusion

The problems relating to conventional models of initial teacher education may well continue to be a problem in school-based teacher education, if not given enough attention right from the start (Husbands 1995:19-20):

- The higher education institute's learning material should be applicable to the real school experience; this means that relating what is learned in higher education to the classroom could be a challenge to the educationists who develop the curriculum.
- Difficulties could arise from conflicting advice and ideas from higher education experts and teachers in placement schools if the context is not taken into consideration.
- "Other difficulties arise from student teachers' difficulties in reconciling their own perceptions about teaching and learning, new approaches which they may be introduced to only fleetingly in practice schools or higher education institution, and the pressure to develop coping strategies in the classroom." (Lacey, 1977 in Husbands 1995:19-20)
- Different practices and policies in different schools could produce problems for the student teacher in integrating different dimensions of professional learning and teaching.

Mann proposes that we need to consider "...our own positional power and complex relations of power that exist within the educational and teaching/learning process".
ITE courses should reflect a model of professional development that will be effective in recruiting and retaining a professional, well-motivated teacher force, capable of meeting the challenge of providing a quality service, and able to adapt to the accelerating pace of change (Blake and Lansdell 2000:68).

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