Am I 'qualified' to teach? The implications of a changing school system for criteria for teacher qualifications

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Abstract

This paper is located within the broad discussion on supply and demand of teachers in South Africa. It draws on a study that was done in the Western Cape in 2008 which asked if the province had sufficient qualified teachers appropriately deployed in its schools. The study found that clear criteria for 'being qualified' to teach specific learning areas or subjects in particular school phases did not exist and in fact were difficult to define. Many schools grappled with allocating and timetabling existing staff with subject specialisations obtained under a different system, into new areas of the school curriculum. The paper argues that, with the changing landscape of teacher education and schooling, the concept of teachers being appropriately qualified for their posts is more than a numerical calculation of years of study or formal qualifications. It includes considerations of the changing rules of qualification structures, the qualification routes of 'old' and 'new' teachers, the demands of the curriculum and expectations of new forms of interdisciplinary knowledge, and the epistemological basis of teachers' professional identity.

Introduction

This article emerged from the experiences and findings of a research project in the Western Cape (CHEC, 2009) which aimed to gauge whether there is a balance between the number and type of qualified teachers entering and leaving the system each year, and whether all posts in public schools are filled by appropriately qualified teachers.

Interest in the question arose partly from the awareness that most studies of the supply and demand of teachers conducted in South Africa are based on aggregated data (Paterson and Arends, 2009; Shindler, 2008; Peltzer, Shisana, Udjo, Wilson, Rehle, Connolly, Zuma, Letlape, Louw, Simbayi, Zungu-Dirwayi, Ramlagan, Magome, Hall and Phurutse, 2005). Aggregated data, while useful for reflecting general trends, do not fully illustrate the real demands of schools and the system, for example the link between teachers' qualifications and the fields of specialisation and/or level/s of schooling in

which they are actually teaching. Thus a crucial dimension of the CHEC study was assessing the degree of 'match' between teachers' qualifications and their subject and school phase¹ specialisations, and the grades and learning areas/subjects which teachers were teaching.

The study was conducted during 2008 and covered a total of 151 schools in one rural and one urban district of the Western Cape. Four thousand, five hundred and forty-five teachers completed questionnaires indicating their prior qualifications and their current field of work. The study also included a survey completed by 641 principals, a questionnaire administered to graduating student teachers in 2008, as well as data obtained from the four Higher Education Institutions in the Western Cape on the number and type of student teachers graduating in the past three years; these findings are, however, not reported on here.

The assumption underpinning the idea of matching teachers' qualifications to their actual teaching responsibilities is that a teacher holding a formal qualification in a particular learning area or subject and school level is better prepared for teaching that subject at that level than a teacher who is not qualified to teach the subject at that particular level. This conception of 'being qualified' is one that places teachers' specialised knowledge-base firmly at the centre of their professional identities.

Underpinning this conception is the notion that a strong link exists between teachers' specialised knowledge-base for teaching and learner achievement (teacher effectiveness). This link, which is widely assumed, has been identified in South Africa (see, for example, Carnoy, M. and Chisholm, L. 2008), and in studies elsewhere (see for example, Carnoy, 2007; Morais and Pires, 2002; Reimers, 1993). The link also appears to be corroborated by studies in South Africa which have identified teacher qualifications as correlated with learning outcomes. For example, Crouch and Mabogoane (2001) identified teacher qualifications as strongly correlated with Matric (Grade 12/Standard 10) results. The Progress in International Reading Literacy Study (PIRLS) 2006 found that learners taught by language teachers who reported having post-graduate degrees showed an 'improved overall mean performance' in comparison to learners whose teachers were not as well qualified (Howie, Venter, Van Staden, Zimmerman, Long, Scherman and Archer, 2007).

The South African school phases are: Foundation phase (Grades R1-3), Intermediate phase (Grades 4-6); Senior phase (Grades 7-9); and Further Education and Training/FET (Grades 10-12).

The interest in ensuring a systematic knowledge-base for teaching has been supported by a number of South African policy initiatives aimed at improving learners' achievement. For example, National Curriculum Statements, adopted in South Africa in 2002, marked a shift from an outcomes-based curriculum model where content was not prescribed, towards a more structured knowledge-based curriculum which fore-grounds the development of subject knowledge. The systemic assessment of learners in Mathematics and language/s has been introduced to check learners' competence in these two subject areas.

A key challenge in analysing the data on qualification histories from the teachers' questionnaires for the Western Cape study was gauging the number of teachers who were teaching learning areas/subjects and/or grades for which they were not qualified, or were under-qualified. This challenge emerged from the fact that many teachers in the system have qualifications which did not originally equip them to teach the new school curriculum, as well from the history of changes in the landscape of teacher qualifications in South Africa.

In the first section of this article we track some of the difficulties associated with matching teachers' qualifications with the subject areas and phases in which they are teaching. We approach this first by discussing current conceptions of 'being qualified' according to South African policy documents. We then detail past and current changes in qualification requirements, as well as historic differences in the qualification routes that teachers have taken, to illustrate how difficult it is to equate teachers' qualification status in the current context. We outline the ways in which the fragmented qualification pathways of older teachers, together with more recent curriculum and school system changes, make it difficult to define teachers' specialised identities and match teachers to posts.

Later in the article, we discuss some of the implications of the lack of clarity in criteria for evaluating this dimension of teachers' qualification status for the nature of teachers' work identity, autonomy, flexibility and effectiveness across different school contexts. We argue that the qualification histories of teachers in South Africa and the current school and curriculum changes are not only technical issues of matching, but have impacted in particular ways on the epistemological basis of teachers' identities as professionals.

The current definition of 'being qualified'

In terms of the Department of Education's (DoE) Employment of Educators' Act No.76 of 1998, the current definition of 'adequately qualified' for the appointment of teachers in public schools, is a three-year post-school qualification which includes appropriate training as a teacher. Criteria for evaluating teachers' qualifications for salary scale purposes through the allocation of a Relative Education Qualification Value (REQV) are provided in the *Criteria for the Evaluation of Qualifications for Employment in Education* (2000).

Essentially a teacher's REQV status reflects the number of years of post-school study a teacher has completed, and whether the teacher (a) has recognised qualifications and is qualified in terms of minimum requirements; or (b) is un- or under-qualified. Currently REQV level 13 (Matric²+3 years training) is the minimum requirement, or minimum level of credentials. An inservice under-qualified teacher is currently defined as REQV 12 (Matric+2 years training) or lower (i.e. REQV 10/Matric, no training and REQV 11 (Standard 6, 7, 8, 9³+2 years training).

In this conception of 'being qualified', teachers' professional status is determined by formal accreditation in the form of a recognised degree and/or diploma. In theory, a REQV level 13 currently signals an acceptable, generic or shared professional identity for the teaching force as a whole.

The changing rules for 'being qualified'

The norm for all qualified teachers in South Africa is soon to shift upwards. The *National Policy Framework for Teacher Education* (DoE, 2006) states that the minimum requirement for qualified teachers is to become REQV level 14. New teachers in training currently require either a four-year professional Bachelor of Education (BEd) degree or a three-year undergraduate degree + one-year post-graduate diploma. In other words, teaching is to become a graduate profession for all new teachers.

Matric is Grade 12 or Standard 10.

Standards 6, 7, 8, 9 are Grades 8, 9, 10, 11.

The recently legislated Higher Education Qualifications Framework has renamed the Post Graduate Certificate in Education (PGCE) an Advanced Diploma in Education (ADE).

For older in-service teachers who have current experience in schools, the main route presently available to upgrade their qualification status to Matric+4 is the Advanced Certificate in Education (ACE) at universities. The challenge of meeting this requirement is evidenced by figures provided by Carnoy, *et al.* (2008) who indicate that less than half (47,9 %) of 359 260 teachers in the country had an REQV 14 qualification in 2004.

However, a teacher's REQV status does not reflect individual differences in the actual routes taken to achieve an equivalent REQV status. The process of verifying teachers' academic and professional qualification certificates for the Western Cape supply and demand study in 2008 highlighted how the segregated and uneven education system that existed under apartheid also produced inequalities in terms of the types and levels of teacher qualifications for the various education departments.

The history of teacher qualifications in South Africa

No such thing as formal accreditation of teacher education appears to have existed in South Africa until the National Education Policy Act 39 of 1969 was enacted, and the Committee of Heads of Education (CHED) was given the power to advise the Minister on policy regarding teacher education. After 1969, the Department of Education and Culture (DEC) of the House of Assembly (HoA), which only served learners classified as white, used the CHED to develop the *Criteria for the Evaluation of South African Qualifications for Employment in Education* for evaluation purposes.

Essentially the system for accreditation of teacher education that was developed in the pre-1994 dispensation was designed mainly to accommodate teachers trained for HoA schools (for whites). However, there were more than fifteen other different employing authorities for teachers in the country as a whole (including provincial and homeland⁵ education departments). In terms of accreditation of qualifications, there was no co-ordinated accreditation between the various apartheid education departments (Reeves, 1993).

Most other education departments in South Africa followed the same

Regions set aside within South Africa to separate black ethnic groups from white dominated South Africa.

Advisory Committee for Universities and Technikons⁶ as the HoA system, and the CHED route, for obtaining recognition and sequencing of qualifications. However, as accreditation was not actually co-ordinated between departments, and no cohesive national policy for teacher development existed at government level, a variety of qualification routes and types of qualifications of differing quality were made available across racially-segregated teacher education institutions.⁷

Differences in qualifications routes

By the early 1990s, matriculated students could obtain a four-year initial professional qualification. Provision was made in the *Criteria* for teachers who needed to upgrade from M+3 (Matric+3 years training) to M+4 mainly through a fourth year Higher Diploma in Education (HDE), or a 're-training' Further Diploma in Education (FDE).

However, before Standard 10/Matric (Grade 12) became the minimum entrance requirement at all colleges of education in South Africa in the 1980s, there were many black, mainly African and coloured, teachers in the field who had completed two or three years of professional training without Standard 10. These teachers mostly held Standard 7/8 (Grade 9/10) and two-year Primary or Secondary Teachers' Certificates (TC). After 1954, when junior primary schooling for African children was expanded to meet the labour requirements of the white population in apartheid South Africa (Unterhalter and Wolpe, 1991), the state had also introduced a three-year post Standard 6 (Grade 8) and post Standard 8 (Grade 10) TC (Christie and Collins, 1984).

Although provision in the *Criteria* document was made for teachers with Senior Certificate/Matric+2 years training to be trained to M+3, the *Criteria* were not developed for teachers who had not obtained a Matric/Std 10 (Grade 12). When qualification requirements were changed to M+3 and all teachers were required to upgrade their qualifications, there was thus no provision in the *Criteria* for teachers who had M+1 and less than Matric/Std 10 (Reeves, 1993, Reeves, 1997).

The verification process for the Western Cape supply and demand study

Technikons have now been re-named universities of technology.

Under apartheid, training institutions existed for each racially defined (A frican, coloured, Indian and white) group.

reflected the circuitous routes that many teachers trained in education departments other than the former HoA, have taken in response to changing qualification requirements to reach equivalent qualification levels. For example,

- In the Department of Education and Training (African system), if teachers did not have a Senior Certificate/Matric there was no means for them to upgrade their qualifications until they had obtained their Senior Certificate. Teachers with a Standard 8⁸+2 years Teachers' Certificate (TC) who obtained Matric could then enter the M+2 year of a three-year Teachers' Diploma in Education (DE) and do a four-year part-time course in order to complete the remaining two years of a DE.
- House of Representatives (HoR), teachers from coloured colleges of education with Standard 8 and two years TC and a minimum of eight years' satisfactory experience were accepted as M+1. These teachers were allowed to enter the second year of the DE without a Matric/Senior Certificate.
- Some HoR teachers had a Standard 8+2 year TC followed by a specialist course in either an academic or practical subject. If these teachers did a practical specialist third year (for example, Physical Training), they were allowed to go into the third year of their DE. On the other hand, if they did an academic specialist course, they could only go into the second year of their DE.
- Although the M+1 level was the lowest qualification/admission requirement for in-service teachers to enter part-time courses, there were also in-service Department of Education and Training (DET) and 'homeland' teachers with Matric and no professional training. Teachers who had at least three years experience first had to obtain a one-year Teachers' Certificate (M+1) which then served as entrance to the DE. In order to qualify for a three-year DE, such teachers had to study for three years full-time or six years part-time. At the end of the process, they had a Matric, at least three years experience, a TC 1 and a DE 3.
- DET and HoR secondary teachers mostly obtained three-year Secondary

Such teachers served under 24 hours notice and received no benefits such as pensions, medical aid or housing subsidies.

Currently called Grade 10, but at the time Std 8 was a Junior Certificate (JC).

Teachers' Diplomas (STD) from teacher training colleges. In some cases, these diploma qualifications were followed by a one-year full-time (or two-year part-time) BEd conversion to a degree. Thus some teachers have a 'conversion' BEd, but do not actually have a first university degree, although they may hold the same status as teachers who have first degrees.¹⁰

Different types of institutions

Teachers in the current teaching force have also obtained their qualifications from a wide range of types of institutions, with variations in the programmes offered in the different types of institutions. They obtained qualifications from Colleges of Education, Universities;¹¹ Technikons; Vocational or Technical Colleges; and other private institutions (for example, theological colleges, nursing colleges, agricultural colleges, secretarial colleges, business colleges); as well as foreign institutions operating in and outside of South Africa.

Many of the institutions that offered teacher education during the apartheid era have either closed or have merged with other Higher Education Institutions, or have changed their names. However, prior to 1995, more than 100 state-funded Colleges of Education operated across the country. Colleges were mainly responsible for initial teacher education, especially the training of primary teachers.

Full-time and correspondence institutions in the various racially defined education departments ran upgrading courses for under-qualified teachers. Tuition on most upgrading courses was almost entirely by correspondence and students were provided with virtually no face-to-face contact (Reeves, 1993). Rural teachers mainly relied on distance learning universities like Vista and UNISA (University of South Africa), or on distance learning colleges of education such as Soshanguve, Roggebaai, Umlazi, Natal and Springfield to upgrade their qualifications.

What also causes confusion for teachers and makes it difficult to determine teachers' qualification status is that a one-year BEd degree (M+5), equivalent to an Honours degree, could be awarded after gaining a first degree.

Universities generally trained secondary school teachers.

Higher Education Institutions have been responsible for teacher education since 2001.

Distance education not only provided access for teachers who were geographically removed from institutions; it also meant that teachers could continue in their teaching post whilst they were studying. Indeed, in the early 1990s, Soshanguve College for Continuing INSET (In-service Education and Training) Education was established specifically to provide upgrading for inservice teachers who had Matric and at least three years teaching experience but no post-school qualifications (Reeves, 1993).

Variations in quality

During the 1960s, responsibility for planning and provision of training for many African teachers began to shift to the various education departments of the so-called TBVC (Transkei, Bophutatswana, Venda and Ciskei) and homeland¹³ authorities in support of the apartheid state's policies (NEPI, 1992).¹⁴ Because teachers in the TBVC and homelands had to teach syllabi at schools that were centrally prescribed by the DET, teacher training institutions in the TBVC and homelands mostly followed the formal curriculum and syllabi of the DET (Walker, 1991). In line with DET syllabi, a more limited curriculum tended to be offered at most colleges where African teachers received their training. The emphasis in these colleges was mainly on mastering high school content and classroom management skills rather than on enhancing conceptual and theoretical understanding (Carnoy, *et al.*, 2008).

Upgrading qualifications also served as a device for teachers to gain further categories for salary purposes and, most teachers were motivated to enrol for them mainly because they got salary recognition for their certificates (Hofmeyr and Hall, 1996). The emphasis in these programmes was on achieving equivalence of types of teacher qualifications through the accumulation of academic credits. The accent was on adding to the level of existing qualifications rather than on giving depth to teachers' previous areas of specialisations (Salmon and Woods, 1991). Further modifications such as the *ad hoc* introduction of new subjects meant that many in-service teachers studied subjects such as criminology, mercantile law or biblical studies which were either not school subjects, or were not relevant to what they were teaching or to their existing teaching posts (Reeves, 1993).

Apartheid homelands included Gazankulu, Venda, Lebowakgomo, Qwa Qwa, KaNgwane, KwaZulu, KwaNdebele and Venda.

According to Parker (2003), the number of teacher training colleges in the homelands peaked at about 120 in 1994.

Clearly, historic differences in the routes that older teachers have taken and the types of institutions where they obtained their academic and professional qualifications make equating teacher qualifications in terms their REQV status, or in terms of the highest qualification they have attained, difficult. The REQV system, which was essentially developed for evaluating teachers' qualifications for salary scale purposes, does not differentiate between or reflect teacher's specialised knowledge-base, that is, whether or not teachers are 'appropriately qualified' for teaching a specific learning area or subject in a particular school phase or grade. When it comes to the actual process of matching teachers' qualifications to their teaching posts in the current South African context, there are a number of factors that make the process difficult.

The challenge of matching teachers to posts

Under normal circumstances, difficulties in matching teachers to posts in schools (so that all teachers are specialists in the learning areas/subjects, and/or phases that they are expected to teach), arise out of timetabling issues, and/or limitations in staffing allocations, particularly in small schools with low staff ratios. Teachers may be allocated some teaching responsibilities that are only partially within their field of expertise and be required to teach areas or subjects at levels out of their field of expertise.

In South Africa, the fact that many in-service teachers were professionally trained for the old system makes it especially difficult to identify whether the school level of teachers' professional qualifications and the subject specialisations in their diplomas or degrees qualify them to teach a specific learning area or subject and phase level.

Curriculum and school system changes

In the past, teachers were trained as pre-primary (Grade R¹⁵ and below), junior primary (Sub A-Std 1/Grades 1–3), senior primary (Std 2-5/Grades 4–7), lower secondary (Std 6–8/ Grades 8–10), or secondary teachers (Std 6-10/Grades 8–12) rather than for the new school system's Foundation phase (Grades R–3), Intermediate phase (Grades 4–6), Senior phase (Grades 7–9), or Further Education and Training (FET) (Grades 10–12) levels. In addition, the

¹⁵

subject specialisations that teachers obtained for the old system do not cover all the new areas of the school curriculum.

Some of the new system's Intermediate and Senior phase 'learning areas' integrate one or more of the subjects or areas that teachers studied in the past, into one learning area. Life Orientation covers Physical Education, Health Education, HIV/Aids Education, Religion Studies, and Career Guidance. Social Sciences incorporates History and Geography. Economic and Management Sciences incorporates Business Studies, Economics, Entrepreneurship and some Accountancy. Arts and Culture includes Art, Music, Dance and Drama. Teachers trained prior to the current curriculum changes have usually covered one or some but rarely all these subjects or areas in their qualifications.

Teachers who currently teach new more work-related FET (Grades 10–12) subjects such as Agricultural Management Practices, Tourism, Hospitality Studies, Engineering Graphics and Design, Information Technology, Computer Applications Technology and Civil, Electrical and Mechanical Technology could also have a fairly wide range of related subjects in their diplomas or degrees rather than these specific subjects. For example, teachers who are teaching Engineering, Graphics and Design may have studied Technology (in general), or they may have studied Technical or Engineering Drawing, or Design Technology.

To further illustrate the complexity of the current situation, some subjects that potentially relate to Social Sciences (besides 'Human and Social Sciences') have been clustered below on under five fields:

Table 1: Subjects that relate to Human and Social Sciences

History	Cultural Studies	Geography	Environmental Education	Human Rights Education
African history	Anthropology	Astronomy	Biodiversity	Anti-racism
African studies	Ethnology	Development	Ecology	education
Ancient history/	Social anthro-	studies	Environmental	Citizenship and
culture	pology	Earth Sciences	science	democracy
Archaeology		Earth-space	Environmental	studies
Classical studies/		science	studies	Civics/civic
classical culture		Geographical	Marine ecology	responsibility
Economic history		science		Diversity studies
Historical studies		Geographical		Values and human
Political science		studies		rights
Political studies		Oceanography		

In addition, the piecemeal and non-linear sequence in which many of the current cohort of South African teachers obtained qualifications, and the resulting lack of internal coherence in school level and disciplinary specialisations, make it difficult to determine whether or not a teacher is fully qualified to teach a specific learning area/subject in a particular phase/grade. For example, some FET Mathematics and Physics teachers have one year of Mathematics or Science in a re-training Advanced Certificate in Education (ACE) but no Maths or Science specialisation in their initial three years of teacher training. Some high school teachers with general degrees have primary professional qualifications obtained in the form of a teaching certificate or diploma prior to their degree, but no secondary teaching qualifications.

The following are examples of questions that arose out of the process of trying to ascertain whether teachers' qualifications matched their posts in the Western Cape study:

- Is a teacher whose first teaching certificate was for junior primary teaching (Grades 1–3) but whose third year Diploma in Education upgrade (from a 2-year TC) was for senior primary (Grades 4–7), teaching, qualified to teach Grades 6 and 7? What about Grades 8 and 9?
- Is a senior primary trained teacher who has no Mathematics courses indicated in his/her qualification/s, qualified for teaching all learning areas in the Intermediate phase (Grades 4–6)?
- Is a teacher teaching Natural Sciences who has Biology as a subject in his/her qualifications but not Physical Science appropriately qualified?

- Is a Senior phase teacher who has Accountancy but no other dimensions of Economic and Management Sciences (EMS) appropriately qualified for teaching EMS?
- Is a secondary teacher who has Biblical Studies but not Psychology/Guidance and Counselling, Physical Education/Human Movement Studies appropriately qualified for teaching Life Orientation at Senior phase and FET level?
- Is a teacher who has Geography, or History, or Business Studies, appropriately qualified for teaching Tourism at the FET level?
- Is a teacher with a 'general' Technology specialisation appropriately qualified for teaching Mechanical Technology at FET level?

What became evident through the process of matching in-service teachers' qualifications with their teaching posts was the extent to which changing rules of qualification structures, the qualification histories of teachers, the current school system changes, together with the changing curriculum demands in South Africa, have 'fractured' the epistemological basis of teachers' professional identities. In the current South African context, historic factors together with changes in the schooling system and curriculum have also given rise to challenges in specifying criteria that can be applied for identifying whether the school level of teachers' professional qualifications and the subject specialisations in their diplomas or degrees qualify them to teach a specific learning area or subject and phase level.

Absence of official criteria

In the past, the national Department of Education (DoE) set specific subject and school level criteria which were used for determining whether teachers were qualified for teaching specific subjects and school levels. Although post-1994 DoE documents such as the *Norms and Standards for Educators* (1996, 2000) and the *Criteria for the Evaluation of Qualifications for Employment in Education* (2000) replaced previous documents, explicit requirements or criteria aligning old school level and subject specialisations with new learning areas and subjects and school levels to facilitate matching teachers to post are not available.

Clearly specifying appropriate subject lists for the teaching of integrated learning areas and more work-related subjects in policy documents is challenging in the present situation. What the situation alerts us to, is that 'messiness' arises if, or when, teachers' qualification requirements, the school system, and/or the curriculum, change. However, in the absence of specific criteria, it is extremely difficult to determine teachers' specialised knowledge-base, and whether or not teachers' school level and subject specialisations in their qualifications match the areas and/or subjects they teach.

It is not surprising thus, that the Western Cape supply and demand study found that principals and school leadership (who have the task of assigning teachers in the timetabling), and school governing bodies (SGBs) (who have the power to appoint people in SGB paid posts¹⁶ and to recommend teachers for employment by the provincial Education Department) do not always make the appropriate placements or use existing allocations effectively or efficiently. For example, teachers with subjects in short supply are not always teaching these learning areas/subjects in schools, and some teachers are expected to teach too many learning areas.

Up to now, we have outlined the complexities associated with matching teachers' qualifications to a decision as to whether or not they are qualified to teach particular subjects/learning areas or phases. We have established that upto-date criteria for teachers' specialised status, with specific requirements listing acceptable subjects that teachers should have for each learning area or subject, and for each of the school phases in the new school system, have yet to be developed. At present an acceptable REQV level is assumed to indicate that teachers' qualifications signify both subject knowledge and pedagogical knowledge teaching. As we have shown, to determine whether there is a match between a teacher's qualifications and a particular teaching post, other more specific criteria beside REQV status, or formal accreditation in the form or recognised degrees of diplomas, need to be applied.

The knowledge-base for teaching envisaged in current policy documents The 2000 Norms and Standards for Educators (DoE, 2000) specifies that teachers are expected to be equipped with foundational knowledge of the subjects or areas they teach, practical knowledge of how to teach their subjects or areas across school phases, as well as a reflexive competence. The latter implies the ability to exercise prudent judgement and the capacity and

Schools have autonomy in the appointment process for teachers who are appointed in SGB posts funded by the school itself rather than by the provincial Education Department.

commitment to act responsively in different teaching situations and across contexts.

In the final sections of this paper we try to offer a way of thinking about key questions relating to specifying criteria for 'being qualified' in the current South African context. These include: What kind of specialised knowledge-base best provides older and newer teachers in South Africa with strong enough professional identities to develop the autonomy, and flexibility to (a) to meet the expectations of new forms of interdisciplinary knowledge effectively; (b) to effectively teach specialist school subjects; (c) to be effective across related school phases; (d) to be effective across different school contexts; and (e) to be effective in classes with learners at different levels and from different socio-economic and language backgrounds?

Debates about criteria for 'being qualified'

In terms of specifying and applying criteria for 'being qualified' for a particular teaching post, few people would argue that the knowledge-base required for teaching FET (Grades 10–12) level school subjects should not be disciplinary. However, because of the complexity of stipulating subject specialisation criteria for 'being qualified' to teach at GET (Grades 1–9) school levels by listing all possible acceptable subject specialisations for integrated learning areas,¹⁷ the criterion for 'being qualified' generally applied at present, particularly at the Foundation (Grades 1–3) and Intermediate (Grades 4–6) phase level, is that teachers should have a 'more or less' matching phase level qualification.

The assumption is that a specific school level or phase qualification automatically indicates that a teacher is qualified to teach the curriculum at that particular level. However, in the Intermediate and Foundation phases, where teachers are generally required to teach one class all grade level learning areas, the wide range of subjects that relate to each of the integrated learning areas has made a strong disciplinary knowledge-base across the range of phase level learning areas that need to be covered virtually impossible. Even newly qualified teachers are highly unlikely to have developed expertise in all aspects of the phase learning areas.

This situation also applies to the more work-related subjects at the FET level.

Another view is that, at lower school levels, school or phase level qualifications should be the *main* criterion for designating or matching teachers to Foundation or Intermediate phase posts. The idea is that, as far as lower school levels are concerned, it is not problematic if criteria specific to the necessary disciplinary knowledge-base are not explicit in policy documents and/or are weakly applied in practice. The argument is that knowing *how to teach*, particularly at the Foundation phase level, but often also at the Intermediate and even the Senior phase level, is more important than knowing *what to teach*.

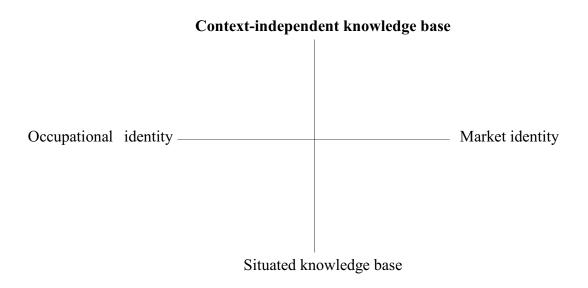
In the section that follows we try to offer a more theoretical approach to thinking about and understanding the link between a knowledge-base for teaching, teachers' professional identities, and criteria for 'being qualified' in South Africa.

A theoretical framework for thinking about criteria

Picking up on Moore's (2000, p.17) argument that "issues of knowledge entail issues of identity" so that "what we know affects who we are (or are perceived to be)" Gamble (2009) provides a more theoretical framework for thinking about "how different forms of knowledge relate to different modes of identity formation: (Gamble, 2009, p.61) and the relationship between the knowledge-base of teachers' work identity and its capacity for "work flexibility" (p.50).

Drawing on Gee's (2000-2001) and Bernstein's (2000) theorisation of identity formation, and on a Marxist interpretation of the social relations of work, Gamble (2009) offers a framework for thinking about modes of occupational identity that includes the following matrix for classifying contemporary workplace identity:

Figure 1: A matrix of identity positions in the workplace (Adapted from Gamble, 2009, p.62)



In this framework an 'occupational' or 'strong' work identity draws on "institutionalised identity resources that are underpinned by a stable collectively-held occupational knowledge-base" (Gamble, 2009, p.55). A 'market' or 'weak' work identity draws on a "relational knowledge-base dispersed across networks of social relations or affinity groups" and "is contingent on the market to which they relate" (Gamble, 2009, p.55). The framework's schema for the social relations of work starts on a continuum "with relations of autonomy over work at one end, moving to semi-autonomy and then, at the other end, to relations of partial or complete subordination" (p.56). The basis of autonomy over work (as opposed to relations under work subordination) is attached to professional status.

An 'occupational' identity under relations of autonomy over work rests on a knowledge-base that is fixed at a high level of specialisation which "is not the property of one individual but belongs to the occupation as a whole" (p.60). The professional knowledge-base of a 'market' identity under relations of work autonomy, is "portrayed as 'knowledge practice' which is fluid, dynamic, and provisional" (p.61), such as the case of the mobile identity of professionals who contract their services to different organisations and employers. Such professionals are positioned as "skilled boundary dancers, drawing lines and then dissolving them, playing with the identity shapes and knowledge positions that are taken up at different times with respect to the

system they enter. . .[so that] portfolio professionals learn to become distinct without becoming trapped in fixed distinctions" (Fenwick, 2007, p.244 in Gamble, 2009, p.58).

What is important for the purposes of thinking about criteria, is that, in this framework, the knowledge on which autonomous professional identities rest, is context-independent conceptual knowledge which "originates outside organisational boundaries" (Gamble, 2009, p.61). It is disciplinary knowledge which gives professionals "a way of working across contexts" (p.73). In contrast, work identities under relations of subordination rest on a procedural or 'situated' knowledge-base. For example, health club aerobics instructors under relations of subordination in a 'market' identity simply "perform an identity" (p.58) under a "proceduralised routine" (p.51) in "compliance with managerial prerogatives" (p.62). The identity is merely "branded to appear novel and unique" (p.61).

Discussion

The work identity of teachers who teach traditional school subjects at the FET level is more readily projected in policy documents in terms of an occupational identity that rests on a knowledge-base at a high level of subject specialisation. However, the integration of several disciplines in one learning area at the General Education and Training (GET) level suggests that the knowledge-base underpinning teachers' identities have been re-constituted, through curriculum changes.

The occupational identities of teachers of integrated learning areas now rest on a professional knowledge-base where they are expected to be "skilled boundary dancers" (Fenwick, 2007 in Gamble, 2009, p.58) who need to be familiar with a number of disciplines. By implication, teaching at the GET level (Grades 1–9), particularly at the Intermediate (Grades 4–6) and Senior (Grades 7–9) phase levels, is now even more demanding than it is for subject teachers at the FET level.

In the South African context, applying only phase or school level criteria could suggest that it does not matter whether teachers have specialisations in subjects such as Mathematics and language/s in their qualifications as long as they are qualified to teach a particular GET level. By implication, teachers' occupational identities could rest on a very weak disciplinary knowledge-base.

This situation applies both in the case of older and newer teachers, if the development of strong forms of disciplinary knowledge is not prioritised in their initial education and training. As we have seen, teachers trained prior to the current curriculum changes rarely have all the subjects related to integrated learning areas in their qualifications. But the integration of different disciplines into learning areas has also placed particular demands on current teacher education programmes because of limits in time that can be allocated to each discipline and in terms of how much disciplinary knowledge suffices – especially when students do not have existing foundational knowledge in their Grade 12 qualifications, and in the case of upgrading teachers, in their previous qualifications.¹⁸

If a school or phase level qualification is the only criterion for 'being qualified' and teachers' identities do not rest on a strong conceptual base, of concern is the dimension of their knowledge-base that gives "it a capacity to transcend the immediacy of local meaning" (Gamble 2009, p.73) and a way of working and teaching effectively across contexts. If the distinctive features of a particular form of pedagogy are to form the basis of teachers' identity, we argue that, without a strong disciplinary knowledge-base teachers, under relations of subordination in an occupational or a market identity, can only rely on a proceduralised or 'situated' knowledge-base and 'perform' an identity.

The situation is exacerbated by the fact that, in the South African context, many teachers' pedagogical knowledge-base has been transmitted through large-scale correspondence-based programmes with little or no face-to-face contact. Schools and classrooms are thus the main places where teachers have gained practical knowledge of teaching and their primary socialisation into the work of teaching. In South Africa many teachers' pedagogical identities rest on a situated knowledge-base that is constituted locally in communities of schools and classrooms where the whole of school life does not support the development of commitment and other capacities.

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To address the changes in the national curriculum, teacher education institutions have had to re-curriculate their programmes. These curriculum changes have been introduced under pressure, as they were designed at the same time as most higher education institutions were undergoing intensive institutional restructuring and at the time when teacher diplomas needed to be upgraded to degrees (see Kruss, 2008; Kruss, 2009 for a detailed outline of these institutional, qualifications and curricular changes).

Carnoy, et al.'s (2008) study of a sample of Grade 6 Mathematics lessons in forty primary schools in Gauteng found that the type of teacher education institution attended 'mattered most' in terms of learner achievement.

All teachers, including those whose identities rest on a strong disciplinary knowledge-base, have internalised particular experiences or situated knowledge of schooling and teaching from their own school days. Most teachers tend to have practical knowledge of schools and teaching in schools that are similar to those which they attended or with students and staff from a similar background to their own. They find that they have to adapt to different school contexts, particularly where they are teaching learners from different socio-economic and language backgrounds from their own.

The policy of apartheid-based segregation in education intensified this tendency. In the post-1976 era, resistance to the state led to the majority of the black schools becoming sites for political struggle. The unstable schooling system not only compromised the culture of learning and teaching in schools, but in many cases led to the total collapse of teaching and learning, particularly in historically African schools. This legacy persists today to the extent that Soudien (2007, p.191) points to a large number of schools in the country that currently "operate only with the semblance of the conventional school... where the social rhythms and regimens of a learning environment operate weakly and often capriciously". Huge disparities continue to exist in contextual conditions, quality and functionality across school types in South Africa.

Although recent research in Gauteng (Carnoy, et al., 2008) has found that teachers appear to be more randomly distributed over schools than in the preapartheid racially-classified schools, the research also showed that African teachers still tended to teach in schools with mainly African students, Asian teachers with more Asian students, and white teachers with more white students or with African students from better-off families. Because of the years of disruption and resistance to apartheid in black schools and schooling, and because teachers tend to prefer to teach in schools that are similar to the ones with which they are familiar, many teachers' primary induction into schooling and teaching may comprise twelve or more years in contexts with long histories of dysfunctionality, where there is no institutional memory of how well-functioning schools work and no strong models of what successful teaching and learning really looks like.

What then can we learn from the above discussion about criteria for 'being qualified'?

What kind of criteria should be developed and applied in South Africa?

Whilst we agree that all teachers need disciplinary and pedagogical knowledge, as well as good work habits, we argue that what is important in relation to thinking about how criteria for 'being qualified' in policy documents constitute or re-constitute teachers' identities, is that the knowledge-base on which teachers' autonomous professional identity rests, should privilege context-independent conceptual knowledge. We hold the view that subject matter knowledge is key for teaching a particular subject or learning area and that disciplinary knowledge should be specified as a necessary pre-condition for teaching at all levels, because it is teachers' conceptual knowledge of school subjects which "originates outside organisational boundaries" (Gamble 2009, p.61), that forms the basis for giving teachers a way of teaching learning areas and subjects effectively across schools, grades, phases, and classrooms.

Hence, whilst we acknowledge that school or phase level qualifications should be included in criteria for 'being qualified' for specific teaching posts, we argue that all teachers need a strong foundation in the disciplines they are expected to cover in the curriculum. Even in the lowest school grades, teachers need a firm foundation in Mathematics, language/s and the disciplines that are integrated in life skills. The role of Foundation and Intermediate level teachers cannot be underestimated as it is extremely difficult for teachers at higher levels when learners' lack foundational understandings, knowledge and skills.

If learners lack a solid foundation in primary education, they can be doomed to a lifetime of disadvantage. Furthermore, because it is important that the curriculum is not delivered as a series of fragmented and disconnected components within and across each grade or phase, primary teachers also need broader knowledge beyond the grade/phase level that they teach. They need knowledge of the scope or trajectory of disciplinary knowledge across the whole of schooling (Reeves, 2005).

Conclusion

The Western Cape research highlighted some of the dilemmas associated with defining explicit criteria for 'being qualified' to teach particular subjects or

levels of schooling. In reality criteria that go beyond subject/phase level qualifications are also applied when teachers are selected for and appointed to posts. These criteria include language proficiency in the language of teaching and learning and/or the mother-tongue of learners at the school, depending on the school demographics and school's policy on multilingualism; experience, either in a particular type of school and/or teaching a specific subject/phase; socio-political criteria, for example a sense that a teacher of a particular background is more likely to 'fit in' to the school; and effectiveness, based on opinions of principals etc. or on results achieved.

Supply and demand studies reveal tensions around identifying explicit criteria for 'being qualified' for specific teaching posts because they sit at the interface between different sets of needs. They are expected to identify over-supply or shortages of teachers in fairly specific terms so that such over- or undersupply can be addressed. However, an analysis of supply and demand can only be as specific as the data available and the data will only be available if the necessary criteria can be made explicit. Studies cannot easily illustrate normative principles such as work ethic, values, attitudes, and dispositions, or reflexive competence, as well as other tacit criteria that may be used by selection bodies, except insofar as they can draw on qualitative data to report, for example, that principals complain that they can find teachers but can't find 'good enough' teachers for vacant posts (CHEC, 2008).

This paper has argued that the process of supplying information on whether there are sufficient appropriately and adequately qualified teachers for the system, is not a simple or mechanistic process of matching numbers. It has also shown how the fragmented and unequal history of teacher qualifications in South Africa has impacted on the epistemological basis of teachers' identities. 20 Carnoy, et al.'s (2008) study in Gauteng showed that teachers with higher content and pedagogical knowledge are still teaching students of higher socio-economic background. Lingard (2007) argues that the poor levels of teacher knowledge in schools serving disadvantaged communities has social justice implications and reproduces inequality.

²⁰ Another question arising out of the data from the Western Cape supply and demand study is: How do the changing requirements for 'being qualified', where teachers are officially classified as qualified, but are later re-classified as 'being un- or under-qualified', together with changes in the school curriculum and system, impact on teachers' own sense of professional identity, motivation and commitment?

Chisholm (2009) points out that studies of supply and demand also need to recognise recruitment and employment factors such as teachers' conditions of work. Indeed conditions of work (such as poor school safety) and work contexts (such as small school size and distance from urban centres) also constrain selection criteria. The challenge, nevertheless, is to establish clear criteria for matching teachers to posts that are sensitive to the qualification histories of the current teaching force but at the same time contribute towards creating the best possible opportunities for learning across all school contexts.

Specifying the disciplinary knowledge-base teachers are expected to have for posts in policies dealing with teacher pre- and in-service and with teacher recruitment and promotion would contribute towards ensuring a stronger emphasis on the development and assessment of disciplinary knowledge in teacher education programmes. It would help to ensure that the selection of candidates for appointment in posts and promotion of teachers is based on an assessment of their disciplinary knowledge.

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