

Conceptualising the re-design of the curriculum for teacher education

First submission: 19 May 2010

Acceptance: 5 May 2011

Over the past few years the HEQC audited higher education institutions and evaluated various programmes presented at these institutions. The Bachelors in Education degree (BEd) was one of the programmes evaluated at the majority of these institutions. Explicit levels of progression linked to theoretical depth, articulation between modules and overlapping, coherence of programmes to a shared vision, and alignment in modules were some of the typical areas of concern raised in the evaluation of some of these programmes. The main aim of this article is to conceptualise from a “pure” curriculum perspective a teacher education programme that is fostered within a theoretical framework. A further aim is to design BEd programmes, in order to address the challenges of education in South Africa. An inductive qualitative approach is used to facilitate the achievement of these aims.

Konseptualisering van die herontwerp van die kurrikulum vir onderwyseropvoeding

In die afgelope jare het die HOKR hoëronderrwysinstellings geoudit en verskeie programme van die instellings geëvalueer. Die Baccalaureusgraad in Opvoedkunde (BEd) was een van die programme wat by die meeste instellings geëvalueer is. Duidelike vlakke van progressie gekoppel aan teoretiese diepte, artikulasie tussen modules en oorvlueing, hoe programme aan ’n gedeelde visie getrou gebly het, en belyning van modules was sommige van die tipiese gebiede van bekommernis in die evaluering van spesifieke programme. Die hoofdoelstelling met hierdie artikel is die konseptualisering van ’n onderwysersopvoedingsprogram vanuit ’n “suiwer” kurrikulum perspektief. ’n Verdere doelstelling is die ontwerp van BEd-programme ten einde die uitdagings in die onderwys in Suid-Afrika aan te spreek. ’n Induktiewe kwalitatiewe benadering is gebruik om die bereiking van hierdie doelstellings te fasiliteer.

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The implementation of the Higher Education Qualifications Framework (HEQF) (DoE 2007) in January 2009 necessitated the design/re-design of programmes. A pitfall in the design of programmes is that national dictates are followed slavishly without challenging the notions contained therein. It appears that various current initial teacher-training programmes are obsessed with complying with the prescripts of national documentation. The BEd programmes mirror the school curriculum included in the National Curriculum Statement documents. The seven roles of the teacher as set out in the Norms and Standards for Teacher Training served as point of departure in the design of several of these programmes (*cf* DoE 2000). The outcome of such an approach to curriculum design is a teacher-training programme with the emphasis on the implementation of the curriculum of the day instead of a professional teacher-education programme with the emphasis on the education of professionals who will be able to interpret, design and implement any curriculum. The challenge is thus to redesign teacher education programmes, in particular the BEd programme, in order to address the challenges of education in South Africa and to ensure that the design of these programmes is fostered within a theoretical framework conceptualised from a “pure” curriculum perspective.

This article investigates the nature of teacher education. By means of reflection, this ontological issue about the nature of teacher training is converted into epistemological issues about how we know what we know. The question therefore is whether we perceive knowledge as a truth that needs to be discovered or whether knowledge is something that needs to be constructed by each person within him-/herself (Muijs & Reynolds 2005: 61-2). Students can obtain this knowledge by means of effective learning. De Corte (1996: 35-7) defines effective learning as a process where learners build knowledge when constructing meaning. It is constructive, cumulative, goal-directed, situated (contextualised), collaborative (with peers), self-regulated and individually different.

For the “average” lecturer or teacher answers to the following questions usually inform the teaching of a subject or module about the following issues. What can be taught and learned? Why should we teach and learn in a particular way? How can we teach and learn?

Answers to these questions depend on the type of curriculum being implemented, but will also influence the functions and roles of the role players in the teaching-and-learning situation (also known as the didactic situation). In any didactic situation there are three role players: the teacher, the learner and the learning content. The interaction between these role players results from the curriculum that serves as impetus. In the case of an outcomes-based curriculum, the teacher will to a large extent play a facilitating role, while the learners, both collaboratively and individually, take increased responsibility for their own learning. In fact, this means that learners also have to interact by means of dialogue as example among peers and with teachers.

According to some authors, literature reflects different opinions as to what exactly the concept “curriculum” entails (Beane *et al* 1986: 30-3, Graham-Jolly 2009: 247-50). These definitions fall into four broad categories, each determined by whether the focus is on products, processes, intended learning (what and how are viewed separately), or the learners’ experiences (things do not always happen as planned).

This is in line with what Stenhouse (1975: 89-93) deemed as two opposing views, namely what is intended or planned and what materialises in practice. Grundy (1987: 21-78, 99-120) likewise acknowledges the different definitions of curriculum. She differentiates between three forms of curriculum, namely as product (for instance, as a document used to teach), as the official or intended curriculum, and as a concrete presentation of the curriculum. A top-down approach in curriculum development is usually followed in this instance. Curriculum as practice refers to what is actually happening in the classroom. This curriculum is known as the experienced or implemented curriculum. When the curriculum is constructed by those involved, it is known as

the curriculum as praxis or as the curriculum as social construct. The latter view is an extension of the experienced or implemented curriculum. It attaches meaning to the experienced curriculum and is more abstract. In this instance, a bottom-up approach is followed in the process of curriculum development. These different views on curriculum as concept reveal a dichotomy between process and product. The curriculum (perceived by some as product) interacts with the process of implementation, and product and process are not independent but rather interdependent.

1. Forces influencing curriculum development

The following examples reveal the various forces – for instance, philosophical, social, psychological, knowledge and technological – that influence the development of a curriculum. In the sixteenth century Galileo Galilei (1564-1642) stated: “You cannot teach a man anything; you can only help him find it within himself” (Flewelling & Higginson 2003: 130).

In the nineteenth century, Jules Henri Poincaré (1854-1912) mentioned the following about the learning of science: “Science is built up with facts, as a house is with stones. But a collection of facts is no more a science than a heap of stones is a house” (Flewelling & Higginson 2003: 41).

It is evident that such views impacted on the development of a curriculum.

1.1 Philosophical forces and curriculum development

The work of philosophers such as John Dewey and Paulo Freire specifically and unquestionably influenced the development of Curriculum 2005. John Dewey (2004: 17-8, 22-3) emphasised the important role of education in contributing towards a democratic society. Kellner (2003: 53-61) summarises Dewey’s view as follows:

Education is the key to making democracy work since in order to intelligently participate in social and political life, one has to be in-

formed and educated to be able to be a good citizen and competent actor in democratic life.

John Dewey also advocated the experimental approach in curriculum development, emphasising that one learns by doing (Carl 1995: 51-2, Dewey 2004: 19-22). Dewey was a leader of progressivism in education at the beginning of the twentieth century and he emphasised the importance of educational context and of the environment supporting learners' educational experience (Flewelling & Higginson 2003: 123). In emphasising the importance of constructing own knowledge, Jean Piaget was instrumental in introducing some of Dewey's ideas into pedagogy in the twentieth century (Flewelling & Higginson 2003: 124).

Paulo Freire (2004: 125-32) developed a "pedagogy of the oppressed". He was of the opinion that a better life for all would be possible through social transformation and empowerment. He argued that through dialogue it would be possible to move away from the so-called "banking education". Dialogue can only materialise through words. Words in this regard function in two dimensions, namely reflection and action. These are key concepts in the work of Dewey (1909).

The philosophy underpinning outcomes-based education in South Africa is constructivism (Du Toit & Du Toit 2004: 11-2). Piaget and Vygotsky were two of the forerunners who, as radical and social constructivists (without claiming to be such), contributed towards establishing constructivism as a force that could influence curriculum development. Naturally, there are other philosophers whose views also influenced curriculum development. This article neither aims nor intends to debate all these views.

It can thus be inferred that the power of philosophy of education lies in its ability to empower educationists to deliver social critique and to lead the way in transforming the curriculum.

1.2 Technological forces and curriculum development

Scientific calculators, computers, computer software, dvds, cellular phones, interactive whiteboards, blackboard, the Internet, facebook, twitter, and so forth, have impacted on curriculum development and more specifically on the design of a curriculum at the macro-, meso- and microlevels. Mathematics textbooks in the USA, for example, refer learners to use internet addresses, computers (Excell) and/or graphic calculators in order to complete assignments and/or to construct meaning. The White Paper on Transforming Learning and Teaching through ICT (DoE 2004) stipulates that e-learning must be introduced into South African schools in 2013. This will have a major impact on the development of the curriculum for both schools and initial teacher education (Du Toit 2010: 3). Unesco (2008: 1) highlights the importance of the teachers' role in an increasingly complex, information-rich and knowledge-based society:

Today's classroom teachers need to be prepared to provide technology-supported learning opportunities for their students. Being prepared to use technology and knowing how that technology can support student learning have become integral skills in every teacher's professional repertoire. Traditional educational practices no longer provide prospective teachers with all the necessary skills for teaching students to survive economically in today's workplace.

Information technology must be used not merely as a tool but rather as a methodology – a means to an end. More emphasis should be placed on the value of computers as heuristics devices in teacher education programmes rather than on the procedures on how to operate computers.

1.3 Psychological forces and curriculum development

Various psychological forces influence the curriculum. Learners learn in different ways because their learning styles differ. Teachers need to address this reality when developing the curriculum at the microlevel. The way teachers and curriculum developers understand the concept learning will also influence both the design of learning activities and the construction of a learning

environment. Some teachers view learning as a process involving stimulus and response. Others view effective learning as a process where learners build knowledge through meaning-making.¹ The work of psychologists such as Piaget, Vygotsky, Bruner, Ausabel and Gagné, and its impacts on curriculum development are well known (Du Toit 2010: 2).

1.4 Social forces and curriculum development

HIV/AIDS, inclusive education, environmental issues, social justice, and cosmopolitanism are examples of social forces that will impact on curriculum development. Owing to the impact of such (and other) forces, it will rarely transpire that the intended and the perceived curriculum will be identical. According to Ensor & Galant 2005: 287, Bernstein posed the role of social forces as a question: “How does the outside become the inside and does the inside reveal itself and shape the outside?”

This implies a reciprocal influence where the social world (the outside) needs to structure consciousness in the curriculum (the inside). Consciousness of the curriculum (the inside) structured in this way needs, in turn, to structure the social world (the outside) (Ensor & Galant 2005: 288).

1.5 Knowledge forces and curriculum development

The acquisition of disciplinary knowledge and the acknowledgement of everyday knowledge and its place in curriculum development are knowledge forces to be dealt with in the process of curriculum development (Scott 2008: 79-81). These knowledge types should not be regarded as monoliths, but rather as being integrated horizontally and vertically.

Deepening of knowledge increases students’ ability to both act as responsible citizens and add value to society, the economy and political life. This type of knowledge contributes to the empowerment of students to solve complex, high-priority problems encountered in work, society and life (Unesco 2008: 7).

1 Cf/De Corte’s definition of effective learning mentioned earlier.

Knowledge creation is a human activity that empowers students to become life-long learners contributing to a curriculum that goes beyond mere disciplinary knowledge. Problem-solving, articulation, collaboration, experimentation and critical thinking are specific skills required in order to create new knowledge in the process of developing a curriculum (Unesco 2008: 8).

Based on the above arguments, the didactic triangle – teacher, learner, and learning content – must be revised. The role players are not separate, isolated entities, but form an integral whole in which the boundaries between the role players become vague. Interactions should not only be between students and students, but also between teachers and teachers. It is, however, important that the teaching-and-learning situation should take place within a powerful learning environment related to real life, one in which learning is accomplished by means of interaction and rich learning tasks (the learning content).

Against this background, a curriculum-theoretical perspective on the process of curriculum development will now be explained.

2. Curriculum development

Curriculum development is a continuous process characterised by orderliness and systematic planning. In this process curriculum development moves through four phases, namely design, dissemination, implementation and evaluation. It does not evolve cyclically but interactively and dynamically (Carl 1995: 48-9). This article focuses on the first phase of the process of curriculum development, namely curriculum design. Ornstein & Hunkins (1998: 27) define curriculum development as follows:

Curriculum development draws on visions of what a curriculum is and what it is for, as well as on principles from both technical and scientific past and our emerging non-technical postmodern stances.

The forces influencing curriculum development are reflected in the three major representative curriculum designs. First, curricula can be designed around subjects, where the design can, for example,

concern disciplines or broad fields. The clustering of two or more subjects is an example of a broad-fields curriculum design. Natural sciences, where chemistry, physics, botany and zoology are clustered, are one such example. Secondly, a curriculum can be designed around learners. Knowledge, as a force, impacts on such designs. Child-centred and experience-centred curricula are examples of curricula that are designed around learners. Philosophical forces such as constructivism and reconstructionism exert their influence on such curriculum designs. Thirdly, a curriculum can be designed around social problems such as poverty and health-related issues, or real-life situations (*cf* Doll 1974: 66-82). Technological and social forces shape this kind of curriculum design. As will be discussed later, the design of a curriculum for the professional education of teachers can be nested in a combination of the said three designs, and not necessarily in only one of them.

As far as approach is concerned, the nature of curriculum design can be academic, technological, pragmatic or experiential (Carl 1995: 49-56). The academic and technological approaches relate more to subject-centred curriculum designs. The role of the teacher is central in such approaches and mainly knowledge obtained in the disciplines is appropriate to the curriculum. The pragmatic and experiential approaches relate to the learner and the problem-centred curriculum designs. In these approaches, experience is subjective, personal and heuristic. Both learners and teachers are involved in curriculum decisions and their personal feelings, values and experiences are valued in this regard. The social lives of learners and their real-life knowledge are acknowledged and form the basis of this type of curriculum design.

The design dimensions that need to be considered in designing a curriculum are balance (every component of the curriculum must be carefully weighted); articulation (vertical progression as well as horizontal movement in curriculum choices); scope (breadth and depth of learning can take place in the cognitive, affective, and psychomotor domains); integration (link and unify all knowledge

and experience); sequence (continuous learning from simple to complex; prerequisite learning; whole to part chronological learning), and continuity (spiral curriculum). The design process of a curriculum should further be guided by principles such as purposefulness, clarity, rationality, sound and accountable curriculum theory, relevance, effective leadership, effective time utilisation, and effective and continuous evaluation (Ornstein & Hunkins 1998: 238-42).

The curriculum theoretical perspective outlined earlier provides the means to construct a theoretical framework to design a curriculum for teacher education in a higher education institution that could address the needs of education within the context of the broader schooling community. The first step in designing such a theoretical framework is to analyse and understand the education context.

3. A theoretical perspective on the education context

Barber & Mourshed (2007) co-researched the ten best-performing school systems in the world. Two of the important lessons learned in this research were that the quality of schools cannot exceed the quality of their teachers and that every school needs a great leader. The link between quality education and the quality of its teachers was also flagged by Carron & Châu Ta (1996). Ten years prior to that, the Holmes group stated:

The entire formal and informal curriculum of the school is filtered through the hearts and minds of classroom teachers, making the quality of school learning dependent on the quality of teachers (1986: 23232).

Higher education institutions are thus also challenged to design curricula for professional teacher education that will provide the means to educate and prepare well-qualified, committed and professional teachers of quality, who will assure the quality of schools.

3.1 Teacher quality

Passos (2008: 36-51) conceptualises teacher quality in three dimensions, namely teacher competence, teacher performance and teacher effectiveness.

From an operational point of view teacher competence involves high-order skills and behaviour that enable teachers to deal with complex and unfamiliar situations. Teacher competence thus involves knowledge, skills and specific attitudes (Passos 2008: 37- 8). The National Qualifications Framework (NQF) refers to these competencies as applied competencies (SAQA 2001: 11):

... evidence of applied competence is the learners' [student teachers] ability to integrate concepts, ideas and actions in authentic, real-life contexts. It is expressed as practical, foundational and reflexive competence, namely:

- Practical competence – the demonstrated ability to perform a set of tasks and actions in authentic contexts.
- Foundational competence – the demonstrated understanding of what we are doing and why we are doing it.
- Reflexive competence – the demonstrated ability to integrate our performance with our understanding so that we are able to adapt to changed circumstances and explain the reason behind these adaptations.

In other words, competent teachers should be able to process information, solve problems, operate within context, and act autonomously. Teachers become empowered as curriculum agents who are able to manage change in the education context. Teacher performance should reflect significant learning in context by means of high-quality cumulative demonstrations (Spady 1994: 18). These performances depend on the knowledge they must possess in order to act as professionals in an education context, and are linked to teacher competency and attitudes (Passos 2008: 40). Teacher performance in, for example, solving problems is not only the product of what they know, but also a function of their perception of that knowledge, which can be derived from their experience in a specific subject.

Four categories of knowledge and behaviour/attitude influence a teacher's performance in solving problems (Schoenfeld 1985: 14-35). First, they must possess a reservoir of conceptualised subject-factual knowledge. The second category hinges on heuristics, for instance problem-solving strategies that will enable teachers to engage in complex, unforeseen challenges in the classroom. The third category requires teachers to manage and control their own thinking, the thinking-behind-the-thinking. Teachers need to self-regulate their thinking. The first three categories become null and void if teachers do not have a good self-esteem regarding both themselves and, in particular, the subject they are teaching.

Shulman (1986: 9) refers to three categories of content knowledge that a teacher needs: subject matter content knowledge, pedagogical content knowledge, and curriculum content knowledge. Content knowledge is the conceptualised factual knowledge of a specific subject that teachers (student teachers) need in order to demonstrate a high level of subject competence. It is, for example, the mathematical content knowledge (which, as mentioned earlier in this article, Schoenfeld (1985) referred to as subject factual knowledge) which student teachers must have conceptualised to enable them to give meaning to the mathematics they will teach at school level. Content knowledge should thus enable student teachers to transform their own subject competence into conceptual learning experiences. Pedagogical content knowledge enhances the growth of knowledge in students, ultimately empowering them to teach their specific subject(s). Shulman (1986: 9) regards this knowledge as an integral form of subject matter content knowledge. Pedagogical content knowledge is concerned with the dimensions of subject matter for teaching by connecting the content of a subject with its teachability. Knowledge of this kind empowers teachers to explain a subject understandably to their students. There is no one, powerful presentation with which to do this. Thus, according to Shulman (1986: 9), teachers need to use various forms of presentation that are based on research or that originate in "the wisdom of practice". It is well known that people only really make sense of a subject when they themselves

teach it. Such presentations will be fashioned by performing a situation analysis that includes, *inter alia*, the conceptions and preconceptions of a diverse body of learners. Pedagogical content knowledge is the kind of knowledge that contributes to the professionalisation of teaching as a profession.

Curriculum content knowledge, on the other hand, is knowledge of the full range of other modules in the programme that sustains the teaching of a particular subject at a specific level (Shulman 1986). These modules will, among others, comprise the various forces that influence the curriculum and that should embrace both social and cognitive learning. The learners' demonstration of the desired outcome is directly linked to the teacher's effectiveness. Teacher effectiveness further indicates whether teachers are able to demonstrate the outcomes they have set for themselves (Passos 2008: 44-5). Principles, such as clarity of focus, expanded opportunity, high expectations and designing down will enhance teacher effectiveness. Within the framework of the said three dimensions, quality teachers believe and know that they possess the power to lead and manage an ever-changing education context.

3.2 Characteristics of a quality teacher

Higher education institutions are obliged to train well-qualified, committed, passionate and professional teachers. Various aspects obtained from literature (*cf* Fwu & Wang 2002, Grossman 1995, Passos 2008) regarding teachers in high-achieving schools exemplify what it entails being a good teacher. These teachers have not only a sound knowledge of the subject matter they teach, but also the required pedagogical content knowledge and those skills that will enable them to disclose the information to learners. They are simultaneously demanding and supportive. It is all about creating high expectations in learners. Learners are to be kept informed regarding performance by being given constructive and systematic feedback. Teachers therefore fulfil the role of assessors, more specifically assessing formatively.

Exposure to expanded opportunities will enable learners to reach their full potential if teachers act in an ortho-didactical manner. This implies identifying discrepancies in the teaching guidance and applying corrective steps to address these (Kapp 2003: 477). Good teachers demonstrate moral conduct and knowledge of self by, for example, having patience and showing empathy. They also demonstrate reflection and independent judgment. Good teachers have psychological insight which enables them to both understand their learners and cater for learners' different learning styles. Curriculum knowledge such as having good knowledge of the education system's aims, curricula, policy documents, available materials and of teaching strategies are other aspects that typify a good teacher. Good teachers are committed, passionate and curious about their profession.

Last but not least, good teachers contribute to society at large by understanding and getting involved in the broader school community and integrating the needs and challenges into the design and delivery of the curriculum. Based on the above argumentation and discussion, those involved in the curriculation of teacher education programmes at higher education institutions should be able to answer the following questions. Which curriculum perspectives would contribute towards the conceptualisation of a theoretical framework within our context that would foster the design of a curriculum for teacher education? What is our vision of a BEd student who has completed his/her degree study at our institution?

4. Designing a teacher education curriculum

4.1 Involving role players and peers

Officials of the Department of Education were invited to a workshop to involve them in the process of curriculation and to obtain their input regarding the needs and challenges facing education in practice.

Student involvement in the process materialised by means of written and verbal input from alumni and continuous participation from current students (representing their peers) who serve on the initial teacher education committee. In June 2010 and as part of a reflective exercise, lecturers and students visited functional and dysfunctional schools which portrayed the rich diversity of the school context in South Africa. During these visits the students interviewed members of the school management team with the aim of understanding the context of the school and to take cognisance of challenges facing teachers daily in implementing the curriculum. Each group then engaged in collaborative reflective discussions and had to write a group and individual reflective report on their experience. These reports contributed towards the conceptualisation of a teacher education curriculum.

Since 2008 lecturers in the faculty of education at our institution have been involved in the process of re-conceptualising a curriculum for initial teacher education. The workshops started off with reflection on the HEQC reports. There was consensus on the identified serious shortcomings in the current teacher education programme in our faculty. Every lecturer participated in the conceptualisation of the curriculum and its design so as to be empowered not to fall into a compliance mode and/or to follow a sort of supermarket approach where modules are plucked from “disciplinary shelves”.

Lecturers from our institution visited four other faculties of education at higher education institutions in South Africa to reflect on their process of conceptualisation and designing of the curriculum for initial teacher education. Two colleagues from different institutions in South Africa were also invited to share their perspectives on the redesign of an initial teacher education curriculum at a seminar in February 2011 with cluster co-ordinators from our faculty.

A bottom-up approach drives the process of conceptualising the redesign of the curriculum for initial teacher education. The challenge was and is to keep the process of curriculum develop-

ment internal and organic. Everyone involved in the programme must take ownership of this process. The programme director of initial teacher education provides academic leadership.

4.2 A theoretical framework

The conceptualisation of a teacher-education curriculum (BEd, in this instance) provides evidence that a curriculum should be progressive, implying that both process and product are valued.

Although the curriculum will be designed around the student, the boundaries between this design and the other two forms of design, namely subject and social problems designs, will be vague. This is due to the fact that the importance and value of knowledge (subject content knowledge) and social forces (such as social justice, environmental issues, and health-related issues) impacting on the curriculum need to be strengthened and can thus not be ignored. The approach to the design of the curriculum is experiential (as was noted with the involvement of all role players on the mesolevel of curriculum design) and holistic. The experiential approach on microlevel will include aspects of the academic approach (such as methods of directed enquiry and self-discovery), the technological approach (such as the use of heuristic devices, for instance computers) and the pragmatic approach (such as the interactive process of involvement and interaction) (Carl 2009: 40-5).

Our vision regarding BEd students graduating from this institution is that they must be competent (demonstrate applied competence); effective (demonstrate formulated outcomes), and their performance should reflect that they possess and apply content knowledge, pedagogical content knowledge, and curriculum knowledge in contextualised education settings by means of high-quality cumulative demonstrations of excellence. They must become empowered educationists who deliver social critique and who are committed to and actively involved in transforming the curriculum. A broader understanding of curriculum implies that these students must also critique and be

committed towards social transformation of the school community and transformation of lives in society at large.

Effective learning is the driver of the learning process, emphasising the importance of both and the balance between social and cognitive learning.

Values overarch the entire process of curriculum. The values of our institution are academic freedom and autonomy, excellence, fairness, service, and integrity.² These values will ensure a holistic approach instead of a fragmented approach in the design of the curriculum. The challenge is to ensure that none of these values are absolutised to the detriment of the other values. Everyone should have faith and experience certainty in respect of these chosen values. It must create harmony and moral love among students, lecturers and role players in schools involved in practical teaching and the community at large. Excess of, for example, autonomy or service must be excluded. These values must add symbolic meaning and lead to cultural development within the institution. Finally, these values should provoke a critical disposition in students. This implies that students should be able to discern and reflect on curriculum-related issues in the broader sense of the word (Strydom 1981: 59-69, 83-95).

4.3 A generic curriculum structure

Schooling in South Africa consists of two sectors, namely the Further Education and Training sector (FET) and the General Education and Training sector (GET). These sectors comprise four phases and twelve grades, as illustrated in Table 1.

2 <<http://www.ufs.ac.za> 2011>

Table 1: BEd qualifications

Sector	Phase	Grade	Qualification
FET	FET	12	BEd (FET and Senior)
		11	
		10	
GET	Senior	9	BEd (Senior Primary)
		8	
		7	
	Intermediate	6	
		5	
		4	
Foundation	Foundation	3	BEd (Junior Primary)
		2	
		1	
		0	
		0	

The majority of schools in the regions where our students enter the teaching profession are primary and secondary schools. Therefore it was decided to design three BEd curricula, namely two for the primary schools and one for the secondary schools (*cf* Table 1).

Table 2 presents a structure for a BEd qualification. The components (subject matter studies, education studies, professional studies, supervised practice) shown in the structure arise from the discussions in the previous sections.

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Table 2: BEd structure

		Year 1	Year 2	Year 3	Year 4
Curriculum knowledge		Teaching practicum New literacy for teachers	Education 1 Teaching practicum	Education 2 Teaching practicum Language: communication skills	Education 3 Teaching practicum
Subject content knowledge	FET & Senior	Subject content 1 Subject content 2 Subject content 3	Subject content 1 Subject content 2		
	Sen Prim	Subject content 1 Subject content 2 Subject content 3	Subject content 4 Subject content 5		
	Jun Prim	Subject content 1 Subject content 2 Subject content 3	Subject content 1 Subject content 4		
Pedagogical content knowledge		Subject education Foundation phase	Subject education Foundation phase	Subject education Foundation phase	Subject education Foundation phase
		Subject education Intermediate phase	Subject education Intermediate phase	Subject education Intermediate phase	Subject education Intermediate phase
		Subject education Secondary	Subject education Secondary	Subject education Secondary	Subject education Secondary

The four main components in the curriculum carry equal weight, thus balancing the curriculum at this level. Although the different types of knowledge and components are presented separately in Table 2, the purpose and rationale are to integrate them continuously and chronologically. Articulation materialised by means of vertical progression in each of the components in the curriculum as well as the students' choices regarding subject content and the teaching thereof. This curriculum structure (*cf* Table 2) ensures scope in the sense that both in-depth learning and learning spread out over four components can take place in the cognitive, affective and psychomotor domains. These design dimensions will be strengthened further when the outcomes, assessment activities and content of the various modules are designed and aligned.

The structure of the subject content knowledge will not be the same for the three BEd qualifications as portrayed in Table 2. In the BEd (FET and Senior) subject specialisation is important and therefore the progression up to second-year level in the case of two subjects. In the case of the two BEd primary qualifications the focus is on generalisation rather than specialisation. Students in the BEd (Senior Primary) must take five different subjects on first-year level spread out over two years to empower them as generalists. In the case of the BEd (Junior Primary) one of the subjects (years 1 and 2) will be Early Childhood Studies. The other subjects will be on first-year level, extending over two years.

Education as subject, as part of curriculum knowledge, is compulsory for all BEd students and extends over three years, starting in the second year. Progression and growth over the three years are important. Fundamental modules in literacy for the teacher and languages for the profession - that will empower students in education to teach and facilitate learning in more than one language - also form part of curriculum knowledge. In the first year of teaching practicum students will be exposed to simulated micro-teaching situations where they teach to their peers, visit schools under supervision, and attend practical classes. In the second year, teaching practice will be more contextualised and situated in the sense that learners will be

transported from schools to the institution and it will be expected of students to present classes under supervision to the learners in the experimental classes, to visit schools under supervision, and to attend practical classes. In the third year students will be placed at schools and will also attend practical classes. In the fourth year students will be placed at schools for two terms to teach under the guidance of a mentor. Collaboration between the various role players regarding teaching practicum is a necessity and must be formalised by means of an agreement between the higher education institution, the local Department of Education and participating schools. Quality teachers will thus need to be identified to undergo professional training by the University. Participating teachers should receive professional development points for their participation, contribution and input into teacher training.

Subject education focuses on the development of pedagogical content knowledge, and extends over all four years of study.

A balance between a bottom-up approach and a top-down approach is essential in the design of a professional curriculum such as the BEd for teacher education. At this stage of the curriculum design process it is important to engage with documents from the Department of Education to determine the national imperatives and to take cognisance of institutional policy documents regarding teaching, learning, assessment and quality assurance before a curriculum can finally be structured. It will therefore be futile to design a three-year BEd curriculum in which, as clearly specified in the HEQF (DoE 2007: 23), the BEd must be a four-year Level 7 qualification on the National Qualifications Framework of at least 480 credits.

5. Conclusion

This article focused on the importance of both theory of practice and theory for practice. An obtrusive problem in institutions responsible for the training of teachers is that they are caught up in homogenised curricula and pedagogy and thus neglect to address

and interpret challenging social, technological, knowledge and philosophical influences on the curriculum. Being a teacher is a complex social activity. The training of teachers should therefore be geared towards professional empowerment and not merely provide them with a training programme that will enable them to teach a specific subject. In conceptualising the curriculum, restrictive theories – such as a pure scientific curriculum design – should be eschewed in favour of examining the entire field of teacher education and education in its totality. It is all about engaging with significant ontological, epistemological and methodological issues. In finding the answers to these questions educators of prospective teachers need to be creative and imaginative when curriculating a programme for initial teacher training.

Bibliography

- ANDERSON L W (ed)
1995. *The international encyclopedia of teaching and teacher education*. 2nd ed. Columbia, SC : University of South Carolina.
- BARBER M & M MOURSHED
2007. *How the world's best performing school system comes out on top*. New York: McKinsey.
- BEANE J A, C F TOEPFER & S J ALESSI
1986. *Curriculum planning and development*. Boston: Allyn & Bacon.
- CARL A E
1995. *Teacher empowerment through curriculum development: theory into practice*. Cape Town: Juta.
2009. *Teacher empowerment through curriculum development: theory into practice*. 3rd ed. Cape Town: Juta.
- CARRON G & CHÂU TA
1996. *The quality of primary schools in different development contexts*. International Institute for Educational Planning. Paris: IIEP/ UNESCO.
- DE CORTE E
1996. Instructional psychology overview. De Corte & Weinert (eds) 1996: 37-8.
- DE CORTE E & F E WEINERT (eds)
1996. *International encyclopedia of developmental and instructional psychology*. Oxford: Wheatons.
- DEPARTMENT OF EDUCATION (DoE)
2000. *Norms and standards for educators*. Government Gazette 415, no 20844; 4 February 2000.
2004. *White Paper on e-education. Transforming learning and teaching through information and communication technologies*. Government Gazette, Notice 1922 of 2004; 2 September 2004.
2007. *The higher education qualifications framework*. Government Gazette, No 30353; 5 October 2007.
- DEWEY J
1909. *How we think*. London: D C Heath.
2004. My pedagogic creed. Flinders & Thornton (eds) 2004: 17-24.
- DOLL R C
1974. *Curriculum improvement*. 3rd ed. Boston: Allyn & Bacon.
- DU TOIT G F
2010. The student teacher and the teaching context. Louw & Du Toit (eds) 2010: 1-19.
- DU TOIT G F & E R DU TOIT
2004. Understanding outcomes-based education (OBE). Maree & Frazer (eds) 2004: 1-27.
- ENSOR P & J GALANT
2005. Knowledge and pedagogy: sociological research in mathematics education in South Africa. Vithal *et al* (eds) 2005: 281-306.

- FLEWELLING G & W HIGGINSON
2003. *Teaching with rich learning tasks*. Ontario: Australian Association of Mathematics Teaching Inc.
- FLINDERS D J & S J THORNTON (eds)
2004. *The curriculum studies reader*. 2nd ed. New York: Routledge Falmer.
- FREIRE P
2004. Pedagogy of the oppressed. Flinders & Thornton (eds) 2004: 125-34.
- FRIEDMAN T L
2006. *The world is flat. The globalized world in the twenty-first century*. London: Penguin.
- FWU B & H WANG
2002. From uniformity to diversification: transformation of teacher education in pursuit of teacher quality in Taiwan from 1949-2000. *International Journal of Education Development* 22(2): 155-67.
- GRAHAM-JOLLY M
2009. The nature of the curriculum. Hoadley & Jansen 2009: 247-52.
- GROSSMAN P L
1995. A psychological view of teacher-teachers' knowledge. Anderson (ed) 1995: 245-59.
- GRUNDY S
1987. *Curriculum: product or praxis*. Milton Park: Routledge.
- GUR-ZEËV I
2003. Critical theory and critical pedagogy today. Toward a new critical language in education. Haifa: Faculty of Education, University of Haifa.
- HOADLEY U K & J D JANSEN
2009. *Curriculum. Organizing knowledge for the classroom*. Cape Town: Oxford University Press.
- HOLMES GROUP
1986. *Tomorrow's teachers: a report for the Holmes Group*. Michigan: The Holmes Group.
- KAPP J A (ed)
2003. *Children with problems. An orthopedagogical perspective*. Pretoria: Van Schaik.
- LOUW L P & E R DU TOIT (eds)
2010. *Help I am a student teacher*. Paarl: Van Schaik.
- MAREE J G & W J FRAZER (eds)
2004. *Outcomes-based assessment*. Sandown: Heinemann.
- MUIJS D & D REYNOLDS
2005. *Effective teaching: evidence and practice*. London. Sage.
- ORNSTEIN A C & F P HUNKINS
1998. *Curriculum: foundations, principles, and issues*. 3rd ed. Boston: Allyn & Bacon.
- PASSOS A F J
2008. A comparative analysis of teacher competence and its effect on pupil performance in upper

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- primary schools in Mozambique and other SACMEQ countries. Unpubl PhD in Curriculum Studies. Pretoria: University of Pretoria.
- SCHOENFELD A H
1985. *Mathematical problem solving*. San Diego, CA: Academic Press.
- SCOTT D
2008. *Critical essays on major curriculum theorists*. London: Routledge.
- SHULMAN L S
1986. Those who understand: knowledge growth in teaching. *Educational Researcher* 15(2): 4-14.
- SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)
2001. *Criteria and guidelines for the assessment of NQF registered unit standards and qualifications*. Pretoria: South African Qualifications Authority.
- SPADY W G
1994. *Outcomes-based education: critical issues and answers*. Arlington, VA: American Association of School Administrators.
- STEINHOUSE L
1975. *An introduction to curriculum research and development*. London: Heinemann.
- STRYDOM A H
1981. *Die didaktiek as deeldisziplin*. Pretoria: Sacum.
- UNESCO
2008. *IICT competency standards for teachers. Competency standards modules*. Amsterdam: METIA.
- VAN WYK P C
2003. Research in orthopedagogics. Kapp (ed) 2003: 475-87.
- VITHAL R, J HOLLER & C KEITEL (eds)
2005. *Researching mathematics education in South Africa: perspectives, practices and possibilities*. Cape Town: HSDPL Press.