Wilberforce E. Meena

Curriculum Innovation in Teacher Education

Exploring Conceptions among Tanzanian Teacher Educators

Wilberforce E. Meena
Assistant lecturer at the Institute of Adult Education
Advanced level secondary education in 1987 (Pugu Secondary School)
Master of Education at Åbo Akademi University in 2002
Worked as a teacher educator:

Kasulu Teachers' College	1991-1995
Ilonga Teachers' College	1996-1997
Morogoro Teachers' College	1997-2007

Cover: Tove Ahlbäck

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Tel. int. +358-2-454 9200
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http://www.tibo.net

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Abstract

The focus of the study is to understand curriculum innovation from the perspective of Tanzanian teacher educators. It is argued that the deterioration of quality of education in schools is partly to be attributed to the way in which teachers are educated. Curriculum innovation is considered as an essential strategy for bringing about improvement in teacher education. Therefore, in 2000 a new curriculum was introduced; however, right from the inception the curriculum was criticised by teacher educators.

The overall aim of the study is to investigate teacher educators' conceptions of curriculum innovation. In the theoretical framework the main focus is on discussion about different curriculum approaches for teacher education and innovation. In order to achieve the aim of the study, a phenomenographic approach is employed. This approach is used in order to identify similarities and variation in educators' conceptions of curriculum innovation. The empirical basis of the study consists of interviews with thirty teacher educators working in eight teachers' colleges situated in various parts of Tanzania.

The findings, in brief, reveal variation in teacher educators' conceptions of the dominant domains of innovation. Two broad conceptions of teaching with six aspects are identified. Conceptions of educational studies are presented in four broad categories of description with four aspects. Similarly, in methodology subjects two conceptions are described with four aspects. On the integration of subject matter studies and subject methods, two broad conceptions are presented with six aspects. Conceptions of textbook prescription policy are characterised in two broad categories of description with four aspects. With the use of modules two broad conceptions are identified with six aspects. In addition, the study identifies four broad conceptions of future curriculum approaches with eight aspects.

Looking across the categories of description, the results indicate that educators cope with innovation individually. Three character types of teacher educators are presented: loyal, creative and critical. Furthermore, four types of phenomena suggesting critical areas about teacher educators' conceptions of innovation are described: educators' prior educational background, technical factors, student teachers' factors and shifting from teaching to learning.

On the whole, educators express a number of frame factors in the process of change towards the aim of curriculum innovation. This indicates that the new curriculum (2000) is not implemented as intended by curriculum developers. Constraints to the implementation are presented and discussed in detail. From these findings, two models of educators' stance towards curriculum innovation are presented and can be used as a framework for planning successful curriculum innovations and analysing practice in teachers' colleges.

Keywords: teacher education, curriculum, innovation, teacher educator, phenomenography.

Abstrakt

Fokus för studien är att fördjupa förståelsen för förnyelsearbetet av läroplaner utifrån tanzaniska lärarutbildares perspektiv. Argument har framförts om att en försämring av utbildningens kvalitet till en del är knuten till den utbildning lärarutbildare har genomgått. Förnyelse av läroplanen betraktas som en väsentlig strategi för att förbättra lärarutbildningens kvalitet. Därför introducerades år 2000 en ny läroplan som emellertid omedelbart utsattes för lärarutbildares kritik.

Studiens övergripande syfte är att undersöka lärarutbildares uppfattning av läroplansförnyelse. I den teoretiska referensramen läggs huvuduppmärksamheten vid en diskussion om olika ansatser rörande läroplaner för lärarutbildning. För att uppnå syftet tillämpas en fenomenografisk ansats. Ansatsen används för att identifiera variationer i lärarutbildares uppfattning av läroplansförnyelse. Den empiriska delen av undersökningen består av intervjuer som gjorts med trettio lärarutbildare som arbetar vid åtta olika lärarutbildningsenheter i olika delar av Tanzania.

I stort visar resultaten variationer i lärarutbildares uppfattningar av karakteristiska områden av förnyelse. Två s.k. vida koncept om undervisning med tillhörande sex aspekter har identifierats. Uppfattningar av pedagogiska studier har presenterats i fyra omfattande beskrivningskategorier med fyra aspekter. Integrationen mellan ämnesstudier och ämnesanknutna undervisningsformer (subject methods) har identifierats i två vida koncept med sex aspekter. Uppfattningar av den policy som föreskriver användningen av läroböcker har karakteriserats i två omfattande beskrivningskategorier med fyra aspekter. Användningen av s.k. moduler har identifierats inom två vida koncept med sammanlagt sex aspekter. Ytterligare identifierar studien fyra vida koncept med åtta olika aspekter som rör framtida läroplansansatser.

Vänds perspektivet så att beskrivningskategorierna granskas ur ett tvärsnitt indikerar resultaten att lärarutbildarna i huvudsak hanterar förnyelsen individuellt. Tre individrelaterade typer av lärarutbildare har karakteriserats: den lojala, den kreativa och den kritiska. Vidare har fyra företeelsetyper beskrivits som fångar in kritiska områden av lärarutbildarnas uppfattningar av förnyelse: utbildarnas tidigare pedagogiska bakgrund, tekniska faktorer, faktorer relaterade till lärarstuderande och förskjutningen från undervisning i riktning mot lärande.

Sammantaget uttrycker lärarutbildarna ett antal ramfaktorer som begränsar möjligheterna till förnyelse. Detta betyder att den nya läroplanen (2000) inte implementerats såsom avsikten varit. Motståndet mot förändringar diskuteras ingående. Utgående från resultaten presenteras två modeller som visar lärarutbildarnas förhållningssätt till förnyelsen. Modellerna kan brukas som en ram för en framgångsrik planering av läroplansförnyelse och för att analysera praktiken i lärarkollegier.

Nyckelord: lärarutbildning, läroplan, förnyelse, lärarutbildare, fenomenografi

Ikisiri

Dhamiri ya utafiti huu ni kufahamu mitazamo ya wakufunzi kuhusu mabadiliko ya mtaala wa mafunzo ya ualimu. Inasemekana kuwa kuporomoka kwa ubora wa elimu katika shule za msingi na sekondari kunachangiwa na jinsi walimu walivyoandaliwa. Ili kukabiliana na hali hii inatujuzu kufanya mabadiliko katika mtaala wa ualimu. Mtaala mpya wa mafunzo ya ualimu ulianzishwa mwaka 2000, ingawa ulikosolewa na wakufunzi mara tu ulipoanza kutumika .

Lengo la jumla la utafiti huu ni kuchunguza mawazo ya wakufunzi kuhusu mabadiliko katika mtaala. Mapitio ya rejea yamejikita katika mjadala kuhusu mitaala tofauti tofauti ya ualimu na mabadiliko ya mtaala. Ili kufikia lengo la utafiti huu, mkabala wa fenomenografia umetumika; sababu ya utumizi wa mkabala huu ni kubaini kulingana na kutolingana kwa mawazo za wakufunzi kuhusu mabadiliko ya mtaala wa ualimu. Taarifa kutoka kwa wahojiwa zimekusanywa kwa kutumia hojaji ambapo wakufunzi thelathini wanaofundisha vyuo mbalimbali vya ualimu nchini Tanzania, wamehojiwa.

Matokeo ya utafiti huu kwa ufupi yanaonesha kuwa, wakufunzi wana mawazo tofauti kuhusiana na maeneo makuu ya mabadiliko ya mtaala. Imebainika kuwa wakufunzi wana mawazo makuu mawili kuhusu ufundishaji yaliyogawanyika katika makundi sita. Pia utafiti huu pia umebaini mawazo makuu mawili kutoka kwa wakufunzi kuhusu masomo ya ualimu, yaliyogawanyika katika makundi manne. Kwa upande wa masomo ya mbinu za kufundishia mawazo makuu mawili yaliyogawanyika katika makundi manne yamewasilishwa.Kuhusu kuunganishwa kwa maudhui na mbinu za kufundisha katika somo moja, mawazo makuu mawili yaliyogawanywa katika makundi manne yamewasilishwa. Mawazo makuu mawili kuhusu matumizi ya moduli yamewasilishwa yakiwa katika makundi sita. Pia tasnifu hii, inabainisha mawazo makuu manne yaliyogawanywa katika makundi nane kuhusu mtaala unaofaa kwa siku za baadaye.

Matokeo fafanuzi katika tasnifu hii yanaonesha kuwa wakufunzi wanaakisi mabadiliko hayo kipweke pweke. Aidha misimamo mitatu ya wakufunzi imewasilishwa ikinasibishwa na mabadiliko hayo, yaani; waliokubali mabadiliko, wabunifu katika kutekeleza mabadiliko na wale wanaohoji uhalali wa mabadiliko. Misimano hii ya wakufunzi ipo katika dhamira nne ambazo wameziakisi wakati wa kupokea mabadiliko: uzoefu wa awali katika elimu ya ualimu, maswala ya kiufundi, mambo yahusuyo wanafunzi wanaojiunga na mafunzo ya ualimu na kuhama kutoka katika mtazamo wa kusisitiza kufundisha hadi kujifunza.

Kwa ujumla wakufunzi wameainisha vikwazo dhidi ya mabadiko chanya kwa kadri ya malengo ya mtaala mpya. Hii inaonyesha kwamba mtaala mpya (2000) hautekelezwi kama inavyokusudiwa na wakuza mitaala. Vikwazo hivyo dhidi ya utekelezaji vimewasilishwa na kujadiliwa kwa kina; kutokana na matokeo hayo modeli mbili kuhusu misimamo ya wakufunzi juu ya mabadiliko kwenye mtaala zimewasilishwa na zinaweza kutumiwa kama vigezo kwa mipango ya

mabadiliko ya mitaala pamoja na uchanganuzi wa utendaji kazi katika vyuo vya ualimu.

Istilahi muhimu: elimu ya ualimu, mtaala, wakufunzi, fenomenografia.

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Asanteni sana

I dedicate this thesis to my parents
Sanya Juu, August 15, 2009
Wilberforce E. Meena

Contents

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List of abbreviations

The following abbreviations are used in the study.

BTP	Block teaching practice
ESR	Education for self-reliance
ITE	Initial teacher education
MoEC	Ministry of Education and Culture
MoEVT	Ministry of Education and Vocational training
MUSTER	Multi-Site Teacher Education Research Project
NECTA	National Examinations Council of Tanzania
PCK	Pedagogical content knowledge
PEDP	Primary education development plan
SEDP	Secondary education development plan
SIE	Stockholm Institute of Education
TDMS	Teacher Education Development and Management Strategy document
TEMP	Teacher Education Master Plan
TEP	Tutors' Education Programme
TEPT	Teacher Education Project in Tanzania
TIE	Tanzania Institute of Education
UDSM	University of Dar es Salaam
UPE	Universal Primary Education

1 Introduction

1.1 Background

The curriculum for educating teachers has been under discussion in Tanzania since the 1970s. Attention is paid to curriculum content, teaching, learning and modes of assessment. One of the most important concerns is about the kind of curriculum which can be considered to be appropriate due to criticism directed at teacher education.

Several researchers (e.g, Omari, 1995; Mosha, 2000; Levira & Mahenge, 1996; Mushashu, 2000; Osaki, 2000; Wort & Sumra, 2001; Babyegeya, 2006) assert that teachers are not well prepared, leading to a deterioration of the quality of education in primary and secondary education. Teaching and learning are considered to be dominated by recitation, the copying of notes and teacher "talk and chalk", because teachers are unqualified or under-qualified (Omari, 1995). Similarly, Malekela (2004) claims that the students' performance, which mainly examines the cognitive domain, is mediocre.

Some students complete primary education without the necessary skills of reading and writing despite the fact that primary education in Tanzania lasts for seven years. It can, of course, be argued that not all of these problems emanate from the curriculum for teacher education alone. For instance, Kennedy (1999) suggests that consideration should be taken of the effects of factors operating in the contexts in which teachers are teaching, and not relying only on earlier preparation. However, Elliott and Morris (2001) stress that a relevant curriculum for teacher education may prove to be useful in helping teachers to work in particular contexts of action.

The debate about curriculum content has been dominated by knowledge of subject and pedagogy, which also more or less equates with teaching methods. Skilbeck (1990) describes pedagogy as the translation of the curriculum into the operations of teaching and learning. It is essential to point out that the debate is dedicated to the problem of the priority given between subject matter and

pedagogy, although it could be argued that too little time has been devoted to achieve consensus (Babyegeya, 2006). In addition, alongside subject matter knowledge and pedagogical skills, teachers' colleges have the role of preparing student teachers to be committed to their teaching, learning and the achievement of their students (cf. Day, Sammons, Stobart, Kington & Qing, 2007), and to continue to develop their own knowledge and skills, both as individuals and as members of a collective professional group (Bransford, Darling-Hammond & LePage, 2005). From this standpoint, the debate has also focused on providing student teachers with the appropriate knowledge base they will need to be recognised as competent professionals (Beyer, 1987; Campbell, McNamara & Gilroy, 2004; Bjarnadóttir, 2007; Wenestam, 2007). A professional teacher in this study is a teacher who is able to optimally facilitate the learning of each individual (cf. Björklund, 2008).

Teachers' professional identity is also connected with a changing society in which the development of information technology has changed the educational context. According to Babyegeya (2006), it has contributed to the emerging of new knowledge about teaching and learning, which necessitates the qualitative preparation of teachers. It would also mean that teacher education has the role of helping student teachers, to develop their capability of engaging in expansive learning communities (Tsui & Law, 2007).

Furthermore, teacher education has the role of assisting student teachers to adapt to external values and norms to meet the local reality (Cheng, 2001). It is worth pointing out that the question of developing the curriculum for teacher education, in order to meet the needs of a changing society is not peculiar to Tanzania alone, as many countries are also involved in the same debate, such as the Nordic countries (Lindgren, 2007), and the United States of America (Darling-Hammond & Bransford, 2005).

The debate about professionalism could also be challenging because teacher education plays a minor role in promoting the vitality of the public school system (Densmore, 1987). In addition, the Tanzanian teacher education offered

in teachers' colleges is dominated by political control in which decisions about the curriculum are centrally made (cf. Wort, 1999). From this point of view, it can be argued that it is not easy for teachers' colleges to educate teachers to become professional actors, but rather they tend to be mechanical implementers of the curriculum (Sjöholm & Hansén, 2007). For these reasons, there is a need to provide educators with more autonomy as part of their professional identity. According to Giroux and McLaren (1987), there is a need to reverse the traditional practice of considering teacher educators primarily as technicians, i.e. pedagogical clerks, who are incapable of making important curriculum decisions, such as critically mediating the objectives of the National Curriculum to the contexts and particularities of their own classroom.

Although the debate about curriculum development in Tanzania from the mid-1990s seems to be dominated by the ambition of providing educators with more autonomy for their work, still not much has been done, perhaps due to central government influence on college-based teacher education. In fact, political decisions are considered to be the reasons contributing to the deterioration of the quality of the teacher education. In this respect, Babyegeya (2006) points out that Tanzania is facing the challenge of balancing quantity and quality in teacher education and schools. Hitherto the important question has been whether the political consequences of teacher education are defensible (Beyer & Zeichner, 1987).

However, teacher education has experienced a number of curriculum innovations since 2000. The notion innovation is used as ideas or practices that are new in teachers' college and will be elaborated on in Chapter 4. In general, the ambition has been to educate student teachers for the role of professional teachers. From this point of view, it is vitally important to increase our knowledge of how these innovations have been initiated and implemented.

Above, I have presented the background and general motives for conducting this study. Through these motives I have attempted to position the study in a broad international perspective. It is important to point out that internationally teacher

education is recognised and valued as a field of academic research. In the next section I will deal with the specific motives accounting for my own starting-point and the overall aim for undertaking the study.

1.2 Research problem, motives and general aim of the study

My own interest in the curriculum was aroused in 2000, when I was working as a teacher educator at the Morogoro Teachers' College. In fact, I was fascinated with the debate among teacher educators when the Ministry of Education and Culture (MoEC) introduced a curriculum in which pedagogy received the main emphasis. The debate was about less emphasis being given to subject matter knowledge on the one hand, and professional subjects on the other. It was a heated debate concerning curriculum innovations based on educators' experience. Within this period, some of the teacher educators were participating in two professional development programmes conducted by Åbo Akademi University and the Stockholm Institute of Education, both in collaboration with the Ministry of Education through Morogoro Teachers' College.

Åbo Akademi University was offering a master's degree in education and Stockholm Institute of Education a three month in-service course, aimed at raising the quality of teacher educators by making them aware of new knowledge in the teaching profession (cf. Höjlund, Mtana & Mhando, 2001). I participated in the debate and it was not easy to reach a consensus. The debate, however, could not continue for a long time because educators were supposed to discuss strategies for the implementation of the curriculum innovation rather than questioning its relevance.

Despite the debate, the pedagogical qualification was mentioned as the main weakness in teacher education programmes, which has contributed to poor teaching and learning in schools (see, for example, Levira & Mahenge, 1996; Dasu, 2001; Galabawa, 2001; Kalugula, 2001). All of these discussions influenced me to think about my own role as a teacher educator. I then decided to conduct a study focusing on curriculum change in 2002, which led to a

master's thesis. My findings in this study revealed that teacher educators rejected the curriculum change. It is abundantly clear that educators prioritise a curriculum in which subject matter knowledge is given due weight (Wangeleja, 2003). The main argument for emphasising subject matter is that educators are not satisfied with student teachers' mastery of subject matter, due to inadequate coverage of content in secondary schools (cf. Mosha, 2000; Rajabu, 2000; Kitta, 2004).

The important question is whether teacher education can take on the task of conducting remedial classes, or supplement what has not been covered in secondary schools. There are perhaps no easy answers to these questions. However, they highlight the necessity of distinguishing teachers' colleges from secondary schools. On the other hand, when dealing with the question of balance between subject matter and pedagogical qualification, the Teacher Education Development and Management Strategy document (TDMS), (2007), recommends that the curriculum of teacher education ought to place emphasis on a high mastery of subject matter knowledge.

A curriculum that places emphasis on the mastery of subject matter, as a discrete component, was introduced in 2007 for the diploma in education (cf. Framework for Diploma Programmes, 2006). With reference to the separation of subject matter and teaching methods, Goffree and Oonk (2001) show that it produced an incoherent and fragmented form of teacher education. It is clear that subject matter or content knowledge is an obvious requirement because it is difficult to teach something which one has not fully mastered (Osaki, 2001). In a similar way, Dewey (1916/1997) states that there can be no discovery of a method without cases to be studied. Dewey further states that the assumption that method is something separate is connected with the notion of the isolation of the mind and self that makes teaching and learning mechanical and constrained.

This study is an attempt to contribute towards the development of research in the curriculum for teacher education in Tanzania. Most of the decisions about the curriculum have been based on political investigation and prescriptions (cf. The

Presidential Commission Report on Education of 1984; Teacher Education Master Plan (TEMP), 2000*;* Teacher Development and Management Strategy Document (TDMS), 2007). However, teacher education needs professional input founded on empirical knowledge in order to educate qualified teachers to meet the demands imposed by commitments to Education for All (Lewin & Stuart 2003). Furthermore, Tanzanian society has changed much since the introduction of privatisation, a liberalisation policy, globalisation and regional integration. For these reasons, research is becoming more important for deepening the understanding of the new conditions and demands in education.

In 2003, 2005 and 2006, for instance, I was involved in curriculum review. Throughout my participation, I have learned that the process of curriculum development was based on many assumptions: for example, the availability of qualified teacher educators and the effective utilization of time. However, when the curriculum was introduced in 2000, there was a shortage of qualified teacher educators (Wangeleja, 2003). In addition, in teachers' colleges, the teaching and learning time is not adhered to due to inconsistencies in the opening and closing times of the colleges. In fact, teachers' colleges have been criticised for their misuse of time, having unplanned activities and problems in timetabling (Chediel cited in Galabawa, 2001). This is a paradox, as one would expect teachers' colleges to provide an appropriate model of time management to student teachers.

Certainly, the curriculum innovation of 2000 has posed several challenges, as indicated above. In this regard, the rationale behind the study is that it will hopefully provide basic insight into the consequences of changing strategies, which could be useful to those who are involved in teacher education in Tanzania, and other parts of the world. In addition, the study is also seen to be important in providing basic insights into the enduring question of how to design a suitable curriculum for teacher education.

The study is set within an educational framework, in which the curriculum for teacher education discussed above is the main focus. In the curriculum,

according to Urevbu (1991), theory can be associated with four central issues: firstly, what content is considered to be appropriate; secondly, how can this content be made accessible to student teachers; thirdly, who is supposed to make decisions about the curriculum; and lastly, how is the curriculum organised to form a coherent whole? The crucial question is whether teacher educators see the relationship between various parts of the curriculum as forming a whole. From this perspective, Pinar (1997; 1998) stresses that curriculum theory also has to focus on the nature of relationships, for instance between content and student teacher, student teacher and teacher educator, student and student, as well as among content areas. In this study, I find these theories useful, whereby teacher educators may reflect upon the interplay between various elements of the curriculum. The ambition is to find out if the curriculum innovation has been successful, as one of the prime concerns of every education system[1].

I have prioritised pre-service teacher education because it has been the main focus whenever the government intends to prepare teachers to meet the expansion of primary and secondary education. I also agree with Umar (2006), who asserts that in developing countries, though not the only determinant of learning achievements of pupils in schools, pre-service teacher education has an important role in determining teacher quality, and even the subsequent performance of teachers, since teachers have limited opportunities for continuing learning while working in schools.

Therefore, the overall aim of the study is to investigate teacher educators' conceptions of curriculum innovation and future approaches[2]. My expectation in this study is to identify similarities and variations in teacher educators' conceptions of the changes in curriculum content, the way it is made accessible to student teachers and their thoughts about future teacher education. At this juncture, I consider the theme of the study to be relevant to the needs of educators who teach pre-service student teachers, principals of teachers'

[1] See Ibrahim (1991, pp 100-126) on attempts to implement innovations.
[2] Teacher educators in this study refer to teachers' college tutors.

colleges, curriculum developers, as well as other educational practitioners involved in teacher education.

1.3 The structure of the thesis

The thesis has been organised in order to provide a coherent presentation of the line of thought in this study: the theoretical part is followed by the empirical one. Against the previous background, which presents the broader and specific position of the current study, in Chapter 2 the developments in teacher education reveal different political contexts including a swing of ideological priorities and change in administration. Although the contexts are not actually studied directly, they are of critical importance for the data interpretation. The curriculum for teacher education is presented in Chapter 3. The chapter begins with an attempt to identify the key components of the curriculum for teacher education and it ends with curricula approaches. In other words, the chapter moves from a more general perspective on the curriculum to the specific approaches focused in this study.

In Chapter 4, the curriculum innovations are presented, since this is where the present study is set. The main focus is placed on the sources of innovation, discourse, management and the way educators respond. In Chapter 5 the empirical study is presented. Subsequently, the research questions and the phenomenographic approach are discussed and the procedures for the analysis are described. In Chapter 6 the variations of educators' conceptions in curriculum innovation are presented with data excerpts. Finally, in Chapter 7 the findings of the study are discussed as well as the implications of the study.

2 The context of the study

Various social, political and economic changes have occurred in Tanzania before and after independence. All these define different curriculum contexts and concrete conditions for teacher education. Therefore, in this chapter I will briefly discuss some of the explicit trends of formulation and development of teacher education, the patterns of pre-service teacher education as the focus of this study, and lastly teachers' professional development.

2.1 Historical perspective

Teacher education programmes can be understood on the basis of the historical, social-economic, political and cultural contexts in which they have developed (Zeichner, 1994, Lewin & Stuart 2003). Through tracing their history some more positive aspects might be noted that might help to inform our understanding of education and of the prospects of innovation (cf. McCulloch, 1997). For these reasons it is worth analysing the historical development of teacher education in Tanzania.

In Tanzania, the Germans formulated teacher education at the beginning of the 20th century. According to Hirji (1979), in 1899 the Germans introduced a teacher-training department at Tanga School. Within this period teacher education was dominated by the apprenticeship model. Such a model encourages the view that teaching is a craft learned merely by imitating experienced practitioners (Dove, 1986). The German efforts, however, were negatively affected during the First World War. As a result (Mbilinyi, 1979), all government schools were disbanded and most mission schools closed. After the war, in 1919, what was named Tanganyika was handed over as a League of Nations mandate to England. Buchert (1994) pointed out that the British administration in Tanganyika took over responsibility for the education of Africans at its first education conference in Dar es Salaam in 1925; as a result of this the British government developed teacher education.

According to Rajabu (2000), by 1945 small government teacher training centres, with African staff, had been opened in all but one of the eight provinces of the territory. The first category of teachers was grade II or village schoolteachers. Candidates for this grade were selected from standard 4 leavers or district schools for a three-year course, which was later extended to four years[3]. The first two years were devoted to academic subjects and the next two years to professional training. The academic component included teaching subject content, while the professional subjects were educational psychology and the principles of education. The second category was Grade I or Senior Primary Teachers. This course took two years of professional training after standard 10.

Training centres for village and district schools were concentrated in only a few places. This approach was favoured because expert European staff could be more effectively employed by having them posted as teams to comparatively few centres to carry out research and experimental work. In regard to staff a few double stream centres were preferred because it was much more flexible to administer (Rajabu, 2000). It is important to note that during this period Europeans were trained to occupy senior managerial positions or to become civil servants and professionals. Asians were trained to occupy middle managerial positions in work structures while Africans were relegated to serve as assistant, teachers, nurses and medical auxiliaries (Chonjo, 1994). Thus, education provision was on the basis of segregation (MoEC, 1995), and the curriculum emphasised western values and theoretical knowledge.

After independence in 1961, Tanzania focused on developing an egalitarian society and expanding educational provision. Curricula were revised to include African content and segregation was abolished through having one system of education. Within this period Dar es Salaam University College was established as part of the University of East Africa (now the University of Dar es Salaam), and it started to train secondary school teachers. As a consequence, teacher

[3] The British school system consisted 8 years of primary education, bush primary schools (standard 1-4) and middle schools (standard 5-8), then secondary schools (standard 9-12).

education was divided into two major categories: university and teachers' college based. According to Kalugula (2001), when the university college of Dar es Salaam was established the original degree was Bachelor of Education (B.Ed).This degree prioritised educational studies as the current one offered for teacher educators. However, when political pressure for producing university graduate teachers locally increased, the B.Ed was transformed into a hybrid degree, for instance Bachelor of Arts/ Bachelor of Science with Education (BA.Ed or BSc.Ed). The intention was to prepare subject specialists who could teach in the expanded secondary education sector. For instance, Chonjo (1994) points out that within this period more than 90 per cent of all science and mathematics teachers in secondary schools were expatriates.

In 1974, the government of Tanzania was directed by the Musoma Resolution to introduce Universal Primary Education (UPE) by the end of 1977. As a result of this, the demand for primary teachers rose. In order to meet the increased demand, a number of strategies were adopted. First, the amount of time spent by student teachers in teachers' colleges was cut to half. Instead of spending two years, they spent only one year. The second year of study was covered in school-based training. According to Kalugula (2001), it was assumed that college teacher educators would supervise such student teachers, as they would be visiting schools.

For the first time a new distance teacher training approach was introduced. Retired teachers were also re-engaged. Within this period primary school leavers[4] were recruited as grade 'C' or 'B'[5] teachers and qualified to teach in primary schools. Grade 'C' teachers received a 'crash course' in teaching methodology for 1 year, while the course duration for grade 'B' teachers was 4 years. The first two years were devoted to academic subjects, equivalent to form

[4] The Tanzanian school system consists of 2 years of pre-primary, 7 years of primary education, 4 years of ordinary level secondary education (O-Level) and 2 years of advanced secondary education (A-Level) (MoEC, 1995).

[5] The Certificate in Education is divided into three levels: grade C, B and A. Grade C/B caters for primary schools leavers employed as teachers in primary schools, while Grade 'A' teachers have completed ordinary level secondary education (Form 4) and passed the National Examinations.

II secondary education and the second two years to educational studies. Recruitment of these teachers, in particular Grade 'B', continued for several years until 1996, when it was abolished. However, these teachers have been usefully especially in rural areas, despite the fact that they are under-qualified as, discussed below (see also Chediel, 2004). As concrete example, Malekela (2004) points out that rural and remote areas have fewer teachers than richer regions and urban areas, which tend to have more teachers and of higher qualification.

Today Tanzania has adopted a liberalisation policy (MoEC, 1995). A partnership between government and private organisations in the provision of education has been expanded. More private schools have been established and they are considered to offer high quality education as compared to government schools. To ensure access and equity in education as result of liberalisation the government introduced the primary education development plan (PEDP) 2002-2007 and secondary education development plan (SEDP) 2004-2009. As a consequence of these plans enrolment increased in primary and secondary schools. Again, the demand for teachers increased, as noted in the previous political decisions. This has had an impact on the teacher education programme, as will be discussed further in the following sections.

2.2 Structural perspectives

There are two models of initial teacher education, namely college-based and university-based teacher education. College-based teacher education is directed to pre-primary, primary and ordinary secondary education and certificate teachers' college, while university-based programmes are mainly for advanced secondary education and diploma teachers' college. Although in this section I will discuss both college-based and university-based teacher education, great emphasis is given to college-based because it is the focus of my study.

College-based programme: This programme offers a two-year grade 'A' certificate and diploma in secondary education. Student teachers may receive a teacher grade 'A' certificate after completing ordinary level secondary education

(O-Level) and qualify to teach in primary schools. This is the minimum qualification for teaching at primary school level (Ministry of Education and Culture (MoEC), 1995). In addition, this is the only initial course for primary school teachers offered in teachers' colleges. However, in primary schools one can find diploma and degree graduates, but they are not trained as primary school teachers. As a result of this there is a plan to establish diploma in primary education (TDMS, 2007). As to the diploma for secondary education, a student teacher may receive this after two years at teachers' college. Students may apply for this option after advanced secondary education (A-Level) and qualify to teach forms one and two, which are the lowest classes in ordinary secondary education; forms three and four are the highest (cf. Appendix 2 on the Tanzanian Education System). However, because of the shortage of university graduate teachers, diploma teachers find themselves teaching up to form four (Babyegeya, 2006). Others are working as teacher educators, teaching the grade 'A' certificate due to the same reason. The minimum qualification for a teacher educator is a Bachelor's degree (MoEC, 1995); this means that some teacher educators are under-qualified.

The curriculum for the grade 'A' certificate and diploma in secondary education is designed and developed by the Ministry of Education and Vocation Training through the Tanzania Institute of Education (TIE). This means that decisions about the curriculum are centralized. In most cases those who are involved in making decisions about the curriculum are politicians, university academics and curriculum developers. It seems this model of decision-making is used to ensure uniform delivery and maintain standards (cf. Marsh, 1997). However, teacher educators would like to be involved in determining what goes on in teachers' colleges.

Concerning educators' participation, the focus is on shifting the responsibility of curriculum development to teachers' colleges. However, some educators selected from teachers' colleges have been involved in designing the curriculum framework and developing syllabi. Others are members of subject panels formed by TIE. However, the lack of training in curriculum development among these

educators makes other experts, for example curriculum developers and university academics, acquire more power in the process. One can argue that they have learnt about curriculum-making during their education at teachers' college or university. Yet it can be argued that what is learnt about the curriculum during initial teacher education is not enough because it is more about theory than practice (Clayton, 2007). Conversely, teacher educators who participate in curriculum-making seem to internalise the core idea of curriculum innovation (Kosunen, 1994). However, the participation of few educators in the curriculum-making process does not guarantee whether other educators will learn from their colleagues unless such an opportunity is provided.

It is also important to point out that the government has to invest more on curriculum development. TIE, for example, is facing a shortage of qualified curriculum developers (Mbunda, 1997). In addition they have previously been subject teachers and there has been only limited effort to enable them to grow in the area of pedagogy (Dasu, 2001). As I see it, there is a need to raise the pedagogical qualifications of curriculum developers. Similarly, teacher educators are also facing the same problem, as discussed in Section 4.4.

To ensure that an appropriate curriculum is being developed, since 2006 the Tanzania Institute of Education has been strengthening the participation of stakeholders in the process of formulating the curriculum. Along the same line, Beyer (1987), for example, proposes that in the formulation of the curriculum for educating teachers it would be appropriate to collaborate with teachers, parents, students, administrators and others who are involved in the day-to-day operation of schools and programmes of teacher education. However, one needs to be aware that the decision to involve all these stakeholders was based on criticism of TIE after numerous curriculum changes which were considered to be irrelevant by the public such as the abolition of business studies and the integration of physics and chemistry (Chilumba, 2006; for a useful discussion; cf. also Section 4.2).

In spite of efforts by TIE to involve more educational stakeholders in curriculum formulation, it is still important to recruit qualified curriculum developers because they are the main facilitators. On the other hand, for more than three decades now teacher educators have been debating the founding of a teacher education board which would also be responsible for curriculum development (Presidential Commission on Education, 1984; Babyegeya, 2006; TDMS, 2007). Clearly, educators are demanding more autonomy in curriculum development and professionalism.

University-based programme: The University programme offers a 3 year bachelors degree, for example Bachelor of Arts with Education (BA.Ed) or Bachelor of Science with education (BSc.Ed), which qualifies graduates for teaching in advanced level secondary schools. Others may receive a Bachelor of Education (B.Ed) and qualify for teaching at teachers' colleges. The bachelor's degree programme in the University of Dar es Salaam, however, was 4 years before 2005. The increased demand for secondary school teachers due to the introduction of the secondary education development plan (SEDP) 2004-2009, which among other things aims intends to raise enrolment by 50 per cent, is the major factor behind this decision. Private universities such as Tumaini and Muslim also offer undergraduate degrees for three years.

Beside undergraduate degrees local universities, for instance the University of Dar es Salaam, offer post-graduate studies such as the diploma in education for those who have specific preparation in other fields of studies such as degrees in engineering and agriculture. Currently, a reasonable number of people from other fields are joining the teaching profession since employment is assured due to the increased demand for teachers, as discussed above. The duration of the post-graduate diploma is 9 months. The majority of teachers educated in this way will be found in the advanced secondary schools. In contrast to teachers' colleges, universities are responsible for their own curricula. Although universities in this context are regarded as autonomous organisations, they always work within the constraints of official policy and directives (Lehtimäki,

1993). The structure of teacher education in Tanzania is illustrated in Figure I below.

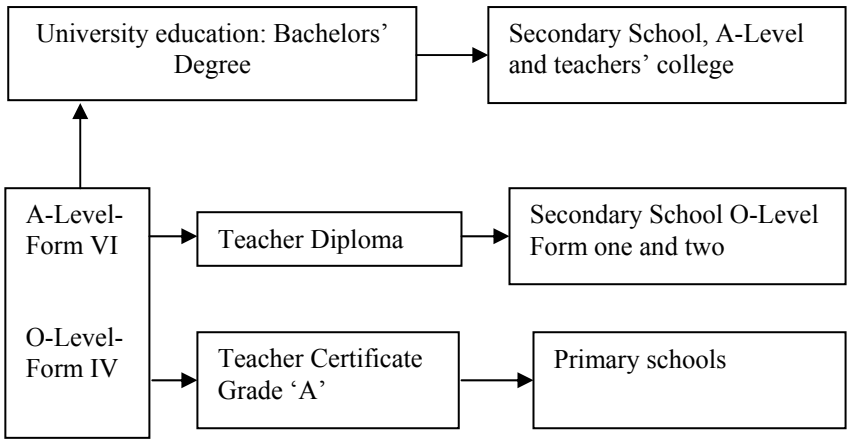


Figure 1. Teacher education in Tanzania, adapted from Malmberg and Hansén (1996, p. 27)

2.3 Professional development perspective

Initial teacher education can be regarded as the first step in professional development (Hansen & Simonsen, 2001), and it provides a strategic opportunity for ensuring that all teachers are ready and able to teach for sustainability when beginning their career (Ferreira, Ryan & Tilbury, 2007). For this reason, initial teacher education is of paramount importance in educating competent teachers, and any defects arising during it are extremely difficulty to correct afterwards (Kansanen, 2002). This means that for a country like Tanzania, where teachers rarely have an opportunity to participate in professional development courses or in-service, the effectiveness of initial education is essential. However, regardless of how effective the initial teacher education is, teachers need to continue to learn more about subject content, teaching and learning during their practice as new knowledge is developed in the subject areas.

Therefore, teachers deserve ongoing opportunities for further qualification in order to grow personally and collectively (Grossman, Schoenfeld & Lee, 2005). This is possible through professional development programmes (Bezzina &

Camilleri, 2001). In Tanzania there is an increasing need for a professional development programme, as indicated in the Teacher Development Management Strategy Document (TDMS), (2007), which recommends the initiation of a well established in-service education programme for teachers. According to Kitta (2004), in-service programmes are allocated very little funding, and depend mostly on foreign agencies and donors. In-service education has proved to be effective in some countries; Mattheoudakis and Nicolaidis (2005), for instance, found that in Greece teachers implement changes in their classrooms following participation in university in-service courses.

Teachers can also be given an opportunity for continuing learning through the formulation of a workplace curriculum. According to Billett (2006), a central proposition underlying the conceptualisation of a workplace curriculum is that the workplace will invite workers to engage and learn, insofar as that participation serves its goals and/or the interest of those within it, i.e. the continuity and/or development of the workplace or affiliates or individuals within it. In this view, the workplace curriculum is influenced by group interest in the organisation or individuals' goals. In the United States, for example (cf. Darling-Hammond, Pacheco, Michelli, LePage, Hammerness & Youngs, 2005), some professional development school initiatives have resulted in stronger outcomes for teachers and their pupils. Within this context of liberalisation, it is possible for Tanzanian schools to take primary responsibility for designing professional development programmes. Perhaps the Ministry of Education and Vocational Training can offer professional and material support.

As an example, in one of the teachers' colleges where I worked for some years, an informal workplace curriculum was introduced. It was informal in the sense that the coordinator used to request educators to prepare presentations on anything they thought was important to others. It was named the Friday seminar or workshop. Most of the presentations were related to pedagogical issues. However, the idea did not last long, despite an ongoing demand from the group of interested educators. Perhaps teacher educators were impatient with general pedagogical messages (cf. Kansanen, 1981) and would have preferred subject-

oriented activities. Another reason might be less enthusiasm from the college leadership, as indicated by lack of an explicit plan for the seminars.

However, development of a strong professional community in teacher education is often dependent on strong leadership (cf. Darling-Hammond, Pacheco, Michelli, LePage, Hammerness & Youngs, 2005). Seminars and workshops are also common at the national level. However, they do not have a significant impact on teachers' work. Ball and Cohen (cited by Fullan, 2008), for example, disclose that although the United States has spent a good deal of money on staff development, most is spent on sessions and workshops that are often intellectually superficial, disconnected from deep issues of the curriculum and learning. In Tanzania, Mhando and Mrimi (2004) found that primary school teachers could not teach in their own classroom in accordance with what they have learnt in a workshop conducted in a place with modern chairs, soft boards for displaying teaching aids, flip charts and marker pens. Further, Mhando and Mrimi point out that one of the crucial shortcomings of the workshop was that it did not take into consideration that primary schools have overcrowded classrooms and a shortage of teaching aids. For these reasons there is a need to reconsider the role of workshops and seminars in teachers' learning.

Teachers also have the opportunity for upgrading from a low level to a higher one, for instance, from grade 'A' to diploma and from diploma to degree level. Teachers may apply for a diploma and degree after passing A-level secondary school examinations. Depending on the division or pass grade attained in A-level secondary examination, grade 'A' teachers can either join the diploma or degree courses. The minimum qualification to join a diploma is division three (MoEC, 1995). Division three is also a minimum qualification to join university education. There is a continuing debate about linkage in the upgrading of courses (cf. TDMS, 2007). At the moment a diploma teacher graduated from teachers' collage when he or she joins a university is regarded as a direct entry student in the sense that she/he has to take all the courses.

On the part of the grade 'A' certificate, the situation is more complicated, because at the moment there is no diploma or degree in primary education. Thus, the existing opportunity is to join the diploma course in secondary education. Again, the students are considered as new young student teachers. For a country like Tanzania, which is facing a great shortage of teachers and financial resources, this is arguably a waste of time and also undervalues the teachers' experience. From this viewpoint, it is plausible to argue for linkage between teachers' educational programmes as a strategy of taking into consideration teacher's previous education and experience.

Babyegeya (2006) argues that while universities and teachers' colleges are guided by the teacher education objectives stipulated in the Education and Training Policy of 1995, there is no well formulated procedure to coordinate activities in the two parts of the system. For example, since the introduction of the curriculum innovation, some universities, for example, the University of Dar es Salaam (UDSM), have been hesitating to recognise the diploma in education as an entry qualification to undergraduate programmes on the grounds that students have learnt only methods (cf. Framework for Diploma in Education Programmes, 2006). From this standpoint, it can be argued that pedagogy has been accorded lower recognition, while academic subjects are rated higher (Goodson, 1983). In this respect, universities appear to impose on teachers' colleges specialised knowledge that stems primarily from the epistemological definitions of the discipline as currently accepted by the universities (Sharan, Shachar & Levina, 1999). However, those who join teachers' colleges possess the minimum qualifications to join universities by taking into consideration their advanced secondary education grades.

Summary

In this chapter I have highlighted in brief the historical context of Tanzanian teacher education. The presentation has shown that teacher education has prioritised the balance between subject matter knowledge and pedagogy for several decades now since its formulation by Germany at the beginning of the

20th century. The curriculum is centrally designed by the Tanzania Institute of Education (TIE), which appears to be facing a shortage of qualified curriculum developers. The decision of involving more stakeholders in curriculum formulation might perhaps provide a possibility for developing a curriculum that leads to appropriate practice in teacher education.

It is important to note that although some teacher educators were involved in reviewing the curriculum for the teacher grade 'A' certificate in 2003, it was still criticised by their colleagues. What is the extent of involving educators in curriculum-making? What kinds of criteria are used to select the educators? These questions might be worth considering when educators are involved in curriculum making. The universities have autonomy to design their own curriculum. The problem is that there is no linkage between courses offered at the lower level and higher level, for example the certificate and diploma course and diploma and university education. Perhaps there is a need to establish a system which will enable students to transfer their credits from teachers' colleges to university.

On the other hand, the debate about the curriculum for initial teacher education seems to be of great importance due to the lack of in-service education. It can be argued that the government has placed less emphasis on in-service education. However, teachers need to learn about the curriculum during practice. One approach of assisting teachers to learn more about curriculum innovation is to make schools into learning organisations. However, the common practice of relating in-service courses with seminars and workshops conducted out of school might face a lot of challenges such as financial constraints, involving few teachers and denying students the right to be taught when teachers are away on seminars or workshops. In the following chapter I will discuss some curricula approaches for teacher education.

3 Curriculum for teacher education

In this chapter, a general overview of the curriculum for teacher education is presented. Some main components that constitute the curriculum as well as the emphasis given to each one in relation to the type of teacher education are discussed. Secondly, alternative curricula approaches are discussed and typical examples are highlighted. The chapter functions as a framework for understanding curriculum *innovation,* which is the central concept in this thesis, as presented in Chapter 4.

3.1 Key components of curriculum

In Tanzania the curriculum has been guided by political and social demand. During colonization teachers were prepared to adhere to western ideologies, as indicated in the curricular documents. In 1967, when the country adopted a socialist ideology, education was guided by the philosophy of education for self-reliance (ESR). Among the fundamental principles was the use of education as a tool for liberation from the colonial mentality of being oppressed through developing an enquiring mind among student teachers and making education more relevant by attempting 'Africanisation' of the curriculum content (Foster, 1969; Ndunguru, 1984). Within this period, the curriculum became a political-ideological document, with the emphasis on socialist ideology. As a consequence, some teachers' colleges had military training as a strategy for making student teachers more politically conscious (cf. Mwingira, 1969). In this situation, teachers were expected to lead in the creation of new citizens, having themselves undergone political change (Lewin & Stuart, 2003).

The curriculum is a slippery concept because it is defined, redefined and negotiated at a number of levels and in a number of arenas (Goodson, 1994). For this reason, it is important to gain a deep understanding of the curriculum from teacher educators' perspectives. Several definitions of curriculum have been developed by scholars, including the curriculum as a subject matter, a set of

materials or set of performance objectives. It is also defined as an interrelated set of plans and experiences that a student completes under the guidance of the school (cf. Marsh, 1997). However, all definitions are parts of arguments (Jackson, 1992). Jackson further insists that although there is a disagreement with the way of looking at the curriculum, we cannot avoid making use of definitions.

On the basis of the above presented perspectives, I find it reasonable to use the notion curriculum in a holistic and process sense (cf. Van Lier, 1996). It is holistic, in the sense that every part and every action must be motivated by and understood in relation to all other parts and actions, in an integrative way. It is process-oriented, in the sense that pedagogical interaction is motivated by our understanding of learning rather than by a list of desired competences, test scores and other products. The curriculum is also considered as the entire experience throughout the training programme, as taught by teacher educators, as organised both on and off campus, and as learnt by student teachers (Lewin & Stuart, 2003). These definitions are useful in understanding curriculum innovations from the totality of teacher education.

Osaki (2001) asserts that a balanced curriculum for teacher education has to include a harmonious blend of the academic component, pedagogy and practice**.** According to Kelly (1999), a balanced curriculum is one which is viewed and planned in totality and not in a piecemeal fashion. The subject matter knowledge or academic component is concerned with competence in the teaching subject. Dealing with the academic component or subject matter, Viebahn (2003) describes it as technical knowledge of one's subject, and insight into the possibilities and limitations of scientific knowledge and ability to assess the relevance of scientific discipline.

Pedagogy is concerned with professional competence, for example, the ability to involve students in the teaching and learning process. At this juncture, it is about the relationship between teaching and learning and how together they lead to growth in knowledge and understanding through practice (cf. Loughran, 2006).

The third component is concerned with practical experience: a practicum, which refers to participation in the fieldwork (cf. Bjarnadóttir, 2007; see discussion in Section 4.5). This is an opportunity for student teachers to bring all other components together and practice the role of a teacher (Lewin & Stuart, 2003).

The debate, however, has been on the kind of emphasis given to those components. Shengli (1999) argues that the curriculum for teacher education has to demonstrate a proportional relationship between foundation and specialised courses, theoretical and practical courses, educational studies and subject content courses. Adam and Tulasiewicz (1995), for instance, underline that there are two extreme views. The first view agues that all that teachers need is subject matter and the classroom skills of exposition and control; the second view, at the other extreme, argues that teachers need a body of knowledge about educational theory or pedagogy as well. From this orientation, pedagogical studies comprise sub-disciplines of education studies (cf. Jakku-Sihvonen, Tissari, Uusiautti, 2008). In Figure 2, I have summarised the main components of the teacher education curriculum.

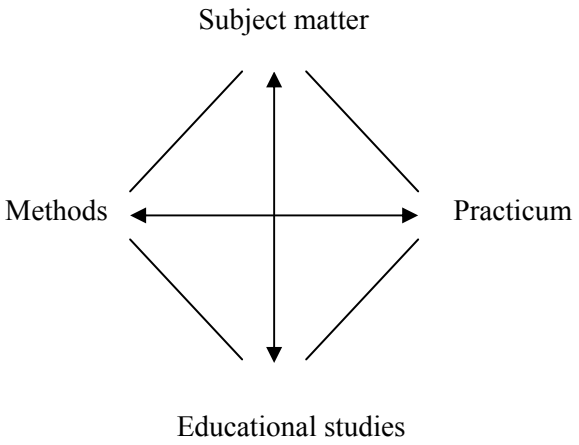


Figure 2. Key components of curriculum for initial teacher education

A distinction has been made between primary and secondary school teachers (cf. Hellgren, 1994; Adam & Tulasiewicz, 1995); it is argued that primary school teachers need more training in pedagogy. From this viewpoint, the curriculum

for teacher education has to put emphasis on educational studies such as pedagogical theories, research methods and educational psychology. The intention is to enable primary school teachers to acquire an extensive understanding of children, of the society in which we live, of the problems and techniques of curriculum development (Blenkin & Kelly, 1983). The curriculum also has to place less emphasis on subject content. Usually subject matter studies refer to a basic knowledge of the school subjects including subject-specific methodology. Student teachers can also specialise in certain subjects (see Appendix 3 & 4). The aim is a curriculum which caters for the needs of primary and secondary school teachers, in ways that keep in touch with local contexts and realties (Lewin & Stuart, 2003)

Though attempts have been made to change teacher education in Tanzania, nevertheless similar approaches to the curriculum have been used for educating secondary and primary school teachers. For instance, from 1970 to 2000, emphasis has been on the mastery of subject matter knowledge for both primary and secondary teachers (Dasu, 2001; see also Appendix 3 & 4). The main difference has been on the language of instruction and the nature of subject matter content. English in used for secondary school teachers because it is the medium of instruction in secondary schools, and Kiswahili for primary education teachers because is the medium instruction in primary schools (cf. MoEC, 1995).

Finally, as discussed above, there is a possibility of creating a distinction between curriculum for educating primary and secondary school teachers. The curriculum for educating primary school teachers, for instance, may place great emphasis on educational studies and for secondary school teachers on subject matter studies (cf. Hellgren, 1994; see also Jakku-Sihvonen, Tissari & Uusiautti, 2008). It is possible to use this model from other countries to develop Tanzanian teacher education. However, it is important to be critical because some aspects will work more easily across countries than others (cf. Lewin & Stuart, 2003). Having discussed the main components of curriculum, the following section will provide a brief overview of curriculum approaches.

3.2 Curriculum approaches for teacher education

Traditional Tanzanian teacher education was based upon the conception of teaching as a craft, and of the teacher being a craftsperson. Here, teacher education is viewed primarily as a process of apprenticeship (cf. Section 2.1). In this section, I will discuss predominantly the approaches in today's Tanzanian teacher education. This includes discipline-based, practice-based, competence-based and research-based teacher education.

Discipline-based teacher education

In this type of curriculum the content is mainly based on subject knowledge and the skills of delivering. The structure is often linear and associated with educational disciplines and the subject disciplines of the school curriculum (Young, 1998; Cheng, 2001). In practice, the same standard content and structure is followed by educators and student teachers (Sharan, Shachar & Levine, 1991). Here, the curriculum is considered as fact (Young, 1998); teacher education programmes assume a top-down approach, whereby student teachers are looked upon as 'empty vessels' to be filled with true knowledge, which only the educators possess. Teaching is focused on transmitting facts to student teachers by relying heavily on textbooks (Larzén, 2005).

The assumption is that these disciplines would provide conceptual frameworks, which would enable professional teachers to understand their roles. Here, student teachers are expected to bring together the ideas from various disciplines and make them relevant to their practice (cf. Young, 1988). From this perspective, Young, for instance, points out that the only possible explanations of pupils' failure might be either poor teaching or social or psychological deficits that pupils bring with them to school or college.

However, education disciplines are considered to be very abstracted from any real life in the teaching situation (Young, 1998). This argument is perhaps valid, since it is of fundamental importance that teachers gain practical education. Lawton (1978), for instance, points out that psychology is largely neglected in

curriculum planning at the classroom level. He adds that it seems to be regarded as something remote and academic. Similarly, Uljens (1997) points out that psychology offers a narrow approach in trying to understand what teaching is all about.

Psychology is related with theories focusing on how children learn. For example, since the introduction of a new curriculum (2000), learning is given due weight through shifting attention from teacher educator activities to student teacher activities (cf. Mhando & Mrimi, 2004). However, according to Biesta (2004), by placing emphasis on student teachers needs it creates difficulties in asking questions about the content and purpose of teacher education, other than what student teachers need. It is therefore important for teacher education to prepare student teachers to understand and if necessary to critique the assumptions underlying learning theories (Lewin & Stuart, 2003).

Furthermore, the curriculum as fact does not enhance the capacity of educators to become aware of the possibilities of change, and of gaining an understanding of the conditions of their practice (Young, 1988). According to McEwen (2004), the status of knowledge and its assessment has also tended to devalue other applied areas of knowledge and skills that are used. McEwen further argues that it has also led to an underestimation of the knowledge base, on which practitioners draw for competence in their work. The curriculum as fact has been part of Tanzanian teacher education, where the curriculum was delivered by textbooks and examinations. Another type of curriculum approach which has been part of teacher education programmes is practice-based.

Practice-based teacher education

The basic premise of the view of 'curriculum as practice' reverses the assumptions of the 'curriculum as facts' From this point of view, teachers' practices are crucial in both sustaining or challenging the prevailing views of knowledge and the curriculum (Young, 1988). Several ways could be used in organising this type of curriculum, but basically they are school-based. I will

begin my discussion with the two-tier programme, as a common example in Tanzania, followed by the dual programme.

In 2002, Tanzania introduced a two-tier teacher education programme, due to the expansion of primary education as a result of Primary Education Development Plan (PEDP) 2002-2006. The main aim of this plan was, firstly, to ensure that all school age children have access to primary education, and secondly, to raise the quality of education. As a consequence, the demand for primary teachers increased. The two-tier programme covers one year of theoretical preparation at teachers' college, and one year of practical preparation at schools. In the first year of college-based studies, the students learn about educational studies, for example, educational psychology, the curriculum and sociology, together with methodological subjects which match with the school subjects. In the second year the focus is on school-based practice. Within this period of training student teachers have two main tasks: the first is teaching, which is supposed to be supervised by educators from teachers' colleges, the head teacher, school inspectors and ward education coordinators. The second is to write a small reflective paper related to student teachers' teaching. A student is given a grade for teaching and the reflective paper, which both contribute to the final grade.

The concept of school-based teacher education can also be observed in other countries such as the Netherlands. I have chosen the Netherlands because it prioritises practice (cf. Maandag, Deinum, Hofman & Buitinnk, 2007). In the Netherlands the school-based curriculum integrates teaching activities and learning. In this kind of curriculum teaching practice is given due weight and with professional studies the intention is to enable student teachers to link theory and practice. According to Snoek (2003), when schools participate in the curriculum of teacher education, the link between theory and practice can be restored and it can contribute to the attractiveness of the teaching profession in schools, creating new roles and challenges to teachers. Young (1998) adds that practice provides the opportunity to develop more practically informed theory. Snoek (2003) named this kind of curriculum a dual one since students will be working as a teacher and at the same time attending courses or workshops. To

ensure successful implementation a stronger cooperation between teacher education institution, school and student is of great importance.

However, the Tanzanian two-tier system has been criticised for producing underqualified teachers (TDMS, 2007). For instance, one of the main criticisms during school-based training was the great emphasis given to assessment as compared to teacher development (see Section 4.5.1 for further discussion). In addition, the process of knowing-in-practice is influenced by the way in which student teachers' engagement in the working practice of school encourages them to think (Kelly, 2006). It seems that most students did not benefit much because they were posted to schools which had shortages of teachers, and were dominated by transmission teaching. In schools, where instrumental working practice and associated ways of thinking prevail, it is more likely that student teachers will have similar instrumental views (Kelly, 2006). Despite much criticism, this approach was introduced for the diploma in secondary education in 2007. Again, the intention is to meet teacher demand caused by the expansion of secondary education.

Hope (1999) and Snoek (2003) remind us that a change of approach is sometimes the result of external factors rather than carefully researched evaluation. What might be the solutions when schools do not have enough teachers? How can a country attain education for all without sufficient teachers? According to Snoek (2003), the urgency of the shortage of teachers has led to an abundance of unorthodox solutions in which the traditional fundamentals of teacher education are questioned and put aside.

Competence-based teacher education

In this curriculum, the focus is to enable student teachers to master the knowledge, skills, abilities and attitude needed for the teaching profession (cf. Viebahn, 2003). In many circumstances competences are set by the state (Snoek, 2003). In Northern Ireland, for instance, Caul and McWilliam (2002) point out that 92 competences, which students are expected to be able to demonstrate at the end of the initial, induction and early development phases of their teacher

education programmes, are grouped into five areas: understanding the curriculum and professional knowledge, subject knowledge and subject application, teaching strategies and techniques and classroom management, assessment and foundations for further professional development.

A list of standards or competences is also found in many other countries, for instance England, France, Germany and Sweden (Maandag, Deinum, Hofman & Buitick, 2007). This kind of teacher education is named 'technocratic rationality' as it is concerned with the technical application of educational knowledge (Beyer & Zeichner, 1987). From this perspective, the student teacher is viewed largely as a passive recipient to be certified as competent in an established tradition of thought and practice (Carter & Doyle, 1987). However, the question of a competence-based curriculum for teacher education in Tanzania is crucial since the curricula for primary and secondary schools are termed competence-based (cf. TDMS, 2007). For this reason, the curriculum for the diploma in secondary education has been competence-based since 2007, in which 12 general competences are emphasised. These competences are illustrated in Table 1.

Table 1. Prescribed teacher competences adapted from the framework for Diploma in Education Programmes (2006, p.14)

Competences	**Descriptions**
1. Guiding learners to create and construct knowledge through a variety of methods	Ability to select appropriate teaching methods
2. Demonstrating professional competency, ethics and commitment to work	Sense of accountability
3. Selecting and organising learning resources	Ability to design and use teaching and learning materials
4. Effectively transacting curriculum for learners, including learners with special needs	Ability to internalise the curriculum
5. Using media and appropriate instructional technologies	Ability to use information communication technology in teaching and learning
6. Communicating effectively in English with all skills	Clarity in explanations and ability to use several possible ways to explain the phenomena.
7. Counselling students for their personal development, adjustment and learning	Ability to organise counselling sessions
8. Conducting research and demonstrating innovativeness	Ability to design and conduct research, for example action research
9. Organising student activities	Ability to structure learning tasks
10. Leading student to develop an interest in life long learning	Ability to inculcate self-learning among students
11. Establishing mutually supportive linkage between the school and the community	Ability to work in wide context
12. Leading student to acquire entrepreneurship attitude and skills	Ability to develop sense of creativity, innovativeness and autonomy in students

The critics of the competence-based curriculum (for example, Viebahn, 2003; Van Huizen, Van Oers, & Wubbels, 2005) raise several questions, such as

whether education can be reduced to the acquisition of simple techniques such as the use of equipment and of specialist knowledge such as motivation techniques. In addition, interpretation is the more complex professional competence due to the complexity of the learning process. Thus narrow competences alone do not ensure professional demand. On the other hand, Oberski and McNally (2007) found that competency statements increase tension in initial teacher education programmes because there is more to teaching than what is stated.

However, analysis of the curriculum shows that priority has been given to knowledge content rather than competences to be developed (cf. Framework for Diploma in Education Programme 2006). Perhaps there is a need to review the curriculum, so that it could place more emphasis on competences. As I see it, curriculum developers are facing difficulty in shifting from a content-based curriculum to a competence-based one. It is important, however, to be aware that curriculum approaches for Tanzanian teacher education have been alternating between discipline-based and practice-based for several decades now. At this juncture one can argue that even curriculum developers need more in-service education on how to develop a curriculum which is competence-based.

Research-based teacher education

The current professionalisation agenda aims to make teaching and teacher education a research-based profession, with a formal body of knowledge (Cochran-Smith & Demers, 2008). Research-based teacher education is used to describe a general approach to teacher education that emphasises the development of student teachers and practicing teachers' knowledge, skills and disposition to adopt an enquiring stance to their work (Rudduck, citing Reis-Jorge, 2005). In the same way, it has been used (Westbury, Hansén, Kansanen, & Björkqvist, 2005) to describe teacher education that aims to develop teachers who have the capacity to use research and research-derived competences in their on-going teaching and decision-making. The goal also presupposes a general understanding of research methods, as well as a positive attitude towards research.

I summarise the aim as educating autonomous and reflective teachers, who are able to make use of research in their work and who can be characterised as pedagogically thinking teachers (cf. Krokfors, Jyrhämä, Kynäslähti, Toom, Maaranen & Kansanen, 2006). This means that I consider that research assists student teachers in becoming reflective practitioners (Zeichner, 1983). Through research, student teachers are regarded as active participants in complex activities which they want to understand and improve. Thus it needs to be recognised that they are engaging in constructing knowledge of the curriculum (Tickle, 1987). From this point of view, they are no longer prepared to be passive recipients of external decisions or mere technicians. This could be a key factor in defining their professionalism and commitment to education (Campbell, McNamara & Gilroy, 2004).

In connection with the role of research in teachers' reflective practice, Reis-Jorge (2007) found that student teachers perceive that the ability to adopt a reflective stance to future practice resonates with their view of teacher-research as a systematic process of finding out. In addition, Korthagen, Loughran, and Russell (2006) argue that by creating and sharing their understanding of practice through the results of their own research, student teachers perceive the distinction between theories, practice and transmission of knowledge. As a consequence, socialization in teaching may be confronted and their professional roles may better recognised and enhanced.

The development of teachers' pedagogical thinking can be used as an approach for analysing the importance of the knowledge of research in decision-making (Kansanen, 2002, 96). This can be explained in the form of teachers' implicit theoretical or personal belief systems in the form of levels briefly presented below in Figure 3.

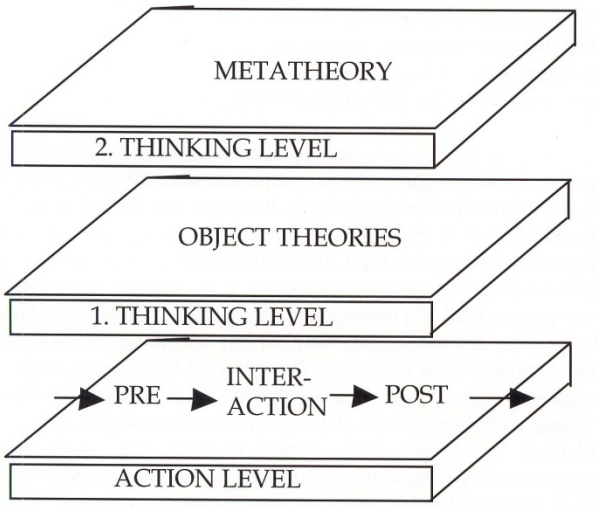


Figure 3. Pedagogical level thinking (Kansanen, 2002, p. 96)

Object theories examine practice on the action level and help student teachers to build models and totalities of the phenomenon in question. In principle, it is possible to build many kinds of object theories, depending on the aspect under consideration. These, in turn, can be examined and metatheory can be developed on them. On the action level, along the interaction dimension there is planning, implementation, and evaluation. The thinking mostly is about immediate problems and practical solutions at a given time. On the first thinking level, teachers may have an inquiring attitude directed towards their action. The instruction is the object of their thinking, in which teachers are expected by means of empirical knowledge to build theoretical models to help them to function in this process. The second thinking level builds the frames for a potential metatheory; the teacher combines the object theories or analyses with the intention of building a more abstract theory.

Research has been associated with university teacher education (cf. Lewin & Stuart, 2003). I will focus on Finnish teacher education to argue my case. The

reason for choosing this focus is in part my experience as a student of a Finnish university, and familiarity with its teacher education. Finnish teacher education has been consolidated in the faculties of education in eight of the Finnish universities, and it places main emphasis on a research-oriented approach to teaching (Westbury, Hansén, Kansanen, & Björkqvist, 2005). The intention is to develop research-based thinking for everyday teaching; the principles of continuous interaction of research studies and practice is realised at the beginning of the programme. The goal is the writing of a master's thesis at the end of the studies, but several minor systematic papers are required throughout the studies (Kansanen, 2002). According to Reis-Jorge (2005), the involvement in thesis writing improves the teachers' procedural and constructed knowledge and skills. Furthermore, Reis-Jorge points out that declarative knowledge is what we know about, that is, static information maintained in long memory in terms of meaning instead of precisely replicated external events. Procedural knowledge is what we know how to do, that is, dynamic information in the memory, like for example our ability to understand and generate language, or our ability to apply our knowledge of rules to solve a problem.

In connection to classroom practice, i.e. teaching and learning, the issue to be raised could be how the writing of a thesis helps student teachers in their own teaching. It is essential to question whether all types of research assist student teachers to make educational decisions based on rational argumentations, in addition to everyday or intuitive arguments[6]. According to Kansanen (2002), much research in one's own teaching is action research and is in line with qualitative research. He argues, though, that restricting the process only to action research would overlook a great deal of teachers' work. For this reason, research has to be integrated in all courses of teacher education (see also Rudduck, cited in Kansanen, 2002). The crucial question is whether students will be required to write a thesis on all courses. It would be easy to draw the conclusion that this is an impossible ambition, since writing a thesis demands a lot in terms of time and supervision. Therefore studies in literature, writing essays and portfolios can be

[6] Cf Jyrhämä (2006) on the aim of research-based teacher education.

use in helping students to obtain an opportunity for self reflection and to develop a personal practical theory or a theory of the instruction process (cf. Krokfors, Jyrhämä, Kynäslähti, Toom, Maaranen & Kansanen, 2006,).

Student teachers in Tanzanian teachers' colleges learn about research in the course of research, measurement and evaluation of which is taught in the classroom, like other subjects. This process ends by conducting small projects, which may take several forms, for example essay writing, story writing, designing and constructing teaching material and actual research. A small-scale research project comprises a common procedure used in any research projects such as proposal writing, data collection and report writing. This implies that engagement of student teachers in a research project is considered to be important in learning about teaching. However, educators in teachers' colleges are not involved in research (Galabawa, 2001). The main function of educators has been teaching, and assessing students during their school-based training. From this situation, I find it reasonable to claim that in order for student teachers to get helpful research supervision, it is essential for teacher educators to get involved in research.

It can be argued that some educators would like to conduct research but there is no formal support system. Additionally, educators have no great degree of freedom and their activities are guided by a detailed curriculum. In this situation, it is perhaps not important how the educator thinks and decides because she or he does not have much to decide (Kansanen, 1991). This calls for the Tanzanian Ministry of Education and Vocational Training to design a strategy which can encourage educators to engage in research as part of their work. In Israel, for example, Yogev and Yogev (2006) state that the academisation of teachers' colleges has developed research capabilities in such a way that many of them have established a research unit, which helps educators in their research projects.

The trade unions, together with the ministry, have established promotion ranks for teacher educators within the teachers' colleges, which reward their research productivity in addition to other criteria. This does not, however, mean that I

support the Israeli perspective but, it does provide an important example of how to improve research work in teachers' colleges. I find it necessary to point out this example because there is a need to reduce the gap between intention and practice, since conducting research has become part of the curriculum.

Summary

In this chapter I have highlighted the meaning of the curriculum and the basic components of the curriculum, which are subject matter knowledge, teaching methods, educational studies and practicum. The emphasis given in each area distinguishes teacher education from one country to another, within countries and teachers for different levels of education, for instance primary and secondary education. It is suggested that primary school teachers need more training in pedagogy, and secondary school teachers in subject matter knowledge.

In Tanzania this kind of distinction does not exist; teachers are categorized by education level, for example certificate and university degree holders. The curriculum for secondary school teachers used in teachers' colleges is very similar to that of primary school teachers. What does this imply? How can we distinguish a teacher who is working with young children, or adolescents in secondary school? Does this mean that primary and secondary schools have the same intention? These kinds of questions need to be addressed.

In this section, some dominating examples of curriculum approach have been highlighted. Some of the approaches have dominated teacher education since the 1960s, for example the discipline-based approach. Today, the research-based approach appears to dominate the debate of teacher education because of the current emphasis on preparing student teachers for both critical thinking and autonomous decisions. This is even more so because teachers remain key actors in improving education quality in schools. My interpretation of the approaches reveals that there is overlap. What distinguishes one approach from another is the kind of specific emphasis given. The competence-based curriculum focuses on mastery of the prescribed teaching skills and knowledge. The discipline-based curriculum or content-based places emphasis on subjects, with the practice-based

approach emphasising the link between theory and practice with the research based approach on developing teachers' thinking. In Table 2 I have summarised the main emphasis of each curriculum approach discussed above.

Table 2. Main emphasis of curriculum approaches

Curriculum approaches	**Main emphasis**
Competence-based	Standards for teaching
Practice-based	Linking theory and practice
Discipline-based	Defined content or facts
Research-based	Pedagogical thinking

The overlapping of approaches implies that all approaches contain some elements of another approach. For example, a research-based approach has elements of a discipline-based, content-based and practice-based approach. Similarly, in a research-based approach student teachers learn knowledge content and are engaged in teaching practice. For instance, research-based thinking (cf. Westbury, Hansén, Kansanen, & Björkqvist, 2005) is integrated with all core and methods courses at the very beginning of each programme in Finnish teacher education. In the same way, a practice-based approach can include competence statements. I wish to argue that the overlap which exists provides the possibility of reaching consensus about the criteria of good practice in teacher education.

4 Curriculum innovation

As has been pointed out in the previous chapters, the study focuses on curriculum innovation. In this chapter I will discuss in detail the meaning of the concept innovation in education and factors which have influenced innovation in Tanzanian teacher education curriculum. I will also discuss the dominant discourses of innovation, its management and implementation, as well as educators' responses to innovation. In the last section, I will present unchanged areas which are relevant to this study.

4.1 Factors influencing innovation

The notion curriculum innovation is frequently referred to as being curriculum change or curriculum reform. To define innovation is important to consider its overlapping meaning with the notion change. Therefore, I find it necessary to present the definitions of these three notions prior to factors which have influenced the curriculum innovation.

According to Fullan (1991a), innovation is not always synonymous with change and reform, as it refers to specific curricular change. Innovations can range from single subject changes, for example, a new reading programme, to more comprehensive changes, such as an integrated approach to teaching children of a certain age level. This implies that innovation has unique qualities such as novelty or deliberateness. In a similar way (cf. Halpin, Dickson, Power, Whitty & Gewritz, 2004), curriculum innovation refers to initiatives that are perceived to be new by those who introduce and experience them.

Fullan (1991a) defines curriculum change as any alteration in the aspects of a curriculum such as philosophy, values, objectives, organizational structures, materials, teaching strategies, student experiences, assessment and learning outcomes The concept "reform" also relates to a particular change, but it is usually concerned with more comprehensive and fundamental curriculum

innovations. A reform involves the restructuring of the school system, wholesale revision of the curriculum and the like. It is based on major values changes or redirections and is often initiated in the political system**.**

My own view of innovation is influenced by the definitions discussed above. I find the ideas of *novel* mentioned above useful, in the sense that the discourses of innovation discussed below are contextually considered to be new (cf. Wangeleja, 2003). In addition, it can also be argued that a new curriculum is an expression of new intentions (Wallin, 1981). However, the distinction between innovation and change seems to be a continuous topic of discussion among researchers. According to Shkedi (2006), the introduction of a new curriculum into teachers' colleges implies a process of innovation and change. If we accept this assertion, it means that innovation is a carrier of change. Educators may alter their daily classroom organisation, their relationships with student teachers, and even their vision of themselves as teacher educators (Huberman & Miles, 1984).

However, it is only through a modification of pedagogical values that innovation can be said to involve fundamental change. For instance, teacher educators can use new materials and adopt new approaches with little or no understanding of why they are using these new materials and approaches, which can hardly count as fundamental alteration of behaviour (Markee, 2000). From this point of view, Harris (2002) adds that some innovations can actually be counter-productive to improvement or are so complex that they prove impossible to implement. Furthermore, Harris maintains that superficial innovation can also be distraction and cannot lead to deeper change later.

In the same way, McGinn (1998) agrees that not all innovations are good, but once actors have defined a problem it is necessary to take steps towards it resolution. The purpose of the innovation is therefore to generate a number of possible solutions that that can be tested in reality. Marsh (2009) reminds us that early studies in the curriculum literature tended to view innovation as object or event similar to a new item of machinery for farmers or a new apothecary line. Marsh further insists that more emphasis in now placed upon innovation as a

process. From these perspectives, the notion innovation will be defined as proposals for qualitative change in the curriculum that are perceived as new by teacher educators (cf. Markee, 2000). Furthermore, this definition is suitable for all levels of innovative features such as teaching materials, teaching approaches and values. In addition, Fullan (2008) stresses that when innovation is the focal point, there is a need to look at the nature of the change, evidence that it is being put into practice, the determinants of successful implementation, educators' change, students' learning and achievement. We can now look at the impetus of innovation.

Several factors have influenced curriculum innovation in Tanzanian teacher education. As Fullan (2000) points out, innovation does and will always originate from a variety of different sources and combination of sources. For example, the proposed change may emerge from a problem within the school, research, charismatic leaders or individuals and external agencies. Wangeleja (2003), for example, identified sources of innovation such as research findings, and recommendations from various annual meetings of heads of schools and principals of teachers' colleges. The Presidential Commission of Education 1984, which among other issues recommended a new education structure, is one of the sources.

Katunzi (2000) adds fundamental changes made in primary and secondary school curriculum as another source. The changes have a consequence on the organisation of the teacher education curriculum because of the correspondence which exists with schools (Maandag, Deinum, Hofman & Buitink, 2007). In fact, a worthwhile National Curriculum requires this kind of connection (cf. Apple, 1996; see also Appendix 3 & 4). It is clear that student teachers are educated for a certain concrete school practice. Therefore, it is important that they are made familiar with the school curriculum (Kansanen, 1987). From this point of view, in many countries with a mandated national curriculum for schools, there is a tendency to include all the components which make up the school curriculum in teacher education programmes (cf. Clark, 2005).

The problem is that educational change focused on schools often proceeds in advance of changes in the teacher education curriculum (Lewin & Stuart, 2003). This has always created a gap between teacher education and schools that might take several years before harmonization. However, Lewin and Stuart (2003) assert that teacher education has to lead rather than lag behind change, so that new entrants can be prepared to adopt new curricula.

Andersson (2002) proposes that research results within teacher education constitute the base for restructuring new teacher education programmes. In 1991, the Tanzanian Institute of Education (TIE) carried out a study aimed at determining the quality of the curriculum in primary, secondary and teacher education. The findings of the study revealed that the teacher education curriculum had several weaknesses in training teachers as professionals, such as less allocation of time for professional subjects as compared to subject matter, lack of qualified teacher educators, and lack of books, inadequate teaching time and poor teaching. As a result of this, the TIE established the need for changing the curriculum. The focus was to develop a curriculum which would educate knowledgeable and competent teachers capable of effective teaching in pre-schools, primary schools and secondary schools, as well as teacher educators for teachers' colleges.

Based on the findings of the above study, four main issues were proposed: first, teacher education and training should stop providing academic education as school subjects *per se* in teachers' colleges; second, teachers' colleges ought to emphasise proper teaching methods; third, each student should pass the block teaching practice; fourth, the teacher education curriculum should be directed towards the provision, development and consolidation of the profession, effective teaching, guidance and counselling, classroom management and school management (Dasu, 2001).

In Table 3, on the basis of above discussion, I have summarised the main sources of curriculum innovation which reveal that teacher educators were not directly

involved. If educators are not involved then the innovation faces a number of hurdles. Some of these will be discussed below.

Table 3. The main factors of curriculum innovation

Sources	**Identified problems**	**Recommendations**
Presidential Commission on Education of 1984	Academic and professional training	Provide student teachers with adequate knowledge of the principles of education and selected specialist subjects Provide students with an understanding of education philosophy, professional ethics and child psychology
Research	Subject matter allocated more time Lack of qualified educators and textbooks Inadequate teaching time Poor teaching	Eliminate subject matter Changing teaching methods
Curriculum change in schools	Mismatch with school curriculum	Establish correspondence with school curriculum

Cheng (1996) relates the initiation of innovation with three approaches: a simplistic curriculum innovation approach, teacher component development approach and dynamic curriculum innovation approach. In the first approach, change is planned by administrators or external experts, in the second it is imposed by administrators or external experts, while in the third teachers participate in planning change. The dynamic approach is regarded as more powerful in conceptualising curriculum innovation because it focuses on the teachers' active role, their involvement and commitment to curriculum planning and their own professional development. Onwu and Mogari (2004) underline

that teacher educators' participation in planning curriculum innovation contributes to a successful outcome. This innovation can be named as a simplistic approach because educators were not actively involved in the process of planning and developing the curriculum.

The simplistic approach can also be described as top-down innovation and it has consequences for the educators' ownership. The issue of ownership of innovation is worthy of consideration because it is a significant factor in educators' responses to curriculum innovation (Carter, 1998). Educators own change when they feel they have some control over the situation (Ruddluck, 1988), and in order to feel a sense of control they have to recognise what it is in college, classrooms and in themselves that makes change difficult to accomplish. They also have to understand, at the level of principle, what they are trying to achieve, why they are trying to achieve it, and how any new possibilities might match the logic of their analysis of the need for change. The term understanding in this context refers to having an adequate sense of how the curriculum works for the purpose of making practical decisions about how to proceed (Allwright cited in Lamie, 2004). Ownership in the change process is described in the following terms.

> The role of ownership is subtlety in the change process. Clearly, shared ownership of something new on the part of large numbers of people is tantamount to real change but the real fact is that ownership is not acquired that easily. And when people are apparently in favor of a particular change, they may not "own it" in the sense of understanding it and being skilled at it; that is, they may not know what they are doing. Ownership in the sense of clarity, commitment is a progressive process. True ownership is not something that occurs magically at the beginning, but is something that comes out the other end of a successful change process (Fullan, 2001, 92).

Furthermore, Ruddluck (1988) points out that ownership of change is associated with the so-called bottom-up initiative after the top-down models of the 60s and 70s. Morris (1985) shows that there is always a gap between the large-scale top-down curriculum development initiative at the central level and the implementation outcomes at the grassroots of the school system. Similarly,

Marsh (1997) argues that top-down legislative changes can cause confusion and stress and may lead to the rejection of new policies. Fullan (1982), for instance, points out that in the initial stages of imposed changes educators are often more concerned with how change will affect them personally than about its educational justification. Furthermore, Sikes (1996) discloses that educators see their role in different ways; for instance some see their chief purpose is getting student teachers through the examination, some see themselves as transmitters of particular knowledge or skills and yet others have instrumental orientation in seeing teaching primarily as a means of salary earning. As a result, there is a need for teacher educators to be involved in the process of curriculum innovation (cf. Section 2.2).

The cycle of innovation begins with curriculum developers' interpretation of research findings, policy documents such as the education and Training Policy of 1995, directives from the Ministry of Education, and other suggestions, as presented above. It is considered important to put aims and curricula at a macro-level or political level because educators or curriculum developers are only one group of the population (White, 2004), and their decision will affect us all. This was followed by preparation of curriculum documents, in particular the curriculum framework, syllabus and modules. The third stage was educators' interpretations of the curriculum, and this in turn led to classroom practice.

During the classroom practice a distinction can be made between the curriculum developers' and educators' interpretations. In curriculum development, the main goal of the curriculum developers is to arrive at the artefact in the form of a publicly shared curriculum document. In contrast, with educators implementing the new curriculum, the main goal is to arrive at a coherent scheme of practice that is connected to the goals set out in the curriculum document (Fernandez, Ritchie & Barker, 2008). At this juncture, Harris (2002) underlines that while the instigation of change is straightforward, the subsequent interpretation and implementation of any change is much more difficult. Thus, the gap between the goals constructed at the national level and their implementation at the classroom

level arises. The process of developing a National Curriculum is illustrated in Figure 4 below.

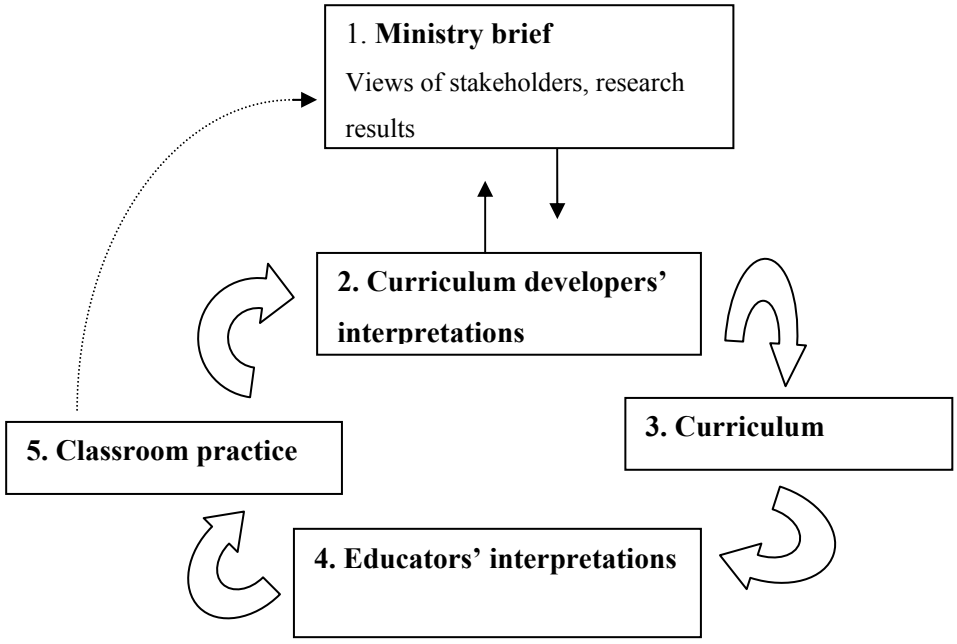


Figure 4. The general cycle of National Curriculum development, adapted from Fernandez, Ritchie and Barker (2008 p.202)

The process starts with a directive from the Ministry of Education and sometimes the views of key stakeholders or research results. It is followed by the interpretations of curriculum developers, which leads, to the step of developing curriculum materials such as syllabi and modules. The materials are used by educators for actual teaching.

In the following section, I will discuss the discourses of innovations which reveal new ideas and practices in the curriculum.

4.2 Dominant discourses of innovation

The organisation of a new curriculum is characterised by four dominant discourses: methodology subject, educational studies, curriculum material and teaching. These discourses are surrounded in the interplay between curriculum content, teaching and learning. In other words, these discourses are ways of debating about curriculum content and how it is made accessible to student teachers (cf. Brooker & Macdonald, 1999; Ensor, 2004). In this section I will take a closer look at important features of each discourse mentioned above, and their implication in teacher preparation.

Integration of subject matter and subject methods: a discourse of methodology subject

The underlying assumption of the discourse of methodology subject is that student teachers learn to teach subject matter and therefore it has to be treated in combination with subject teaching methods. From this standpoint, methodology subjects were introduced to replace the academic subjects or subject matter oriented learning areas. The academic component dominated the teacher education curriculum from the early 1970s to the later 1990s and was mostly concerned with widening student teachers' mastery of the school subject content (Dasu, 2001). The content knowledge was wider, with more depth than what was expected to be taught in primary and secondary schools; in fact, it was a replica of the advanced secondary school syllabus for diploma and ordinary secondary school syllabus for the grade 'A 'certificate. Each subject syllabus also contained a small portion of content on the teaching methods envisaged necessary to acquaint student teachers with the knowledge and skills of teaching a particular subject in schools. This implies that the academic component dominated the methods.

Within this innovation subject matter knowledge and pedagogical knowledge have been integrated to form methodological subjects. Thus, different topics or parts of each component were combined, which caused the original academic component to lose its identity (cf. Ryan & Jones, 2000; Nearly, 2002). This was

considered to be one of the main weaknesses by the critics of innovation. However, the intention was to help student teachers to connect knowledge and reduce curriculum fragmentation (cf. Dewey, 1916/1997). It seems this integration constitutes pedagogical content knowledge (cf. Shulman, 1987), which is subject matter knowledge for teaching enhanced by knowledge of the learner, knowledge of the curriculum, knowledge of the context and knowledge of pedagogy (Wilson, Shulman & Richert, 1987). Pedagogical content knowledge (PCK) has also been used more or less synonymously with subject didactics (see, for example, Kansanen, 2002), and it is concerned with the teaching and learning of specific subjects, for instance mathematics or geography (see subjects taught in Tanzanian teachers' college in Appendix 2 and 3).

From the point of view of subject didactics, the important issue is the balance between subject matter knowledge and pedagogy (cf. Kansanen & Meri, 1999). I find it important to mention subject didactics, although I will limit my discussion to PCK, as we will see that the content is similar with methodological subjects. Analysis of the syllabus for methodological subjects shows that they consist of subject knowledge, knowledge of teaching and learning materials and specific techniques for teaching various topics, as indicated in the school syllabus. At this juncture, the teacher educator is supposed to help the student teacher to learn school subject matter knowledge on the one hand and how to teach on other hand. The idea is to understand how these components interact in the teaching and learning process.

Pedagogical content knowledge goes beyond knowledge of subject matter *per se* to the dimensions of subject knowledge for teaching (Pepin, 1999). Pedagogical content knowledge includes most regularly the topics taught in one's subject area, the most useful forms of representation of ideas, the most powerful analogies, illustrations, explanations and demonstration: in a word, the ways of representing and formulating the subject that make it comprehensible to others. It also includes an understanding of what makes the learning of specific topics easy or difficult, and the conceptions and preconceptions that students of different

ages and backgrounds bring with them to the learning (Shulman, 1986). It is not my intention to focus on the subject specific dimensions of teachers' knowledge, but rather to highlight the integration of subject matter knowledge and pedagogy or skills for teaching. The content of methodological subjects[7] is illustrated in Figure 5 below.

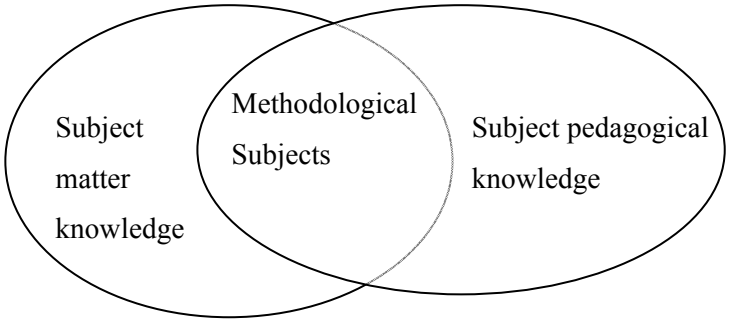


Figure 5. The components of methodological subjects

With respect to curriculum innovation, content knowledge is taken as subject matter knowledge *per se,* as indicated in the school syllabus. If school subjects are taught in teachers' colleges without any alteration, then they can be named as solid subject matter knowledge (Al-Weher & Abu-Jaber, 2007). It is clear that if this approach is followed, the school syllabus becomes the main textual material for methodological subjects.

As I see it, emphasis on the school syllabus intends to ensure that student teachers are prepared to teach the National School Curriculum. However, for some student teachers it has appeared to be repetition, a situation which has led to poor motivation. It might also become boring when the teacher educator repeats the same ideas or teaching strategies in each topic. In fact, in some subject methods student teachers have to learn all the topics taught in primary schools. However, during teaching and learning educators are required to assess student teachers' mastery of subject matter knowledge of the topics before proceeding with the part of strategies for teaching and learning. The intention is

[7] Methodological subjects can be compared with subject didactics as used in Nordic countries.

to discover what they know and what they want to know. If this approach is to be followed then teacher educators have to design strategies for assessing students' prior knowledge on subject matter and help those who seem to have problems. Ball (2000) has the opinion that the lists of what teachers should know that are produced by analysing the school curricula are long, as well as arbitrary and unsubstantiated. In this case, Hakkarainen and Bredikyte (2002) remind us that the old recitation model of schoolwork in teacher education has put emphasis on mastery of the subject and the developmental effects of teaching are not focused upon.

However, a distinction can be made between subject matter for schools and teacher education. According to Grossman, Schoenfeld and Lee (2005), for example, teachers need to have some grasp of the history of their subject matter: how it has been defined and is currently being defined, in order to understand the curricular choices they will need to make. Choosing a textbook, for example, may involve determining a particular definition of the subject matter; the teacher should make such a decision mindfully. To understand some of the debates that take place in schools over the curriculum, student teachers may need to explore the histories of those debates and how those histories reverberate in the school curriculum.

Furthermore, it is important to be aware that there are different perspectives of the relationship between subject knowledge *per se* and subject matter knowledge for teaching (Burn, 2007). However, the distinction is rarely clear in most academic literature (cf. Deng, 2007). However, defining subject matter knowledge for teaching by the subject matter knowledge that students are to learn has blocked the inquiry needed to bring together subject matter and practice in the way that would enable teacher education to be more effective (Ball, 2000). In this sense, there is a need to make a distinction between school subject matter and teachers' subject matter knowledge.

It seems, however, that the integration of subject matter and pedagogy helps the student teachers to learn subject matter knowledge and how to teach (cf.

Dohanue & Stuart, 2008). It worth pointing out, that educating teachers by using integrative models needs a deep understanding of subject matter, pedagogy and context (Al-Weher & Abu-Jaber, 2007). Although it is assumed that integrative models can lead to the appropriate preparation of teachers, still in some teacher education programmes the importance of integration was not revealed (see, for example, Newsome & Lederman, cited in Al-Weher & Abu-Jaber, 2007). In their study of teacher education in Africa, Lewin and Stuart (2003) found that for primary education integration is mostly work in science lessons. Primary school teachers in Tanzanian for example, learn to teach science which has been formed by the integration of biology, chemistry and physics content. It is also closely linked to the primary schools syllabus (see Appendix 3).

In Tanzania, integrated curriculum design has come in for much criticism, for example in social studies, which comprise civic education, history and geography concepts. The subject was introduced in primary education in the early 1990s and abolished in 2006 after general public criticism that some subjects were given less weight in the integration process. In the same way, an attempt to integrate physics with chemistry for secondary schools failed, although it works in primary schools, as discussed above. It seemed there was a problem in making decisions about the amount of depth given to each subject and the most effective way of teaching (cf. Ryan & Jones, 2000). However, it is necessary to recognise that the issue of single subject teaching and integrated topics is not a new phenomenon, and widely discussed (cf. Osborn, McNess, & Broadfoot, 2000). As such, the problem of specialisation and integration of knowledge has presented a continual dilemma for education (Taba, 1962). Innovation was also made in educational subjects, which are also known as professional studies, as seen below.

Expansion of single integrated educational subject to four discrete subjects: a discourse of educational studies

Educational subjects in this context refer to subjects or courses which encompass knowledge in areas such as child development, teaching and learning, curriculum

development, educational management and administration assessment of learners, philosophy and research in education. Prior to innovation, educational studies were taught as one subject known as *Malezi* (MOEC, 1980), the word *Malezi* was used to imply 'child rearing'. The content of *Malezi* included the principles and philosophy of education, educational measurement, and evaluation curriculum studies, research guidance and counselling and adult education. Student teachers needed to master these sub-disciplines in education defined as the professional component in order to function well as professional teachers. Within the innovation *Malezi* has been expanded into four subjects or learning areas: first, foundations of education; second, education research, measurement and evaluation; third, education psychology, guidance and counselling; fourth, curriculum and teaching. According to Dasu (2001), the analysis of the syllabus mentioned indicates that more content has been added to enable student teachers to qualify as professional teachers.

The content of these learning areas is considered to be similar to the course offered at the local university (cf. Framework for Diploma in Education Programmes, 2006). *The foundation of education course* covers the history of education, policy, comparative education, philosophy, management and administration, agency of education, sociology, contemporary issues in education and cross-curricula issues such as gender, environmental education, family life and HIV/AIDS. This course appears to be overloaded, although it enables student teachers to cover a wide perspective of educational theories. However, according to Adam and Tulasiewicz (1995), British teachers had a heated debate about the role of sociology and the history of teaching in their work.

The course of *education research, measurement and evaluation* covers types of research methods, assessment techniques and evaluation. The main objective of this course is to enable student teachers to conduct research, and construct valid and reliable items for assessing students. The course of *education psychology, guidance and counselling* covers learning theories, child development, and counselling and guidance skills. According to research conducted by TIE (1991),

psychology was found to be a difficult subject to comprehend. Perhaps the content is too abstract for student teachers to link with practice. Students often do not much appreciate highly theoretical knowledge; they would much prefer to receive very concrete and practical solutions to the typical problems they think they will meet in the classroom (Jeronen & Pikkarainen, 1999). On the other hand, Lewin and Stuart (2003) found that most theories used have been developed in high-income countries; hence there is a need to identify which theories carry assumptions about the cultural role of the teacher and pedagogic preferences.

The curriculum and teaching syllabus contains curriculum theory, curriculum materials, teaching and learning material, instructional media, preparation for teaching, assessing students' progress and teaching practice. In fact, the course provides general or more abstract content which becomes more practical in specific methodological subjects. To educators this was considered a duplication due to overlapping areas between the curriculum and teaching syllabus and methodology subjects (cf. Wangeleja, 2003). For this point of view, the main question is what content may be included in the curriculum and teaching syllabus or methodology subjects in order to avoid duplication.

However, if we start from the curriculum and teaching syllabus, student teachers learn, for example, about curriculum material which comprises syllabi, teacher guides, textbooks and teacher manuals. This content is also taught in methodology subjects as a strategy for enabling student teachers to be aware of the major resources in their field or subjects of specialisation and those that are in use locally, and know how to find additional sources and critically assess what is available (see also Darling-Hammond, Banks, Zumwalt, Gomez, Sherin, Griesdorn, & Finn, 2005). In Tanzania, for example, the policy of textbook liberalisation has led to a kind of commercial publication of textbooks. Therefore it is important for student teachers to take a critical standpoint on the curriculum materials used in schools. In this sense, perhaps, it is not duplication but learning more about the curriculum and specifically the school curriculum.

Research indicates that curriculum choices at both the classroom and the school level can matter a great deal to student learning. Along this line, curriculum knowledge becomes essential for all teachers (Darling-Hammond, Banks, Zumwalt, Gomez, Sherin, Griesdorn, & Finn, 2005). What is essential in curriculum implementation is to help student teachers to assess critically the merits of what they are required to implement in the classroom rather than educating them to be in passive acceptance of the official status quo of the National Curriculum (Clark, 2005). If student teachers have to take a critical stance when implementing the curriculum, then educators have to help them to become reflective actors.

As I have shown, the content and objectives of professional studies is intended to enable student teachers to acquire a strong foundation in theories of education and prepare student teachers to assume a variety of roles in school, such as those of leadership, counselling, surrogate parenting and evaluation. From this point of view, teacher education is criticised for containing too many over-theoretical courses and insufficient experience of schools for student teachers (Tickle, 1987). Newby (2007), for instance, points out that teachers reject such educational disciplines as philosophy, psychology, the history and sociology of education. They label these courses as dry and dusty, book-bound subjects that do not tell much about the real world of schools, classroom teachers and learners. Secondly, the teaching in the campus seems boring and irrelevant. They would therefore prefer to be in the classroom with children, learning to practice in the field.

However, Sutherland (1988) argues that if teaching is to be a self-respected and respected profession, every teacher should have a theory of education. Teachers should clearly know what they are trying to achieve, why they teach certain topics to pupils, why they use certain methods of teaching. Generally it could be suggested that teacher practice has to be guided by theories. Regarding the present innovations, educators are expected to use theories to judge their merits. As a professional group one would not expect them to be passive acceptors of proposals made by others, but ready also to propose changes which they can see

as helpful to the development of teacher education (cf. Sutherland, 1988). Therefore, teacher education has an important function of clearly explaining new theories to student teachers.

Shifting from single to multiple textbook provision policy and introduction of module: a discourse of curriculum material

Curriculum material includes a variety of equipment used in assisting learning. This includes textual material such as syllabus, textbooks and teacher guides, as well as physical objects such as models (cf. Marsh, 1997). However, the syllabus and modules appear to be influential among these materials. It is worth pointing out that curriculum change also requires changes of teaching materials in accordance with the demand of the new curriculum (Kansanen, 1987). For these reasons, my discussion will focus on changes made in the syllabus and introduction modules.

The syllabus: Teacher educators plan their lessons by using a syllabus which contains subject objectives, content or topic and objectives for teaching each topic. In addition, the syllabus can recommend teaching and learning strategies and resources such as textbooks (cf. Marsh, 1997). In contrast to the previous syllabus, which recommended a list of textbooks and references to be used in teaching and learning, the present syllabus does not suggest any kind of reading materials. The change has made college administrations and teacher educators select textbooks from private publishers and bookshops or booksellers. The process is guided by the textbook policy issued in 1991, which allowed private publishers to produce textbooks to replace ones that had been given a monopoly by government and parastatal institutions such as the Tanzania Institute of Education. The purpose of the policy was to improve the quality of the books, as well as enhance distribution efficiency through competition. To ensure the quality, all textbooks which are used in colleges have to be authorized by the Educational Materials Approval Committee (EMAC). The policy is also applicable for primary and secondary schools.

However, there are few textbooks for teacher education authored locally. The majority of textbooks used in teachers' colleges are externally published. In total, Lewin and Stuart (2003) found that the great bulk of published studies and textbooks have come from high-income countries and contain ideas which sometimes are not applicable in the African context. In fact, it can be argued that not much has been done in developing textbooks which correspond with the curriculum innovation. In my opinion, it is high time now to establish a support system that will ensure that teacher educators engage in writing books. As well as solving the problem of the shortage of textbooks, through writing educators' awareness of innovations will expand. One strategy of helping educators to understand the curriculum has been to prepare modules, which will be discussed in the following section.

The module: The concept of the module has several meanings, for example the teacher education curriculum can be designed in a modular form. A modularised curriculum involves dividing teacher education courses into smaller units, where individual students can put their own training programme together by choosing from many options offered (Nearly, 2002; Viebahn, 2003). On the other hand, Taylor (2003) describes the module as a book which has shorter, self-contained blocks of comparable length, structure and value. Taylor further argues that modules are popular because they are flexible so that student teachers have more choice and control over the way they learn. For teacher education and curriculum development, it enables the managing of limited resources more creatively. Instead of updating a whole course, existing modules can be revised or removed and new modules can be introduced when a need arises. If a modular approach is used, the teacher education curriculum can be revised in stages or steps and possibly in a more effective way. In addition, each module can reflect competences that student teachers develop in the overall course of two years in the diploma or certificate of education. It is important to note that the Tanzanian teacher education curriculum is not modularised.

Module in the context of my study refers to a pamphlet containing the outline of subject content. In concrete terms, this means that a module contains a minimum

knowledge content of a specific subject. Here it is worth mentioning that each module was written in accordance with the syllabus by a panel of selected teacher educators and curriculum developers. Examples of content to be taught for all the topics found in the syllabus are included in each module of a specific subject. In order to help student teachers to acquire maximum understanding of the content educators need to use textbooks (cf. Marsh, 1997). However, as already discussed above, teachers' colleges face the problem of textbooks (TDMS, 2007). For this reason modules were considered to be an important resource in the initial implementation of the new curriculum.

However, modules were criticised for being inadequately prepared and sometimes outdated (TDMS, 2007). Furthermore, the trend of limiting teaching to modules tends to increase the cognitive loading of teaching and easily leads to the neglecting of objectives since modules focus on content alone (Malinen, 1981.). Furthermore, Kansanen (1987) underlines that dependence on materials such as modules leads to the use of content-centred teaching methods, but at the same time homogenises teaching among teachers' colleges. The new curriculum stipulates that teaching should be learner-centred, as discussed below. For these reasons, it is important to stress that educators need to use a variety of teaching materials. In fact, when the curriculum does not fulfil its guiding function, it is often taken over by other authorities such as modules and textbooks (Wikman, 2004). This, for example, may happen when teacher educators rely on modules for their teaching.

As mentioned above, the great emphasis on modules may also be related to national examinations. It seems modules are the only curriculum material used uniformly in all Tanzanian teachers' colleges. In fact, modules dictate the lessons or curriculum, because they are considered to be the essential resource for enabling student teachers to pass their final national examination. As a whole, the correspondence of teaching content which exists between modules and syllabus has become much more important than any other kind of curriculum material.

Shifting emphasis from transmission to participatory teaching methods: a discourse of teaching

Shifting from traditional teaching or transmission to interactive or student-centred methods is another discourse of innovation. The idea is to shift emphasis from teaching to learning by making individual student teachers the central focus of teacher education, as compared to the previous curriculum which considered educators as the centre of education. When educators are at the centre of education the focus has been to ensure student teachers' learning as passive recipients of knowledge. The purpose of teaching is the transmission of knowledge to student teachers and repeating traditional and familiar ways of teaching (cf. Postareff & Lindblom-Ylänne, 2008).

Subsequently, Cheng (2001) claims that teaching is often regarded as a difficult working activity undertaken to support student teachers to achieve some external standards in examinations. As a result, teaching is such that educators teach the standard curriculum with textbooks and related materials. As a consequence, Lewin and Stuart (2003) found that teaching subject content resembled traditional high school models; the teacher educator presents information orally, using the board or textbook, interspersed with (educator) questions and (student teacher) answers; only occasionally were attempts made to develop a class discussion.

The new curriculum recommends that teaching methods have to be participatory methods (MoEC, 1997). In this study teaching methods refers to models of teaching (Joyce & Weil, 1986). Teaching and learning are not distinct phenomena as teaching methods are shown to be related to student learning approaches and subsequently learning outcomes (cf. Postareff, Lindblöm-Ylanne, & Nevgi, 2007). For instance, Emsheimer and Mtana (2004) point out that the use of participatory methods focuses on ensuring that the student teacher is active in the teaching and learning process. In fact, this matches with the shift of emphasis from teaching to learning, whereby learning is viewed as active construction rather than passive receiving of knowledge from educators and

books. In this respect, the use of participatory methods has been associated with constructivist teaching approaches.

Lewin and Stuart (2003) found two constructivist approaches emphasised: the first focuses on how learning takes place when new information and ideas are absorbed by the learner and integrated with previous knowledge and concepts; the second, social constructivism, stresses the way learning is enhanced through interaction with the social environment. According to Richardson (1997), the extent of agreement among various constructivist approaches is that constructivism is a learning or meaning-making theory. In the same way, Chen (2001) summarises that constructivism is generally based on the assumption that knowledge is constructed by learners as they attempt to make sense of their experience. This approach can also be related to deep and surface approaches to learning. According to Postareff (2007) a deep approach is one in which student teachers seek meaning in order to understand and see learning as something that they themselves do. While a surface approach is one in which the student attempts to cope with the course requirements and reproduce factual knowledge. Students take a passive role and see learning as something that just happens to them.

In constructivist teaching approaches Tshireletso (2000) points out that the teacher education process is characterised by dialogue, reflection and inquiry in order to bring about change in their views of learners as makers of meaning. Here, Richardson (1997) claims that most constructivists would agree that the traditional approach to teaching, the transmission model, promotes neither the interaction between prior and new knowledge nor the conservations that are necessary for internalisation and deep understanding.

However, the idea of participatory methods, which are now associated with constructivist teaching approaches, is not new in Tanzanian teachers' colleges. According to Ndunguru (1984), education for self-reliance, which was introduced in 1967, had the same emphasis: the teacher educator role in the classroom has to resemble more that of the leader of a study group than that of

the giver of knowledge through the use of guided discovery methods, discussion, projects, assignments and experimentation. As such, it is assumed that higher quality learning in pre-service teacher education programmes would translate into improved teaching practice and greater self-confidence in the capacity to manage teaching tasks in schools (Gordon & Debus, 2002).

Although there are potential advantages in using participatory methods, as discussed above, Emsheimer and Mtana (2004) found that participatory methods are not used, and several reasons for this are given by student teachers and teacher educators, such as lack of time, large classes, underachieving student teachers and the examination. Additionally, the working culture of teaching in Tanzanian teachers' colleges seems to be authority-bound, as in other African countries (cf. Lewin & Stuart, 2003). Educators and student teachers are obliged to adapt and follow a ready-made plan. In fact, this undermines professional autonomy, as educators have to be faithful implementers of the plan. Concerning the examination, this does more harm than good in the use of participatory methods because educators are facing the pressure of teaching for the national examination (Haydn, 2004). I will discuss more about examination in Section 4.5.2 as a separate component of the curriculum.

To address the practical constraints mentioned above, Emsheimer and Mtana (2004) propose several strategies, for example in dealing with a large class it is possible to divide the students into small groups. One part of a small group might be intensively taught by the educators, while other parts get a task from the educator to work on individually or in groups. Along the same lines, Lewin and Stuart (2003) found that educators can also design interactive lectures. Concerning low achieving student teachers, there is a need to develop methods of identifying and helping them. Emsheimer and Mtana (2004) insist that since participatory methods put more emphasis on the learner, this will facilitate the task of identifying the lower achievers.

Shifting from transmission teaching or content-centred to participatory, interactive or student-centred teaching can be considered one of the crucial

aspects of innovation. Therefore it is important for teacher educators to model good practice (LePage, Darling-Hammond, Akar, Gutierrez, Jenkins-Gunn, Rosebrock, 2005). The problem is that teacher educators face difficulties in using interactive teaching methods due to a limited understanding of the concept of participatory methods (Emsheimer & Mtana, 2004; Babageya, 2006). Therefore, there is a need to provide educators with support which could help them to use participatory methods, such as professional development courses. Since student teachers are more concerned with examinations, it is also important to help them to realise that interactive methods lead to better results. Factors influencing classroom teaching are summarised in Figure 6.

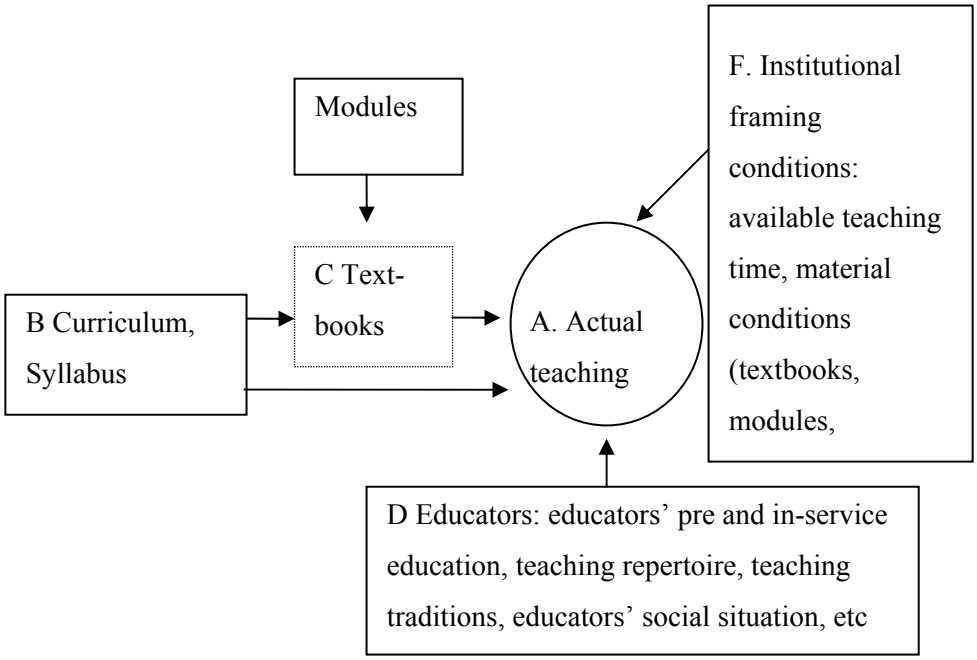


Figure 6. Factors influencing classroom teaching, adapted from Palme, Höjlund and Mtana (2000, 374)

The intention of innovation as proposed by innovators is found in the curriculum and syllabus (B) and teaching materials (C) and it is expected that these will determine actually what goes in the classroom (A). However, this is determined by the characteristics of the educators, for instance their kinds of beliefs, knowledge, attitudes and teaching repertoire (D). These characteristics in turn

depend on the educators' professional training, work experience and social situation at large, as well as on the teaching traditions into which they are socialised. What educators do in classrooms also depends on the framing factors for teaching, for instance the time available, size of the class, material conditions, and the like (F) (cf. Palme, Höjlund & Mtana, 2000, 374). In the same, way Fullan (2008) asserts that the distinction between materials, behaviour, and beliefs has become crucial in the implementation of innovations.

To sum up, the discourses of curriculum innovations discussed above indicate that more emphasis has been placed on educational studies. This means that student teachers learn more about educational theories. Additionally, the curriculum is heavily weighted toward the content to be covered, or on discrete subjects. As a result, the curriculum has been narrowed down to the subject contents as indicated in the syllabus. However, teacher education has to prepare students to go beyond the conceptions of curriculum as syllabus. For this reason the curriculum has to consider the personal development of student teachers in other areas through collective experience such as those provided by a play, a concert, or being responsible for organising a project (cf. Adam & Tulasiewicz, 1995). As such, these kinds of experiences are not given great importance in the present innovations. As a consequence, the timetables of teachers' colleges do not provide room for other activities such as free private studies, subject clubs and various practical activities. It could be argued that the curriculum innovation is driven by the need to show evidence of goal attainment in statistical terms such as content coverage (cf. Shehu, 2001). The Curriculum for teacher education, however, needs to be viewed in holistic terms, as pointed out in Chapter 3.

4.3 Implementation of innovation and management

In this section I will give a brief presentation of the implementation of the curriculum and management of the innovation. Principals have the role of ensuring that the imposed innovation is implemented. This is the phase where the innovation is put into practice. It is the stage where planning stops and where action commences (Harris, 2002). To ensure that the curriculum is implemented as intended the management of teachers' colleges has to play a key role by steering the process (cf. Flores, 2005). The implementation of the curriculum faces challenges right from inception. The college principals seemed to lack knowledge about effective practice and the consequences of alternative plans (cf. Dalin 1978). In fact, it was assumed that they could implement the new curriculum without any in-service education concerning the domains of innovation.

The mode of dissemination, centre-periphery, also created problems, as the process must be centrally controlled and managed (cf. Schon, 1971). The effectiveness of this approach depends on several factors (Kelly, 1999), such as the strength of the central resources and the number of points on the periphery that are to be reached. As already discussed in the previous chapters, there was a shortage of resources which has hindered the implementation. Based on these constraints, syllabus orientation training was organised by the Ministry of Education and Vocational Training (cf. Höjlund, Mtana & Mhando, 2001). It is argued that as far as curriculum implementation is concerned, it is rarely successful on a large scale unless it receives support and the state support is of great importance (Marsh & Willis, 1995; Fullan, 2000).

On the other hand, principals have strongly influenced the innovation but most of them do not play an instructional or innovation leadership role (see, e.g. Fullan, 2000). Msolla (2001), for instance, found that Tanzanian college principals spend more time on administrative than leadership tasks. Thus, they put weight on the responsibility assigned to the office. As a result of this, they know little of what is happening in the classroom, because they do not assist the

educators in achieving quality teaching and learning. According to Hewitt (2006), the ultimate aim of curriculum management is to establish a systematic approach that senses or detects how the curriculum is performing in order to make ongoing adjustments. Therefore, principals have a duty to establish college vision, ensuring the availability of curriculum materials such as modules and textbooks.

With regard to curriculum materials, colleges depend on support from the Ministry of Education and Vocational Training. The Ministry is trying to improve the availability of teaching and learning materials (Babyegeya, 2006), yet there is a shortage, including a lack of well established libraries and laboratories (cf. TDMS, 2007). College principals are also responsible for monitoring and evaluation, which is important in ensuring that curriculum innovation is sustained (Harris, 2002). Hewitt (2006) describes curriculum monitoring as the continuous and purposeful collection of data about how the curriculum is doing.

Fullan (2000) asserts that monitoring is not evaluation in the narrow sense of the term; it includes information systems, resources, and acting on the results through problem-coping and solving. One strategy of enabling principals to obtain information about how well or poorly innovation is going in the classroom is to make a visit. I have worked as teacher educator in teachers' colleges for more than fifteen years, yet I do not remember any day when the principal had the opportunity to visit a teacher educators' lesson. Normally, principals rely on reports from the academic dean or from students through meetings. They also check educators' lesson plans and schemes of work. As discussed in Section 3.1, the curriculum is an active process, it is not simply lesson plans and schemes of work (see also Pinar, 1997).

However, the principals are confronted with the psychological and sociological problems of innovation which can be a hurdle to the management process (see e.g. Fullan, 2000). Clearly, principals have to work closely with colleagues to ensure that the curriculum is implemented as intended by curriculum developers.

They have to take the ultimate responsibility of managing innovation and being accountable for its impact in the college (Law & Glover, 2003). To enhance monitoring and evaluation perhaps there is a need to consider other modes. For instance, college-based evaluation will put more responsibility on administration and teacher educators to be more accountable and to undertake regular and public evaluation of their work (Livingston & McCall, 2005). Principals are also supported by inspectors in monitoring and evaluation. As a result, they appear to be more concerned with monitoring during inspectors' visits, as colleges are rated and provided with certificates of performance.

Often, inspectors visit teachers' colleges once a year and spend a minimum period of three days in a college. They always use a checklist, which contains quality indicators such as the availability syllabi, schemes of work and lesson plans, records of student teacher tests and examination results. They also hold discussions with heads of departments and visit educators' classrooms to observer teaching and learning. After the inspection they discuss with the principal and later offer grades. The evaluation criteria used are similar to those used in schools. This is another kind of correspondence between schools and teachers' colleges. Perhaps there is a need to use other criteria because the function of teachers' colleges and the role of educators differ considerably from those of school teachers, as seen in the next section.

On the other hand, the function of the inspectorate has to go further and give a lead in curriculum review and development (Macnab, 2001). It seems the contribution of inspectors to curriculum development is lower. In addition, the relationship between educators and inspectors is such that the educators have their own conceptions of good teaching and inspectors their own respective conceptions. Therefore, before a normative decision can be made, these two conceptions have to be comparable and based on the same aims and goals (Kansanen, 2002). However, in the case of implementation of the curriculum innovation, inspectors have the opportunity to assess first-hand how it is implemented.

In this section it has been noted that principals are more concerned with other activities such as maintaining discipline in the college and office work. It is somehow ironic to find the main function of teachers' colleges is to teach, and yet principals find it so difficult to monitor curriculum implementation. As a result, the main role is left to the academic dean and heads of departments. However, commitment to the teaching profession is not only an educator's personal quality; it is also a goal which has to be supported by the administration (Niemi, 1996). Being a principal also means becoming an expert in the context of innovation. It is specific knowledge-understanding and skills in managing innovation rather than foundation courses, for example, in history, philosophy and sociology (Fullan, 2000). On the other hand, inspectors are more concerned with quantitative data. Law and Glover (2003) remind us that we need to measure what we value rather than value what we can measure, as data like examinations and the availability of lesson plans, schemes of work tell little about actual teaching and learning process in the classroom.

4.4 Educators' responses to innovation

How do educators respond to innovation? Who is a teacher educator? What are the qualities of a teacher educator? These questions are important because they are the main implementers of curriculum innovation. It is worth pointing out that the success of innovation depends on them; Robinson & McMillan (2006) argue that the quality of teacher education depends to a large extent on the quality of teacher educators. Additionally, according to Lunenberg and Willemse (2006), the new theories of learning such as constructivist, alternative programmes for teacher education which are being introduced raise the need for discussion of the quality of teacher educators.

However, the success of any innovation cannot rely on educators' qualifications alone. Educators' responses to a new curriculum (2000) are also closely associated to working conditions and support. According to Lamie (2004), practical constraint such textbooks, class size and the examination system may

affect educators' responses to innovation. In Tanzania most teachers' colleges have poor physical facilities and few learning materials which act as barriers to educational change and educators' attitudes towards curriculum innovation (see, e.g. TMDS, 2007). In general, Lewin and Stuart (2003) found teacher educators tend to take a passive rather active role when there is an innovation.

The way educators respond to innovation can be explained in terms of compliance, retreatism, innovative mediation and collaborative mediation (cf. Osborn, McNess & Broadfoot, 2000). Compliance focuses on the acceptance of imposed changes by educators and adjustment of practice accordingly, in the sense that great central control was considered as acceptance and desirable. Other educators become retreatist by submitting to the innovation without any change in professional ideology. Here, educators worried about an overwhelming sense of loss of subject identity such as being a mathematician, historian or biologist. Perhaps they think education programmes are more meaningful to student teachers if they help them to think like subject specialists because this is what they are going to teach (see also Eisner, 1994).

During the implementation of the innovation educators realise that they have to develop creative and innovative ways of implementing the curriculum. This has made colleges differ in terms of teaching hours per subject and the mode of implementation. In some colleges, for example, the course on curriculum and teaching was taught before other subjects. The intention was to reduce the duplication which was noted between curriculum and teaching and methodological subjects (cf. Wangeleja, 2003).

One of the central concerns towards implementing the new curriculum was how to arrive at a shared scheme of practice that is connected to the goals set out in the curriculum document. Therefore it was considered important for educators to work together in interpreting the curriculum innovation. This was both a top-down management form of collaboration and informal mode of working together among educators (cf. Osborn, McNess & Broadfoot, 2000). It could be argued that collaboration helps educators to reduce confusion and stress might result

from the difficulty of understanding imposed curriculum innovation, as discussed in Section 4.1.

Educators' translation of the curriculum into the classroom begins with interpretation of the syllabus, leading to preparation, schemes of work and lesson plans; the plans are used for actual teaching. Finally, the cycle ends with assessment as the beginning of a new interpretation by educators. This is illustrated in Figure 7 below.

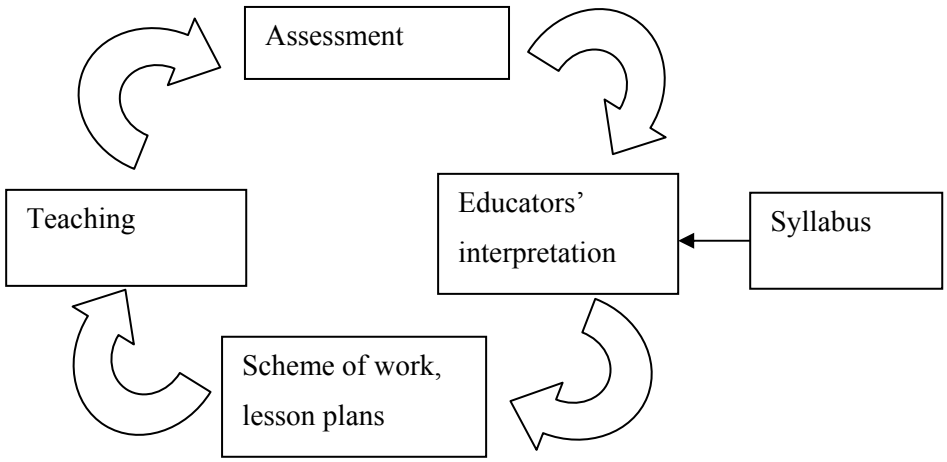


Figure 7. The mode of innovation shows the steps involved in educators' implementation of the curriculum at college level, adapted from Fernandez, Ritchie and Barker (2008, p.203)

As discussed above, when a new curriculum is introduced, one of the problems to face is a problem of change. It is in this perspective we have to consider the question of teacher educators' qualifications (Wallin, 1981). During innovation educators are expected to respond at both the empirical and pedagogical level in ways that build broader political support (Liston, Borko, & Whitcomb, 2008). If that is the case, great attention needs to be paid to the education of teacher educators. In Tanzania those who are working as teacher educators have been not formally educated for their role. Some of them have worked as teachers in primary or secondary schools, while others have joined teacher education directly after graduating from colleges or universities.

However, there is a regulation that requires those appointed or applying to work as teacher educators in teachers' college be qualified teachers. In addition, there is a regulation which requires new teacher educators who have not been schoolteachers to work for six months in a practicing school. However, in practice regulation is not adhered to, perhaps due to the expansion of the teachers' colleges in the 1970s and 1980s, which put pressure on the recruitment and selection of a large number of teacher educators to meet the expansion (cf. Höjlund, Mtana & Mhando, 2001).

Babyegeya (2002), for example, found that novice educators graduating from university, for example the University of Dar es Salaam, were not adequately prepared to become teacher educators, but rather only to teach their subject of specialisation mostly school subjects. For this reason it can be argued that they are not adequately prepared to teach educational studies. However, in the Bachelor of Education (B.Ed), which qualifies one to work as teacher educator, more weight is given to educational studies (cf. Section 2.1). Furthermore, a qualified teacher educator is expected to teach both subject matter and educational studies. Here, Cochran-Smith (2003) reminds us that there is little attention paid to the development of a curriculum for educating teacher educators, or policies that might support the development of what teacher educators need to know and do in order to meet the complex demands of preparing teachers for the 21st century.

In contrast to the Tanzanian context, in England, for instance, those who join teacher education are qualified schoolteachers (Murray, 2005). As schoolteachers, they work as the main agents or first order practitioners, but once they join teacher education they have been transformed to the second order. But there is a difference between being a first order and second order practitioner. According to Smith (2003), a major difference in the professional knowledge of teachers and that of teacher educators is found in the skills of teaching different audiences, children and adults. It is obvious that the difference between schoolteachers and teacher educators creates a need for specific education for

teacher educators. In England, for instance, new teacher educators take induction courses to enable them to become a teacher of teachers (Murray, 2005).

According to the MoEC (1995), there is a need in Tanzania to change the mode of educating teacher educators in order to create a competent cadre of educators. Cheng (1996), for example, points out that a successful curriculum inevitably involves transformation of teacher educators' behaviour, skills, motivation, conceptions and beliefs about the management of teaching and learning. Van Driel (2005) adds that change in educators is important because the main barrier to curriculum innovation is teacher educator resistance to change.

Since 1995 there has been a considerable effort to educate teacher educators. The first effort was the initiation of Teacher Education Project (TEPT) at Morogoro Teachers' college in 1995, with the collaboration of Åbo Akademi University. This project offered professional up-grading to Bachelors degree (specialising in teacher education) and Master's degree level in two areas of specialisation: educational management and administration and special education. The project ended in November 2005 after offering the Bachelors' degree to 31 teacher educators and Master's degree to 41.

The second effort was the initiation of an in-service professional development programme named Tutors' Education Programme (TEP) in 1997, again at Morogoro Teachers' College, with the collaboration of the Stockholm Institute of Education (SIE) with the aim of improving the quality of educators. The programme was reviewed after the SIE period of consultancy ended in 2002 and named the Teacher Educators Programme. It is accredited by The Open University of Tanzania as a certificate course. An important question is whether this programme will continue to obtain financial support from the government. In this regard, Fullan (2000) discloses that lack of money for staff development and staff support for both continuing and new educators signals the end of many programmes.

4.5 Unchanged components

The discourses of innovation have focused on content, teaching methods and curriculum materials. Practical experience and assessment of student teachers were not involved in the innovation. Lewin and Stuart (2003) assert that the practicum is expected to be at the core of the curriculum, but more often it is like an appendix. In a similar way, the knowledge of assessment is important in enabling student teachers to learn how to design appropriate assessment methods. In this section these two components will be discussed.

4.5.1 Practicum

The curriculum contains knowledge that student teachers are supposed to learn mainly in the condensed form of summaries and lists of facts, arguments, rules and principles (Goffree & Oonk, 2001). Hence, there is a need to help student teachers to develop the ability to integrate this knowledge and their real teaching in the classroom. Ashton (1999) reminds us that research on the development of expertise clearly shows that extensive knowledge, integrated with practice, is essential to enable novice teachers to attain expertise in dealing with the challenging tasks of teaching. Lewin and Stuart (2003) insist that practicum should be at the core of professional training, since it provides an arena for the development and demonstration of teaching skills and professional knowledge.

The notion practicum in this study refers to the period of school-based training usually used in initial teacher education (Wilson & I 'Anson, 2006). In Tanzania practicum occupies approximately not more than 5 per cent of the total time. It is known as block teaching practice (BTP), because it is arranged roughly in two block periods over the two years. Student teachers normally do their first practicum, in the second term of the first[8] year of study. Within this period, they are expected to be equipped with some teaching methodologies, educational

[8] The two year course is organised in four terms: the first term of the first year commences in the new academic year normally in July and ends in November, the second term commences in January of the following year, ending in June. Likewise, the second year commences in July and proceeds like the first year. The final national examinations are held in the second term of year two, normally in the beginning of May.

theories such as learning theories, and curriculum material such as the syllabus, which are important during lesson planning.

During the practice educators assess the student teachers on discrete skills, to be measured in accordance with prescribed criteria (Lewin & Stuart, 2003). Thus, during teaching student teachers are concerned with the competences to be assessed. In essence, they are trying to develop and use the rules of teaching (Kwo, 1994). In this case educators appear to assume the role of evaluators more than supporters; this implies they are judgmental (Dunne & Dunne, 1993). It is obvious that assessment is given due weight because it is part of the final national examination. As a result, student teachers would like to obtain the prescribed number of assessments within a short time interval. Perhaps in three days, despite the fact that the duration of the teaching practice is four to six weeks. Focusing on assessment-driven teaching practice, Lewin and Stuart (2003) found that student teachers are highly dependent on the teacher educators, see themselves as having to satisfy the supervisors, often with different expectations in order to pass, and they develop coping strategies.

Normally a student has to be assessed by several educators, as one way of ensuring the validity and reliability of the results. However, it is essential to point out that variations in school contexts affect performance, as well as the quality of the student teachers' learning (Tickle, 1987). However, Vavrus (2009) found that in Tanzania teachers' colleges, when teacher educators assess student teachers during BTP, they do not take into consideration how school conditions might affect student teachers' ability to use learner-centred methods. Educators follow an assessment grid in order to ensure that grading is uniform, and they can assess any student teacher. It is for these reasons that student teachers could be assessed by educators who are not specialist in the subjects which they are teaching. At this juncture, it is important to point out that teaching practice is a learning situation. In other words, assessment is not the primary purpose (Dunne & Dunne, 1993). As has been noted, teaching practice is more than what actually goes on in direct encounter between pupils, content and teacher (see also Handal & Lauvås, 1987). According to Handal and Lauvås,

it also includes the planning and evaluation activity which comes before and after encounter, and refers both to the actions of teaching and the underlying practical theory of the teacher concerned.

Concerning teaching practice as fieldwork, there is a need to raise its status. For example, Moon (1996), and Goffree and Oonk (2001) assert that making sense of teaching means that teaching practice has to be taken seriously in teacher education. Among other activities, this means that in teachers' colleges a large amount of time has to be spent on learning to understand what happens in real classroom situations. This calls for a shift from a narrow concept of teaching practice to a broader concept, which has a large portion of school-based studies (Viteli, 1995). As has been noted, school-based studies have not been very successful in Tanzania (TDMS, 2007).

Subsequently, since 2004, there has been a growing discussion about introducing mentoring into the system in schools to support supervision. As role models, guides, and teachers, mentors may play a vital role in helping student teachers become competent professionals (Barnett, 2008). Although the idea seems to be useful, still not much has been done in this area. Therefore, it is desirable to suggest further discussions on the questions of the role of educators during practical training. In fact, the role needs to shift from assessment to supervision or counselling.

Other approaches to practical preparation have been proposed, such as single lesson teaching practice, microteaching and peer teaching (MoEC, 1995). It seems, however, that the curriculum is overloaded in such a way that it becomes difficult to use these approaches. For this reason, schools tend to reject student teachers to executing single lesson teaching practice. It is rejected because in this approach the student teacher is assigned to teach only one lesson or period of 40 or 80 minutes at school. Thus, schools think that their pupils' learning will be affected by the frequent change of teachers. Micro-teaching is also rejected on the same basis. But Goffree and Oonk (2001) disclose that teaching practice can also be represented in teachers' colleges, for example, with stories, cases, videos,

and also by records of practice, organised in a multimedia environment. Such an environment gives teachers' colleges a digital representation of real teaching, and means that teaching practice can be chosen as a point of departure for courses the college provides.

On the whole, the practicum period is dominated by traditional student teacher supervision based on a unity of analysis (Rodgers & Keil, 2007). It has become another assessment technique rather than a learning period. However, there is a possibility of developing methods of assessment focusing on a higher level, whereby holistic competence can be evaluated, which might indicate how far the new teacher will be able to continue and improve in the coming years. Lewin and Stuart (2003) further point out that this is a challenge to teacher educators, since assessment of this kind requires considerable professional experience and is has to place emphasis on reason, reflection and practical thinking.

Feese (2008), for instance, found that through reflection student teachers can identify inconsistencies in their beliefs and discover counter-examples to strongly held beliefs. It is also possible to be done through the use of portfolios, mentoring or counselling sessions (cf. Handal & Lauvås, 1987). To my knowledge, the discussion about the practicum period in Tanzanian teachers' college has focused more on extending its duration in order to ensure student teachers receive as much assessments as possible (cf. Framework for Diploma in Education Programmes, 2006). Although the extension of the practicum period beyond 5 per cent of the total course duration can help student teachers to participate in most of the school activities, however the expectations of teacher education will be met only when school conditions support student teachers' learning. Schools have to be equipped with basic resources: both qualified teachers and materials (cf. Lewin & Stuart, 2003). In this connection, I wish to point out that there is a need to revise the model of practice period used.

4.5.2 Assessment of learning

Assessment of student teachers' learning is an integral part of the learning process; it also defines teaching and teacher educators (Delandshere & Arens,

2001). Therefore, curriculum innovation has to be an integrated process, whereby formulation of the curriculum goes simultaneously with changing tests and examinations (cf. Linde, 2001). This is contributed to by the fact that examinations are a powerful way of influencing curriculum decisions (Skilbeck, 1990). The National Examinations Council of Tanzania (NECTA) is responsible for determining examination procedures. In the course of study colleges are responsible for continuous assessment, which contributes about 50 per cent to the final examinations set by NECTA.

However, Berliner (2005) found that tests and examinations fail to assess what teachers really know because there is no mechanism to follow up answers with teachers, inquiring of them what they mean when they answer test items correctly or incorrectly. For this reason other assessment could be used: Marsh (1997) proposed the use of authentic techniques such as portfolios and performance-based modes. As such, a balanced curriculum has to be matched by appropriate assessment (Shepard, Hammerness, Darling-Hammond, Rust, Snowden, Gordon, Gutierrez & Pacheco, 2005).

In addition, the current theories of learning such as constructivism suggest the need for changing assessment procedures (cf. McLaughlin & Vogt, 1996). Some students have rejected deeper approaches to learning because the assessment in the courses is directed at measuring reproductive learning so that deeper approaches are not worth learning (Postareff, 2007). From this point of view, in other countries, for example the United State of America, Canada and England, portfolios are used as an assessment technique (Fullan, 2001; Allington, 2005). In Tanzania the portfolio is not commonly used in teachers' colleges, although there have been several efforts to introduce it. Wray (2007) discloses that the development of portfolios is complicated and time consuming. They are not understood nor are they quickly created, especially when they are a relatively new component within a teacher education programme. In this connection, I

wish to point out that an attempt was made to use portfolios in a one-month induction course for licensed secondary school teachers[9].

The induction course was introduced in 2004 as an alternative strategy for recruiting teachers for secondary schools. The intention is to enable licensed teachers to use portfolio collection in their teaching in schools due to the short duration of training. In fact, the portfolio may be useful in enabling these teachers to reflect on their work and promote their growth in teaching and learning (Groom & Maunonen-Eskelinen, 2006). The portfolio as an assessment technique is taught in teachers' colleges in the measurement and evaluation subject.

One way of assisting student teachers to use portfolios and other assessment techniques is for educators to use them during their teaching. In this case, educators could work with student teachers to create a portfolio that will help them to reflect on their learning (McLaughlin & Vogt, 1996). Similarly, during teaching practice student teachers could also create teaching portfolios (Wray, 2007), because they offer a more holistic picture of their work than the assessment form which is currently used (cf. Sarvi, 1995). In this respect, it is worth suggesting the use of portfolios in teachers' colleges in order to facilitate reflective practice among student teachers and enable them to use portfolios in schools. It also implies a move towards student teachers having a greater responsibility in assessing their achievements and progress (Elliot & Morris, 2001). Since educators and students are more concerned with the contribution of college grades in the final examination, portfolios could form part of continuous assessment.

To conclude, although the curriculum innovation focuses on preparing student teachers to become reflective in their teaching and learning, the assessment techniques used seem to hamper the process. According to Berliner (2005),

[9] The induction course is a short training course for secondary teachers, mostly form six leavers. It lasts for one month and the curriculum is modularised, containing four modules: teaching and learning, school organisation, adolescents and schooling, teachers and the teaching profession.

examinations or tests, for instance, do not assess the construct on which teaching is based and eventually they demean and cheapen the teaching profession. Moreover, the National Examination has made teacher educators and student teachers use past examination papers to guide the learning process: teaching what is tested rather than testing what is taught (cf. Emsheimer & Mtana, 2004). Considering the role of assessment in teaching and learning, as has been said above, Lewin and Stuart (2003) insist that it may be necessary to adopt other assessment techniques which could be appropriate in assessing professional learning and professional competence.

4.6 Summary

In Chapter 4 I have discussed how curriculum innovation was initiated, the discourses of innovation, implementation and management, educators' response to innovation, teaching practice and assessment of learning.

Chapter 4 highlighted that the innovation was top-down because educators were not involved. As a result, they faced problems in the interpretation of curriculum documents and implementation. The discourses of innovation reveal a match between the teacher education curriculum and school curriculum. However, there is a need to distinguish between school subjects and teachers' subject matter knowledge for teaching. In fact, student teachers have to know their subject in a way that will help pupils to learn. The great emphasis in the use of interactive methods is intended to prepare teachers who are knowledge creators and facilitators of pupils' learning. To achieve this goal teacher educators have to practice, otherwise it will be not easy for student teachers to learn.

It seems teaching practice and assessment are closely related because in teaching practice educators are concerned with grading. A student teacher who fails in teaching practice is not awarded a certificate, although failure rarely occurs. As a result, student teachers try to adhere to the lesson plan because it guarantees that they will pass. Laursen (1994) describes this as the rationalistic approach to teaching and it is part of behaviourist influence. This appears to be contrary to

the curriculum, which requires educating student teachers to become reflective in their teaching. Equally importantly, it places emphasis on teaching as compared to pupils' learning.

The role of principals in the management and monitoring of innovation is crucially important. However, in the above discussion it has been obvious that principals in teachers' colleges do not pay much attention to curriculum management and innovation. On the other hand like educators they also face the problem of understanding the innovations. However, to ensure the success of curriculum innovation there is a need to place more responsibility on principals so that they can act as leaders of innovation.

My interpretation of innovation is summarised in Table 4; I was especially interested in the directions of change. The table shows that some components of the curriculum have changed while others have remained unchanged. As discussed above, lack of change in other components seems to constrain the sustainability of innovation.

Table 4. Directions of change in the new curriculum (2000) for Tanzanian teacher education

Components	**Directions**
Content and organisation	• Educational subjects expanded from one subject to four subjects • Integration of subject matter and subject methods
Teaching and learning	Great emphasis on participatory teaching or learner-centred methods
Assessment	Relatively unchanged
Curriculum materials	• Syllabus does not recommend textbooks • Modules introduced
Teaching practice	Relatively unchanged
Monitoring and evaluation	Relatively unchanged
Management	Relatively unchanged

Having presented the summary of Chapter 4, it is important to sum up the entire theoretical discussion presented in chapters 2 to 4, based on studies in teacher education, mostly context bound, ranging from large-scale to small-scale quantitative and qualitative studies. I have found that ongoing research is of great importance in order to come up with a curriculum which is relevant for teacher education. Drawing on the Multi-Site Teacher Education Research Project (MUSTER) carried out in five African countries, Lewin and Stuart (2003) claimed that investment in curriculum development is long overdue and that much which is currently available falls short of what is needed and what is possible. Internationally, there is a great emphasis on research based teacher education, as discussed throughout this study.

A lack of research culture in Tanzanian teachers' college and numerous decisions about the curriculum from external authorities without careful research undermine the role of research in developing teachers' pedagogical thinking. Although a competence-based curriculum has been introduced, it still seems to be content-based because of the great emphasis on subjects or knowledge, as indicated in the framework for the Diploma in Education Programme (2006). As already mentioned, Tanzania is facing the problem of qualifying curriculum developers. This is one of the issues that need to be addressed when planning for curriculum innovation.

Furthermore, studies on curriculum innovation, mostly carried in other countries, have shown that the success of an innovation to a large extent depends on teacher educators' conceptions and the support given in terms of training, resources and management. The fact is, however, that top-down curriculum innovation meets resistance from teacher educators. If innovation has to work, there is a need to shift more responsibility for curriculum innovation to teacher educators.

On the other hand, despite the fact that Tanzania is striving to introduce a new curriculum in teachers' colleges, there has been little attention paid to education

for teacher educators. As discussed above, this problem is not unique to Tanzania alone (cf. Cochran-Smith, 2003; Lewin & Stuart, 2003). Since the main barrier to curriculum innovation is the resistance of teacher educators, it is important to pay special attention to their education.

Finally, curriculum innovation needs to be consistent with assessment and the practical preparation or teaching practice. The assessment mode has continued to be traditional quantitative techniques, which hinder the use of participatory methods or learner-centred teaching. There are many alternative assessment techniques used in other countries as discussed in Chapter 4, which can also be applicable in Tanzania. Within this in mind the focus is to enable educators to direct their attention to conditions which encourage student learning.

In the next chapter, I will discuss the research questions which guide this study, developed by drawing on the theoretical discussion presented above. To make the connection even more explicit, I have extended the summary of theoretical chapters when discussing the choice of research questions.

5 Methodological approach

In this chapter the research questions and their influence on the choice of research approach are presented, as well as data collection, analysis and interpretation. Finally, the issues of reliability, validity and ethics are discussed.

5.1 Research questions

Based on the literature review, it seems research in the field of teacher education is growing and new knowledge of how to prepare teachers is being discovered from all the time. Several curricula for teacher education can be identified within and across countries. Political decisions have great influence on curricula and some have ignored existing knowledge about teacher education. The main concern has been to solve the problems arising from the expansion in school size. In Tanzania, however, the breadth of knowledge is limited. Although these innovations might not be seen as *novel* in the actual sense of what already constitutes the knowledge base of teacher education, still, contextually, they are new. Therefore, teacher educators' understanding is seen to play an essential part in the implementation and preparation of teachers. These arguments provide a basis for my research questions.

- What conceptions of curriculum innovation can be found among teacher educators?
- What conceptions of future curriculum approaches can be found among teacher educators?

In the first question it is my ambition to try to find variation in educators' conceptions of discourses of innovations, as presented in Chapter 4. The second question addresses the future, since it is not enough for educators to reflect on past experience or current professional practice in teachers' colleges. Current practice and problems can also be scrutinized from the conceptions of the future as one of the most important factors in enabling the teaching profession to change and develop (Niemi, 1996). In this respect, my ambition is to find out

what kind of curriculum is conceptualised by teacher educators to be appropriate for educating student teachers in a changing society. In other words, it is to find out how teacher educators deal with the question 'What kind of teacher do I want to prepare'?

5.2 Character of the study

Teacher educators' conceptions of curriculum innovation can be investigated through various methodological points of departure. However, qualitative rather than quantitative inquiry is more appropriate for this study because it focuses on gaining understanding of the meaning that teacher educators attach to the curriculum innovation (Edson, 1997). Qualitative research starts from the perspective and actions of the participants studied, while quantitative studies typically proceed from the researcher's ideas about the dimensions and categories which constitute the central focus (cf. Bryman, 1989).

Within qualitative research several methods have been used to investigate conceptions. Ginsburg (1988), for instance, investigated conceptions of the curriculum in pre-service teacher education through ethnographic methodology, which employed participant observation. This method is particularly well suited to dealing with the way members of a culture see events through their own eyes (Denscombe, 2007). In the view of O'Leary (2005), the ethnographic method offers an approach for delving into the conceptions and practice of cultural group through thick description of real people in natural settings. It usually requires long-term research carried out by outside observers (Angelides & Ainscow, 2000). However, there are other alternative approaches of investigating individuals' conceptions of phenomena in the world. From this perspective a phenomenographic research approach is taken as the point of departure in this study.

In the phenomenographic approach, Marton (1981) states that the interest is to describe, analyse and understand phenomena in the world as others conceive them. According to Marton and Booth (1997), the focus of phenomenographic

research is a way of experiencing something, and the object of research is the variation in ways of experiencing phenomena. Other terms such as conceptions, ways of understanding, ways of comprehending and conceptualisations have been used as synonyms for ways of experiencing.

The notion conception is fundamental in this study and it carries several definitions. Fullan (2001), for example, defines conceptions as beliefs, and in education it means the core values held by individuals regarding the purpose of education. They are often not explicit, discussed, or understood, but rather are buried at the level of unstated assumptions. Similarly, Meyer (1999) used the term conceptions to imply students' beliefs about what constitutes knowledge and learning. Other researchers (e.g, Kiley, & Mullins 2005; Petersson, 2005) used the term conception to imply a person's understanding of a phenomenon. In phenomenographic research, according to Johansson, Marton and Svensson (1985), conception is defined as the way of seeing something, a qualitative relationship between the individual and some phenomenon. Further, they point out that a conception is not visible, but remains tacit, implicit, or assumed, unless it is thematised by reflection.

In phenomenographic research the distinction is made between first- order and second-order perspective. In a *first-order perspective*, the intention is to describe the world, 'as it is,' while in a *second-order perspective*, the aim is to describe how individuals conceive phenomena around them, i.e. to describe phenomena as they appear to individuals. Phenomenographic research emanates from the second-order perspective (cf. Porko, 1997). Describing phenomena is a first order method of research, for instance descriptions of curriculum innovation based on observations made of teacher educators' work. A study of curriculum innovation from the perspective of the educators is second order perspective and the ambition is to describe how educators conceive curriculum innovation.

The adoption of second perspectives implies that phenomenographers are concerned with what kind of conceptions individuals have of reality. Phenomenography assumes that the individual and world are not separated, in

the sense that there would be a real world outside and a subjective world within the individual. There is merely one world which the individual experiences. This is not constructed by the individual but it is constituted as an internal dialectic relation between the two (Larzén 2005, 74). It also means that a phenomenographic conception is the way an individual is related to the external world (Uljens, 1992).

Conceptions are described in terms of their *content*, because there is always something that is conceived, and, consequently, it is not possible to talk about conceptions in general. The two parts, what is conceived and how it is conceived, together form the core of the phenomenon. The '*What-aspect'* refers to the meaning content, while the '*How-aspect'* refers to the way of understanding the object, and they are internally related to each other (Eklund-Myrskog, 1996). In connection with these two concepts of human awareness, Marton and Booth (1997) point out that the ways a person experiences a phenomenon can be thought of in terms of the dynamic relation between the two aspects.

According to Attorps (2006), the 'how' aspect has a process character and relates to action. How we see an object defines what we see (cf. Kroksmark cited in Attorps, 2006), the 'what' aspect is a condition for the 'how' aspect. One is supposed to have knowledge about a phenomenon before one can say what constitutes it. For instance, an object, which has been identified as a chair, must be seen in possession of armrest, legs etc., all contributing to the concept of chair: structure presupposes meaning and meaning presuppose structure. Structure and meaning mutually contribute to each other in the act of experiencing (see Pang, 2003; Attorps, 2006).

The conceptions are represented by categories of description, constituting qualitatively different meanings or ways of experiencing the curriculum innovation. These categories of description are content-specific and formulated in such a way that they characterize the specific content of the conceptions as well as possible (cf. Bowden & Walsh, 1994). Each category represents a unique

way of understanding the phenomenon in focus, and the categories found together define a *category system*. The categories of description and the category system are constructed by the researcher and are verbal descriptions of the individual interview answers (Eklund-Myrskog, 1996). The logical relationships between categories are expressed as an *outcome space*. The focus is on structural relationships linking different ways of experiencing a phenomenon. According to Åkerlind (2005), the outcome space provides an elucidation of the relationship between different ways of experiencing the phenomenon.

Phenomenography has further developed to what is called *variation theory*, which focuses on the structural aspect of a conception. Within this theory the structure is not between conceptions as a case with an outcome space but within conceptions (Marton & Pong, 2005). From this perspective, according to Pang (2003), phenomenography investigates both the variation among different ways of experiencing a phenomenon as seen by the researcher, and the variation among critical aspects of the phenomenon itself as experienced by the experiencer.

Several conceptions of teacher education have been identified in different countries. As Andersson (2002) points out, teacher education is different in different countries and differs within countries from time to time. Linde (2003) adds that since what goes in schools is contextually bound and since thinking about the role of school differs between cultures, it is not surprising that teacher education looks different in different countries. Unlike traditional phenomenography from the 1970s and 1980s, which describes conceptions of different phenomena out of context, I would link educators' conceptions to Tanzanian teachers' colleges (see also Larzén, 2005; Forsman, 2006). People are not only biological beings but also social beings, who acquire knowledge, skills and experiences through interplay and interaction with other people in their environment (cf. Forsman, 2006). Therefore, another context could generate a different set of conceptions (Larzén, 2005).

However, it is claimed that the phenomenographic research approach does not focus on individuals' conceptions but on conceptions of the collective (Attorps, 2006). This is based on the fact that several individuals' conceptions are described by means of overall categories, not for each individual within the group (Eklund-Myrskog, 1996). According to Marton and Booth (1997), phenomenography aims to research a description of variation on a collective level, where individuals' voices become secondary to variations between individuals. However, collective conceptions give a lot of useful information about how curriculum innovation can be understood and experienced in various ways (see also Attorps, 2006). Hence, in this study the individual's way of experiencing curriculum innovation is discussed in relationship to all the participants.

5.2.1 Selection of participants

A reliable procedure for identifying educators with different levels of experience, educational qualification and areas of specialisation was needed. The subjects of this study were thirty teacher educators[10] from eight teachers' colleges situated in various parts of Tanzania.

The subjects were carefully selected for inclusion, based on the possibility that each participant could expand the variability of the sample. Only those educators who were knowledgeable of the changes made in the curriculum were selected, mostly those who had experienced it for more than four years. The intention was to obtain in-depth information from a specific group of educators. As already discussed in Section 4.4, it is essential to point out that teacher educators qualify to teach both methodology and educational subjects. However, based on the college conditions, an educator can either teach methodology or educational subjects only. For instance, in the situation where an educator has more than twenty hours contact per week in a methodology subject, it may not be easy also to teach educational subjects (cf. Appendix 3 and 4). It is for this reason in my

[10] In this study I have used the words participants and informants when referring to the educators interviewed (cf. Bogdam.& Biklen, 2007)

selection that I also included those who had taught both methodology and educational subjects. I considered these educators suitable for inclusion in the study because they represented a range of experience in implementation of the curriculum innovation, which is valued in phenomenographic research (cf. Huntly, 2003).

Furthermore, my interest was to identify similarities and variations in educators' conceptions, and not how large a proportion of them hold certain conceptions (Larzén, 2005). It is also important to mention that a phenomenographic study is suitable for investigating conceptions of a limited number of respondents (e.g. Haljamäe, Nyberg & Sjöström, 2003). However, in quantitative research, which focuses on generalisation, the number of participants is of great importance.

In qualitative research, generalisation of the results demands an explicit reference to the empirical group from which the conceptions stem (Uljens, 1992). The conceptions are dynamic and have a relationship with the individuals and the context (Prosser, 1994). Furthermore, since the aim of phenomenographic research is to investigate variation in conceptions, the respondents are chosen for heterogeneity rather than in terms of distribution along demographic lines (cf. Attorps, 2006). Hence, the outcome of this study cannot be generalised because it not representative of teacher educators from all teachers' colleges found in Tanzania. However, by connecting the research outcome and theoretical framework it is possible to transfer the conclusions of this study to other groups of teacher educators and other levels in the education system (cf. Attorps, 2006). In Table 5 the background characteristics of educators participate in this study are summarised.

Table 5. Background characteristics of participants of the study

Characteristics	Profile	Number of participants
Gender	Female	9
	Male	21
Level of qualification	Diploma	10
	Degree	20
Type of college	Specialised in primary education (grade 'A' certificate)	12
	Specialised in secondary education (diploma in education)	18
Years of teaching	5-10 years	8
	10-20 years	15
	21 or more	7

5.2.2 The phenomenographic interview

Data were collected through individual interviews, which are useful in qualitative research because they allow the researcher to capture language and action through conversation (Maykut & Morehouse 1994). Most educators were interviewed between November and December 2006 and some in January 2008 Twenty-eight interviews took place in offices in the informants' teachers' colleges and two in the informants' residences. This implies that the interviewing was conducted in an ordinary setting, whereby the research is most likely to come up with reliable results. According to this view, qualitative research attempts to be as naturalistic as possible, meaning that the context must not be constructed or modified because human experience is shaped in particular contexts (Kincheloe, 1999).

The interviews were conducted in English, although in some circumstances Kiswahili was also used for clarifying some issues whenever it appeared to be necessary. The interviews lasted for 45-60 minutes and were recorded. Bogdan and Biklen (1982) argue that when interviewing is the major technique in the study, a tape recorder is recommended and interviews should be transcribed.

The conversation was structured by an interview guide (see Appendix 1) focused on the areas to be covered. It means a relatively brief series of questions were used to guide the conversation (cf. Maykut & Morehouse, 1994). The guideline was organised in such a way that it would appear natural and logical to the informants, as well as maintain their interest (Larzén, 2005). Prior to the empirical study, I conducted a pilot interview in one of the teachers' colleges in order to obtain an idea of the validity of my interview questions. The outcome of the pilot study led to some adjustments in the interview guide.

During the interview my interest was in the informants' descriptions of how they experienced curriculum innovation. Therefore, I allowed them to describe anything they thought worth mentioning. Marton (1988) points out that the phenomenographic interview is both an intersubjective and goal oriented social construct. For these reasons, the researcher has to plan the way to reach his goal, and this should be kept in mind during the whole process. Larzén (2005) adds that phenomenographically inspired studies aim at providing the participants with both the time and the possibility to freely develop their own lines of thought, as well as reflect upon those issues relevant to them at the time. To gain a deep understanding of educators' conceptions, probes or follow-up questions were used to elicit the educator's responses (cf. Patton, 1990). Elaboration probes were used to encourage the informants to tell more, clarification probes when I was unsure of what the educator was talking about, what she or he meant.

Larzén (2005) underlines the importance of applying techniques that reach beyond what could be called opinion, in order to unravel the underlying conceptions. In some situations a few educators tended to go outside the scope of the study, for example, talking about curriculum changes made in 2007

instead of 2000. Throughout the interview I tried to guide the educators to focus on the theme of the present study.

The quality of information obtained during an interview is largely dependent on the interviewer (Patton, 1990). To achieve this, Maykut and Morehouse (1994) commented that the researcher has the responsibility of establishing and maintaining a positive interview climate. My relationship with the educators was more personal as I worked in teachers' colleges for several years and I had met some of them before. Most of them spoke openly and appeared to be motivated by the topic. In fact, to some informants it was an opportunity for reflection, where they became aware of some aspects of innovation that they had not recognised before (see also Larzén, 2005).

Although I was acquainted with some educators, I tried to remain as neutral as possible during the interview. One educator asked me to give my own experience as a user of the curriculum. However, I was constantly aware of my role as researcher, so I managed to put my own experience aside, as it was easy for him to understand my intentions after further explanation. Certainly, my background as a teacher educator facilitated my understanding about the informants' experiences.

5.3 Qualitative analysis of the data

All the interviews were audio-taped and transcribed word by word, into a more formal written style, which might also make them more readable and detailed enough, in line with phenomenographic studies (cf. Larzén, 2005). The work began in January 2007 immediately after completion of the interviews.

As a first step I read the entire interview. Then I broke down the interviews into separate statements, sentences and paragraphs according to the questions in the interview guide. I looked into the transcripts to discover the particular way in which educators understood curriculum innovation (cf. Walsh, 2000). The approach of the analysis was limited by the content of the concept under which the informants understood the curriculum innovation. This means that the

starting point of the analysis is found inside the limits of the concept of the curriculum innovation and not the total amount of data. Thus, statements were not connected to the phenomena were not used (cf. Uljens, 1992). However, such statements were not many, because the interview was highly focused; it seems that also the use of English minimized redundancy.

The second step involved developing categories of description which depict the different ways in which a certain phenomenon is conceived and which are the main findings in phenomenographic studies (Marton & Booth, 1997). The procedure of creating categories is known as coding (Alvesson & Sköldberg, 2000). Coffey and Atkinson (1996) added that codes are our own creations, in that we identify and select them ourselves. They are tools to think with. They can be expanded, changed or scrapped altogether as our ideas develop through repeated interactions with the data. Thus, starting to create categories is a way of beginning to read and think about the data in a systematic and organised way.

Three types of coding are distinguished: open coding, axial coding and selective coding (Strauss & Corbin, 1990). *Open coding* is the initial type of coding and the analytic process by which concepts are identified, developed and then labelled and grouped to form categories of particular phenomena identified in the data. By making connections between categories, data are then put back together in new ways, and this is *axial coding*. In other words, open coding will usually develop into axial coding, which consists of intense analysis made around one category at a time. The third phase of analysis is *selective coding,* which aims at selecting a core category and relating the major categories both to it and to each other to form a grounded theory. The relationships between the categories must be validated against data, and categories that may need further development can be filled in.

In developing the categories *open coding* and *axial coding* were used, selective coding was not used because the aim of this study was not to develop a certain theory from the field being studied (see also Eklund-Myrskog; 1996; Kalmus, 2003). The initial step of the coding process was *open coding.* Here, the main

ideas or concepts were identified and grouped to form preliminary categories. *Axial coding* has been used to identify more abstract categories and essential structural variation. This was done by identifying aspects within each category. In this connection, aspects are dimensions of variation. Each category, however, is a potential part of a larger structure in which the category is related to other categories of description (Marton & Booth, 1997). Hence, this makes it easier for the reader to follow the development of the coding process and understand the categories. The coding process is illustrated in Figure 8 below.

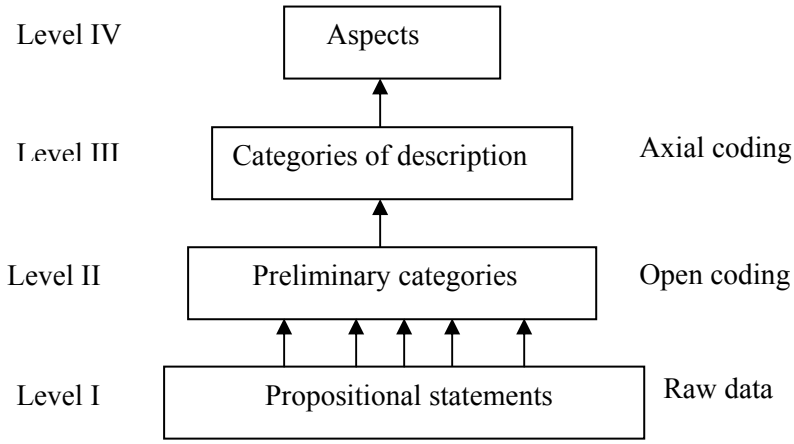


Figure 8. Coding procedure

At level I the interview responses were used to identify propositional statements. At level II each sentence was coded into as many codes as possible to ensure full theoretical coverage. Level II codes are also called preliminary categories. Level III codes elevate the data to a more abstract level or theoretical construct by forming categories of description (cf. Hutchinson, 1997). At level IV the inner structure of categories of description was identified and developed aspects.

Finally, the analysis of the educators' responses was carried out independently in connection to two research questions. Within the first question analysis was further made in accordance with the discourse of innovation. In the analysis, similarities and differences in terms of content between the educators' statements concerning a certain discourse and the future curriculum were noted.

Expressions that shared a similar context were classified as belonging to the same category of description (cf. Campbell, McNamara & Gilroy, 2004). During the formulation of the categories of description and aspects I tried to understand what the educator really meant by reconstructing what was expressed in the interview (cf. Eklund-Myrskog, 1996).

My ambitions were to formulate categories that would clearly illustrate the similarities and differences found, cover as many qualities in the different discourses as possible, and thus provide plausible and credible answers to my research questions (cf. Larzén, 2005). All categories were labelled with the names of categories and aspects emanating from the informants' statements, which I further developed to a more abstract name to acquire scientific language. They were further distinguished with letters, while aspects were described in roman numerals. However, they are considered equal in relation to each other (cf. Eklund-Myrskog, 1996). This means that the alphabet and numbers have nothing to do with hierarchy.

Seven categories systems were developed, six for research question one, and each generate two main categories, which also entailed a number of aspects varying from one category to another. In the presentation of the results, each category system is described and also illustrated with excerpts from the interview. Every interview excerpt is followed by the name of the informant. In this case, the original names have been changed to ensure anonymity. However, in some cases, the original statement has been shortened, and I have used …to indicate this. Unnecessary repetitions were left out, while pauses and emotional expressions are included in the form of sighs. The interpretation of the results is illustrated in Figure 9.

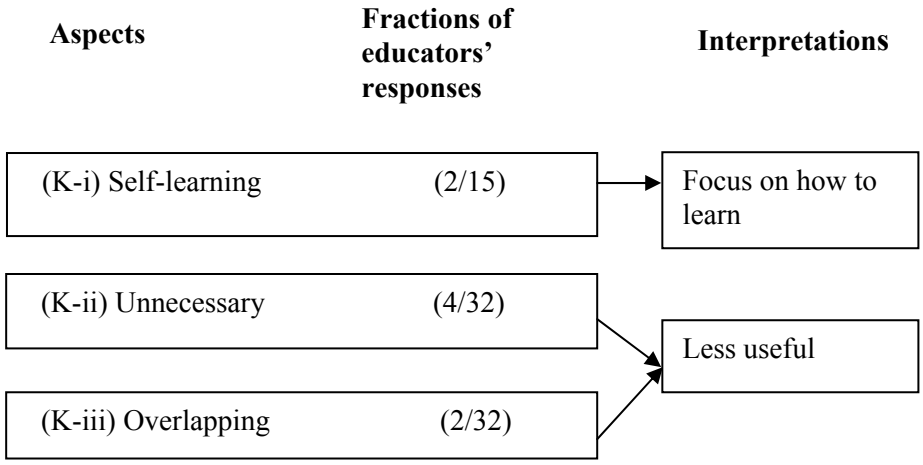


Figure 9. The process of data interpretation

The figure represents aspects identified across categories and the corresponding fraction of responses. It also outlines the interpretation for each aspect, which extends the meaning beyond what the aspect indicates. To ensure that the interpretations reflect similarities and variation in educators' conceptions of curriculum innovation and future approaches, the interpretation of aspects is limited within its categories. The process of data analysis constitutes a further cycle of looking at the results. I identified recurring themes across categories of description (see Section 7.4).

5.4 Validity, reliability and ethics

The issue of reliability and validity is of great importance to any scientific study, both in qualitative and quantitative research approaches. However, some qualitative researchers argue that a concern for validity and reliability arises only within the quantitative research tradition (cf. Silverman, 2006). In traditional quantitative research in the social sciences the researcher has to take a clear position on the role of each of these in his or her research right at the outset (Shank, 2006). As a result of this, some qualitative researchers have chosen to ignore reliability and validity issues, on the grounds that social reality is in flux and it makes no sense to worry about whether the research instruments measure

accurately (Silverman, 2006). Other qualitative researchers in turn are still continuing to address these issues by giving them new meaning or reformulating them in order to ensure credibility of their studies (Flick, 2006).

Kvale (1996) discusses three types of validity in qualitative research, which are also applicable in phenomenographic studies: *validity as quality of craftsmanship, communicative validity and pragmatic validity*. Validity as the quality of craftsmanship is concerned with the credibility of the researcher based on the quality of his or her past research in the area. Communicative validity involves testing the validity of knowledge claims in a dialogue. Valid knowledge is constituted when conflicting knowledge claims are argued in a dialogue. Åkerlind (2005) asserts that in a context of multiple legitimate interpretations of the same data, a strong emphasis must be placed on a researcher‘s ability to argue persuasively for the particular interpretation. Pragmatic validity focuses on the usefulness of the research outcome, for instance the extent to which they are meaningful to the intended audience.

In phenomenographic studies validity concerns the researcher’s justification for presentations of outcome space and claims based on those results as credible and trustworthy (Attorps, 2006). By referring to credible and trustworthy, validity is regarded as the extent to which a study is seen as investigating what is aimed to investigate or the degree to which the research findings actual reflect the phenomenon being studied (cf. Åkerlind, 2005). In this sense, validity is concerned with the plausibility of the categories, in other words the extent to which they were recognizable as representing the actual teacher educators’ experiences (cf. Dahlin & Regmi, 2000). Therefore, I have attempted to ensure that the categories represent the thoughts expressed by the teacher educators in the interviews (see also Eklund-Myrskog, 1996; Forsman, 2004). This was done through the use of follow-up questions during the interviews in order to verify those statements which were considered important for the study.

The categories are illustrated by using excerpts from the interviews. The researcher’s knowledge of the field (see also Eklund-Myrskog, 1996) formed an

opinion of how a certain statement has to be understood in relation to teacher education. My effort, like Attorps (2006), has been to find an acceptable interpretation of the results, not to find absolute truths. In achieving *communicative* validity, I have shared the results in several research seminars with teacher educators from Tanzania who did not take part in this study (cf. Åkerlind, 2005). Therefore I consider the results of this study to be reasonably valid according to Attorps (2006), until another researcher finds better categories and argues for their credibility.

In this study reliability was ensured by describing the choice of methods, selection of subjects, manner of questioning and the coding of the interview (see also Larzén, 2005). Thus, the readers are provided with enough information to make it possible for them draw their own conclusions regarding reliability (cf. Björklund, 2008). I also tried to minimize the risk of my own biases by involving two independent researchers in order to obtain intersubjective reliability. This means that two co-judges independently went through the categories and statements to check how I have adopted a critical attitude towards my interpretations (cf. Åkerlind, 2005). The co-judges made their suggestions, which resulted in renaming some categories. Though increasing the reliability of the findings is desirable in counteracting subjectivity, a strong emphasis on reliability may counteract creative innovation and variability (Kvale, 1996).

Inter-judge reliability was not calculated in percentages. According to Sanberg (cited in Attorps, 2006), inter-judge reliability is measured from positivist epistemology. From this perspective knowledge is considered to exist in reality, rather than as phenomenographic researchers' state, in a relation between an individual and a phenomenon. Secondly, inter-judge reliability provides no information on the appropriateness of the research methods used. The categories of description may have been developed from the data collected using poor techniques; in such circumstance the worth of inter-judge reliability is doubtful. Åkerlind (2005) adds that a single transcript used during checking for intersubjective reliability may represent more or fewer aspects of the phenomenon being investigated as compared to a single category.

Ethical aspects

Concerning ethical decisions, two main traditional official guidelines dominate research with human subjects: informed consent and the protection of informants from harm (Bogdan & Biklen, 2007). Just as with validity and reliability, ethical decisions do not belong to specific stages of interview investigation, but arise throughout the entire research process (cf. Larzén, 2005, Silverman, 2006).

According to Kvale (1996), informed consent entails informing the research subjects about the overall purpose of the investigation and the main features of the design, as well as of any possible risks and benefits from participation in the research project. It is about giving information about the research which is relevant to subjects in order to ensure that participation is voluntary (cf. Silverman, 2006). In my study some educators agreed to participate through information delivered to them by their college principals. I had to contact the principals by telephone and briefly explained to them about the purpose of my research project and dates for the interview. Also I had direct contact with a few educators who were working in a college near to my residence. The fact that the principals are leaders may raise doubts about whether the educators participated in this study voluntarily.

In this connection, I had to ask again for the educators' consent before starting interviewing. Through this process it was conceived that the educators' participation was voluntary. I provided them with brief general information about my study. I did not tell them about the aim of the study, neither did I mention the research questions since they may not have been interested and this could also jeopardize the validity of the study (cf. Silverman, 2006; Larzén, 2005). The ambition was to obtain the educators' natural views on curriculum innovation and to avoid leading them to specific answers (cf. Kvale, 1996). The protection of educators' privacy was ensured through changing their names and using letters of the alphabet for teachers' colleges.

In the next chapter the teacher educators will speak in accordance with the guidelines discussed in this chapter.

6 Presentation of the results

This chapter deals with the presentation, analysis and interpretation of the findings of my study. It is based on data revealed by informants through interviews. The presentation has been structured in accordance with the research questions presented in Section 5.1. In the first question, conceptions of curriculum innovation are presented in accordance with the discourses of curriculum innovation discussed in Section 4.2. This is done with the intention of clarifying the extent to which my empirical findings may contribute to the discourses of curriculum innovation. I have chosen to divide the results into two main themes, for the purpose of presenting the whole range of interplay between various components of curriculum. The first theme is curriculum content and organisation, and the second, classroom practice. The second part consists of the results of the second research question. Therefore, the results are presented under the following broader headlines:

6.1 Educators' conceptions of innovations in curriculum content and organisation

6.2 Educators' conceptions of innovations in classroom practice

6.3 Educators' conceptions of future curriculum approaches

As has been pointed out in Chapter 5, the similarities and differences in educators' statements concerning curriculum innovation have resulted in different categories of description. These are qualitatively different categories representing the specific content of curriculum innovations. In the presentation, each category is described and also illustrated with extracts from educators' statements, elaborating the meaning of the content.

6.1 Educators' conceptions of innovations in curriculum content and organisation

The results concerning innovations in curriculum content and organisation are presented in three areas. Educators were asked to explain the relevance of educational studies, methodology subjects and integration of subject matter and subject methods. Educators' conceptions are presented based on this division.

6.1.1 Educators' conceptions of educational studies

In this discourse of innovation the focus was on how the content of educational studies meets student teachers' needs. Educators were asked to give their views about the expansion of educational studies into four discrete subjects. During the discussion the majority of educators made spontaneous responses by supporting the four discrete subjects. This lack of reflection made me encourage them to question the relevance of the content found in each subject. In the analysis of the educators' statements two broad categories of description could be identified: *balanced content* (Es-A)[11] and *overcrowded* (Es-B). Variation between and within the two conceptions could be captured after considering the usefulness of the contents as expressed by educators. When the two categories were analysed in detail to find different aspects, four aspects were identified: two in each category. The main categories and aspects are illustrated in Table 6 below.

Table 6. Overview of educators' conceptions of educational subjects

Categories	Aspects
(Es-A) Balanced content	(Es-i) Expertise (Es-ii) Discipline identity
(Es-B) Overcrowded	(Es-iii) Unnecessary (Es-iv) Overlapping

[11] I have used abbreviation 'Es' to imply educational studies, as indicated in Section 4.2.

Category Es-A: Balanced content

Balanced content is related to the appropriate attention given to each type of knowledge needed to enable teachers to perform their task. The majority of the educators saw that the four sub-disciplines of educational studies (see Section 4.2) are useful in enabling student teachers to teach in schools.

(Es-i) *Expertise*

The educators talked about expert teachers in terms of mastering the theoretical knowledge found in educational subjects. In this context expert teacher can be defined as a teacher whose practice is guided by theories. The educators admitted that by learning four discrete educational subjects, student teachers are expected to acquire substantial knowledge on how to manage the teaching and learning process. This can be seen in the next statement:

> It is good because student teachers can be competent in their teaching. You know, psychology helps them to understand pupils, and the curriculum and teaching helps them to plan and organise teaching and learning. (Lika)

Although the educators supported the four discrete subjects, they are worried about teaching, due to the shortage and competence of educators, as can be seen in the next statements:

> Separation has made student teachers cover a broad area and this is good because they are going to be good teachers. But we need to think about the availability of educators because we have too many subjects now. (Siko)

The same problem was also experienced when educational studies were treated as one subject before innovation.

> I like to have four separate subjects as it provides a wide coverage; the problem might be educators. Previously, we had one subject, but I think it was not easy for one educator, because the subject comprised all topics which have expanded into four subjects now. (Ole)

Despite the fact that the educators mentioned the importance of educational studies in preparing qualified teachers, some of the statements classified in this

aspect revealed the problem of the availability of qualified educators. As can be observed in these statements, the subjects have a wide coverage. In teachers' colleges however, it is assumed that all educators can teach these subjects because they have graduated in education and in all education programmes educational studies are obligatory.

(Es-ii) *Discipline identity*

In this second aspect, the educators mentioned that educational studies comprise a rigorous body of knowledge which student teachers could learn more about when classified in different sub-disciplines. In addition, the educators were pleased with four discrete subjects because that helps student teachers to distinguish different study areas of educational studies. This can be seen in the next statements:

> I like the way it is now because these are different subjects with different theories and principles. You cannot combine them like in the other curriculum. I think it was wrong, and that is why they have changed. (Ncha)

> We had a combination of educational studies but it is better to remain as it is now because it widens the minds of student teachers. In fact, they get more knowledge, which they can apply in teaching. It also provides a clear demarcation of each subject. (Gaza)

One educator was satisfied with the four discrete subjects because they tie in university disciplines:

> Educational subjects provide a good foundation for higher education as they are similar to university courses. Our students will enjoy joining a university as they will find similar disciplines. (Kisu)

The educators described the importance of educational subjects in the teaching profession. They were also pleased with the division of educational studies into sub-disciplines. All of them considered that educational studies are very useful in teachers' preparation. Their comments seem to suggest that it is not easy to qualify as a teacher if you have not learned educational studies. To other

educators educational sub-disciplines contain more than is needed by diploma and certificate student teachers, as can be seen in the next category.

Category Es-B: Overcrowded with content

The previous category (Es-A) reveals that the educators support four discrete subjects of educational studies. In this category a few educators saw that there is too much to be taught and learned, but also some content that is less useful for students. This implies that content of less value might be included in the curriculum.

(Es-iii) *Unnecessary*

In this aspect the educators saw that a part of the content is not worth being taught and learned. In this context, the notion unnecessary implies that the content of the curriculum does not comply with the present and future needs of student teachers. The educators talked about content which is outside the needs of student teachers or not applicable in the school classroom:

> We can proceed with four educational subjects, but the content needs to be reviewed, for example in research, measurement and evaluation the topic of item analysis is not needed. (Pipo)

> The content is good, but I can say some subjects are overloaded, for example Foundations of Education. In this course, part of the content is beyond the level of the student, it resembles what I have learnt at university. (Pacha)

Other educators were more concrete in suggesting what can be included in some sub-disciplines to make educational studies more useful to the student teachers:

> I think we are too broad, there is a need to focus on classroom activities, and for example in research we can teach how to conduct action research. I am sure when they go for further studies they will get more. (Eliwango)

Teaching is also considered as a talent, because there are some teachers who have little knowledge of educational studies and yet they can teach. Thus, there is no need to have four educational subjects:

> In our college we don't complete the syllabus of educational studies because there is a lot to cover. I am not sure about other colleges ….but yet we have seen good teachers. I think someone can teach without having learned psychology or philosophy. (Kolla)

The educators' statements in this aspect suggested that the content of educational studies might be narrowed to the more specific classroom demands. Generally speaking, educational subjects were considered to cover more abstract theories which do not help student teachers explicitly in their work. On the other hand, duplication of content across subjects contributes to an overloaded curriculum. This is revealed in the next aspect.

(Es-iv) *Overlapping*

Overlapping in this context refers to repetition of content across and within subjects. The educators were quite sceptical on how curriculum content is organised. On the basis of their statements, it is clear that duplication of the content has important implications in teaching and learning. It leads to stress on educators and lowering of student teachers' motivation:

> There is a lot of repetition among subjects, for example in psychology we talked about how to deal with pupils who misbehave in the lesson and you find similar topics in the curriculum and teaching in the name of classroom management. Anyway, the content really helps students in their teaching. (Kibido)

> The syllabus has a lot of content taught at the same time in all subjects. This has encouraged students to become lazy and neglect classes; to them it is revision and a waste of time. I am saying this because you can find that what is taught in research, measurement and evaluation is very similar to curriculum and teaching, for example in both subjects they talked about assessment and evaluation. (Eliwango)

In summary, the teacher educators suggested that the contents of the four discrete educational subjects are too much for student teachers. It implies that there is a need for slimming down the content in accordance with the basic needs of student teachers. Evidence from the educators' statements also highlights the

dilemma of ensuring coverage of all the content within the time available (see also Appendix 3 & 4).

Reflection

The majority of the educators' responses (26/32) describe educational studies as crucially important to student teachers. These educators' conceptions can be explained in terms of preparing expertise because the content of these four discrete subjects enables student teachers to understand theories of teaching and learning. Since student teachers are being prepared to teach and facilitate learning in schools, educational studies can also be interpreted as professional studies.

A few responses (4/32) indicate that part of the content is of no practical use in schools. Along the same line, the educators were not pleased with duplication of content across the four discrete subjects. In general, the educators' conceptions suggest that the educational subjects have included content which are less useful for student teachers. Variation in the educators' conceptions of education studies is summarised in Figure 10 below.

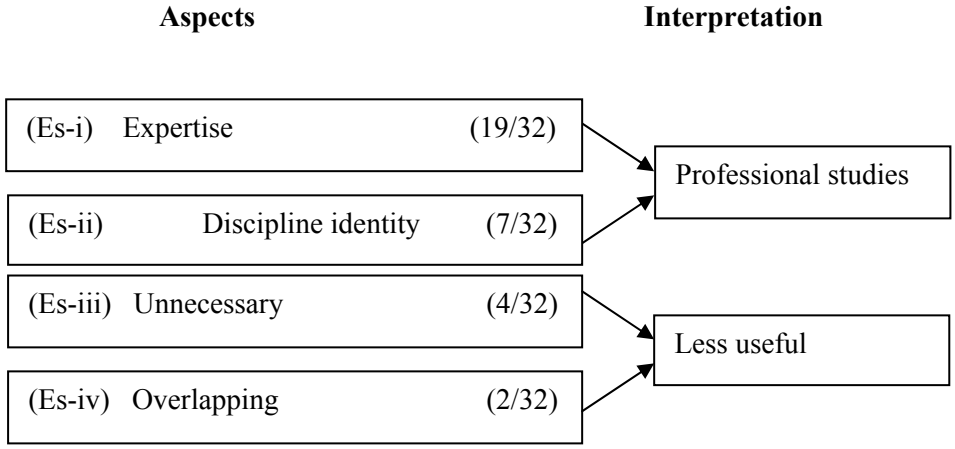


Figure 10. Aspects in educators' conceptions of educational subjects and their corresponding interpretation

6.1.2 Educators' conceptions of methodology subjects

Having discussed the relevance of professional educational studies, the educators were asked to reflect on the relevance of methodology subjects. In the discussion the focus was on the matching which exists between subject matter knowledge and the school curriculum. In the analysis of educators' statements, two broad categories of conception emerged: *reciting school content* (Sm-A)[12] and *beyond school content* (Sm-B). The categories of description were further analysed and the variation between and within the two categories could be found after considering the reasons for prioritising a particular type of knowledge content. In the analysis four aspects were identified from the two categories, as illustrated in Table 7 below.

Table 7. Overview of educators' conceptions of methodology subjects

Categories	Aspects
(Sm-A) Reciting school content	(Sm-i) Demonstration (Sm-ii) Exposure to reality
(Sm-B) Beyond school content	(Sm-iii) Subject area competence (Sm-iv) Further studies

Category Sm -A: Reciting school content orientation

The educators in this category related curriculum content to the level at which student teachers are prepared to work. They emphasised that the content of the National Curriculum for initial teacher education has to reflect the content of the school subjects. The distinction can be made between demonstration and exposure to reality as presented below.

(Sm-i) *Demonstration*

The matching between teacher education and school curriculum helps educators to teach in a way they would like student teachers to do. In dealing with various school topics in the curriculum, educators provide students with the opportunity

[12] I have used the abbreviation Sm here to refer to subject methodology (see Section 4.1)

of learning to teach through demonstrations which student teachers can explore. The educators' statements classified in this aspect suggest that if student teachers see examples of how to teach from their teacher educators, they might use this in their own teaching:

> I like the correspondence of the topic and the school syllabus because when teaching you can mould them to grasp what they are supposed to teach in schools. I am teaching Kiswahili which demands me to teach literature, so I have to make analysis of the books used in schools… Otherwise I am worried they can do it differently. (Pacha)

> The physics that they learn here is similar with that taught in secondary school. What I am doing is to show them how they are going to teach. This makes them confident in teaching. (Siko)

> It is good because they can even demonstrate how to teach a certain topic through micro-teaching and link theory and practice. (Sekia)

It is considered positive that the correspondence between teacher education and school curriculum enables student teachers to experience the best examples which can be used in their future teaching. In the next aspect the educators discuss matching with the school curriculum.

(Sm-ii) *Exposure to reality*

Student teachers are prepared to be ready for working in schools. Therefore, the educators mentioned that it is important to expose them to the school curriculum. One strategy of doing this is to link the school curriculum with that of teacher education. All the educators in this aspect appreciated the matching between curriculum content of teachers' education and schools. This is seen in the next statements:

> It is good that the content and pedagogy match with the level in which student teachers are going to teach. A primary school teacher has to be prepared to teach at that level, similarly, a secondary school teacher. Let me give you an example: the topic of 'Fasihi' literature in Kiswahili is taught in secondary schools, but in primary school pupils practice it as stories, letter writing and reading books. In this sense, I

recommend having this correspondence to enable student teachers to learn what they are going to teach. (Kolla)

Well, the content of subject method is quite good because it relates with the school syllabus. In fact, this prepares student teachers to know exactly what is happening in the school … you are taking them to real teaching and learning at school. (Kibido)

The content which is taught here is the reality of what is happening in secondary schools. This is good, because it is like a one-to-one relation. (Tisu)

The educators' statements show that one way of linking teacher education and school is inclusion of the school content in the curriculum. This will help student teachers to understand the school curriculum and acquire significant experience of what is happening in schools. Other educators insisted on learning beyond the content of the school curriculum, hoping the student teachers will be able to translate the content on their own during teaching in schools, as seen below.

Category Sm-B: Beyond school content orientation

In the first category (SM-A) the educators saw that matching content in teacher education with the school content could help student teachers to work in schools. Conversely, the educators in this category proposed that the content should go beyond the level at which student teachers will be teaching. Two aspects could be identified from the data: *subject area competence* and *further studies.*

(Sm-iii) *Subject area competence*

All the educators talked about the importance of teachers possessing knowledge of subject matter which is beyond the level they are going to teach. The educators reported that evidence from secondary schools reveals that some practicing teachers demonstrate only superficial knowledge of school subjects. As a result, in order to equip to student teachers with a reasonable knowledge base, subject courses have to include academic content of advanced level secondary education:

> The content of teachers' colleges should contain all that is taught in schools and a bit of advanced level. Do you know that there is a complaint from some heads of schools that our graduates are weak in the area of subject matter knowledge? (Gaza)

> We are not going to help our student teachers if the content corresponds with school subjects. I think it should go beyond school but the examples should be focused on secondary schools. (Pisa)

> Student teachers need to know more than what they are going to teach, therefore subject matter knowledge has to go beyond the level of what they are going to teach. (Pipo)

All the educators in this aspect showed that it is crucial important for teachers' colleges to upgrade the subject matter knowledge of student teachers. If this is done, it implies that teachers will teach relevant knowledge. In the next aspect, the content of subject matter is discussed in relationship to teachers' growth and development.

(Sm-iv) *Further studies*

In the previous aspect the educators emphasised that teachers should know subject matter beyond the level of the students, in this aspect they talked about the possibilities for the teachers' future development. In order to achieve this end the teacher educators emphasised that the content of subject matter knowledge should go beyond the level of what they are going to teach. Certainly, the educators in this aspect are concerned with the demand of higher institutions like universities. For example, the University of Dar es Salaam was reluctant to admit students based on their diploma in education grades, on the basis that the curriculum places emphasis on methods:

> Subject matter knowledge needs to be more advanced so as to enable student teachers to continue with further studies. (Ole)

> Teaching is used as a stepping stone for advanced development; therefore our students need advanced level secondary education content. You know some of them would like to quit teaching. At the moment our courses look to be terminal. (Simba)

One educator argued that the content of subject matter knowledge does not encourage student teachers to learn. According to this educator, student teachers consider the content of subject matter knowledge to be of a low level. As a result, they have less interest towards the subjects since they do not experience new knowledge in their learning (cf. Child, 2004). One educator connected this with repetition of what student teachers have learnt during their secondary education:

> When the content related to school is like memorizing secondary school subjects, this does not motivate them to learn. I think student teachers need more than what is taught in school. (Lita)

The educators seemed to insist on the establishment of a linkage between the teachers' colleges curriculum and the university curriculum so that student teachers would not face difficulties in acquiring a university education. On the other hand, the curriculum is also expected to provide the opportunity for student teachers to join other professions.

Reflection

The correspondence between the content of subject methods and teaching subjects in school was mentioned as being vital in enabling student teachers to learn how to teach in school. The majority of the educators' statements (21/32) pointed out that this correspondence enables them to display certain teaching behaviour with the aim of promoting student teachers' ways of learning to teach. This can be explained as modelling, whereby educators are supposed to be a good example to the student teachers. In addition, it is one way of offering student teachers the opportunity of seeing the connection between theory and practice.

In contrast, other educators' statements (11/32) focused on helping student teachers to learn content beyond school syllabus in which they are prepared to teach. This will enable student teachers to be knowledgeable in their areas of specialisation. It was also stated that a strong academic background in school

subjects, strengthens student teachers' opportunities for further studies in the teaching profession and other professions. In a concrete explanation, it means that a strong academic background of student teachers widens opportunities for the acquisition of further teaching qualifications by additional studies at universities or other higher learning institutions. Variation in the educators' conceptions of methodology subjects is summarised in Figure 11 below.

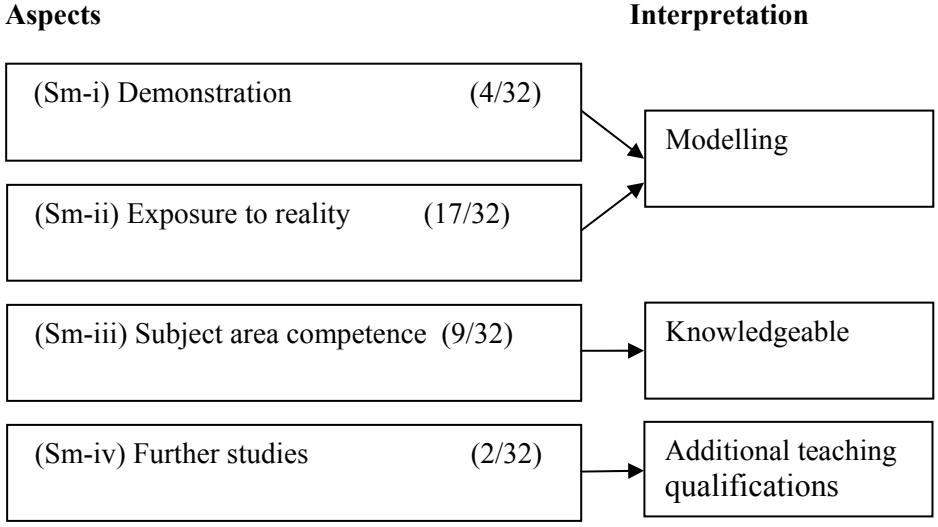


Figure 11. Aspects in educators' conceptions of methodology subjects and their corresponding interpretation

6.1.3 Educators' conceptions of the integration between subject matter and methods

The third discourse of curriculum innovation was about the integration of subject matter knowledge and subject methods. The respondents were encouraged to reflect on their own experience when dealing with these two areas during the teaching and learning process. Similarities and differences in the educators' statements resulted in two main categories of description: *Confidence in the content separation* (Ic-A)[13] and *confidence in the content integration* (Ic-B). The two categories were further analysed to find aspects after considering the educators' confidence and ability in relation to teaching, as well as helping

[13] Ic refers to content integration.

student teachers to learn integrated content. In the analysis five aspects were identified from the two categories, as illustrated in Table 8.

Table 8. Overview of educators' conceptions of content integration

Categories	Aspects
(Ic-A) Confidence in content separation	(Ic-i) Weak boundary (Ic-ii) Mono-focused
(Ic-B) Confidence in content integration	(Ic-iii) Association (Ic-iv) Self-learning (Ic-v) Identity for teacher education

Category Ic-A: Confidence in content separation

The educators in this category explained that it is difficult for them to comprehend a syllabus in which subject matter and teaching methods have been integrated. It is easier for them to comprehend one in which the subject matter and teaching methods are treated separately. In this context the notion confidence reflects how effective educators feel in dealing with knowledge integration (cf. Ruohotie, 1996). In this case the educators were generally pleased with the classification of the curriculum into distinct topics or subjects. The two aspects which emerged in this category are described below.

(Ic-i) *Weak boundary*

The educators pointed out that they are facing a dilemma in deciding what to teach because there are no clear boundaries between subject matter knowledge and subject methods in the integration. The notion weak boundary in this context implies that the contents blur into each other in such a way that boundaries between subject matter knowledge and teaching methods are not distinct or well maintained (cf. Ross, 2000). As a result, it is not easy to proceed with the teaching and learning process (cf. Trnobranski, 1997). The problem of weak boundaries is exemplified in the next statement:

> I have seen some problems; one of the problems is how much subject matter knowledge should be taught. (Ncha)

An unclear boundary has made student teachers develop negative attitudes towards the curriculum:

> Teacher educators face difficulties in acquiring the intention of the syllabus; as a result, student teachers have developed a negative attitude towards the subjects, and you know our universities do not favour students from teachers' colleges. (Pacha)

On the other hand, the educators were worried about student teachers' ability to follow the lessons which are based on multiple objectives, for example understanding of a topic or theme and analysis of the way it can be taught in schools. According to them, student teachers face a problem in internalising knowledge, due to lack of a clear distinction between subject matter and teaching methods. The educators' worries are expressed by the following statement:

> Integration is not good… I think if separated, student teachers can gain more… You know sometimes they fail to distinguish between subject matter knowledge and teaching methods. Of course, when teaching I can see… I am confusing them. (Eliwango)

Conceptions of integration in this aspect reveal that educators' face a problem of teaching integrated content. Some attributed this to the fact that they lack sufficient knowledge and skills of teaching integrated content. In the same way, student teachers lack the ability to learn integrated content. For these reasons, the educators argued that it is not easy to organise curriculum content in such a way that it can bring meaning to student teachers. Finally, all the educators preferred the separation of subject matter and teaching methods. Other educators have decided to prioritise teaching methods, as shown below.

(Ic-ii) *Mono-focused*

The teacher educators in this aspect pointed out that integration creates the possibility of placing emphasis on one part, for instance on subject matter knowledge or teaching methods. They prefer a separation because it provides a

clear focus of what an educator is required to teach. The educators in this aspect pay attention on how to teach as compared to what to teach by placing more emphasis on teaching methods:

> Integration has created problems because some educators teach only one part; here we have been focusing on teaching methods. (Ngira)
>
> Much time was needed to cover subject matter and methods in one subject, so I decided to concentrate on methods alone. (Singa)
>
> I think it is better to separate subject matter and methods of teaching. Because during teaching I decide to teach one area and ignore other areas; in fact we teach subject methods. (Pipa)

The teacher educators' emphasis on teaching methods is also connected with the ineffective preparation of teachers:

> What I know is that it has led to poor preparation of teachers, as most teacher educators place emphasis on teaching methods. (Lita)

Although the educators seem to be aware of integration, nevertheless they have decided to focus on pedagogy alone. Generally, they are largely resistant to the integrative model, insisting on going back to single-subject teaching. In the next category educators prefer the integration of subject matter knowledge and how to teach.

Category Ic-B: Confidence in content integration

Integration is considered to provide the possibility for the student teacher to learn subject content and ways of helping pupils to learn. Through integration, teacher educators have managed to help student teachers to improve their mastery of subject matter knowledge and at the same time to teach them how to teach a particular topic. The educators in this category feel that they can implement an integrated curriculum. They can be placed in three main aspects.

(Ic-iii) *Association*

In this aspect the educators related integration to mastery of subject matter and learning to teach. In this study association refers to the connectedness that

ensures student teachers are engaged with real, practical and also hypothetical problems connected to classroom activities (cf. Clark, 2005). The educators explained the way integration has enabled them to help their student teachers to master subject matter for teaching, as exemplified by the statements below:

> It enables student teachers to link subject matter knowledge and teaching methods. And also it improves mastery of subject matter for those who are weak. (Sekia)

> When I was teaching, I started by evaluating my students in the area of subject matter. In fact, you cannot teach them how to teach something which they do not know. What I did is to ask students to list all secondary school topics which they thought were a problem to them. I included this in my course outline. Therefore, in the examination, for example, I could ask them to list types of compositions and how to teach form one student… I see this as even more than what I am required to do. (Kolla)

> In my opinion, integration is good because during teaching you can combine subject matter knowledge and methods of teaching a given topic in a syllabus; I am aware that some educators have been argumentative about this… we have problems ourselves, maybe we need training or orientation. (Siko)

Association is also ensured when the same educator is teaching what to teach and how to teach. The possibility for educators to meet the needs of individuals is enhanced:

> It enables student teachers to be aware of language of teaching and how to teach. But when I was doing my diploma, subject matter and how to teach were treated separately. I can tell you when we were taught by two different educators, you could identify differences. They differ and sometimes one educator is not aware of the students' level. (Pipo**)**

> It is good for the teacher educator because you can cover both subject matter knowledge and methods; sometimes you are not sure whether students have learnt the subject matter. It is also better if one educator takes it. (Sinto)

On the other hand, integration is being taken as a strategy of dealing with the shortage of educators in teachers' colleges. Apparently, integration might reduce the number of subjects taught in teachers' colleges. This suggests that teaching

techniques such as team teaching might be of importance. One educator explained the advantage of integration in comparison to the shortage of educators and heavy workload:

> I think it is good because it reduces the demands on teacher educators, as one can teach subject matter knowledge and the teaching methods. It also reduces the teaching load, and this is an advantage because we have a shortage of manpower. (Lipo)

What can be seen above is how integration fulfils coverage of subject matter and pedagogy. During the process of learning to teach a certain topic in the syllabus, educators have to be sure that student teachers master the content of a particular topic. In this situation it will be easier for student teachers to propose a teaching technique which will be appropriate to the topic. Therefore, integration helps student teachers to understand subject matter with the aim of teaching pupils in school. In the next aspect, the teacher educators describe how integration encourages student teachers to initiate their own learning.

(Ic-iv) *Self-learning*

The teacher educators in this aspect appreciated the way integration is fostering students' independent learning. They argued that for student teachers to be able to connect subject matter knowledge and how to teach would demand from them the ability to learn on their own and make judgment. This happens when student teachers exercise independence from educators:

> It enables student teachers to search for more knowledge, as they will be required to demonstrate how to teach a certain topic in the secondary education subject. They cannot avoid this; it encourages their own initiative as adult students. On the other hand, it has also simplified my work. (Ole)

Furthermore, integration has the advantage of dealing with student teacher preconceptions of the teaching and learning they bring with them from schools. Through integration student teachers might reflect upon their own learning in primary and secondary schools: for example, the way they translate subject matter knowledge and their learning styles. At this juncture student teachers

might be in a better position to develop their understanding about teaching and learning. One educator expressed this situation as follows:

> The idea is good because it gives a chance for student teachers to reflect on their experience as students in secondary school education. In fact, it gives them the chance to evaluate their own learning in secondary education; this happens when they learn how to teach secondary school topics. (Kibido)

The educators' statements about curriculum integration in this aspect considered student teachers as independent learners. They can bring their own experience from secondary school classrooms, which helps them change their understanding of teaching and learning. Normally, at the beginning stages of teacher education, most students have had little direct experience of participating in primary classrooms for at least a decade (Bennett, Carré & Dunne, 1994). Additionally, the educators' statements suggested that integration helps student teachers to see teaching from the perspective of a pupil (see, e.g. Thompson, 2006). In the next aspect, teacher educators deal with the view that teacher education needs its own identity.

(Ic-v) *Identity for teacher education*

Integration is described in connection with the basic function of teacher education, which is to prepare teachers for teaching in schools. The educators in this aspect insisted that teacher education has to focus on subject matter for teaching, which could be attained through integration. In addition, they argued that integration provides teacher education with uniqueness by distinguishing it from primary and secondary education. As such, identity in this context refers to the stable entity that teacher educators use to justify, explain and make sense of themselves in relation to other educational practitioners (Campbell, McNamara, & Gilroy, 2004). In order for integration to work, the educators emphasised the importance of enrolling candidates who have attained good results in their secondary education:

> If student teachers master the content, it can work; otherwise there is a need to spare time for each component. I know we can separate them, but this will be similar to secondary education. (Tisu)
>
> I think it is a waste of time if we focus on subject matter. You know our students have completed secondary education and passed their final national examination, so the focus has to be on how to teach and not what to teach. (Lika)

As seen in the above teacher educators' statements, integration is one of a core justification for teacher education. Integration, however, is working on the condition that student teachers are competent in school subjects. In accordance with this conception, there is a need for teachers' colleges to recruit highly qualified candidates.

Reflection

The educators' statements can be divided into two main groups. Some educators experienced difficulties (12/30) in teaching when subject matter studies and subject methods are integration, while others (15/30) had a positive reaction towards integration. In the first broad conception, educators see integration as problematic due to unclear boundaries which make them sceptical of what to teach. In fact, these educators are not pleased when they face problems of making decisions about the content and the most appropriate way of teaching. As a consequence, these educators are in favour of a separation of subject matter knowledge and subject methods. It can also be interpreted that separation helps to ensure that educators are clear about what they are supposed to teach. On the other hand, it implies that they classify knowledge into discrete subjects.

Those who place great weight on integration argued that in the process of learning to teach it is not easy to separate the two because students learn to teach subject matter. The educators' descriptions can be related to helping student teachers grasp the concrete school situation. School subjects are not divided into subject matter and subject methods. From this point of view, it implies that integration helps student teachers to recognise the link between subject matter

studies and subject methods. As a consequence, learning becomes more practical.

Other teacher educators mentioned that integration of subject matter and subject methods encourage student teachers to be self-initiating. Essentially, it means that weak boundaries of curriculum or integration of contents elicit lead student teachers to focus on how to learn, rather than relying on receiving content knowledge from teacher educators. Furthermore, other educators (3/30) saw that integration provides a clear criterion that distinguishes teacher education from primary and secondary schools. In other words, it can be interpreted that integration provides a distinct feature of teacher education. The variation in educators' conceptions of integration between subject matter studies and subject methods is illustrated in Figure 12 below.

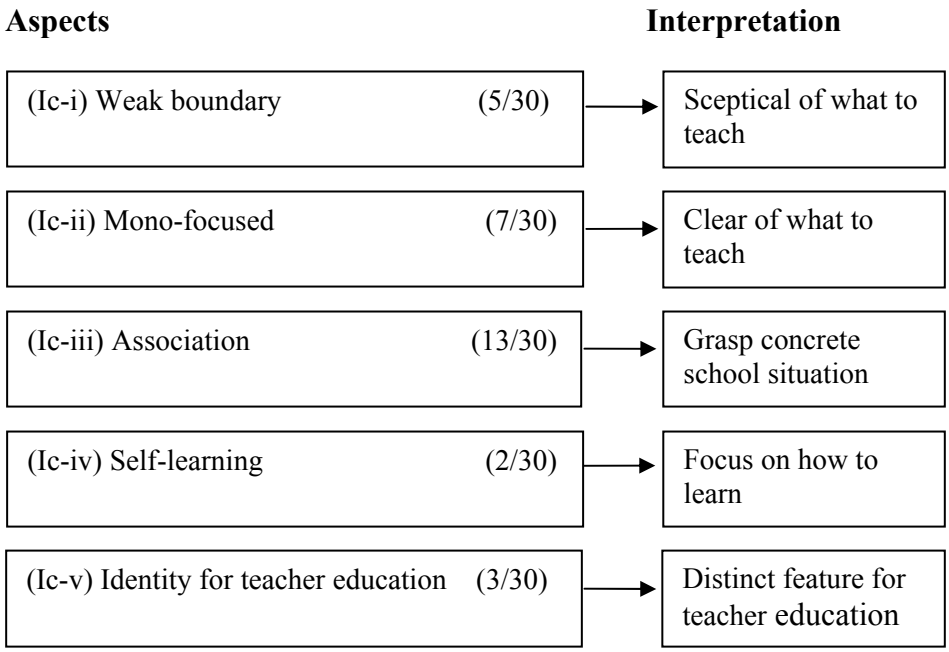


Figure 12. Aspects in educators' conceptions of content integration and their corresponding interpretation.

6.2 Educators' conceptions of innovations in classroom practice

The notion classroom practice in the study encompasses the educators' teaching and organisation of students' learning as well as learning activities (cf. Imsen, 1999). In this section, I focus on teaching and the use of syllabi and modules in the teaching and learning process. The presentation of educators' conceptions is divided into three sections:

6.2.1 Educators' conceptions of their teaching

6.2.2 Educators' conceptions of the syllabus

6.2.3 Educators' conceptions of the module

6.2.1 Educators' conceptions of their teaching

Having discussed the relevance of curriculum content and organisation in the previous section, this section focuses on the informants' reflection on their teaching. The interviews were based on the new emphasis on qualitative teaching. The educators were encouraged to offer their own experience. Although the discussion was from the perspective of teaching, my interest was in student learning (Joyce & Weil, 1986). In the analysis, two broad categories emerged from the data: *learner-centred teaching* (T-A)[14] and *content-centred teaching* (T-B). The variation between and within the two categories were identified after considering the objectives of teaching in accordance with the new curriculum (2000) and the reasons for adapting a particular teaching method. In the analysis, five aspects emerged: two in category (T-A) and three in category (T-B). The categories and aspects are presented in Table 9 below.

[14] The symbol T is used here to refer to teaching

Table 9. Overview of educators' conceptions of teaching

Categories	Aspects
T-A: Learner-centred teaching	(T-i) Interaction (T-ii) Engagement
T-B: Content-centred teaching	(T-iii) Teaching context (T-iv) Lack of adequate skills (T-v) Meeting examination demand

Category T-A: Learner-centred teaching

Teacher educators in this category discussed teaching in terms of student participation in the teaching and learning process. All the educators attempted to involve students in knowledge construction and develop a sense of independent learning. The two aspects identified are presented below.

(T-i) *Interaction*

The educators in this aspect discussed teaching in terms of students' participation in classroom activities, particularly in answering questions and taking part in group discussions. In the context of this study the notion interaction refers to the techniques used by educators to ask questions in order to develop a particular theme or explore the issue at hand (Kyriacou, 2001). The common techniques used are brainstorming and group discussions:

> I involve my students when teaching by applying techniques like brainstorming and discussion. This makes teaching simple and creates understanding in the student teacher. I am pleased because when I went to assess my students in teaching practice, I found that they are also involving pupils in their teaching. I can say they are learner-centred. (Lika)

> I use participatory methods; students have to give their ideas, and share with others through discussion. Normally, what I am doing is coordinating their ideas. Of course, at the end I make conclusions. (Tisu)

> I normally arrange my students in groups and share ideas with them. Students enjoy this a lot because they are involved in the lesson. But when you have limited time, this does not work. (Ngira)

Through the involvement of students in teaching and learning educators obtain the opportunity to learn new concepts:

> My teaching has been simplified due to participatory teaching methods, I give them questions to discuss in groups and make presentations. In fact, you have little to do, but I also learn more concepts from my students. (Pipa)

The educators in this aspect emphasised the use of the prescribed participatory methods as a means of making students participate in teaching and learning. It seems they have abandoned the use of non-participatory methods. In the next aspect the educators are not concerned with methods, but learning.

(T-ii) *Engagement*

Teaching focuses on enabling student teachers to develop the ability to reflect on their learning. In the classroom educators try to help students to develop the ability to reason logically and become autonomous in their own learning. I have used the notion engagement and challenge as the creation of a need to know, whereby student teachers are encouraged to push ideas further, pursue the linking of new ideas and existing knowledge and to use their metacognitive skills to develop new avenues of inquiry, as used by Loughran (2006). According to one respondent educators are concerned with the type of techniques used during teaching instead of helping student teachers to become independent learners:

> I concentrate on transforming my students through improving their reasoning ability, emancipating them, and making them independent in thinking. The question of interaction is not my focus because it limits teaching to methods**.** On the other hand, student teachers regard interaction as being in groups. (Dume)

Educators are also required to think beyond methods and become reflective, as can be seen in the next statements:

> When I started teaching I used to tell my students everything, but today I have changed. I start with searching the students' previous knowledge through brain-storming…then I proceed…Surprisingly, students do not contribute convincingly; really, I need to design my teaching well... (Mbacha)

> Students today have substantial experience, therefore my role is to design, reorganise, and give new ideas. In fact, teaching is becoming more challenging today. (Lita)

Whatever methods used by educators, the focus is on the nature of the outcome observed after the teaching and learning process. This means that they are not bound to methods, but to student teacher learning.

Category T-B: Content-centred teaching

The educators placed priority on transmission of knowledge and skills to student teachers, therefore teaching becomes content-centred. However, they would like to use participatory methods as prescribed in the curriculum. Three different aspects emerged during the analysis. The aspects illustrated factors which have influenced educators to plan and teach by using content-centred teaching methods.

(T-iii) *Teaching context*

Some educators mentioned time and large classes as important in their decisions to go back to traditional teaching methods. They also expressed the pressure which they are face when struggling to reduce class size so that they can use participatory methods:

> I am facing difficulties in teaching due to the large size of classes and shortage of time; one hour is not enough as there is a lot of delay. For example, in our college students do not stay in permanent rooms, they have to shift in each lesson to another room**.** I normally use participatory methods when I have small classes; it is enjoyable. With large classes it is not possible unless I divide them into two groups or more; sometimes I do, but it is difficult because you have to negotiate with other educators … (Kisu)

The characteristics of students have also made educators use traditional methods. One educator talks about student unwillingness to learn through participatory methods:

> Emphasis is on learner-centred methods but we are forced to use teacher-centred methods. The problem is that student teachers depend on us to a great extent in such a way that they complain when given several activities to do on their own. You can decide to help them but we have little time, our college is involved in many activities … which disrupt teaching and learning. (Singa)

> Students demand a lot from me, whenever I ask them to give ideas about a certain topic it is new to them; even a simple topic like the writing of an official letter. So I tend to put aside participatory methods; spoon-feeding is more important today than before. (Kolla)

The educators considered that it is proper for them to focus on content due to the existing frame factors which seem to be beyond their own capacity of decision-making and influence. They have come to a solution of going back to traditional practice. It was also noted that some educators were not sufficiently trained in the use of participatory teaching methods; this is the next aspect.

(T-iv) *Lack of adequate skills*

The educators in this aspect showed that they are not competent enough to use participatory teaching methods. Although they are trying to design participatory lessons, they have realised that less training has been a setback in changing their teaching approach. This is exemplified in the next statement:

> I tried to help my students to interact with the teaching material, but it has been difficult for me. The problem is that I am not exposed enough to these new methods of teaching. (Sekia)

Although some educators claim to use participatory techniques, they do not use them properly. In fact, they are using a content-centred approach. This is exemplified in the next statement:

> I think teaching is deteriorating because we are trying to emphasise participatory methods, but the reality in our country does not favour these, for example there is

> lack of teaching and learning materials… You know, some of us are believers in participatory methods and even in circumstance where it can't work, I can tell you! Here I have seen educators provide assignments to student teachers without any guidance; they claim this is participatory… and in the next lesson they demand presentations from the students… in these presentations sometimes the role of teacher educator is not very clear as they face difficulties to facilitate the presentation. (Pacha)

The educators used a content-centred teaching approach because they did not get enough training during the introduction of and even in the implementation of the curriculum. In the next aspect, teaching is associated with examinations:

(T-v) *Meeting examination demand*

Student teachers are given assignments so that they can find out as much as possible about the topic of study. Thus, assignments are used to enable students to interact with various books and search for more knowledge. The intention is to enable students to be well prepared for the final national examination:

> Teaching is still traditional as we are facing a shortage of time… you know, examinations determine our teaching so we are trying to cover the syllabus. In fact, we do not help students to understand what they have learnt. We are only preaching meaningful learning, but no practice. (Eliwango)

Some teacher educators explain the importance of giving students a variety of tasks so that they complete the curriculum:

> Normally, I give the students assignments to be discussed in the next lesson. I want them to contribute to the coming lesson; it also helps them to learn many topics. However, I have been telling my students that participatory teaching is good when you have access to a variety of materials; in fact, I am cautioning them because when they go to school they will face the problem of lack of textbooks. (Moki)

> Teaching has improved as I give more tasks to my students: for example, a lot of questions. If you are good in planning, you can complete the syllabus within a very short time. (Sinto)

The influence of the assessment system in the educators' teaching is obvious. Questions are used to help students complete the curriculum content. The educators are also judged by coverage of the syllabus and the students' final examination results.

Reflection

Within the categories identified in this section, teaching is described in terms of using student ideas in constructing new knowledge (16/38) by using participatory teaching methods. The educators' statements seem to reflect that they are concerned with interacting with the students. They are doing this through brainstorming and group discussion, which appear to be the dominating techniques used in teachers' colleges. Evidence from the transcripts suggests that educators place emphasise on the use of participatory methods. Other educators (4/38) focus on students' engagement in the teaching and learning process. These educators focus on active learning by facilitating the student teachers' learning process.

Despite the emphasis given to the use of participatory methods, other educators (16/38) are delivering subject matter knowledge and professional skills to students. However, all of them talked about the importance of using participatory methods. Two main frames contribute to this situation: one is the management of innovation, which has made some colleges use more time on activities which do not relate to teaching and learning in the classroom because of large classes and lack of support to enable educators learn about innovations. Secondly, the external demand of the national examinations has contributed to rote learning. Variation in educators' conceptions of teaching is summarised in Figure 13 below.

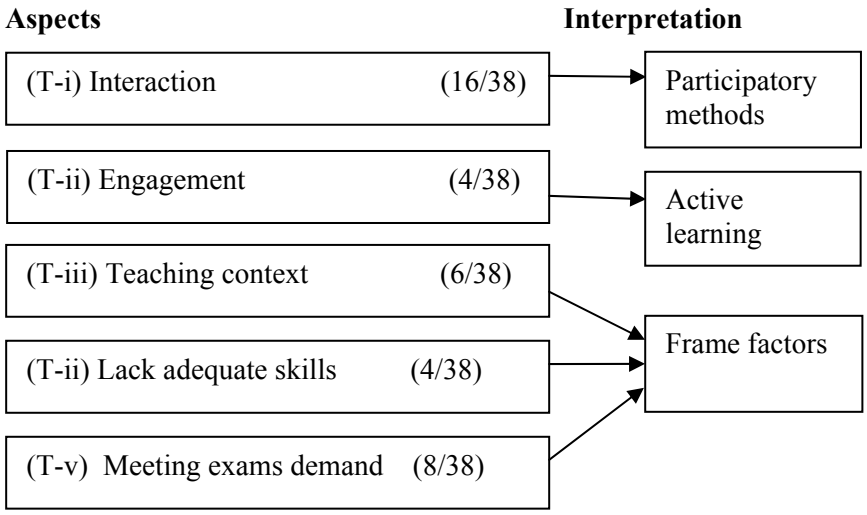


Figure 13. Aspects in educators' conceptions of teaching and their corresponding interpretation

6.2.2 Educators' conceptions of the syllabus

Having discussed teaching methods, the educators were encouraged to reflect upon implementing the curriculum, which recommends neither textbooks nor reference books to be used in the teaching and learning process. Here, I am referring to the syllabus as a normative framework for what has to be taught and learnt in teachers colleges (cf.Mitter cited in Pepin, 1999). In the analysis of educators' statements, similarities and variation could be identified among the educators, which led to the formulation of two broad categories: *autonomy orientation* (S-A)[15] and *uniformity orientation* (S-B). The categories of description were analysed in detail to find different aspects of the uses of the syllabus. Four aspects emerged, as illustrated in Table 10 below.

Table 10. Overview of educators' conceptions of syllabus

Categories	Aspects
(S-A) Autonomy orientation	(S-i) Responsibility (S-ii) Desire to learn
(S-B) Uniformity orientation	(S-i) National standard (S-ii) Planning for teaching

[15] The symbol S used here to refer to the syllabus.

Category S-A: Autonomy orientation

A lack of recommended books in the syllabus is considered by the educators as one strategy for developing the ability to make decisions about student learning. The notion autonomy is used as the freedom to make decisions about the types of books to be used in delivering the National Curriculum. Two main aspects could be identified: *responsibility* and *desire to learn*.

(S-i) *Responsibility*

The autonomous educator is responsible for student teachers' learning by selecting books according to the local conditions. All the educators in this aspect felt that they have more professional accountability because the syllabus does not tie them to specific books. This has given them a kind of freedom during the implementation of the National Curriculum. Some educators related this freedom to the inequality found among teachers' colleges in terms of the availability of teaching material:

> With me it is fine as I can select books according to my preference. I have done this and it has been working. (Singa)
>
> Well, I think it is not a problem because I can use a variety of textbooks; for sure I have managed to select textbooks for my students. You know, previously we had a syllabus which suggested textbooks, but sometimes it was not easy to find. (Simba)
>
> The syllabus is good because it offers the opportunity to select textbooks. (Moki)

Educators in this aspect placed emphasis on professional responsibility, as they need to be free from prescribed external priorities which do not consider the needs of the students and the prevailing conditions in a given college. The next aspect shows that the autonomy given to educators encourages continuing learning.

(S-ii) *Desire to learn*

A lack of proposed textbooks in the syllabus encourages educators to update their knowledge through using varieties of books rather than depending on

highly structured knowledge when textbooks are prescribed in the syllabus. For this reason, teacher educators are striving to achieve reasonable competence in the subject knowledge:

> It is good because educators will seek books themselves … you know, this is a liberalisation of education. In addition, proposing textbooks can narrow learning. (Tisu)

> Of course, there is no suggestion of books in the syllabus. I think this is good because it widens the scope of educators to understand the topics, because you are forced to use a variety of books. (Kisu)

> The syllabus does not suggest any kind of textbooks to be used by us and our students. This is good because we have become knowledge-seekers. (Lika)

According to this conception, lack of textbook prescription in the syllabus appears as another way of encouraging professional growth, as educators use a variety of books to broaden their domain of knowledge. In fact, this has made educators shift their practice from being passive recipients of structured knowledge to being active creators. In the next category educators are concerned about diversity, which could be the result of a variety of textbooks used in teachers' colleges.

Category S-B: Uniformity orientation

To ensure that student teachers acquire similar knowledge to that indicated in the National Curriculum, it is considered important for the syllabus to include recommendations of textbooks. Educators are worried that the freedom given to teachers' colleges to select their own textbooks will lead to diversity and inequality. This category can be divided into two aspects, as illustrated below.

(S-iii) *National standard*

The use of multiple textbooks is discussed in connection with standard content and the educators' ability to select relevant textbooks. Concerning standardization, educators share fears about the way quality can be maintained when they use different types of textbooks in teaching the National Curriculum.

This is also connected with the unequal resources found in teachers' colleges; in centralized systems it is assumed that there is a general consensus on value orientations and approaches and that specific curriculum material will be acceptable to a wide range of clients (cf. Marsh, 1997). This can be seen in the following statements:

> If we give educators a chance to select books, it will reach a point where the problem of disparity might happen due to the fact that colleges differ … what I can say is that basic books should be recommended, as the present situation creates a chance for educators to use old books. Of course, not all of us can select books. (Ncha)

In the same way, other educators are concerned with textbooks which could also be used for national examination purposes:

> The syllabus has to suggest textbooks, we have the national examination and if we let the situation be like that, we can experience a problem of validity. Perhaps this has made educators place emphasis on the use of modules, as they contributed to uniformity. (Pipo)

The ability to make choices is considered to be a problem. This educator relates it to the existing situation in primary education:

> It will be better to propose some books, it will help both teacher educators and students as compared to the freedom we have … in fact, in primary schools there are many books due to liberalisation. As a result, it is not easy to make a choice. (Ole)

The educators expect the syllabus to provide a list of textbooks to be used rather than allowing educators to do what they find appropriate. Recommendations for textbooks are considered important in helping educators to plan for teaching, as can be seen in the next aspect.

(S-iv) *Planning for teaching*

In order to teach the content of the syllabus, educators are supposed to make some preparation, including identifying appropriate textbooks for a particular topic. According to the educators it is not easy to make this preparation when there are no suggestions for textbooks:

> Developing the syllabus without suggesting any sources which educators could refer to is just like preparing soup without a pot … I think educators need a starting point. I don't know what these curriculum developers do. (Dume)

> I think it is good to recommend some textbooks: as you know, not all teachers' colleges have facilities such as the Internet. I can also be myself when provided with some recommendations. (Gaza)

Newly employed educators face a problem in planning for their teaching, because it is not easy for them to identify appropriate textbooks within a short time, as expressed by a more experienced educator:

> I can teach the syllabus because I have books, but it is not easy to a novice educator. I have seen new educators seeking a lot of assistance from us. It is even a problem for those who are coming from university for teaching practice. (Sawasa)

The syllabus is used by educators and student teachers; it is therefore considered important to indicate some textbooks in order to help them:

> They have to propose textbooks, for example, 'Mkulima Stadi' to be used in the subject of vocational skills as it will be easy for us and student teachers to find even in other colleges. (Mbicho)

One educator pointed out that a complete syllabus has to indicate the list of textbooks to be used during the teaching and learning process. According to him, it is a mistake to develop a syllabus which does not recommend textbooks:

> Textbooks make a complete syllabus, therefore the syllabus was incomplete. How can you use it in planning teaching? I think it was a mistake. You know, even textbooks indicated in our schemes of work were not proper ones, some are primary school textbooks and it seems nobody was troubled with this situation. (Kolla)

The syllabus is expected to help educators to work in a more comfortable way during planning. Clark and Yinger (1987) remind us that the planning and decision-making of educators constitute a large part of the psychological context within which curriculum is interpreted and acted upon and within which educators teach and students learn. However, a lack of suggested textbooks has made this process difficult.

Reflection

Within the autonomy and uniformity orientation categories educators can be distinguished in four aspects. In the first aspect, educators (6/30) were satisfied in using a syllabus which does not recommend textbooks, as it makes them become more responsible. This conception can be interpreted such that the syllabus strengthens teacher educators' commitment to their work. Evidence from the transcripts indicates that educators have to put a considerable amount of energy into selecting usefully textbooks for student teachers. In the same way, other statements (4/30) showed that the syllabus motivates them to learn more. In other words, it means that the syllabus inspire teacher educators to broaden their knowledge base.

In contrast, others (20/30) argued that a proper syllabus should include recommendations about textbooks. For these educators, if the syllabus contains textbook prescriptions it will be easy to ensure that teaching is in compliance with a new curriculum. From this point of view, the educators' statements showed great emphasis on curriculum standardisation through the homogenisation of teaching and learning across teachers' colleges. Variation in educators' conceptions of syllabus is illustrated in Figure 14 below.

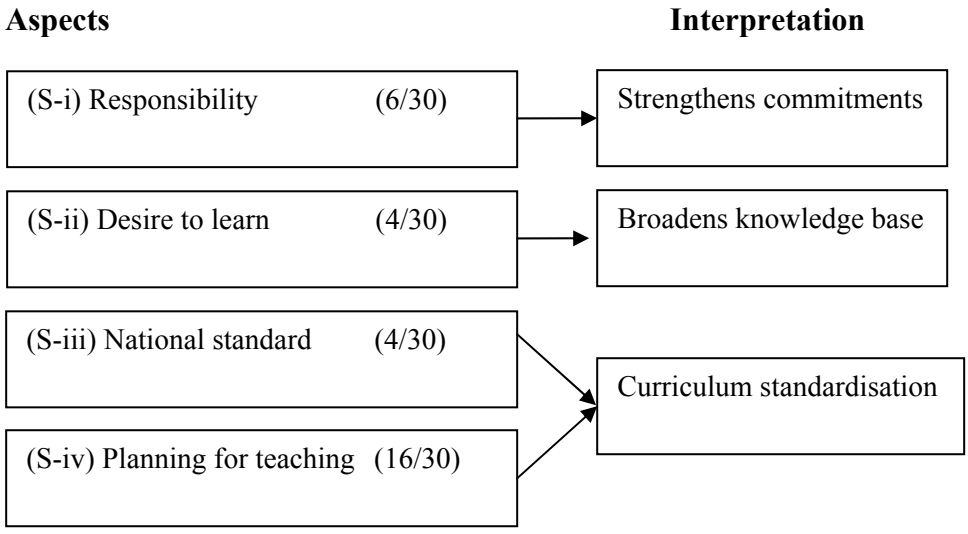


Figure 14**.** Aspects in educators' conceptions of the syllabus and their corresponding interpretation

6.2.3 Educators' conceptions of modules

Within this discourse of innovation educators were encouraged to reflect upon the use of modules. The conversation focused on the way they have experienced the role of modules in the teaching and learning process. In contrast to other categories, the educators made a lot of comments concerning this. Two broad categories of conceptions emerged from the educators' statements: *surface learning* (M-A)[16]and *teaching and learning guide* (M-B). Similarities and variation between and within the two approaches were identified after detailed analysis, whereby six aspects could be identified, as illustrated in Table 11 below.

[16] The symbol M is used to refer to the modules.

Table 11. Overview of educators' conceptions of modules

Categories	Aspects
(M-A) Surface learning	(M-i) Approved knowledge (M-ii) Examination guide (M-iii) Dependent
(M-B) Teaching and learning guide	(M-iv) Implicit textbooks (M-v) Detailed syllabus (M-vi) Hybrid model

Category M-A: Surface learning orientation

In this study the notion surface learning refers to learning which involves memorisation. The intention of student teachers who adopt this approach is to remember facts, theories and details which might be asked about in the examination. From this perspective, the surface learning approach is characterised by focus on a module itself (the text or sign), whereas a deep approach focuses on that which is learned, the meaning of the text, as underlined by Marton and Booth (1997). The three aspects which emerged in this category are presented below.

(M-i) *Approved knowledge*

Modules are considered by student teachers to contain sufficient designate knowledge in accordance with the curriculum. For this reason they rely on them. In this connection it is not easy for educators to suggest other kinds of reading. In addition, during the teaching and learning process, student teachers compare the content of the module and the educators' presentation of it. According to the educators in this aspect student teachers expect the content of the teaching to be the same as that found in the module. Thus, educators who are using material other than the module will not be favoured by the student teachers:

> I dislike modules, as student teachers focus on them exclusively. You cannot attempt to teach outside of the modules. They also decrease student teachers ability to conduct research, as they become passive. (Sinto)

> The modules we are using have made student teachers less active in the classroom; they do not make any effort to know more. This is a problem… (Eliwango)

The modules are also used by students as an instrument of judging whether the intended content is taught by a particular educator:

> Student teachers use the modules to monitor our teaching. I have experienced this during my teaching of the curriculum. I was teaching types of curriculum where I mentioned formal and non-formal curricula. You know what happened? Students said 'no sir', it is formal and informal! They were referring to the modules. Again, I said categorisation of the curriculum, but they said it is classification because that is the word used in the modules. (Kolla)

> Sometimes when I am teaching student teachers use the module to assess my teaching. In fact, they use the module language. (Pipo)

Clearly, the educators criticised the modules for making students rely on only one source of knowledge. Student teachers also rely very much on the modules because of the relationship which exists between the modules and the final national examination. This could be seen in the next aspect, in which the module is considered an examination document.

(M-ii) *Examination guide*

The modules are used by educators and student teachers as an examination guide. This is because their experience shows that the national examination is based on the modules. In this sense, educators and student teachers are motivated to focus on the modules because the examination results are used to judge the effectiveness of teaching. I have used the notion effective teaching to imply teaching which simply looks at input characteristics and output (cf. Kyriacou, 2001). All the educators disliked the modules in this aspect due to this direct relationship with the national examination:

> Modules make learning worse; sometimes you find some questions in the national examination which have been picked out directly from the module, what they are doing is to copy the module. As a result, students do not look for any other materials, the modules become the *Alpha* and *Omega* (one and only). (Kisu)

> The examination is based on the modules; I have experienced that when questions in the national examinations do not relate directly with the modules, for example, if the language used is not the same, the students really face difficulties in answering. (Sinto)

> The use of modules should be discouraged completely as they neither help educators nor student teachers. My five years experience in teachers' colleges shows that once student teachers get the modules and since the examination relies on them, teaching and learning become structured rather than flexible. (Dume)

The educators saw that the presence of the modules reduces their role, because some students think that all that is needed can be found in the modules:

> In the presence of modules some student teachers undermine the role of educators as they are sure of passing the final examination…all questions come from the modules. What they do is memorize them. (Singa)

As indicated above, modules are the main source of national examination questions. It is possible to argue that those who construct examination questions are using the modules as the only source of knowledge. From this viewpoint, it is evident that student teachers are likely to pass their final examination when their learning is based on the modules. Under these circumstances they are not motivated to broaden their knowledge because the examination is the only criterion used to qualify them as teachers. In the next aspect other educators claim that modules have made them become passive.

(M-iii) *Dependent*

The presence of modules has made educators rely on them as the main teaching and learning material. The notion dependent is used to imply that educators act as technicians by accepting rather than criticising the content of the modules (Clark, 2005). They are not making an effort to search for more reading for the students and themselves. Thus one educator proposed abandoning the use of modules, because they are superficial, although other educators rely on them:

> It is better to get rid of modules and base the teaching on textbooks. They have made educators depend on them despite the fact that they are shallow. (Lika)

Another educator points out that the presence of modules has influenced educators to become passive in accepting the prescribed content:

> You know modules have made educators become docile, as they are not bothered to search for more knowledge from other sources. (Lita)

Furthermore, Dume points out that lack of time has made educators use modules as the only source of teaching and learning.

> Educators lack time for preparation, so the modules help them to teach, as they are easier to use. (Dume)

According to this conception, it is plausible to claim that the use of modules has jeopardized educators' autonomy. They are no longer used as support material, but rather as something to be followed, like a rule. Educators in the next category stress the importance of the modules as a support for teaching and learning.

Category M-B: Teaching and learning guide orientation

In my study educators also talked about modules as helpful instruments which provide direction for the teaching process. In contrast to the previous category, in this category the modules are considered to be vital material for both educators and student teachers. The three aspects that emerged are described below.

(M-iv) *Implicit textbooks*

The problem of shortage of textbooks in teachers' colleges is solved by the presence of modules. Although the educators talked about the inadequacies of modules in terms of superficial coverage, they use them instead of textbooks:

> Modules are shallow; but they are needed because there are no books. (Ole)

> Modules are used as textbook; I think it is better to give them more elaboration. (Gaza)

Furthermore, the educators insisted that modules were prepared because the syllabus does not recommend any kind of textbooks:

> Modules are there because the syllabus does not recommend any textbooks; otherwise we would not need them. (Tisu)

> Modules help a lot; they guide the self-study of students especially in the situation where there is a problem of books. (Ncha)

Modules appear to be another kind of single mandated national textbook prepared by the Tanzania Institute of Education (TIE). However, since the introduction of the textbook liberalisation policy, TIE is not allowed to engage in textbook design and publication. The modules are also used by educators to understand the demands of syllabus, as seen in the next aspect.

(M-v) *Detailed syllabus*

In this aspect the educators described modules in terms of providing more detail which could not be found in the syllabus. The modules are named as the syllabus because they have been structured according to the syllabus:

> We need modules because they correspond very much with the syllabus. **(**Gaza)

> The modules give direction on what is supposed to be learned in connection with the syllabus. **(**Pisa)

> The modules stimulate student learning, as they provide a very good summaries for them. They are also useful to us. (Mlango)

One young educator considered the modules to be appropriate material for enabling educators to understand and implement a new curriculum. In this sense, the introduction of curriculum innovation has to be accompanied by modules:

> When we have a new curriculum, it is better to have modules, as it takes time for us to grasp new ideas. (Eliwango)

Modules seem to be the major material for planning teaching. The educators' statements suggest that it would be difficult for them to implement the curriculum if there were no modules. Despite the usefulness of the modules, they are considered to create two concurrent curricula, as seen in the next aspect.

(M-vi) *Hybrid model*

Two educators discussed modules in terms of a blended model of education. According to them, the grade 'A' certificate and diploma in education are conventional courses, which cover fulltime learning in the college. However, the presence of modules creates a hybrid programme, which includes both in-class and distance learning. In addition, the use of modules makes the curriculum considered to be modularised. In this context, I use modularisation as the breaking of the curriculum into discrete and relatively short learning experiences. These may or may not have separate learning objectives and assessment requirements, as used by Young (1998).

One educator relates the modules with distance learning, whereby a student teacher uses the modules to learn independently in the absence of an educator. The notion distance learning in this study is used as a partial separation of students and educators:

> Once you produce a module, it is like an Open University or Open Diploma Course. I am saying this because student teachers do not attend lessons as they assume that the module is enough… they learn themselves, like Open University students. (Kolla)

Some educators questioned the use of modules on the basis that the curriculum for teacher education is not modularised:

> The programme is not modularised, but it appears to be like that… but anyway, modules are good to supplement textbooks. (Pipo)

The use of modules is related with modular teaching, which offers a great opportunity for students to learn on their own. Mahenge (1998) describes modular teaching as learner-centred, as it focuses on the activities of the student rather than those of the teacher. The educators' statements seem to reflect the view that there is a need to think more about the use of modules.

Reflection

The educators' statements suggest that modules are considered to be the essential teaching material. Variation could be found when considering the use of

modules. The educators' statements revealed that modules are used as textbooks (16/55). This means that modules have replaced textbooks, despite some weaknesses such as superficial coverage. In general, on the basis of this result, it seems modules look like surrogate single national textbooks. It implies that modules are the main material used by teacher educators and student teachers within and across teachers' college. Other statements (15/55) describe modules as extended syllabi because they are written in accordance with the syllabus but provide detailed information beyond what is found in the syllabus. From this point of view, it can be argued that educators describe modules as an interpretation of the syllabus.

Other statements (8/55) show that modules are used mechanically as the sole source of content knowledge by student teachers and also to judge teacher educators' teaching. In the same way, educators feel relaxed in the presence of modules (7/55). They are not concerned with developing their own knowledge by reading other sources for knowledge. Likewise, students are provided with a limited opportunity of learning through a variety of resources. According to some educators, modules are also used as examination guidelines (7/55). For this reason, it can be argued that educators do not pay much attention to the examination guidelines provided by the National Examination Council of Tanzania. As I see it, the three aspects: approved knowledge, examination guide and dependent suggest that the used modules have provided student teachers with a limited learning horizon.

Others educators (2/55) reflected that the use of modules indicates the existence of two concurrent programmes. From this conception, it can be concluded that modules can promote flexible learning in teacher education. It means that some student teachers can attend full-time in-class learning, while others can learn by distance. Variation in educators' conceptions of modules are summarised in Figure 15 below.

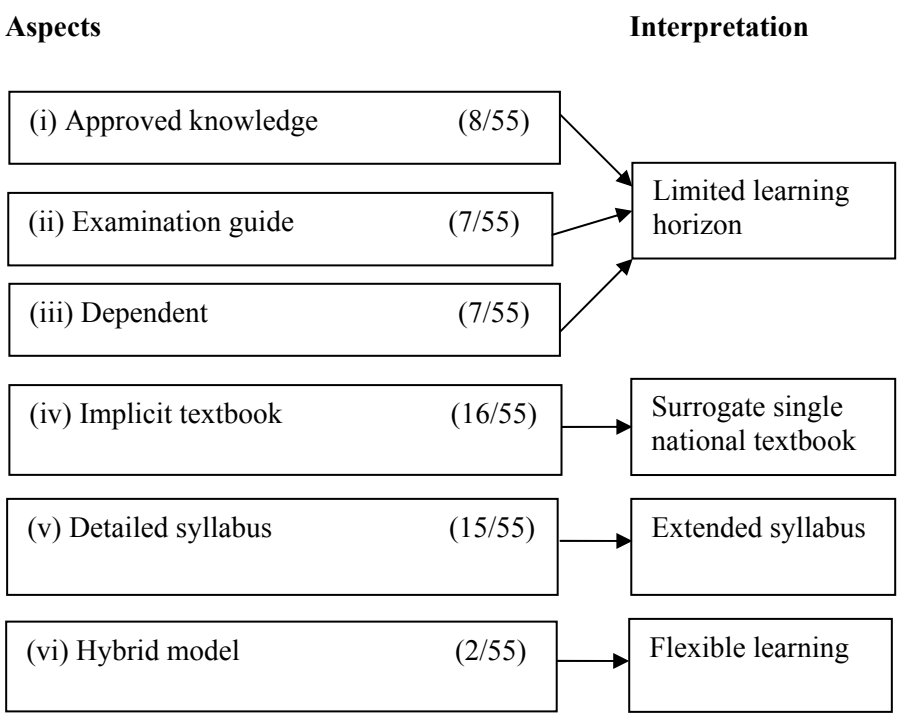


Figure 15. Aspects of educators' conceptions of modules and their corresponding interpretation

6. 3 Educators' conceptions of future curriculum approaches

Having discussed discourses of innovation, educators were asked to describe the ideal mode for the future teacher education. In the conversation the educators were encouraged to use the existing situation to reflect about the future. During the analysis the educators' statements led to four broad categories: *academic approach, practice approach, moral approach* and *inquiry approach*. The four categories were further analysed in detail to find out different aspects of the future curriculum. In the analysis eight aspects emerged, two in each category. In fact, educators had a lot of ideas about future approaches. The categories and aspects are illustrated in Table 12 below.

Table 12. Overview of educators' conceptions of the future curriculum

Categories	Aspects
(F-A) Academic approach	(F-i) Entrants' academic level (F-ii) Adequate knowledge
(F-B) Practice approach	(F-iii) Practicum and methods (F-iv) Contextualisation
(F-C) Ethics approach	(F-v) Caring for pupils (F-vi) Ethical code
(F-D) Inquiry approach	(F-vii) Problem-solving (F-viii) Entrepreneurship

Category F-A: Academic approach

The future curriculum was discussed in terms of mastery of subject matter knowledge. The teacher educators were worried about student teachers' mastery of the subjects which they are supposed to teach. As a result, they place emphasis on solid subject-matter knowledge as the core in teacher education. In this sense, primary school teachers have to learn the subjects of ordinary secondary education, while secondary school teachers have to learn the subjects of advanced level secondary education. In fact, it appears as a repetition of secondary education. The two aspects that emerged are described below.

(F-i) *Entrants' academic level*

In the first aspect the teacher educators seemed to worry about student teachers' academic background, especially those who come from schools with a shortage of facilities. These students, however, have passed their secondary school examination. The relationship between the quality of education offered in schools and the future curriculum is exemplified in the following statements:

> We need a curriculum in which subject matter is emphasised. You know, some student teachers have a poor academic background. I am saying this because secondary schools differ. Some secondary schools are good in terms of teaching and

learning, while others are poor due to the lack of qualified teachers and facilities such as textbooks. (Ncha)

Subject matter knowledge should be given more emphasis because of the students' background. In fact, it has to be treated in separation. (Ngira)

According to the educators, the curriculum for teacher education has to take into consideration what student teachers have learnt while in secondary schools. For this reason, the educators proposed that the curriculum has to be formulated according to the students' prior knowledge in subject matter. In the next aspect educators continue to emphasise mastery of subject matter for teachers.

(F-ii) *Adequate knowledge*

The educators stressed that it is important for student teachers to be knowledgeable in their school subjects. To achieve this end, the educators discussed the importance of loading the curriculum with the content of ordinary and advanced level secondary education. This will enable student teachers to distinguish between what is supposed to be taught at each level:

If think we need a curriculum which has academic content and is applicable to school. I have noted in micro-teaching that some student teachers teach form one students advanced secondary education content. Perhaps there is a need to include both ordinary and advanced secondary education topics in our teachers' colleges. It will be a heterogeneous curriculum which contains more academic content and less methodology. (Gaza).

Prioritisation of subject matter knowledge is also related to the educators' prior education experience. They consider their own education as much better because of the emphasis given to mastery of subject knowledge:

The curriculum we need definitely is the one we had before 2000, which made student teachers spend two years in teachers' colleges and learn advanced secondary education content and methodology. I have gone through this curriculum and it worked quite well. (Kisu)

All the educators in this aspect show that an academic approach should guide the curriculum for teacher education. In a sense, the teacher is looked upon as an

intellectual leader with special competence in the subject at hand (cf. Andersson, 2002). In the next category practice is given more emphasis in helping students to learn about teaching.

Category F-B: Practice approach

The teacher educators visualised the future curriculum in connection to practical consequences. All the educators talked about the role of practice in learning to teach. According to them, learning about teaching requires substantial practice. Two groups of teacher educators were identified in this category, as presented below.

(F-iii) *Practicum and methods*

The educators see that engaging student teachers in actual practice will enable them to develop knowledge and the skills of teaching. Thus, it has to go together with the theoretical coverage of teaching methods. Through practice student teachers have the opportunity to work with students and learn more than what is taught in theoretical courses, as can be seen in the next statements:

> I think teacher education has to place emphasis on methodologies and teaching practice. It will help student teachers to work with pupils at school. I normally send my students to schools with mentally retarded pupils. They were surprised when coming back to the college. In fact, it gives them a nice experience. (Sawasa**)**

> Teaching practice has to be given more weight, since practice enables students to acquire deep experience of teaching. (Chapamba)

On the other hand, practice is emphasised under the assumption that student teachers are competent in subject matter knowledge because they have learnt in schools:

> Priority should be given to methods because it is new to them, but this will depend on the students' entry qualifications. You know, I learnt a lot of content at the university such as poly-chemistry, industrial chemistry but they are not useful in my work now. (Singa)

One educator argued that proper teaching practice has to provide student teachers with the opportunity to experience full time working in a school. Short teaching practice such as single lessons will create difficulties in syllabus coverage. This worry is exemplified in the next statement:

> Teaching practice provides identity for teacher education; it has to be given more weight. It has a direct connection with the reality of the teaching professional. Single lesson teaching practice will consume more time due to the large number of students in teachers' colleges. They will not complete the syllabus. **(**Tisu**)**

The practicum is prioritised as the core of the curriculum for teacher education. In order to ensure that student teachers get adequate opportunity to see the correspondence which exists between theory and actual school practice, the educators proposed an extension of the practicum period.

(F-iv) *Contextualisation*

Student teachers have to be prepared to be ready to work in the actual schools found in Tanzania, where there is the problem of shortage of teaching materials and large classes. One educator had the feeling that there is a rush to new ideas or practice, which cannot work in the current context of schools. Thus, she was not pleased with the current practice in teacher education, where some traditional techniques have been ignored**.** Her main concern was blackboard work, which is not a priority anymore. Additionally, she has a feeling that students need more assessment from the educators during teaching practice:

> Teaching practice will be my major focus. You know, here students get only one assessment in teaching practice; I think we need to see them more than once so that we can assess their growth. On the other hand, we have ignored our traditional skills such as blackboard work; really, this has made our students face difficulties in their teaching. (Pacha)

This educator emphasised the importance of helping student teachers acquire the basic skills needed in their work. Although blackboard work is not given priority, it remains the most important teaching aid used in schools according to Pacha.

Category F-C: Ethics approach

Teacher educators in this category described the future curriculum in terms of professional attitudes and ethics. The notion ethics refers to being good; doing what is right, and relating and responding to others in a caring and thoughtful way (cf. Sanger, 2008). The educators in this category argue that teacher education has to prepare student teachers to be able to respect and care for pupils. In this view, teacher education has to focus on developing personal qualities of character through appropriate discipline. The educators in this category were classified into two aspects, as presented below.

(F-v) *Caring for pupils*

The educators mentioned teachers' commitment to their pupils' lives as the first priority. They described this as the kind of relationship which is supposed to be established between teachers and pupils. The notion caring in this context refers to the teacher as nurturer, responsible for the academic well-being of pupils and social welfare, as for instance used by Robinson and McMillan (2006). Teachers are surrogate parents and guardians, a quality which needs to be fostered in teacher education, as the situation is changing today. This is seen in the following statement:

> Student teachers are prepared to be guardians or parents; they have to regard pupils at school as their children. The situation is changing now, and is not good at all. (Kibido)

Generally, the teacher educators saw that the curriculum has to incorporate a personal and an affective part of the teacher role (see also Lewin & Stuart, 2003). In the next aspect, teacher personality is described in relationship to responsibility in society. Teachers are respected members of society; parents have great trust in them, and that is why they take their children to school.

(F-vi) *Ethical code*

The educators discussed the role of teacher education in connection with teachers' accountability. They were worried about the decline in teachers'

commitment to professional ethics or rules, which has led to parents' dissatisfaction with the qualities of teachers' personal characteristics. The educators related this to teacher practices that are considered to go against the rules of the teaching profession. This is seen exemplified in the following statement:

> Teachers lack some elements which could make them be models in society, although they appear to master subject matter. In fact, parents complain that some teachers are drinking a lot of alcohol and lack commitment to their work. (Siko)

In similar circumstances educators are concerned with the personal character of those who join teachers' colleges. They are considered to lack some personal attributes that contribute to being ideal teachers. The educators related this to the social changes which have been taking place in Tanzanian society and other parts of the world. According to Thomas (2000), we live in an increasingly secular society, which appears to be fragmented in terms of community life, in such a way that the concern about values is about to be ignored. This can also be seen in the next statement:

> You know, we have a different generation now, I hope you understand what I am saying … it is important for professional conduct to be given reasonable weight now. (Mbacha)

The role of the teacher is beyond teaching subject matter knowledge. It also includes caring for pupils' lives and providing a good model for students through adherence to professional ethics. In the next category educators are concerned with the ability of student teachers to generate knowledge of their own.

Category F-D: Inquiry approach

The educators talked about designing teacher education that could help student teachers to make rational decisions in their work. I have used the notion inquiry to imply a teacher education that intends to prepare student teachers to be able to adopt a reflective stance to their work (cf. Zeichner, 1983). This can be seen in the next aspects.

(F-vii) *Problem solving*

One educator discussed educating teachers in such a way that they can take their own initiative to solve problems emerging from their work. According to Kolla, teacher education has to assist student teachers to develop the ability to solve problems arising in their teaching and provide valid arguments to justify the decisions taken. By providing valid arguments, teachers also gain credibility in their activities. This will be possible when student teachers are involved in problem-solving activities:

> The future curriculum should focus on problem-solving and discovering ways to teach. You can do this by exposing the student teacher to a variety of books so that they experience trouble in finding the appropriate answer… We want teachers who can give reasons for their teaching; for example, why I am teaching this topic and when, if necessary, can I skip… In fact, the priority has to be on preparing teachers who can be flexible in their work. (Kolla)

This educator mentioned the importance of engaging student teachers in the conceptualisation of a problem. A problem-based curriculum is formulated on the basis of typical classroom-based problems and issues faced by student teachers (Young, 1998). By engaging students in the conceptualisation of a problem, they are invited to exercise the best of their analytical and speculative ability (Eisner, 1994). Through this curriculum several school problems could be addressed, such as learning difficulties, managing large classes, which are common in Tanzania, dropouts and subject specific problems, for example poor performance in science and mathematics. Being a teacher is not just a question of teaching, but also about living a better life, as indicated in the next aspect.

(F-viii) *Entrepreneurship*

According to the informants future teacher education has to focus on developing the enterprise knowledge and skills of student teachers. In this context, entrepreneurship education is connected with the skills related to income generating activities and creativity. Thus, teacher education has to prepare student teachers to work as teachers on the one hand and make their own living

through economic activities such as engaging in small-scale farming on the other. This is exemplified in the next statement:

> We need to help our students to acquire the ability of becoming self-reliant, for example through agriculture and technical education rather than equipping them with theoretical knowledge alone. They can also help their pupils to apply such knowledge in their life and earn something. (Lika)

> I think student teachers need education which will help them manage their own life. This is possible when life skills are taught. (Kibido)

The educators have gone as far as teachers' personal life because it has an effect on their work. This could be associated with the low status of teachers compared to other professionals. On the other hand, another goal is to educate teachers who can make Tanzanian education become enterprising.

Reflection

Many of the statements revealed that the teacher educators described future curriculum by interchange between subject matter, teaching methods and practical experience. The first group of statements (13/34) prioritises academisation of teachers' colleges by teaching subject matter knowledge as the main subjects. The educators described this in connection with their own educational background, which they considered to be superior because it places emphasis on subject matter. It is for this reason that the educators insisted on student teachers' mastery of school subjects.

The second group of statements (16/34) dealt with the practical knowledge that will prepare student teachers for work in schools. Some statements, (3/34) focused on teachers' personal characteristics, here the educators argued that teachers' colleges have to shape an appropriate personality in accordance with the teaching profession onto student teachers. Other statements (3/34) emphasised developing teachers' pedagogical thinking so that they can provide valid argument for the decisions they made during their teaching process. Variation in educators' conceptions of future curriculum is summarised in Figure 16 below.

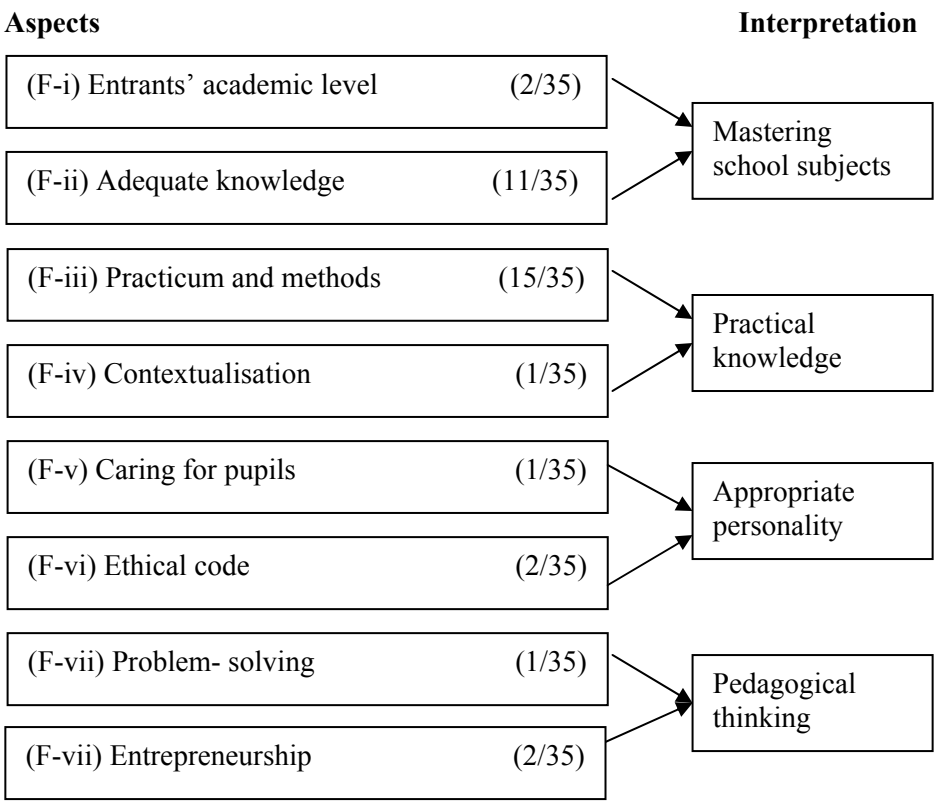


Figure 16. Aspects in educators' conceptions of future curriculum approaches and their corresponding interpretation

Summary of the results

In this chapter the results of the study have been presented in three perspectives: variations in educators' conceptions of curriculum content and organisation, classroom practice and future approaches for teacher education. The findings reveal distinct conceptions of innovation and future curriculum approaches.

The educators' conceptions of educational subjects could be interpreted in terms of *balanced content* and *overcrowded.* In the first main conception, educators saw that the content of educational studies meets the needs of student teachers because it provides them with professional knowledge. The second conception was connected with overload of the subject due to inclusion of less useful content and overlapping.

The conceptions of methodology subjects reveal two main distinct conceptions: *reciting school content* and *beyond school content.* In the first conception the educators associated the content with the level at which student teachers will be working after completion of their studies. According to this conception, it is important to rote learn school content, since it helps students become familiar with school subjects. The other group of educators saw that the content has to go beyond the level at which a student teacher will be working in order to upgrade the mastery of the subject matter.

On the conceptions of organisation of content, the results revealed two main distinct categories: *confidence in separation of the content* and *confidence in integration of the content.* In the first conception the educators showed that they are pleased with single subject teaching. In contrast to the first conception, the second envisages an integrated curriculum, and the reduction of knowledge separation. The general conceptions of educators about teaching can be interpreted in terms of *learner-centred orientation* and *content-centred orientation*. In the first conception the priority is on classroom interaction and engagement of students in teaching and learning. The second main conception is associated with teaching by telling or transmission as a result of some frames which affect the use of learner-centred methods.

The results also revealed two main conceptions of the syllabus in connection to textbooks prescriptions: *autonomy orientation* and *lack of uniformity orientation*. In the first group the educators argued that a lack of recommended textbooks provided them with more autonomy for deciding which textbooks are to be used in the teaching and learning process. In contrast, other educators were worried about the lack of consistency in the nature of knowledge offered across teachers' colleges in the whole nation as a result of the selection of textbooks made by individual educators or college administrations.

Focusing on the uses of modules, the findings revealed two distinct broad conceptions. The first conception is *surface learning orientation* and the second, *teaching and learning guide orientation*. In the first conceptions the educators

related modules with surface learning: for example, students memorizing the content of modules in order to pass the national examination. The second conception revealed that modules are used as an educators' guide for teaching and students' guide for learning.

Finally, on future curriculum approaches for teacher education the results revealed four main conceptions: *academic, practice, ethics* and *inquiry*. The first conception emphasised mastery of subject matter knowledge as the core in teacher education, while the second conception put emphasis on developing teaching knowledge and skill through practice. The third conception prioritised ethical principles by preparing responsible teachers. In contrast to other conceptions, the fourth envisaged research-based teacher education. Through involving student teachers in research work, they will develop the ability to make decisions and give reasons for them.

In the following chapter the results will be discussed from the perspective of the two research questions. In the discussion the study as a whole will be reflected upon.

7 Discussion

The aim of the study was to investigate teacher educators' conceptions of curriculum innovations and future curriculum approaches among teacher educators in Tanzania. The research questions were: 1) What conceptions of curriculum innovation can be found among teacher educators? 2) What conceptions of future curriculum approaches can be found among teacher educators? In the theoretical part the main focus has been on theories of innovation and curriculum approaches within the context of teacher education. Most of the literature used originated from other countries because in Tanzania not many studies have been carried out in this field. However, the literature has been analysed in relation to the Tanzanian context. The ambition was to position the Tanzanian curriculum approach for teacher education in a wide international perspective.

The study was qualitative in character, based on a phenomenographic approach. Thirty teacher educators were purposefully selected from eight teachers' colleges situated in various parts of Tanzania and interviewed. The interviews were analysed in accordance with a phenomenographic approach. By comparing the content of statements, variation could be found which constituted qualitatively different categories of description. The conceptions are discussed in the light of the actual research questions presented above.

The results of the first research question are divided into two themes. The first theme deals with curriculum content and organisation, and the second with classroom practice. I have done this for the purpose of constructing broad discourses of innovation, in order to present evidence supporting that each component of the curriculum and action need to be understood in relation to all other components and actions, in an integrative way (cf. Van Lier, 1996; Pinar, 1997; 1998). Conceptions of future curriculum approaches are set up based on the second research question. In this chapter the implications of the results presented in Chapter 6 are discussed. Models of educators' stance towards

curriculum innovation are presented and discussed as part of the results. At the end of the chapter the contribution of the study and suggestions for further research are dealt with.

7.1 Educators' conceptions of innovations in curriculum content and organisation

In Section 4.2 the notion innovation has been described as initiatives that are perceived to be new to those who introduce and experience them (cf. Fullan, 1991a; Halpin, Dickson, Power, Whitty & Gewritz, 2004; Shkedi, 2006). Three main changes were made in curriculum content and organisation: the expansion of educational studies into four separate subjects to replace the single subject *Malezi,* used to imply 'child rearing', the introduction of methodology subjects to replace academic studies of school subjects and the integration of subject matter knowledge and how to teach.

The variations of educators' conceptions of educational subjects constituted two main categories of description: *balanced content,* in which educators consider that the content of educational subjects is useful, and *overcrowded,* related with inclusion of less-useful content. As a result of the analysis four qualitatively different aspects were identified across the two categories, namely: expertise, discipline identity, unnecessary and overlapping.

In the *expertise* aspect the educators argue that educational subjects are essential in helping student teachers acquire educational theories which enable them work successfully in the classroom. What kinds of theories are necessary to teachers remains an important question (see, e.g. Adam & Tulasiewicz, 1995). In addition, education disciplines are considered to be very abstracted from any real life in the teaching situation (Young, 1998). However, the educators accepted the content of four the educational subjects: foundations of education, education research measurement and evaluation, education psychology, guidance and counselling, and curriculum and teaching. Other educators argued for the addition of more content in some subjects, for instance ethics in education psychology. Concerning the content of educational subjects, Lewin and Stuart

(2003) found that educational subjects often comprise too much theory, which is often drawn exclusively from rich countries, and not subject to critique in the light of local contexts. In the interview the educators intuitively accepted the subjects, showing that there is nothing to question.

The usefulness of professional studies or educational subjects was further emphasised in relation to *discipline identity,* where the educators expressed appreciation of the decision to have four discrete subjects. In fact, they were not pleased with the previous curriculum of 1970-2000, in which educational studies were treated in the single subject *Malezi* (cf. Dasu, 2001). Other teacher educators gave a positive response because the separation has made the curriculum match with university education, where educational studies are divided into separate disciplines such as sociology of education, philosophy and psychology. Although it is proper to link the curriculum for teachers' colleges and university education to ensure continuity, still there is a difference between teachers' college and university. Lewin and Stuart (2003), for instance, point out that university education offers student teachers input from staff with high levels of disciplinary expertise, connecting to insight from research relevant to learning and teaching. In contrast, teachers' colleges have limits of expertise and are divorced from research. The point here is that sufficient and clear boundaries between teachers' colleges and universities in terms of purpose need to be stipulated.

In contrast to the above conceptions, some educators were worried about what they considered to be *unnecessary* content found in the curriculum. They mentioned some topics in the subjects which they thought were less useful to student teachers with regard to what is happening in the schools (see also Adam & Tulasiewicz, 1995). Here, the educators, for instance, pointed out that part of the contents have been taken from the curriculum for the bachelor's degree (university-based teacher education), without being examined critically as to whether they are useful for diploma teachers. The educators, for instance, cited item analysis which is taught in the course research, measurement and evaluation. In fact, they argued that part of the content is beyond the level of

diploma and grade 'A' certificate teachers. This observation raises questions about the criteria used by curriculum developers to select the contents.

According to Elliott and Morris (2001), the curriculum has to prepare student teachers to handle the realities of classrooms and schools, rather than simply preparing them to either fit into a presumed status quo, or adopt idealized models of good practice and neglect the context of practice. In a similar way, Lewin and Stuart (2003) assert that curriculum developers have to be realistic about what can be achieved within a given time, taking into account the age, experience and academic level of entrants. Teacher educators, for instance, suggested that the teaching of research has to focus on enabling student teachers to deal with actual classroom activities.

Alongside unnecessary content, some educators described the *overlapping of contents* across subjects, which has led to unsuitable duplication as a problem. Thus, one educator talked about the reduction of educational subject content in favour of subject matter knowledge. Similar arguments are given by the proponents of deregulation, who require teacher candidates to have subject matter knowledge with little or no preparation in how to teach (Cochran-Smith & Demers, 2008). However, studies indicate that less emphasis on how to teach, for example teaching methodology, has contributed to the prevalence of transmission teaching in Tanzanian schools (cf. Dasu, 2001; Wort & Sumra, 2001; Babyegeya, 2006).

In summary, similarities and variations in the educators' conceptions of educational subjects indicate the usefulness of educational theories in guiding teachers' activities. Furthermore, the results confirm that educators use theories drawn from other countries without subjecting them to critique in the light of the local context. As a consequence, there is a need for both research and curriculum development to bring theories developed elsewhere into dialogue with local culture practice (cf. Lewin & Stuart, 2003). The outcome also confirms that educators support highly specialised educational subject demarcation, which has led to the establishment of new subject departments.

Variations were also found in the educators' conceptions of methodology subjects which match with the subjects of the school curriculum, focusing on how to teach various school contents. Two categories of description were identified: *reciting school content* and *beyond school content*. In the first category the educators emphasised the importance of matching subject matter knowledge with the school curriculum (cf. Apple, 1996). In the second category the educators preferred a curriculum where subject matter knowledge goes beyond the school subjects. As a result of analysis four qualitative different aspects were identified, namely: demonstration, exposure to reality, subject area competence and further studies.

To enable students to develop appropriate teaching skills, some educators expressed the importance for educators to be change agents through *demonstrating* how to teach various topics found in school subjects. The assumption is that if student teachers observe educators' practice considered to be appropriate, this might help them apply it in their own teaching. For this reason, the educators in this aspect put emphasis on practicing what they preach (see also McLaughlin and Vogt, 1996). Here, Loughran (2006) maintains that student teachers can learn more about teaching and learning when educators explain the purpose of a certain teaching method used and allow student teachers to discuss the lesson. However, the results indicate that student teachers are not provided with the opportunity of discussing educators' lessons. In fact, during the practicum period educators only assess whether student teachers have managed to adhere to their instructions.

Other educators described the close match which exists between teacher education and the school curriculum as an appropriate design of *exposing* student teachers to classroom and school reality in Tanzania. The intention is to enable student teachers to demonstrate knowledge of the national school curriculum which they are prepared to teach in terms of what is taught and relevant curriculum documents (Clark, 2005). This might be considered too much for a primary school teacher, who is supposed to demonstrate knowledge in a number of school subjects. In addition, the number of topics covered in each subject

might be considered unrealistic. In this situation, part of the content becomes unnecessary and the mastery of subject matter knowledge is not focused, and could reinforce transmission teaching through transferring knowledge to students in order to ensure maximum coverage of the subject content (cf. Hakkarainen & Bredikyte, 2002; Lewin & Stuart, 2003). However, student teachers have prior knowledge about school subjects and teaching, which needs to be recognised during the process of curriculum development and actual teaching.

In contrast to the previous aspects, some educators suggested the addition of content for advanced level secondary education subjects in the curriculum for the diploma in education. From this viewpoint, the educators propose that content knowledge should go beyond school subjects. The ambition is to have a teacher who is more knowledgeable than the student. Although subject area competence is important in teaching, what matters is the ability of teachers to help the pupils to learn and not how much they know about the content knowledge of the subject (Carré, 1993; McLaughlin, 2002). It is also important to take into consideration that diploma student teachers are prepared to teach the syllabus of ordinary level secondary education. For this reason, there is a need to ensure that there is a proportional balance between the content of the ordinary level secondary education syllabus and advanced secondary education syllabus.

Emphasis on subject matter, which implies school subjects *per se* (cf. Al-Weher & Abu-Jaber, 2007) has also been related with teachers' *further studies* especially the possibility for practicing teachers to use the grades attained in teachers' colleges to secure admission to the universities. Certainly, the educators were concerned with the hesitation of some universities to admit students on the basis of teachers' college grades (cf. Framework for Diploma Programmes, 2006). For educators, it is important for the curriculum to be linked with university requirements since there is a risk of blocking the possibility of practicing teachers, who hold certificates and diplomas in education, to acquire a university degree.

The aspects presented here confirm that some educators attach weight to a curriculum which prepares student teachers to be aware of what they are supposed do to in schools. In this sense the school curriculum has to determine the nature of teacher education. Other educators described teachers in a rather more individualist way, as owners of knowledge (cf. Viteli, 1995), and the focus of teacher education is to equip student teachers with the necessary competences to be able to deliver knowledge and skills to students.

Variations were also found in the educators' conceptions of integration of subject matter and methods. Two categories were identified: *confidence in content separation* and *confidence in content integration.* In the first category the educators expressed their satisfaction when teaching subject matter and methods in separation, whereas in the second category they expressed their satisfaction with a combination of the two. As a result of analysis, five qualitative different aspects were identified across the two categories namely: weak boundaries, mono-focused, association, self-learning and identity for teacher education.

In the first aspect *weak boundaries,* the educators relate content separation with their ability to interpret the curriculum. They revealed that they are facing problems in deciding what to teach when subject matter knowledge and subject methods have been connected together. This confirms that weak boundaries or blurring between contents related to subject matter and subject methods have created a problem to educators in making practical decisions on how to proceed with teaching (see also Trnobranski, 1997; Ross, 2000). As a result, educators have rejected curriculum integration. Furthermore, the blurred boundaries have made educators place emphasis on how to teach at the expense of subject matter knowledge, as indicated in the *mono-focused* aspect. For this reason, the separation of content is favoured because of the strong boundaries between subjects, which provide educators with a clear direction of what to teach.

In contrast to the previous aspects, in the third aspect, *association,* the educators expressed how the integration of subject matter knowledge and subject methods helped them to assist student teachers to connect various items of the curriculum.

As Jeronen and Pikkarainen (1999) point out, the curriculum has to help student teachers see their studies as a whole, where theoretical and practical, general and specialised knowledge are integrated. In their statements, the educators pointed out that they have to start with a diagnosis of students' prior learning experience, in particular, of their subject matter knowledge. This information is gleaned through asking questions to individual students or by general comments from all the students (cf. Marsh, 1997). This background information about student mastery of subject matter knowledge is used by educators to make decisions on the content to be taught.

The educators in the aspect of association also recognised the need for interaction between subject matter and pedagogical knowledge in order for students to qualify as a teacher (cf. Dewey, 1916/1997; Pepin, 1999). In this respect, it can also be argued that the educators were concerned with pedagogical content knowledge, which is a new concept in Tanzanian teachers' colleges, introduced in July 2007 (cf. Framework for Diploma Programmes, 2006). The challenge is how to improve mastery of subject matter knowledge among student teachers, as the majority are considered to have low achievements in secondary education (Mosha, 2000; TDMS, 2007). In this circumstance, some educators indicated that the work has become even more demanding and challenging.

In examining teacher educators' challenges, Loughran (2006) observes that, like student teachers, who are confronted by the need to pay attention to both subject matter knowledge and how to teach, educators are also facing similar situations. As such, during teaching one educator is supposed to teach subject matter knowledge and subject methods concurrently. However, for student teachers this challenge has been expressed by some educators as the driving force towards *self-learning*. Through integration student teachers are challenged to take more responsibility for their learning, as they are required to connect subject matter knowledge and subject methods.

For some teacher educators it was essential to have a clear distinction between teachers' college and school. By integration of subject matter knowledge and

subject methods, *identity for teacher education* is attained. Educators maintained that through integration subject matter knowledge is no longer taught as a school subject *per se*. The educators insisted that it was important for teachers' colleges to educate student teachers on how to teach rather than repeating school subjects. However, the results indicate that by naming the subjects by methodology subjects, for instance Geography teaching methods, this has led to educators stressing teaching methods.

I would like to go as far as to suggest that subject methods could be named pedagogical content knowledge, or subject didactics (see, e.g. Kansanen & Meri, 1999). Subject didactics, for example, deal with what, how and why questions through which teachers may reflect upon contents (what), ways of working in their teaching (how) and legitimising (why) (see e.g. Larzén, 2005). In the same way, pedagogical content knowledge comprises specific knowledge of the teaching subject, enhanced by knowledge of the learner, knowledge of the curriculum, knowledge of the context and knowledge pedagogy (cf. Wilson, Shulman & Richert, 1987).

In conclusion, the educators' conceptions of curriculum content and the integration of subject matter knowledge and subject methods revealed here is controversial in terms of what should constitute the teacher education curriculum (see also Cochran-Smith & Demers, 2008). Although most of the educators highly supported subject specialisation, still they differed on the relevance of the contents. For instance, some educators challenged the overcrowding of subjects and proposed to reduce the content. Similarly, Lewin and Stuart (2003), in their study of teacher education in Africa found that many programmes seem to assume that everything has to be taught during initial training. Lewin and Stuart even go so far as to suggest that the curriculum be slimmed down to concentrate on helping the student acquire relevant core skills and competence, and only the basic subject knowledge needed at that stage.

The traditional correspondence between teacher education and school is still favoured among teacher educators. However, educators who see

teachers as experts possessing knowledge which is to be passed on to the students support a curriculum which goes beyond the school curriculum (see, e.g. Sutherland, 1988). As such, this conception has been influenced by the historical development of Tanzanian teacher education, in which the academic component has dominated the curriculum since 1970 (cf. Dasu, 2001). In this connection, the role of the teacher educator is perceived as one of translating subject matter knowledge to student teachers (cf. Zeichner, 1993). Finally, few educators support an integrated curriculum, the reduction of the boundaries existing between subject matter knowledge and subject methods.

7.2 Educators' conceptions of innovations in classroom practice

In Section 6.2 I have discussed classroom practice in terms of the teaching and learning process. To ensure that educators teach the National Curriculum, syllabus and modules have been used as essential curriculum material. Hence, in this section my discussion will focus on educators' conceptions of teaching, syllabus and modules.

Variations in the educators' conceptions of teaching were found. Variation constituted two categories of description: *learner-centred teaching and content-centred teaching*. In the first category educators discussed teaching in terms of ensuring that student teachers are active in the teaching and learning process. In content-centred teaching the focus is on imparting the knowledge and skills that are needed to pass the examination to student teachers. Aspects identified in the categories were: interaction, engagement, teaching context, lack of adequate skills and meeting examination demand.

In the *interaction* aspect the educators discussed teaching in association with the use of participatory techniques such as group work, role play, jigsaws and project work. However, the educators' statements revealed that predominantly oral questions and student answers are used to develop group discussion (see also Lewin & Stuart, 2003). The intention is to diagnose student teachers' prior

knowledge so the learning could be built on what they already know. Since the actual teaching and learning was not studied, it is difficult to express how educators use students' ideas in lesson development, and, similarly, what is happening in terms of student teachers' learning.

Few educators expressed clearly that they were trying to engage student teachers during the teaching and learning process, as seen in the aspect of *engagement.* One educator pointed out that his purpose of teaching is to develop critical thinking among student teachers. Thus, students are encouraged to construct their own knowledge and understanding in order to become independent learners (see also Postareff, 2007). Within this perspective the teacher education process is characterised by dialogue, reflection and inquiry in order to bring about a change in their views of learners as makers of meaning (cf. Tshireletso, 2000). As such, the results confirmed that the educators were reacting against the use of participatory methods as recipes for teaching (see also Ndunguru, 1984; Loughran, 2006).

In the *teaching context* aspect the educators stressed limitations such as large classes, time and student behaviour as frames in their teaching. They pointed out that it is difficult to use participatory methods in large classes (cf. Emsheimer & Mtana, 2004). However, Lewin and Stuart (2003) found that even though large numbers of students in the classroom made interaction more difficult, it did not make it impossible. Lewin and Stuart cited an example of teacher educators in Trinidad and Tobago who have been handling large groups in participatory ways through interactive lectures. Also Emsheimer and Mtana (2004) found that it is possible to divide classes into small groups. One part of a smaller group might be intensively taught by the educator while another part gets tasks to work on individually.

Furthermore, the educators described time constraints as another limitation in curriculum implementation. A previous study showed that in teachers' colleges there is a misuse of time, unplanned activities and a problem of timetabling (Chediel cited in Galabawa, 2001). This is a question of internal efficiency; as

Msolla (2001) found, that principals do not pay much attention to the management of the curriculum. Furthermore, simple rule for opening and closing of the colleges according to the prescribed teaching days is sometimes not even adhered to due to financial problems which affect the supplying of colleges with the necessary resources.

Time constraints can also be related to the curriculum: Emsheimer and Mtana (2004) claim that if educators are obliged to cover what is stated in the Tanzanian curriculum in detail, they will eventually face a problem of time. The question is whether a detailed curriculum is compatible with participatory methods. Emsheimer and Mtana (2004) further argue that since the curriculum consists of very small parts isolated from each other, educators may find that by using participatory methods they will not be able to cover the subject.

Alongside time constraints, the educators also pointed out *lack of adequate skills* in participatory teaching methods, such as poor ability to organise group work and handle large classes, as another limitation. As such, it has forced some educators to use a content-centred teaching approach (Emsheimer & Mtana 2004). It has also been found that although some educators claim to use participatory methods, in actual fact they do not due to lack of skills (see, e.g. Chediel, 2004). For this reason, the results substantiate the view that curriculum change has to go hand in hand with in-service training (cf. Höjlund, Mtana & Mhando, 2001; Babyegeya, 2006).

The educators mentioned the *National Examination* as another frame that contributes to the use of transmission methods. The educators disclosed that the lack of time and overloaded curriculum made them use transmission methods to complete the curriculum within a prescribed time. Of course, it is obvious that completion of the subject curriculum places student teachers in an appropriate position to pass the final national examination. Furthermore, inspectors rely on examination results as one criterion of judging the quality of education offered, while students use them for securing employment. I will turn again to this issue

of examinations in the upcoming paragraphs because it has also influenced the use of curriculum material.

The following variations of educators' conceptions of changes made in the syllabus as a result of textbook liberalisation policy were found: *autonomy orientation* and *uniformity orientation.* In the former category the educators prioritised freedom in the selection of textbooks, while in the latter category they were more concerned with consistency in teaching and learning within and across teachers' colleges. As a result of analysis, four aspects of variation could be identified: responsibility, desire to learn, national standard and planning for teaching.

The educators expressed satisfaction, since changes made in the syllabus have provided them with the *responsibility* for making decisions about the kinds of textbooks to be used by students. Here, educators are no longer regarded as technicians, incapable of making curriculum decisions (see, e.g. Giroux & McLaren, 1987). The data suggests that educators are contented by the fact that sometimes it is not easy to find textbooks which have been recommended by the syllabus.

The process of seeking appropriate books to be used by student teachers is further taken by some educators as an opportunity for them to learn, as seen in the aspect of *desire to learn*. The educators recommended books to students which they have gone through and found useful and which match with the curriculum objectives. Although the syllabus provides educators with the freedom to select books, the concern for maintaining national standards remains in question.

To ensure that educators teach the centralized National Curriculum, it was considered important for the syllabus to be more detailed by approving specific types of textbooks, as seen in the aspect, *national standard*. A few educators in this aspect questioned the validity of the national examinations since teachers' colleges vary in terms of resources; for instance, in the respect of facilities for information technology (ICT), although, theoretically, teachers' colleges are

equal by following the same syllabus and leading to the same qualification (cf. Godia & Waiyaki, 1988). According to the educators, for the national examination to be fair to all student teachers in Tanzania, it is important to ensure that they have gone through similar kinds of books. For this reason, equitability in allocation and distribution of scarce resources is considered to be important in the centrally based curriculum system (cf. Marsh, 1997; see also Education and Training Policy of 1995). It is obvious that some teachers' colleges seem to be well established in terms of facilities, although all colleges face the problem of textbook shortage, apart from locally authored school textbooks (cf. TDMS, 2007). Iredale (1993) asserts that curriculum innovation has to go hand in hand with adequate teaching and learning conditions, with a supply of at least basic learning materials including textbooks.

Subsequently, the absence of textbook prescription in the syllabus caused educators to face problems during *planning for teaching* and even led to some frustrations. They clearly argued that the syllabus is inadequate. As a result, some of them went to the extent of assuming that those who are involved in syllabus preparation are not committed to their work. It appeared they are not aware of the textbook liberalisation policy, which has provided teachers' colleges with the freedom of selecting their own textbooks. According to the data the situation is becoming even more frustrating to newly employed educators if they do not get the necessary support from experienced colleagues.

Variations were also found in the educators' conceptions of the role of modules in teaching and learning. Module in the context of my study refers to a pamphlet containing the outline of subject content. The variations constituted two main broad categories of description. The first one is *surface learning orientation,* and the second teaching *and learning guide orientation.* Concerning surface learning, the educators related to modules with students' reproduction of existing knowledge in order to pass the final national examination. Other educators considered modules as teaching and learning guides. As a result of analysis, aspects of variation were identified as: approved knowledge, examination guide, dependent, implicit textbooks, detailed syllabus and hybrid model.

Within the aspect of *approved knowledge,* a few educators expressed that the content of modules are taken by students as the main source of knowledge acquisition, and an instrument for evaluating the educators' teaching. However, the educators seem not to be pleased with this behaviour because it narrows the scope of learning (cf. Lewin & Stuart, 2003). The results seem to suggest that educators are in a dilemma, although they are expected to take control in this situation by searching for alternative solutions (see, for example, Sanches, 1994). Furthermore, the syllabus provides educators with the freedom to plan teaching based on the student teachers' needs. Thus, it is not surprising to find that students rely on modules because educators do not facilitate the use of other materials. Equally important is how educators and student teachers use the modules.

The educators' statements revealed that some student teachers respond spontaneously in the classroom when the educator is not teaching from the modules. In this situation the modules influenced the educators to use a content teaching approach and make the modules the major resource for teaching and learning. As a result, the learning process was characterised by students absorbing knowledge from the modules transmitted by educators (cf. Cheng, 2001).

Alongside the use of modules as the approved source of knowledge lies the aspect of *examination guide*. This described how educators use modules as an instrument to guide student teachers towards the final national examination. Some educators revealed that the national examination questions are picked out directly from the modules. As a result, students and even some educators do not see that there is a need to use other materials (cf. Emsheimer & Mtana 2004). The influence of examinations in teaching and learning is not an uncommon phenomenon (Haydn, 2004). However, there is a possibility of changing the assessment system to a more appropriate one. Tests and examinations assess only a small part of student teachers' knowledge, skills and attitudes (Berliner, 2005).

According to Lewin and Stuart (2003), written final examinations have a role to play but should be complementary to assignments linked to school practice. Thus, alternative or authentic assessment techniques such as portfolios and performance-based assessment are considered to be more appropriate (Marsh, 1997; Groom & Maunonen-Eskelinen, 2006). The problem of assessment is also associated with the lack of an independent professional board for accreditation of teacher education programmes (cf. Presidential Commission on Education, 1984; Babyegeya, 2006; TDMS, 2007). As such, it is argued that the National Examinations Council of Tanzania (NECTA) has never been successful in designing appropriate assessment procedures to meet the demand of curriculum innovation (Chediel, 2004). For this reason, the guiding function of the curriculum has been taken by national examinations and modules. Some educators expressed that their role has been downplayed and that some student teachers rely too much on the modules instead of attending lessons. As discussed above, examinations focus on the memorisation of facts which can be found in the modules.

It was also noted that educators were not provided with instructions on how to use the modules, but these were not in any case meant to be the sole textual material. Despite this the results revealed that some educators have become *dependent* on the modules by relying on them as the only material. As such, modules can be seen as a controlling force rather than an aid for professional educators. Perhaps the fact that the curriculum is centralized has contributed to this. Furthermore, the results of the study reveal that parts of the contents in the modules are outdated. However, educators have to be familiar with the most recent knowledge and research about their subject matter, and teaching and learning (Niemi & Jakku-Sihvonen, 2006). It is therefore important to update the content of the modules.

Due to the shortage of books most educators have decided to use the modules as *implicit textbooks.* They clearly expressed that a shortage of textbooks has made them see modules as useful material for supporting teaching activities in the classroom. As has been observed, teachers' colleges are facing the problem of a

textbook shortage, therefore it was important to introduce modules. Although the results demonstrated that the modules are shallow in terms of coverage, still educators need them because they do not see any alternatives. Dove (1986) reminds us that though much progress has been made since independence in devising a new curriculum to meet contemporary needs, many developing countries still rely on material and textbooks designed for teachers in alien contexts.

The educators also acknowledged that the modules are important in understanding the syllabus due to their close connection that to it, as seen in the aspect of *detailed syllabus*. It can be argued that in the absence of modules, educators could face a problem in obtaining rich subject content because the syllabus is brief and concise (cf. Marsh, 1997). In the same way, one educator expressed the importance of the modules to newly employed educators. As already mentioned, this practice devalues educators' competence by a heavy reliance on prescribed tools.

Other educators related the modules with a *hybrid model,* which combines both learning by distance and full time college-based learning. In this view, one educator argued that the use of modules makes courses offered in teachers' exhibit some features of the Open University. He pointed out that some student teachers spend more time on modules and attend lessons only when they need clarification about a certain concept from the teacher educators. It is associated with Open University because students have their lectures or face-to-face sessions only occasionally. In the same line, other educators seemed in a dilemma because the use of modules can imply that the curriculum is modularised even though it is not. Although these two issues mentioned by the educators appeared as a problem in the implementation of innovation, still some problems revealed in this study such as duplication across subjects can also be solved by adapting modularised curriculum (cf. Nearly, 2002; Viebahn, 2003). A modularised curriculum has a provision for flexibility since not all the modules will commence at the same time.

In summary, variations in the educators' conceptions with regard to classroom practice reveal that they implement the curriculum in fairly different ways. Concerning teaching, most educators are aware of learner-centred teaching. Some are trying to use participatory methods, which are emphasised by the curriculum, whereas others resort to content-centred teaching due to some constraints such as lack of time and large classes. The majority of the educators are pleased with a detailed syllabus, which includes textbook suggestions. Others prefer a brief and concise syllabus, which provides them with the opportunity of exercising some professional autonomy. Consequently, they would like to exercise personal initiative, although none of the educators explicitly mentioned the notion of professionalism. The educators' conceptions of modules indicate that the majority use them simply because there is a shortage of textbooks. In fact, they consider them a barrier to learner-centred teaching because they have taken the function of the curriculum by guiding the process of teaching and learning. This is partly contributed to the fact that the national examination is closely associated with the modules.

7.3 Educators' conceptions of future curriculum approaches

The second research question focused on educators' conceptions of the future curriculum. As a result of data analysis four qualitative different ways that capture educators' thoughts about the future curriculum were identified namely: academic approach, practice approach, ethics approach and inquiry approach.

In the category of *academic approach,* the future curriculum is described in terms of subject matter knowledge. The conceptions in this category focus on *entrants' academic level* and the *adequate knowledge* in the subject matter that teachers have to possess in order to teach in schools (cf. Framework for Diploma Programmes, 2006; TDMS, 2007; see also Section 3.2). In the aspect of *entrants' academic level* a few educators have attached great weight to the mastery of subject matter knowledge on the basis of the low academic qualifications of the entrants. They related this with the superficial learning and

coverage in secondary schools due to shortage of inputs such as teachers and teaching materials. Furthermore, teachers' colleges do not attract students who have attained higher grades in secondary education (Mosha, 2000; Osaki, 2000). On the other hand, some of those who are enrolled in teachers' colleges possess forged documents (Rajabu, 2000). For this reason, it is possible to find student teachers who do not even possess the minimum entry qualifications. In this situation the Ministry of Education and Vocational Training could have a more articulated policy on the selection of student teachers, which demands more evidence in order to deal with the problem of forged documents.

The challenge is that the number of qualified candidates available in the pool to meet the demand of teachers is low (see also Lewin & Stuart, 2003). In this connection, the Ministry of Education and Vocational Training has lowered the entry qualification for the diploma from 2007. The intention is to educate more teachers to meet the demand created by the expansion of secondary education. This decision has led to the enrolment of some applicants with academic qualifications below the minimum requirements stipulated by Education and Training Policy of 1995. In dealing with the problem of low academic achievements among entrants, Lewin and Stuart (2003) propose methods of teaching to recognise the range of student teachers' backgrounds in terms of schools they have experienced and develop curricula which recognise their mixed ability. For this to work teachers' colleges need to design strategies for obtaining detailed characteristics of student teachers, and use them in the planning of teaching and learning.

Furthermore, the educators stressed that initial teacher education has to enable student teachers to acquire *adequate knowledge* in terms of school subjects. This is possible when curricula contain adequate knowledge in subject matter. According to the educators in this aspect, student teachers have to master the knowledge of their subject in order to be able to deliver it to pupils in schools without problems. Thus, the curriculum has to include topics taught in secondary schools seen as important. The benefit is that this approach will also widen the possibilities of graduates from teachers' colleges being admitted to university

education (cf. Framework for Diploma in Education Programmes, 2006). Therefore, it will be a bridge between higher education on the one side, and the performance of teacher and pupils in school on the other (Levina cited in Cochran-Smith & Demers, 2008).

Other educators expressed the importance of *practical experience* in the process of learning to teach. Within this conception two aspects of variation were identified: *practicum and method*, and *contextualisation of the curriculum.* In order to enable student teachers to link theory and practice, the educators described future teacher education in terms of *practicum* and *methods.* All of them talked about the extension of school-based training and prioritisation of teaching methods. The majority of educators proposed school-based training to take up to sixteen weeks, arranged in several blocks over the two years. The intention is to enable student teachers to obtain more assessment from educators. Teaching practice is, however, a learning situation and as such assessment is not the prime purpose (cf. Dunne & Dunne, 1993). Additionally, assessment-driven practice is highly dependent on educators' expectations in order to pass (Lewin & Stuart, 2003). As I see it, to ensure appropriate conditions for supporting learning during the practicum period there is a need to revise the purpose so that student teachers can use it as a step towards growing into the teaching profession (see also Jyrhämä, 2006).

The curriculum has to suit the real learning environment found in schools, as indicated in the aspect of *contextualisation.* One educator was classified in this aspect and she stressed training student teachers in how to use the blackboard since it is the essential teaching aid used in schools. She was willing to be outspoken and critical on the persisting situation in teachers' colleges, in which rooms assigned for blackboard work are used for other purposes (cf. Dasu, 2001; Kalugula, 2001). Snoek (2003) reminds us that the urgency of the shortage of teachers has led to a solution in which some of the practices of teacher education are questioned and put aside.

Although recognizing the importance of subject matter knowledge and practical experience for student teachers, the educators expressed the need for the curriculum to address *ethical issues*. Within this conception two aspects of variation could be identified: *caring for pupils* and *ethical code*. In the aspect of *caring for pupils,* the educators were more concerned with parental responsibility. In this view (cf. O'Connor, 2008), caring is connected to the broader social context of teacher-pupil interaction inside and outside of the classroom situation. In Tanzania, teachers are expected to establish caring relationships, understand children's needs, act as a role model and be patient (cf. Stuart & Lewin, 2003).

Ethics were also discussed in terms of teachers' adherence to the *ethical code*, realised through personal characteristics, which guarantees to parents that their children are in safe hands. Educators, for instance, were concerned with teachers who drink too much alcohol in such a way that parents undervalue their performance. According to Anganisye (2007), teachers need to be ethical models by promoting values and norms upheld by the whole of society. In other words, teachers need to conduct themselves in a manner worthy of societal respect through their adherence to professional and ethical behaviour beyond the physical confine of the schools (Huntly, 2003).

In Tanzania, teachers' college life is considered to constitute elements of ethical code. As a result, like in other African countries (cf. Stuart & Lewin, 2003), teachers' colleges have an authoritarian culture, stressing discipline through strict rules, regulations and moral training, often with daily evening worship. The term culture here refers to the norms of the teachers' colleges. The Ministry of Education and Vocational Training, for instance, decided to reintroduce uniforms from July 2008, after having abolished them at the beginning of 2002. The ambition is to maintain a professional appearance through wearing appropriate dress, and maintain discipline. This trend, however, can be challenged because it could be a barrier in developing independence, and personal and social responsibility among student teachers (cf. Stuart & Lewin,

2003). Furthermore, these strict rules imply student teachers are not capable enough of taking responsibility for their own actions.

Furthermore, the results show that a few educators attached great weight to the development of student teachers' knowledge, skills and dispositions to adopt an enquiring stance to their work (cf. Zeichner, 1983; Ries-Jorge, 2005). The conceptions in this category focus on *problem-solving* and *entrepreneurship skill.* In the aspect of *problem-solving,* the educators were concerned with the preparation of teachers who could give arguments for the decisions they made in their teaching.

The results suggest that the educators associated problem solving with the inclusion of research in the teacher education curriculum since they have emphasised the teachers' ability to provide reasons for their decisions (cf. Krokfors, Jyrhämä, Kynäslähti, Toom, Maaranen & Kansanen, 2006). In Tanzanian teachers' colleges teacher research is connected with developing knowledge for action research in student teachers as one strategy of improving teaching and learning in schools (cf. Framework for Diploma in Education Programmes, 2006). However, the process has to move beyond action research in order to embrace a great deal of teachers' work (cf. Kansanen, 2002).

Although research is considered important in developing teachers' professionalism, there are still several issues to address. In Tanzania, for example, educators in teachers' colleges are not involved into research projects. The second issue concerns teacher research in the situation where teachers are guided by a detailed curriculum (cf. Kansanen, 1991). In this situation the curriculum is taken by educators as authority to be followed, as revealed in this study. However, since research is taught as a subject in teachers' colleges, educators have to help student teachers to acquire the knowledge and skills of doing research. This means that educators have to possess competences in research (Koster & Dengerink, 2001). In other words, student teachers have to see educators conducting rather than advocating research.

The inquiry approach also has been associated with *entrepreneurship,* where educators stress the importance of educating student teachers so that they can initiate income generating activities. Besides the fact that teachers are considered to have a low income, the educators were also concerned about primary school leavers who miss the opportunity for secondary education. The ambition is to enable primary school leavers to establish their own enterprises after schooling so that they can survive in the society outside the school (see also Höjlund, 2004). In Tanzanian teachers' colleges, entrepreneurship could be considered a new concept, although it is widely mentioned today as strategy of providing an avenue for self-employment for students graduating from various levels of education (cf. Ngaleya, 2005).

However, employment for teachers in Tanzania is guaranteed due to the high demand resulting from the expansion of primary and secondary education. Put in another perspective, the introduction of entrepreneurship education can also help student teachers to solve problems relating to teaching and learning in schools. As such, entrepreneurs are expected to create their own way of solving problems (Löbler, 2006). This view (Kleiman, 2008; Backström-Widjeskog, 2008) entails a teaching and learning process which focuses on developing creativity or innovative skills in student teachers.

As a final comment on the educators' conceptions of the future curriculum, it seems that the dispute between subject matter and pedagogy still prevails. It is like a game which does not end; the results confirm that some educators attached great weight to pedagogy, while others to subject matter knowledge or academic knowledge. In parallel, other educators described future teacher education in terms of ethics and inquiry approaches. A range of specific issues in terms of student teachers' mastery of subject matter knowledge, personal characteristics and the ability to take personal initiative in solving problems which educators have encountered during the implementation of curriculum innovation have influenced their conceptions.

In essence, the results indicate that consensus among teacher educators is lacking on appropriate curriculum approaches for initial teacher education. However, not much is being done in Tanzania to reach consensus (cf. Babyegeya, 2006). However, these conceptions of the future are important factors in enabling the teaching profession to change and develop (cf. Niemi, 1996). These results can, therefore, provide a starting point for teacher educators, curriculum developers and other stakeholders who wish to deal more with the curriculum for teacher education.

Finally, the categories of description and identified aspects presented from sections 7.1 to 7.3 have revealed a variation in the way the educators responded to curriculum innovation, in the categories of description associated with educators' acceptance or resistance of innovation. Within each of these qualitatively different conceptions there was a variation in the nature of acceptance and resistance. The acceptance of innovation can be described in terms of the educators' enthusiasm for and understanding and implementing of the innovation.

Although some educators were eager to implement the curriculum as proposed by the curriculum developers, the results confirm that some have lacked clarity about the overall purpose of the innovation, something which has led to superficial interpretation and eventual implementation. On the other hand, the results indicated within the implementation process that some educators have tried to understand the purpose of innovation and attempted to achieve it, especially in terms of providing student teachers with more responsibility for their own learning.

The educators' resistance to innovation can be explained in connection to the nature and constraints of implementation. It is apparent that some were not satisfied with the changes made in the curriculum content. Their main concern was about the emphasis attached to pedagogy and overloading of the curriculum. As a consequence, they maintained that subject matter knowledge has to be given more weight in teachers' colleges. Furthermore, the educators pointed out

that the overloaded nature of the curriculum has made it unrealistic. Finally, other educators resisted innovation due to constraints which were barriers to implementation. As such, they went even further and pointed out that the innovation was not properly planned.

7.4 Models of educators' stance towards curriculum innovation

When discussing the results of the study in the previous sections, I noted that more can be gained from the categories of description. For this reason, I have tried to change the perspective by looking across the categories of description as a pool of educators' conceptions of curriculum innovation. By changing the perspective, I have identified some recurring themes in the categories of description, which reveal new possible insights in teacher educators' conceptions of curriculum innovation. To distinguish between themes, I have categorised them according to types of phenomenon and character types (cf. Sandén, 2007). In so doing, I have expanded the outcomes of my study by creating two models which depict educators' stance towards curriculum innovation: *phenomena-based model* and *character types-based model.* In the presentation of these two models, I find it useful to elaborate the meaning by using extracts from educators' statements.

7.4.1 Types of phenomena

In order to discover types of phenomena, I looked across the category systems and identified a set of themes or dimensions representing critical areas about teacher educators' conceptions of innovation. An overview of the correspondence between types of phenomena and educators' standpoints on curriculum innovation are captured in Figure 17, followed by a discussion below.

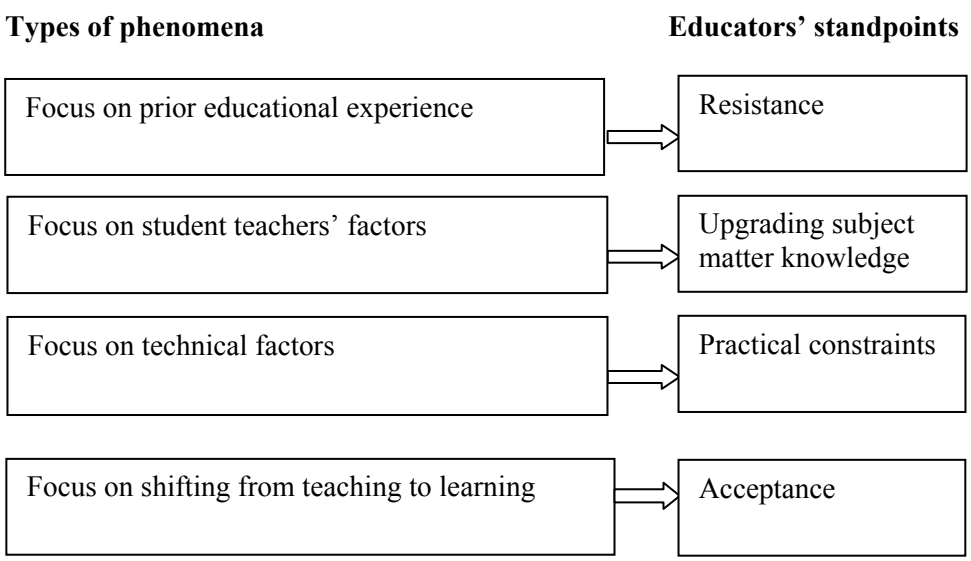


Figure 17. Curriculum innovation model based on types of phenomena and corresponding educators' standpoints

Focus on prior educational experience

The educators responded to curriculum innovation on the basis of their own educational background. In fact, they discussed curriculum innovation in terms of the teaching traditions into which they are socialised (see also Palme, Höjlund & Mtana, 2000). Hence, they insisted on a curriculum which places more emphasis on subject matter knowledge. As one educator puts it:

> I think student teachers need to study subject matter more; I am aware it has been integrated with teaching methods, but that is not enough… In my studies I learned mathematics for three years. That has really made me become… and then I learned mathematics methods in my fourth year. (Moki)

The results further indicated that older, more experienced educators are facing the problem of coping with the innovation:

> Here, experienced educators provide student teachers with outdated experience; at the end they resemble old guys. (Mbiza)

The action taken by the educators on the basis of their prior educational experience was to resist the curriculum innovation implicitly. It seems they could

accept a new curriculum (2000) more easily if it was related to what they have experienced during their education as teachers and teacher educators. Although the educators emphasised the curriculum approach, which they have gone through during their education as teachers, perhaps it is important to note that Tanzanian teacher education, like others in African countries, has continued to be based on models developed by the former colonial powers, and it seems that not much is being done to meet the local reality (Lewin & Stuart, 2003). Today, teacher education is growing as a field of study in such a way that educators cannot continue to rely on what they have learnt during their own education.

Focus on student teachers' factors

The results also show that the educators did not seem pleased with the quality of student teachers, as the majority demonstrate low academic achievements. For this reason, they emphasised subject matter knowledge because of the low entry level of students and the quality of education provided in schools. The example below shows how the educators described student teachers:

> The student teachers come here with low secondary school passes. But the curriculum and national examination work on the assumption that they have mastered the content. (Singa)

The implication of this quotation may be interpreted in several ways. Lewin and Stuart (2003), for instance, proposed that the curriculum for teachers' colleges should have provision for upgrading student teachers' subject matter knowledge. Another option is the admission of qualified entrants, which can be seen as an impossible ambition. In Tanzania, teaching is not a well-paid profession, and as a result it does not attract the higher achievers (cf. Osaki, 2000). As previously addressed in Section 7.3, the curriculum has to recognise the mixed abilities of student teachers.

On the other hand, the results revealed that some educators use the low academic achievements of students as the basis for using transmission methods. They consider that the students have little to contribute in the teaching and learning processes. The problem is that teaching and learning are dominated by oral

questions and answers, which sometimes demand that students remember subject concepts. Furthermore, the results indicate that some educators are concerned with the personal characteristics of the student teachers. As a consequence, they propose assessment techniques which could also capture the teacher's personality, as was previously discussed.

Focus on technical factors

The educators mentioned technical problems as barrier to successful implementation of the innovation. According to Fullan (1991b), technical problems refer to a lack of appropriate curriculum materials, ineffective in-service training, or minimal administrative support. In the context of this study the technical problem is concerned with a lack of appropriate curriculum materials, especially textbooks, and inappropriate assessment procedures.

The shortage of textbooks has made teacher educators rely on the use of modules as the essential teaching material. However, modules are considered to be barriers in making student teachers responsible for their own learning. Students and educators use them as an authority because the final examination questions mostly originated from these. An alternative solution is to prepare self-study or self-directed learning modules which may encourage student teachers to search for more reading material.

It is argued that the assessment system used is unrealistic because it focuses on a small part of student teachers' learning. From this point of view, student teachers claim that it is easy to pass the final national examinations and qualify as a teacher. For some educators it important to revise the assessment method which is currently used:

> I think assessment techniques need reconsideration. Today, student teachers claim that it is easy to become a teacher. You know, our focus has been on paper and pencil examinations. But other facts such as personality and practice need more emphasis in assessment. (Siko)

The educators are also concerned with assessment of learning during block teaching practice. They are not pleased with the priority attached to classroom teaching, while ignoring activities conducted outside the classroom. As one educator puts it:

> You know, when we are going to observe our student teachers during teaching practice we normally concentrate on classroom activities rather than other areas of the teaching profession. I think we also need to assess their involvement in extra curricula activities and counselling sessions. At the end they may write a report. (Pisa)

Focusing on modes of assessment used in African teachers' colleges, Lewin and Stuart (2003) point out that alternative techniques, such as the portfolio, are thought to be too time-consuming to be used with large numbers of students; new attempts are needed to find more appropriate procedures for assessing professional learning and competences. Furthermore, Lewin and Stuart claim that assessment of teaching practice is often just a ritual and sometimes a farce. Educators generally assess student teachers by basing the assessment on discrete skills, measured in accordance with prescribed criteria which do not even consider variations in the school context (cf. Tickle, 1987).

Finally, the educators revealed that a lack of appropriate textbooks and the types of assessment used have been practical constraints in the implementation of curriculum innovation. Despite these constraints, the educators supported the decision of making student teachers the core in the process of teaching and learning, as discussed below.

Focus on shifting from teaching to learning

Most of the educators in this study recognised the potential benefits of student-centred teaching. This may be explained as a result of their educators' recognition of the importance of providing student teachers with more responsibility for their own learning. Additionally, since 1998 there has been a great emphasis on participatory methods as a result of in-service programmes for

teacher educators (cf. Emsheimer & Mtana, 2004). One educator said about the priority given to learning:

> This curriculum has raised the quality of student teachers' learning. I am sure they can realise some differences as compared to their previous secondary education. To me this is important. (Mina)

To ensure the use of participatory or interactive teaching methods, the curriculum documents in a particular syllabus provide a list of techniques such as jigsaw, gallery walk, project and role play. However, the results suggested that educators are facing problems of mediating constraints that could hinder their effort in using these techniques. However, the strong support for participatory methods implies that the design of the new curriculum has to focus on activities that value the inputs from students, and their ideas and opinions, and that it leaves room for students to work on problems of their choice (cf. van Driel, 2005).

The educators' acceptance of the shifting of emphasis from teaching to learning seems to have had a positive impact on curriculum innovation. As such, it supports the view that imposed change can also be adopted by teacher educators.

7.4.2 Character types

In coping with innovation, the educators adopted different strategies. By combining these strategies certain features were established, which illustrate the characteristics and actions of teacher educators towards curriculum innovation (cf. Sandén, 2007)**.** Three types of characteristics unique to individual educators have been identified: *loyal, creative* and *critical.* An overview of character types and corresponding standpoints is captured in Figure 18, followed by the discussion below.

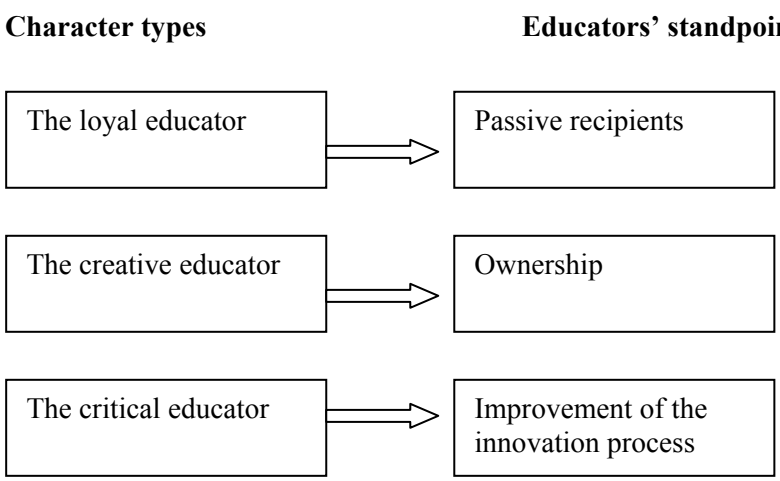


Figure 18. Curriculum innovation model based on educators' personal characteristics and corresponding standpoints

Loyal educators

The characteristic feature of loyal educators is that curriculum innovation has to be implemented as prescribed. These educators have responded automatically to the curriculum as fiats and accept it as an authority that requires unquestioning obedience and compliance (cf. Elliott & Morris, 2001). Furthermore, they assume that the curriculum is implemented as intended by the curriculum developers. As Tisu points out, 'teaching is successful here because our students get 'A' and 'B' in the final national examination'

The findings also confirm that loyal educators are pleased with a detailed prescriptive syllabus and modules, which enable them to plan their lessons and teach. As one educator puts it:

> The syllabus is good because it covers all important issues such as topics to be taught, objectives and suggests teaching strategies.

However, this may reinforce inequality in teacher education since student teachers come from different school backgrounds and do not have the same starting-points (cf. Lewin & Stuart, 2003; Björklund, 2008). It is apparent that educators are pleased with a detailed syllabus since this ensures adherence to the

curriculum objectives. In this connection, loyal educators can be described as passive recipients of imposed innovation.

Creative educators

The characteristic feature of creative educators is associated with ownership of the curriculum innovation. Thus, they are attempting to interpret the curriculum requirements in order to internalise and introduce a creative way of attaining the prescribed objectives. These types of educators tend to realise their freedom in implementing the curriculum. In order to claim ownership of the innovation they are trying to understand barriers to innovation (cf. Ruddluck, 1988). Consequently, they take personal initiatives to address some challenges observed in the curriculum, as exemplified by the following statement:

> The syllabus is not very clear and assumes students have strong background of subject matter, but this is not the case. So what I am doing in my teaching is to create a balance between subject matter knowledge and methods. This is also reflected in the final examinations. (Kisu)

Furthermore, creative educators seem to show some signs of personal accountability by trying to avoid superficial understanding of the innovation. Therefore, in an attempt to have a deep understanding of the innovation, they are ready to collaborate and learn from their colleagues, as seen below:

> I am integrating content and methods, for instance by using multiple teaching strategies. In fact, I pick a topic from the syllabus and try to teach like my head of department. (Dume)

The commitment to innovation and the personal responsibility of student teachers could be described as a major characteristic of creative educators. In fact, it has provided them with enthusiasm and the ability to cope with some of the constraints revealed.

Critical educators

Alongside loyal and creative educators, other educators have been critical of the whole process of curriculum innovation. In fact, they are attempting to engage in

a critical enquiry to enable curriculum development to be based on principles, not expediency (cf. Elliott & Morris, 2001). As a result, they are questioning the top-down decisions, theories included in the curriculum, and the commitment of curriculum developers. It seems that the ultimate goal is the possibility of initiating innovations which might be more successful.

Critical educators have been cautious in using new theories uncritically. One educator for instance, questions the trend of discarding all previous experiences in favour of new theories. She is concerned with the overemphasis placed on participatory methods on the grounds that others methods do not work:

> I like to involve my students by using the so-called traditional and modern techniques… I believe that even the previous techniques have something to contribute in students' learning … of course I differ with others. (Pacha)

Critical educators lack confidence in the curriculum developers and resist the components of innovations which they consider to be of less value to student teachers. It is illustrated by one educator when reacting to the selection of curriculum content: 'curriculum developers tend to include in the syllabus only those topics with which they are conversant' (Kolla). Hence, some topics which could be of great value have been left out.

Furthermore, critical educators propose the use of modules should be abolished because they hinder deep learning and are not well written. The above educator (Kolla) again doubts the competence of fellow teacher educators involved in the module writing. In fact, it is an indication that educators are not satisfied with top-down approaches to innovation. Even when some educators are involved in the innovation process, it does not make any difference. The concern of some educators about external influence on the curriculum is revealed by the following statement:

> The curriculum is very fragile and influenced by political issues. Within ten years it has changed more than twice. (Simba)

In conclusion, the observed types of phenomena emerging indicate that teacher educators have accepted the great emphasis placed on student teacher learning as

compared to teaching. However, the results suggest that low mastery of subject matter knowledge among student teachers, lack of appropriate curriculum materials and the assessment modes used are barriers to making learning the main focus. As a result, educators have different standpoints towards innovation. This includes obedience and compliance, struggling for ownership through creativity and critique of the innovation process. Thus, some educators can be considered to be mechanical implementers of the National Curriculum, while others are not content with top-down decisions.

7.5 Discussion of methodological approach

In my study interviews were used as an instrument for data collection. The choice of interview as an instrument for data collection was made in order to obtain rich data from thirty teacher educators who, were purposefully selected. During the interview the focus was on the educators' descriptions of how they experienced the curriculum innovation. It was an intersubjective and goal-minded social construct as commonly applied in phenomenographic research (Marton, 1988). In the interview there is a risk that the informants cannot express themselves freely and tell the truth. However, most of the interviews were conducted at the educators' offices to ensure privacy and freedom of speech.

It can, of course, be questioned whether I grasped the educators' conceptions of curriculum innovation and future approaches. Throughout the interviews I used probe questions until I was convinced that the educators had provided enough information. They were fairly open, some even outspoken, and ready to share their thoughts about curriculum innovations as much as possible. Some educators considered the researcher as a colleague because he has been working as a teacher educator. In this case it was possible that the researcher could influence the educators' ways of thinking. The research process is, however, carefully described in Chapter 5, and based on that, it is reasonable to claim that the statements made by the thirty teacher educators do represent their conceptions.

The interviews were transcribed and analysed as a whole. In this process, the task of the researcher was to interpret and understand the meaning of the educators' statements. It can be questioned whether I understood the educators' statements correctly. During the interview I tried to make sure that I understood them correctly by using probe questions and asked for more clarification whenever I found it necessary. In addition, it was not difficult for me to understand the educators' statements because I have worked as a teacher educator. The interpretation process has lasted for more than a year and a half. Throughout the process I have made efforts to achieve a plausible interpretation.

Finally, one can question whether interviews as an instrument for data collection were successful in accordance with the phenomenographic approach. I wish to point out that it was probably more relevant to develop interview questions after ensuring that the theoretical basis of my study was fully developed. As I see it, if the theoretical chapters were fully developed, I could probably have generated even more information in my conversation with teacher educators during the interviews (see also Björklund, 2008). In addition, during the analysis it was noted that the use of more than just one instrument, such as classroom observation to gather more insight about the teaching and learning process, and analysis of curriculum materials in a particular syllabus, modules and textbooks, could enrich the results. Perhaps future research investigating this undeveloped area in Tanzania could employ such a variety of instruments for data collection.

7.6 Contribution of the study and suggestions for further research

The variation in the conceptions of curriculum innovation identified demonstrated that the educators did not consider the innovation successful. From this perspective, the results confirm the problems of top-down curriculum innovation which have led to confusion among teacher educators, and even to rejection (cf. Marsh, 1997). The educators' conceptions can be linked with personal characteristics in which some educators appeared to be loyal and comply with the innovation without questioning it. In contrast to the loyal

educators, others were critical, questioning the process of innovation and its relevance.

Although the majority of educators seemed to support the use of a learner-centred teaching approach as stipulated in the curriculum document, still the results confirm that teaching is dominated by a content-centred teaching approach (see also Emsheimer & Mtana, 2004). The technical problem of innovation associated with lack of appropriate curriculum material, specifically textbooks, poorly prepared modules, large classes and assessment techniques which do not associate with the intentions of the innovation are considered to be the practical constraints. Relevant suggestions can be made on textbook policy, selection and admission of entrants, official agencies and education for teacher educators.

Textbooks have continued to be the essential curriculum material in teacher education. The results underline that the educators have been facing the problems of selecting appropriate textbooks to meet curriculum demand from publishers and booksellers. They would prefer the curriculum to suggest textbooks. In addition, most of the books used are from other parts of the world. For this reason, most educators in this study follow modules because they have been written in accordance with the curriculum. The problem is that modules are not written in accordance with learner-centred teaching as required by the curriculum change, but rather focus on the content of teaching. Evidently, the modules influenced the educators to use content-centred teaching. From this viewpoint curriculum materials need to be written in accordance with learner-centred teaching.

As I see it, this challenges the policy of multiple textbook provision as it does not work well in teachers' colleges. It can be argued that the educators prefer the Tanzania Institute of Education (TIE) to be given the mandate of making decisions about textbooks. Since textbooks are essential as seen in this study, there is a need to stress the use of up-to-date and locally relevant textbooks, which could form the basis for educational subjects and subject methods (cf.

Lewin & Stuart, 2003). Clearly, it can be considered important to support local authors so that textbooks can be written on the basis of the local specific needs. Since textbook usability was not a central theme in this study, further research could be done in order to gain more understanding about textbook usability in teachers' colleges.

Entrants' qualifications appear to have a strong influence on the educators' thoughts about curriculum approaches. Student teachers are solely selected on the basis of the grades they attain in the final national secondary education examination. The education and training policy of 1995 articulates the minimum academic requirements. Raising entry qualifications can be a simple possible solution. However, this could be impossible due to the higher demand for teachers, while the number of qualified applicants is low, especially in science subjects (cf. NECTA Statistics 2001-2006; see also Lewin & Stuart, 2003). On the other hand, the use of grades attained solely in secondary school has been problematic because some applicants use forged or other people's certificates (Rajabu, 2000). In the same way, the widespread leakage of examination papers observed in the Tanzanian education system raises doubts about the integrity of some applicants. Perhaps, along with secondary education grades, entry tests and interviews can be introduced to address the problem of forged documents.

The relationship between various *official agencies* associated with the curriculum is important in initiating and supporting curriculum innovation. The findings confirmed that agencies such as the Tanzanian Institute of Education (TIE) and the National Examinations Council (NECTA) are partly working in separation. Throughout this study the educators have been raised great concerns about the assessment mode used. It was observed that NECTA, which is responsible, could not make an immediate decision about revising the assessment mode in order to match with the curriculum innovation. In fact, there was a concern that the assessment mode has been a barrier in using a learner-centred teaching approach given that tests and examinations influence transmission methods.

As a consequence, it is important to point out that curriculum innovation has to go together with a change in assessment techniques (Shepard, Hammerness, Darling-Hammond, Rust, Snowden, Gordon, Gutierrez & Pacheco, 2005). The ultimate solution can be the establishment of an independent board for the accreditation of teacher education programmes (see also Presidential Commission on Education, 1984; Babyegeya, 2006; TDMS, 2007). Despite the demand for an independent board from educators, the establishment of such a board has received only modest support from the government. Therefore, it is the responsibility of educators to build broader political support through empirical evidence (cf. Liston, Borko & Whitcomb, 2008). The findings of this study could also be useful for those who support the establishment of a board.

Another problem in connection with the coordination between official agencies is that inspectors have continued to prioritise quantitative achievements in terms of national examinations and the availability of curriculum materials such as syllabus, modules and educators' teaching plans. To improve monitoring and evaluation of the innovation there is a need to revise the criteria used by inspectors. In addition, the function of an inspectorate has to go further and take the lead in curriculum review and development (Macnab, 2001). Furthermore, other approaches for monitoring and evaluation, such as college-based ones, can be used to supplement external evaluation done by inspectors (cf. Livingston & McCall, 2005).

The findings have further shown that the lack of *partnership* between teachers' colleges and universities could restrict the initiation of appropriate curriculum innovation. The hesitation of some universities to admit undergraduates on the basis of qualifications attained in teachers' colleges was a drawback to the sustainability of the innovation. During the interviews some educators emphasised a curriculum which will enable student teachers to proceed with university education. This means a curriculum which prioritises subject matter knowledge (see also TDMS, 2007). As such, the same educators named the curriculum *terminal* since it blocks the possibility of continuing with university education.

This argument leads to the conclusion that Tanzanian universities have considerable influence on the curriculum for teachers' colleges. In the same way, Lewin and Stuart (2003) found that large parts of the curriculum seem to have been adapted from the academic curricula of schools or universities, rather than designed for adult learners or for the acquisition of professional knowledge and skills. Lewin and Stuart further insist that the curriculum needs to be reconceptualised, in a way that keeps in touch with the local context and reality. This highlights the need for collaboration between teachers' colleges and universities.

However, a lack of well-defined procedures to coordinate activities between teachers' colleges and universities has been the main setback (cf. Babyegeya, 2006). To remedy this, there is a need to establish procedures which can effect collaboration. Furthermore, it can be argued that the lack of collaboration is promoted by consideration of power, control and the protection of sectoral interest (Gleeson, 2004). Collaboration takes place only when the participating actors are committed to working towards a common goal and able to trust the contribution of each partner (cf. Björklund, 2008). Perhaps the government has realised the problem through the decision of establishing one Ministry of Education from December, 2007, instead of having two separate ministries, one dealing with higher education, and the other with primary and secondary education, and teachers' colleges. Future research in this field can address the establishment of collaboration between teachers' colleges and universities.

An important issue to take into consideration is that successful curriculum implementation inevitably involves a change of teacher educators' behaviour, skills, motivation, conceptions and beliefs about teaching and learning (Cheng, 1996). Therefore, in order to prepare teachers to become change agents, it is important to have qualified teacher educators who are prepared to fulfil this role (Cochran-Smith, 2003). The results confirmed that the educators' conceptions were linked with their prior educational experience which appeared to be a barrier toward the understanding of curriculum innovation. They are not adequately prepared to become teachers of teachers but rather teach their

subjects of specialisation (Babyegeya, 2002). It is worth pointing out that if teacher educators are not well prepared, all these efforts toward changing the curriculum may not produce the desired results. Cochran-Smith (2003) further cautions that despite the many expectations teacher educators around the world are striving to meet, there has been little attention paid to the development of a curriculum for educating teacher educators.

Finally, to achieve sustainable curriculum innovation in Tanzanian teachers' colleges, innovation plans need adjustment. It is important to ensure that teacher educators are provided with the necessary support to enable them to transform curriculum documents to the classroom level. Since the ambition is to prepare qualified teachers to meet the demands of rapid change in society, curriculum innovation is a continuous strategy. We have learnt why innovations fail to achieve the intended outcomes. The task ahead is to use teacher educators' conceptions as the new basis for planning successful innovation.

Summary

Introduction

The title of the thesis is *Curriculum innovation in teacher education: Exploring conceptions among Tanzanian teacher educators.* The thesis deals with the implementation of top-down curriculum innovation in teachers' colleges. The ambition of the thesis is to deepen knowledge on how teacher educators have responded to and implemented the new curriculum introduced in 2000. The notion innovation is seen as a change initiative that is considered to be new in Tanzanian teacher education.

The new curriculum (2000) was introduced as a response to criticism directed at teachers' colleges for the poor preparation of teachers. It was argued that teachers are not well educated and that this has led to a deterioration of the quality of education in primary and secondary education (Omari, 1995; Mosha, 2000; Levira & Mahenge, 1996; Mushashu, 2000; Osaki, 2000; Wort & Sumra, 2001; Babyegeya, 2006). Pedagogical qualifications were mentioned as the main weakness in teacher education which has contributed to poor teaching and learning in schools. Research reveals that teaching and learning are considered to be dominated by recitation, the copying of notes, teacher "talk and chalk". To address this problem, in the new curriculum (2000) pedagogy received the main emphasis. Here, the notion pedagogy more or less equates with teaching methods.

However, right from the inception, the curriculum was criticised by teacher educators and there was a debate about less emphasis being given to subject matter knowledge on the one hand and pedagogy on the other. In this connection, it is important to point out that research shows that when a new curriculum is imposed on teacher educators they interpret it in different ways and as a result fail to implement it as intended by the curriculum developers. Even more, they may, implicitly and intuitively, or even explicitly, resist implementing the curriculum (Marsh, 1997; Van Driel, 2005). A point of

departure here is that teacher educators have to be involved in the decision-making about the curriculum.

Therefore the overall aim of the study is to investigate teacher educators' conceptions of curriculum innovation and future approaches[17]. My expectation in this study is to identify similarities and variations in teacher educators' conceptions of the changes in curriculum content, the way it is made accessible to student teachers and their thoughts about future teacher education. At this juncture, I regard the theme of study to be relevant to the needs of educators who teach pre-service student teachers, principals of teachers' colleges, curriculum developers, as well as other educational practitioners involved in teacher education.

Theoretical starting points

In order to understand what is new in the 2000 curriculum, I have presented four dominant discourses of innovation: methodology subject discourse, educational studies discourse, curriculum material discourse and teaching discourse. In the first discourse the emphasis is on integration of subject matter and subject methods. The underlying assumption is that integration helps the student teachers to learn subject matter knowledge and how to teach (cf. Dohanue & Stuart, 2008). From this point of view, subject matter studies and subject teaching methods have been integrated to form methodological subjects.

In order to enable student teachers to function well as professional teachers they need to master sub-disciplines in educational studies. Within this discourse the single subject *Malezi*[18]is expanded into four discrete subjects. The analyses of the four subjects indicate that more content has been added (cf. Dasu. 2001). These subjects are: first, foundations of education; second, education research, measurement and evaluation; third, education psychology, guidance and counselling; fourth, curriculum and teaching.

[17] Teacher educators in this study refer to college tutors.
[18] The word *Malezi* was used to imply child rearing.

Innovation has also been made on curriculum material prescription as result of a textbook policy issued in 1991, which allowed private publishers to produce textbooks to replace the ones that had been given a monopoly by the government. In this discourse of curriculum materials, the syllabus does not suggest any kind of books, in contrast to the previous syllabus, which recommended a list of textbooks to be used in the teaching and learning process. Within this discourse the administrations of teachers' colleges have the responsibility of selecting textbooks from private publishers. However, it was noted that the majority of textbooks used are from high income countries and contain ideas which sometimes are not applicable in the African context (Lewin & Stuart, 2003).

In order to develop relevant textbooks I have challenged teacher educators to engage in research and textbook writing. One strategy of helping educators to deal with the shortage of textbooks was to develop modules which were considered to be an important resource in the initial implementation of the new curriculum. A module in the context of my study is defined as a pamphlet containing a briefly description of subject content. Here it is worth noting, that a module is written in accordance with the syllabus by a panel of selected teacher educators and curriculum developers.

In the discourse of teaching, the emphasis is on shifting from traditional teaching or transmission to interactive or student-centred methods. The idea is to shift emphasis from teaching to learning by making individual student teachers the central focus of teacher education, as compared to the previous curriculum, which considered educators the centre of education. From this view, learning is viewed as an active construction rather than passive receiving of knowledge from educators and books. In this respect, the new curriculum (2000) recommends the use of participatory teaching methods.

Research questions and empirical approach

Drawing from the theoretical framework the following two research questions emerged: (1) What conceptions of curriculum innovation can be found among

teacher educators? (2) What conceptions of future curriculum approaches can be found among teacher educators? In the first question the ambition is to try to identify educators' conceptions of discourses of curriculum innovation. The second research question addresses the future, since it is not enough for educators to reflect on past experience or current professional practice in teachers' colleges. Current practice and problems can also be scrutinized from the conceptions of the future as one of the most important factors in enabling the teaching profession to change and develop (Niemi, 1996). Since the research is interested in the variation in educators' conceptions it is inspired by the phenomenographic approach (Marton & Booth, 1997).

Individual interviews were used as an instrument for researching educators' conceptions. The subjects of this study were thirty teacher educators from eight teachers' colleges situated in various parts of Tanzania. The first part of the interview focused on discussing discourses of change in the curriculum as presented above. In general, the educators were asked to give their opinions or comments about the change. At the end of the interview they were asked to propose an ideal curriculum for teacher education. Finally, the interviews were broken down into separate statements, sentences and paragraphs, which were coded into different categories of description and aspects.

Discussion of results

The first research question aimed at indicating variation in educators' conceptions of educational studies, methodology subjects, integration of subject matter and how to teach, teaching, syllabus and modules. The educators' conceptions of educational subjects indicated that they can be interpreted as *balanced* and *overcrowded.* In the first conception the educators saw that the content of educational studies meets the needs of student teachers; because it provides them with professional knowledge. The second conception was connected with overloading and overlapping of the subject due to inclusion of less useful content, as expressed by the educators.

The content of methodology subjects is described in terms of *reciting school content* and *beyond school content.* In the first conception the educators associated the content with the level at which student teachers will be working after completion of their studies. According to this conception, it is important to rote learn school content, since it helps students to become familiar with school subjects. The other group of educators saw that the content has to go beyond the level at which a student teacher will be working in order to upgrade the mastery of the subject matter.

Concerning integration of subject matter and how to teach or subject methods, the educators' conceptions can be described as *confidence in separation of the content* and *confidence in integration of the content.* In the first conception the educators showed that they are pleased with single subject teaching. This conception has been influenced by problems the educators face in deciding what to teach between subject matter and teaching methods when these are integrated. In contrast to the first conception, the second conception envisaged an integrated curriculum, and the reduction of knowledge separation.

The educators' conceptions of *teaching* could be interpreted in terms of *learner-centred orientation* and *content-centred orientation*. In the first conception the priority was on classroom interaction and engagement of students in teaching and learning. The second conception was associated with teaching by telling or transmission. The findings revealed that the educators have decided to use transmission methods due to several constraints such as large classes, assessment procedures and teaching material in particular modules.

When the focus was on the use of a syllabus which does not recommend textbooks, the findings revealed two main conceptions: *autonomy-orientation* and *lack of uniformity orientation*. In the first group the educators argued that a lack of recommended textbooks provides them with more autonomy for deciding which textbooks are to be used in the teaching and learning process. In contrast, other educators were worried about the lack of consistency in the nature of

knowledge offered across teachers' colleges in the whole nation as a result of the selection of textbooks made by individual educators or college administrations.

Concerning the use of modules, the findings revealed distinct conceptions: the first one is *surface learning orientation,* and the second, *teaching and learning guide-orientation*. In the first conception the educators related modules with surface learning, for example students memorizing the content of modules in order to pass the national examination. In fact, the results reveal that teaching content is restricted to modules and it seems to lead to the use of content-centred teaching methods. In the second conception modules are used as an educators' guide for teaching.

The educators' conceptions of the future approach to teacher education could be interpreted in terms of four main conceptions: *academic*, *practice, ethics* and *inquiry*. The first conception emphasises mastery of subject matter knowledge as the core in teacher education, while the second puts emphasis on developing teaching knowledge and skill through practice. The third conception prioritised ethical principles by preparing future teachers who will be responsible for children. In the fourth conception, the educators emphasised development of student teachers knowledge, skills and disposition in order to adopt an enquiring stance to their work.

Educators' stance towards curriculum innovation

When changing the perspective and looking across the category system, a set of dimensions or themes representing critical areas about teacher educators' conceptions of innovation could be identified. To distinguish between themes, I have categorised them under types of phenomena, like teacher educators and educational background, and character types, like loyalty and creativity. In so doing, the outcomes of my study were expanded by creating models which depict the educators' stance on curriculum innovation.

Phenomena

Looking across the category systems four phenomena could be identified: *prior educational experience, student teachers' factors, technical factors* and *shifting from teaching to learning*. In the first phenomenon, prior educational experience, the educators responded to curriculum innovation on the basis of their own educational background, which places emphasis on subject matter knowledge. For this reason, they resist curriculum innovation implicitly because pedagogy has received the main emphasis. In this connection, the results also show that educators do not seem to be pleased with student teachers' mastery of subject matter, due to inadequate coverage of content in secondary schools (cf. Mosha, 2000; Rajabu, 2000; Kitta, 2004). For this reason, teachers' colleges need to have provision for upgrading student teachers' subject matter knowledge (cf. TDMS, 2007).

On the technical factors of innovation, the educators discussed technical problems such as lack of curriculum materials, especially textbooks, and inappropriate assessment procedures as frame factors to successful implementation of the new curriculum (2000). The results demonstrate that educators are complaining about a lack of textbooks, which has made them rely on the use of modules (cf. TDMS, 2007). However, modules are considered to be barriers in making student teachers responsible for their own learning. Students and educators use them as an authority because the final examination questions mostly originate from them. In this connection, the assessment techniques used are criticised for making student teachers memorize facts in order to pass the final national examination. As such, there is a need to find more appropriate procedures for assessing professional learning and competences, such as the use of portfolios (Lewin & Stuart, 2003).

On shifting from teaching to learning, most of the educators in this study recognised the potential benefits of student-centred teaching. It can be argued that they recognised the importance of providing student teachers with more responsibility for their own learning. However, as discussed above, they are facing problems that hinder their effort in using student-centred teaching

methods. An overview of the correspondence between phenomena and educators' standpoints on curriculum innovation are captured in Figure 19.

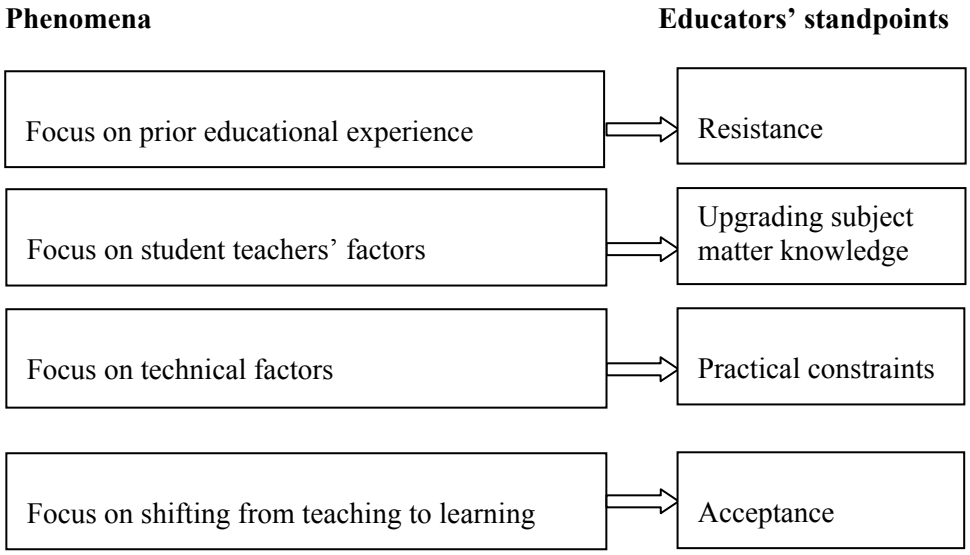


Figure 19. Curriculum innovation model based on phenomena and corresponding educators' standpoints

Character types

In coping with innovation, the educators adopted different strategies. By combining these strategies I have established certain features which illustrate the characteristics and actions of teacher educators towards the curriculum innovation (cf. Sandén, 2007). The three types of characteristics unique to individual educators were identified: *loyal*, *creative* and *critical*.

The characteristic feature of loyal educators is that curriculum innovation has to be implemented as prescribed. They have responded automatically to the curriculum as fiats and accept it as an authority that requires unquestioning obedience and compliance (cf. Elliott & Morris, 2001). The characteristic feature of creative educators is associated with ownership of the curriculum innovation. Thus, they are attempting to interpret the curriculum requirements in order to internalise and introduce a creative way of attaining the prescribed objectives. Consequently, they take personal initiatives to address some challenges observed in the curriculum.

Alongside loyal and creative educators, other educators have been critical of the whole process of curriculum innovation. In fact, they are attempting to engage in critical enquiry in order to enable curriculum development to be based on principles, not expedience (cf. Elliott & Morris, 2001). As a result, they are questioning the top-down decisions, theories included in the curriculum and the commitment of curriculum developers. An overview of character types and corresponding educators' standpoints is captured in Figure 20.

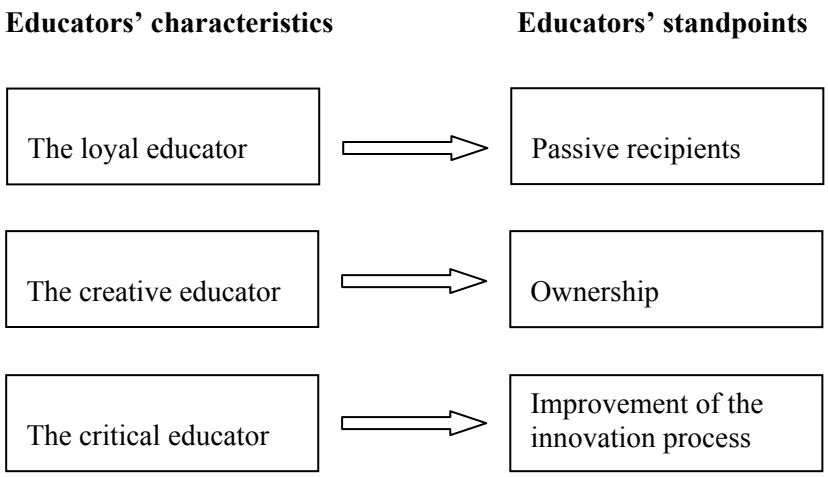


Figure 20. Curriculum innovation model based on educators' personal characteristics and corresponding standpoints

Final thoughts

The variation in conceptions of the curriculum innovation demonstrated that the educators in this study did not consider the innovation to be successful. From this perspective, the results confirm the problems of top-down curriculum innovation which have led to confusion among teacher educators, and even to rejection (cf. Marsh, 1997). Although the majority of educators seem to support the use of a learner-centred teaching approach, as stipulated in the curriculum document, still the results confirm that teaching is dominated by a content-centred teaching approach (see also Emsheimer & Mtana, 2004).

Textbooks have continued to be essential curriculum material in teacher education. The results underlined that educators have been facing the problem of

selecting appropriate textbooks to meet curriculum demands. As I see it, this challenges the textbook liberalisation policy, as it does not work very well in teachers' colleges. It can be argued that the educators preferred the Tanzania Institute of Education (TIE) to be given the mandate of making decisions about textbooks.

Qualifications of prospective entrants in initial teacher education appear to have a strong influence on the educators' thoughts about curriculum approaches. Student teachers are solely selected on the basis of the grades they attained in the final national secondary education examination. Raising entry qualifications can be a simple possible solution. However, this could be impossible due to the higher demand for teachers, while the number of qualified applicants is low, especially in science subjects (cf. NECTA Statistics 2001-2006; see also Lewin & Stuart, 2003). On the other hand, the use of grades attained in secondary school alone has been problematic because some applicants use forged or other peoples' certificates (Rajabu, 2000). Perhaps, alongside secondary education grades, entry tests and interviews can be introduced in order to address the problem of forgery.

The relationship between various official agencies associated with the curriculum is important in initiating and supporting curriculum innovation. The findings confirmed that agencies such as the TIE, National Examinations Council (NECTA) and inspectoral department are partly working in separation. For example, it was observed that NECTA could not take an immediate decision about revising the assessment mode in order to match with the objectives of curriculum innovation. Furthermore, inspectors have continued to prioritise quantitative achievements in terms of national examinations and the availability of curriculum materials such as syllabus, modules and educators' teaching plans.

Furthermore, the findings have shown that the lack of partnership between teachers' colleges and universities could restrict the initiation of appropriate curriculum innovation. The hesitation of some universities to admit undergraduates on the basis of qualification attained in teachers' colleges was a

drawback to the sustainability of the innovation. To remedy this, there is a need to establish procedures which can effect collaboration. Furthermore, it can be argued that the lack of collaboration is promoted by consideration of power: control and the protection of sectoral interest (cf. Gleeson, 2004).

Finally, to achieve sustainable curriculum innovation in Tanzanian teachers' colleges, innovation plans need adjustment. It is important to ensure that teacher educators are provided with the necessary support to enable them to transform curriculum documents to the classroom level. Since the ambition is to prepare qualified teachers to meet the demands of rapid change in society, curriculum innovation is a continuous strategy. We have learnt why innovations fail to achieve the intended outcomes. The task ahead is to use teacher educators' conceptions as the new basis for planning successful innovation.

Sammanfattning

Introduktion

Avhandlingens rubrik är *Curriculum innovation in teacher education: Exploring conceptions among Tanzanian teacher educators.* Temat rör implementeringen av en ny läroplan i lärarhögskolor. Ambitionen är att granska frågan om hur lärarutbildare har mottagit och implementerat den nya läroplanen. Begreppet innovation eller förnyelse används i betydelsen initiativ till förändring som är ny inom den tanzaniska lärarutbildningen.

Den läroplan som introducerades år 2000 vid lärarhögskolorna i Tanzania utvecklades som ett svar på kritik som riktats mot att brister i lärarutbildningen ansågs bidra till en försämrad kvalitet på undervisningen i den grundläggande utbildningen och på andra stadiet (Omari, 1995; Mosha, 2000; Levira & Mahenge, 1996; Mushashu, 2000; Osaki, 2000; Wort & Sumra, 2001; Babyegeya, 2006). Brister i pedagogiska kvalifikationer nämndes som den största svagheten i lärarutbildningen vilket i sin tur lett till den låga nivån på undervisningen. Forskning visar att undervisningen i skolorna i Tanzania dominerats av ett framställande sätt att arbeta med tonvikten lagd vid avskrivning av anteckningar från tavlan. För att råda bot på problemen sattes fokus på att utveckla pedagogiken i den nya läroplanen. Emellertid blev läroplanen från början kritiserad av lärarutbildarna för att både ämneskunskaper och pedagogiska kunskaper fick för litet utrymme. Enligt forskningen tolkas läroplanen av lärarutbildare på varierande sätt och konsekvensen är att implementeringen också varierar i förhållande till intentionerna bakom reformen. Forskning visar ytterligare att lärarutbildare implicit och intuitivt, eller till och med explicit, motsätter sig en läroplansreform (Marsh, 1997; van Driel, 2005). En utgångspunkt för avhandlingen är att lärarutbildare skall vara involverade i beslut om läroplaner.

Avhandlingens övergripande syfte är därför att undersöka lärarutbildares uppfattningar om läroplaner och implementeringen av dessa. Studien har

ambitionen att identifiera likheter och skillnader i lärares uppfattningar om de förändringar som introducerats i den nya läroplanen, sättet på vilket denna har gjorts tillgänglig för lärarstuderande och utbildarnas åsikter om lärarutbildningens framtid. Studien betraktas därför som relevant för lärarutbildare, lärarhögskolors rektorer, aktörer involverade i utvecklingen av läroplaner och även andra knutna till lärarutbildningen.

Teoretiska utgångspunkter

För att underlätta förståelsen av det nya i läroplanen från 2000, presenteras här fyra dominerande diskurser om förnyelse: en metodologisk ämnesdiskurs, en diskurs rörande pedagogiska studier, en materialdiskurs i anslutning till läroplanen och en undervisningsdiskurs.

Inom den metodologiska ämnesdiskursen ligger tonvikten på en integrering av ämnesinnehållet och ämnesmetoder. Det underliggande antagandet är att integrationen hjälper lärarstuderande att behärska ämneskunskapen och att utveckla sin undervisning (jfr Dohanue & Stuart, 2008). Diskursen gäller lärande processer för specifika skolämnen, som matematik eller geografi. För den metodologiska ämnesdiskursen används termen ämnesdidaktik exempelvis i de nordiska länderna.

För att lärarstuderande skall kunna utvecklas till professionella lärare krävs också förtrogenhet med den diskurs som rör pedagogiska studier. Inom denna diskurs är kursen *Malezi* utvidgad till fyra ämnen, nämligen a) pedagogikens grunder, b) pedagogisk forskning c) pedagogisk psykologi, inklusive handledning samt d) läroplan och undervisning.

Den materialdiskurs som läroplanen omfattar förändrades på grund av nya riktlinjer för läromedel år 1991 då privata utgivare tilläts producera läromedel för att ersätta det system som gett regeringen monopol på läromedelsproduktionen. Numera anges inte längre i kursplanen rekommendationer för läromedel, vilket står i stark kontrast till den föregående läroplanen, som rekommenderade en lista av läromedel som skulle användas i undervisningen. Lärarhögskolornas administration bär ansvaret för att använda

läromedel från privata utgivare. Emellertid har det noterats att huvuddelen av läromedel som används härstammar från höginkomstländer och omfattar idéer som i vissa fall inte kan tillämpas i en afrikansk kontext (Lewin & Stuart, 2003).

För att utveckla relevanta läromedel har jag utmanat lärarutbildare att engagera sig i forskning och läromedelsproduktion. En strategi för att hjälpa utbildare att hantera det underskott av läromedel som finns är att utveckla så kallade moduler, vilka ansågs vara en betydelsefull resurs i implementeringen av den nya läroplanen. En modul definieras här som en text som innehåller en ram för ämnesinnehållet. En modul utformas i enlighet med kursplanen av utvalda lärarutbildare och andra engagerade i utvecklingen av läroplaner.

I undervisningsdiskursen läggs tonvikten vid en övergång från traditionell undervisning eller kunskapsöverföring till interaktiva eller elevcentrerade metoder. Tanken är att flytta fokus från undervisning till lärande genom att ställa enskilda lärarstuderande i centrum för lärarutbildningen. I den tidigare läroplanen betraktades nämligen lärarutbildarna som den centrala parten. Utifrån denna synvinkel ses lärande som en aktiv handling i stället för ett passivt mottagande av kunskap från lärarutbildare och böcker. Därför rekommenderas användningen av deltagarstyrda metoder i den nya läroplanen.

Forskningsfrågor och empirisk ansats

Med utgångspunkt i den teoretiska bakgrunden formulerades två forskningsfrågor: (1) Vilka uppfattningar om förnyelse av läroplanen kan återfinnas bland lärarutbildare? (2) Vilka uppfattningar har lärarutbildare om framtida förändringar av läroplaner? I den första frågan är ambitionen att identifiera utbildares uppfattningar om förnyelsen av läroplanen. Den andra forskningsfrågan är framtidsinriktad och pejlar utbildarnas tankar om fortsatt utveckling av läroplaner. Praxis och problem kan också granskas utgående från aktuella framtidsföreställningar och kan ses som en viktig förutsättning för förändring och utveckling av läraryrket (Niemi, 1996). Eftersom intresset ligger på variationer i utbildares uppfattningar är undersökningen fenomenografisk (Marton & Booth, 1997).

Individuella intervjuer med lärarutbildare användes som instrument och trettio respondenter valdes från åtta lärarhögskolor i olika delar av Tanzania. Intervjuns första del bestod, såsom tidigare presenterats, av en diskussion om en förändring av läroplanen. Utbildarna tillfrågades om sina uppfattningar av den nya läroplanen. I intervjuns senare del tillfrågades utbildarna om sin syn på den ideala läroplanen för lärarutbildningen. Slutligen delades intervjumaterialet upp i olika utsagor, meningar och stycken som kodades i beskrivningskategorier och aspekter.

Resultatdiskussion

Studiens första forskningsfråga syftade till att visa på variationer i lärarutbildares uppfattningar av pedagogiska studier, metodologiska ämnen, ämnesinnehållets integrering och om undervisning, kursplaner och moduler. Utbildarna uppfattade ämnesstudierna i utbildningen som antingen *balanserade* eller *överlastade*. Enligt den första uppfattningen ansåg lärarutbildarna att studiernas innehåll fyller lärarstuderandes behov eftersom detta ger dem yrkesmässig kunskap. Företrädarna för uppfattningen om att ämnesstudierna var överlastade ansåg att inkluderingen av mindre centralt stoff ledde till överlappningar.

Metodologiämnenas innehåll beskrevs i kategorierna *reciterande skolans stoff* och *stoff utanför detta innehåll*. Uppfattningen om reciterande av skolans stoff associerade utbildarna till den nivå som lärarstuderande förväntas arbeta på efter avslutade studier. Enligt denna uppfattning är lärande utantill viktigt eftersom det hjälper studerande att bli bekanta med skolämnena. Den andra gruppen ansåg att innehållet måste överskrida skolans stoff och den nivå som lärarstuderande kommer att arbeta på.

I fråga om integrationen av ämnesinnehållet och om ämnesanknutna undervisningsformer kan lärarutbildarnas uppfattning beskrivas som en upplevd *tillförsikt att avgränsa ämnesinnehållet* och en *tillförsikt att integrera ämnesinnehållet* i undervisningen. Enligt den första uppfattningen upplevde utbildarna sig vara tillfredsställda med att undervisa i ett enskilt ämne. Denna uppfattning har påverkats av problem som varit knutna till valet av stoff när

ämnen och undervisningsmetoder varit integrerade. När utbildarna hade förtroende för ett särskiljande av innehållet ansåg de sig vara nöjda med undervisningen i enskilda ämnen. Den andra uppfattningen pekade däremot på ett integrerat ämnesinnehåll och på en reduktion av ett separerat ämnesinnehåll.

Utbildarnas uppfattningar av *undervisning* kan tolkas vara orienterade antingen mot *eleven* eller mot *ämnesinnehållet.* Enligt den första uppfattningen prioriterades interaktion i klassrummet och eleverna engagerades i undervisning och lärande. Den andra uppfattningen förknippades med en lärarstyrd och förmedlande undervisning. Resultaten visade att lärare valt att använda sig av förmedlande undervisning på grund av många begränsningar, såsom stora grupper, procedurer för utvärdering och tillgången på undervisningsmaterial för vissa moduler.

När fokus låg på bruket av kursplaner som inte rekommenderade läromedel visade resultaten två huvudsakliga uppfattningar: *orientering mot autonomi* och *brist på enhetlighet i orientering*. I den första gruppen hävdade utbildarna att bristen på läromedel gav dem större autonomi vid valet av material för sin undervisning. I den andra gruppen oroade sig utbildarna, på grund av friheten att välja undervisningsmaterial, för bristen på enhetlighet och konsekvens i utformningen av studierna inom lärarhögskolorna i hela landet.

Beträffande användningen av moduler visar resultaten distinkta skillnader i uppfattningar: ett *ytorienterat lärande* och en *handledningsorienterad undervisning.* Enligt den första uppfattningen relaterade lärarna modulerna till ett ytorienterat lärande, exempelvis så att de studerande endast memorerade modulernas innehåll för att bli godkända i den nationella examinationen. Resultaten visar att undervisningsinnehållet faktiskt är begränsat till moduler vilket verkar leda till innehållsorienterade undervisningsformer. I den andra kategorin används modulerna som lärarnas guide för undervisning och de studerandes guide för lärande.

Lärarutbildarnas uppfattning av framtida ansatser för lärarutbildningen kunde identifieras inom fyra huvudkategorier: *akademiska, praktikbetonade, etiska* och

undersökande. Den första uppfattningen understryker behärskning av kunskaper i undervisningsämnet som en kärna i lärarutbildningen, medan den andra lägger tonvikten vid utvecklingen av lärarkunskap och färdigheter via praktik. Den tredje uppfattningen prioriterar etiska principer enligt vilka framtida lärare förbereds för ett ökat omsorgstagande av barn. Enligt den fjärde uppfattningen underströk lärarutbildarna utvecklingen av lärarstuderandes kunskap, färdigheter och beredskap i riktning mot ett kritiskt förhållningssätt till arbetet.

Lärarutbildares förhållningssätt till förnyelsen av läroplanen

Byter vi perspektiv och ser tvärs över kategorierna kan en uppsättning av dimensioner eller teman identifieras som avslöjar avgörande områden i lärarutbildarnas uppfattningar av förnyelsen. För att särskilja teman har jag gjort en kategorisering i olika *företeelsetyper,* såsom lärarutbildarnas erfarenheter av utbildning, och i *individuella typdrag,* såsom lojalitet eller kreativitet (jfr Sandén, 2007). Därigenom har resultaten av studien utvidgats och modeller skapats som visar lärarutbildares inställning till förnyelsen av läroplanen.

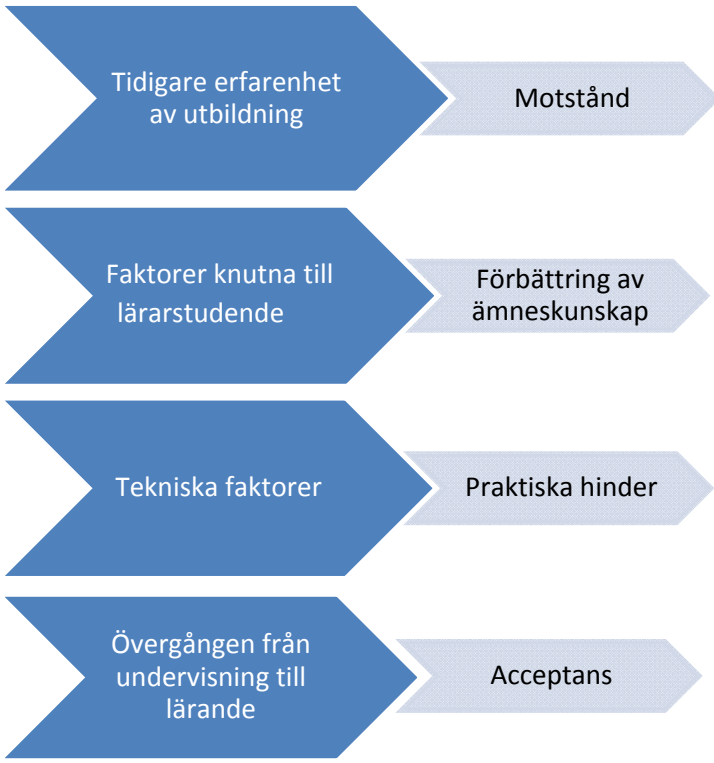
Företeelsetyper

Vid en överblick på tvärs över kategorisystemet kunde fyra företeelsetyper identifieras: *erfarenheter av utbildning*, *faktorer knutna till lärarstuderande, tekniska faktorer* och *övergång från undervisning till lärande*. Inom den första företeelsetypen, tidigare erfarenhet av utbildning, responderade lärarutbildarna på förnyelsen av läroplanen utifrån sin egen utbildningsbakgrund där fokus legat på ämneskunskap. Av denna anledning motsatte de sig implicit den nya läroplanen därför att pedagogiken betonas så starkt. Resultaten visar också att lärarutbildarna inte föreföll vara nöjda med kvaliteten på studerande eftersom prestationerna var svaga. Lärarhögskolorna borde således ha beredskap att förbättra lärarstuderandes ämneskunskaper (jfr TDMS, 2007).

De tekniska faktorer som rör förnyelsen av läroplanen diskuterade utbildarna i termer av brist på läromedel, speciellt läroböcker och oändamålsenliga förfaringssätt vid utvärdering, som begränsar möjligheterna att realisera förnyelsen. Resultaten visar att lärarutbildare som klagar över bristen på

läroböcker i stället förlitar sig på användningen av moduler (jfr TDMS, 2007). Emellertid anses modulerna utgöra hinder för att göra lärarstuderande ansvariga för sin egen inlärning. Studerande och utbildare använder modulerna som huvudsakliga hjälpmedel i studierna eftersom frågorna vid den avslutande examinationen vanligtvis utgår från modulerna. Här finns ett behov av att finna mera adekvata former för utvärdering av utbildningen och av den studerandes kompetens, såsom användning av portföljer (Lewin & Stuart, 2003).

De flesta avlärarutbildarna pekade på potentiella fördelar med en elevcentrerad undervisning vid övergången från undervisning till lärande. Lärarutbildarna insåg vikten av att låta lärarstuderande ta ett ökat ansvar för sitt eget lärande. Såsom tidigare diskuterats upplevde lärarutbildarna problem som de ansåg begränsa möjligheterna att använda elevcentrerade undervisningsformer. I figur 19 illustreras relationen mellan företeelsetyper och lärarutbildarnas uppfattningar av förnyelse av läroplanen.



Figur 19. Modell som illustrerar relationen mellan företeelsetyper och lärarutbildarnas uppfattningar av förnyelse av läroplanen (2000).

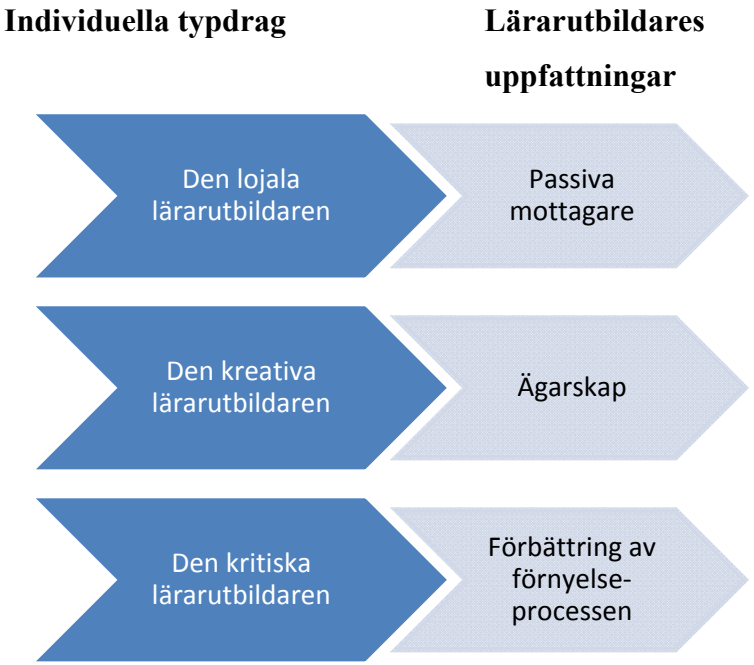
Individuella typdrag

För att hantera förnyelsen av läroplanen använde sig lärarutbildarna av varierande strategier. Genom att kombinera dessa strategier kunde jag identifiera några individuella typdrag hos själva lärarutbildarna gällande förnyelsen av läroplanen (jfr Sandén, 2007). Typdragen klassificerades som: *lojal, kreativ* och *kritisk*.

Lojala lärarutbildare underströk vikten av att förnyelsen av läroplanen genomfördes på stadgat sätt. De reagerade automatiskt på läroplanen såsom ett

påbud och accepterade det styrande dokumentets auktoritet som förutsatte obestridlig lydnad och foglighet (jfr Elliott & Morris, 2001). Karaktäristiskt för kreativa lärarutbildare är att de står i ett ägarförhållande till förnyelsen av läroplanen. Sålunda försöker de tolka läroplanens krav genom att internalisera och praktisera ett kreativt sätt att uppnå de föreskrivna målen. Följaktligen tar de egna initiativ för att möta de utmaningar som observerats i läroplanen.

Vid sidan av lojala och kreativa lärarutbildare har andra igen varit kritiska till hela förnyelseprocessen. De har verkligen försökt utveckla ett kritiskt förhållningssätt baserat på principer, inte på ändamålsenlighet (jfr Elliot & Morris, 2001). Alltså ifrågasätter de ”top-down” baserade beslut, läroplansteorier och engagemang från aktörer involverade i förnyelsearbetet. En översikt över dessa individuella typdrag relaterade till lärarutbildarnas uppfattningar beskrivs i figur 20.



Figur 20. Översikt över individuella typdrag relaterade till lärarutbildarnas uppfattningar.

Avslutande tankar

Variationen bland uppfattningar som framkom i studien visar att lärarutbildare överlag inte anser att förnyelsen av läroplanen har varit framgångsrik. Resultaten bekräftar problemen med ”top-down” – styrda förändringar i läroplanen, vilket i sin tur har lett till förvirring och rent av till ett avståndstagande bland lärarutbildarna (jfr Marsh, 1997). Trots att majoriteten av lärarutbildarna verkar understöda användningen av elevcentrerade undervisningsformer föreskrivna i läroplanen, bekräftar resultaten att undervisningen domineras av ett innehållsinriktat tänkande (se även Emsheimer & Mtana, 2004).

Läroböcker har fortsatt att ha en central position inom lärarutbildningen. I resultaten betonades att lärarutbildare vid valet av läroböcker har upplevt problem med att uppfylla läroplanens krav. Enligt min uppfattning utmanar resultatet den liberala politik som införts för val av läroböcker eftersom systemet inte fungerar väl vid lärarhögskolorna. Lärarutbildare verkar föredra att Tanzania Institute of Education (TIE) skulle ges mandat att fatta beslut om läroböcker.

Antagningskraven för studerande förefaller utöva ett stort inflytande över lärarutbildares tankar om lämpliga läroplansansatser. Lärarstuderande har valts helt och hållet utgående från de betyg de erhållit i den avslutande examinationen på andra stadiet. En höjning av kvaliteten på antagningskraven kunde innebära en enkel lösning på problemet. Emellertid är detta knappast möjligt på grund av det ökande behovet av lärare, särskilt då antalet kvalificerade sökande är lågt, i synnerhet inom naturvetenskapliga ämnen (jfr NECTA Statistics, 2001 – 2006; se även Lewin & Stuart, 2003). Å andra sidan har användningen av betygen från andra stadiet varit problematisk också på grund av att en del av de ansökande använder förfalskade intyg, eller helt sonika någon annans intyg (Rajabu, 2000). Eventuellt kunde intervjuer och inträdesförhör introduceras jämsides med andra stadiets betyg för att råda bot på problemet med förfalskningar.

Relationen mellan olika officiella instanser anknutna till utvecklingen av läroplanen är viktiga för att initiera och stöda förändringsarbetet. Studiens resultat bekräftar att instanser såsom TIE, National Examination Council

(NECTA) och avdelningen för inspektoratet delvis arbetar separat. Det har till exempel observerats att NECTA inte kunnat ta ett omedelbart beslut om en omarbetning av bedömningsprocedurer som svarar mot den nya läroplanens mål. Vidare har inspektörer fortsatt att prioritera kvantitativa prestationer i form av nationella examinationer och tillgängligheten på läroplansmaterial, såsom kursplaner, moduler och utbildares undervisningsplaner. Resultaten av studien har visat att bristen på samverkan mellan lärarhögskolor och universitet i Tanzania verkar begränsa förnyelsearbetet. Den tvekan som vissa universitet uppvisar vid antagningen av studerande som ansöker om studieplats utifrån kvalifikationer från lärarhögskolor utgör ett hinder för förnyelsen. För att motverka detta krävs ett förfarande som påtvingar samarbete. Dessutom kan det hävdas att bristen på samarbete accentueras av kontrollbehov och revirbevakning (jfr Gleeson, 2004).

För att garantera ett hållbart förnyelsearbete av läroplanen för lärarhögskolorna i Tanzania måste det sätt som arbetet görs på förändras. Lärarutbildarna måste därför få stöd för att konkretisera läroplansdokument till klassrumsnivå. Eftersom strävan är att kvalificera lärare som klarar av att möta krav från snabba förändringar i samhället borde utvecklingen av läroplanen ingå i en fortlöpande process. Vi känner till orsakerna till att tidigare läroplansreformer har misslyckats i försöken att nå avsedda mål. Uppgiften framöver är således att utnyttja lärarutbildares uppfattningar som en ny utgångspunkt för en framgångsrik planering av förnyelsearbetet.

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Appendices

Appendix 1

Interview questions

1. Introduction

- Presentation of myself

- The purpose of the interview

2. Background information

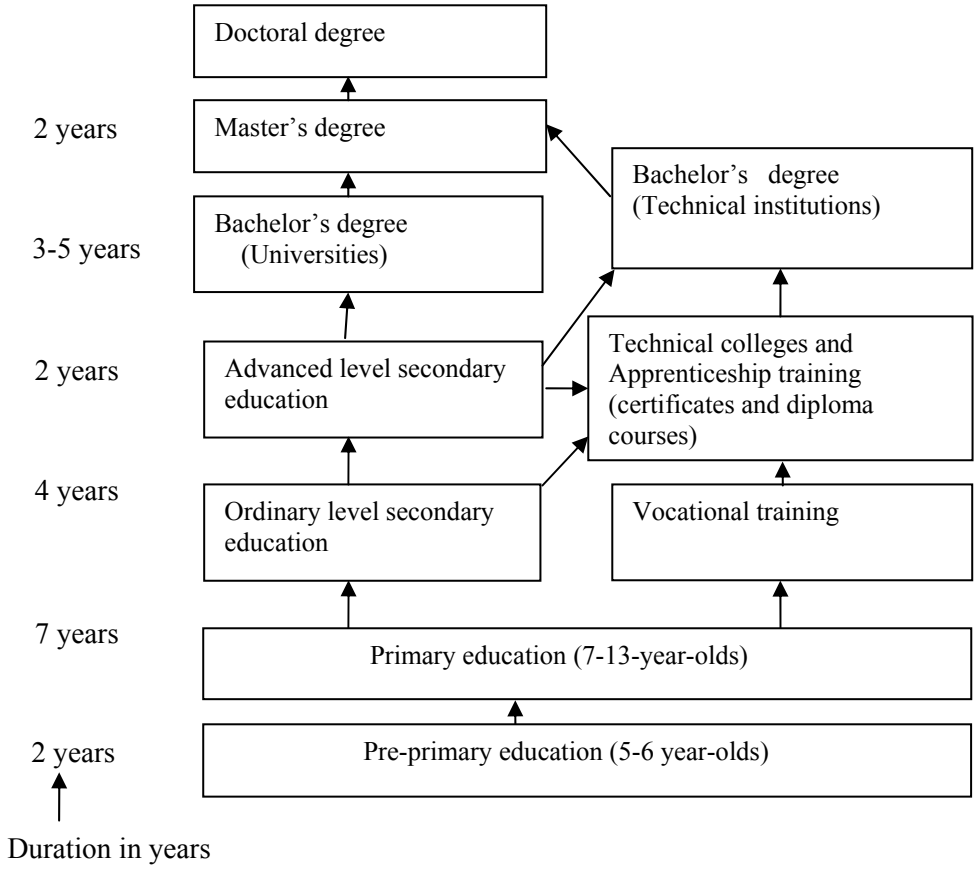
- Presentation of educators: name and working experience in teachers' colleges.
- Education: What qualification level? Where?
- Teaching subjects: How many?
- Experience in teaching methodology subjects: What subject/s? How many years have you been teaching this subject/s?
- Experience in teaching educational subjects: What subject/s? How many years have you been teaching this subject/s?

3. Interview questions

- What is your comment about integration of subject matter knowledge and methodology in the new curriculum?
- What is your idea when some educational practitioners say that the new curriculum focus on methodology and ignores content?
- How do you describe the four courses of educational studies?
- As you know, the content and methodology of the current curriculum corresponds with that in schools. What is your opinion about this?
- What can you say about teaching?
- The introduction of the current curriculum is organised using modules. What is your comment about the modules?
- What is your view about the syllabus for teacher education?
- Do you have any general comments about the curriculum materials in use?
- What can you say about the selection of teaching methodologies and content?
- Suppose someone asked you to propose a curriculum appropriate for teacher education. What would you say?

Appendix 2

The Tanzania education system (my own interpretation)



Appendix 3

The general structure and the content of grade 'A' certificate in education curriculum with corresponding primary school subjects.

Learning areas in teachers' colleges			Corresponding primary school subjects
General (obligatory)	**Educational studies (obligatory)**	**Methodology subjects (optional)**	
Uraia (Civics)	Misingi ya Ualimu (Foundations of Education)	Mbinu za kufundisha Kiswahili	Kiswahili
	Saikolojia ya Elimu (Psychology of Education, Guidance and Counselling)	English teaching methods	English
	Mitaala na Ufundishaji (Curriculum and Teaching)	Mbinu za kufundisha Maarifa ya Jamii (Social studies teaching methods)	Maarifa ya jamii (Social Studies)
	Upimaji, Tathmini na Utafiti (Education Research, Measurement and Evaluation)	Mbinu za kufundisha Hisabati (Mathematics teaching methods)	Hisabati (Mathematics)
	Malezi ya elimu ya awali (Principles of Early Childhood Education)	Mbinu za kufundisha Sayansi (Science teaching methods	Sayansi (Science)
		Mbinu za kufundisha Stadi za kazi (Vocational skills teaching methods)	Stadi za Kazi (Vocational skills)
		Mbinu za kufundisha elimu ya awali (Teaching Methods for Pre-primary Education).	Muhtasari wa vitendo vya elimu ya awali (Pre-primary syllabus)

* Prescribed contacts hours per week: educational studies (50%), methodology subjects (38%), general studies (6%) and religious studies (6%). Total contact time per week is 30 hours. Usually there are six to seven lessons or periods a day lasting for one hour, starting at 8.00am or 7.30 am.

Student teachers are required to specialise in four methodology subjects presented in the table above. Specialisation is done on the basis of grade attained in the certificate of secondary education examinations. The primary purpose of using secondary schools academic results is to ensure that student teachers specialise in those subjects where they have attained higher grades. Student teachers ought to have the basic knowledge of school subjects. All educational studies are compulsory together with civic education, malezi ya elimu ya awali (Principles of early childhood education) and mbinu za kufundisha elimu ya awali (Teaching methods for pre-primary education). On the basis of specialisation, student teachers are prepared to be ready to teach four primary school subjects and pre-school.

On the other side teacher educators (those who posses B.Ed) qualify to teach one methodology subject and all the sub-disciplines of educational studies. In the B.Ed

programme teacher educators specialise in one secondary school subject while educational studies are obligatory. The minimum teaching load for teacher educators is fifteen hours per week.

Appendix 4

The general structure and the content of the diploma in education curriculum with corresponding secondary school subjects

Learning areas in teachers' colleges			**Corresponding secondary school subjects**
General (obligatory)	**Educational studies (obligatory)**	**Methodology subjects (optional)**	
General studies	Foundations of Education	Civics teaching methods	Civics
	Psychology of Education, Guidance and Counselling	Geography teaching methods	Geography
	Curriculum and Teaching	History teaching methods	History
	Education Research, Measurement and Evaluation	English language teaching methods	English language
		Mbinu za kufundisha Kiswahili	Kiswahili
		Mathematics teaching methods	Mathematics
		Biology teaching methods	Biology
		Physics teaching methods	Physics
		Chemistry teaching methods	Chemistry
		Book-keeping teaching methods	Booking
		Commerce teaching methods	Commerce

* Prescribed contacts hours per week: educational studies (50%), methodology subjects (38%), general studies (6%) and religious studies (6%). Total contact time per week is 30 hours. Usually there are six to seven lessons or periods a day which lasting for one hour, starting at 8.00or 7.30 am.

Student teachers are required to specialise in two school subjects on the basis of grades attained in the advanced secondary education examinations (cf. Appendix 3). It is this specialisation that qualifies secondary teachers qualifies to teach only two school subjects. All educational studies are compulsory together with general studies. As already mentioned in Appendix 3 teacher educators qualify to teach only one methodology subject and all the sub-disciplines of educational studies.

What kinds of programmes or curricula are appropriate for teacher education in a country like Tanzania? This study deals with teacher educators' views on the question. How do they experience the situation brought by a new curriculum? Does it stimulate educators to innovations, solutions and practical actions? The ambition behind the curriculum change is oriented towards increasing the standard of teachers' qualification, hence strengthening the professionalisation of teachers.

The findings reveal that teacher educators seem to see more obstacles than new solutions, more limiting factors than autonomous space for action. Furthermore, the study indicates that teacher educators have varied perceptions of what constitutes a suitable curriculum approach for educating future teachers. The study provides a foundation for a deeper understanding of the problems of changing teacher education programmes and it also contributes to new ways of conducting reforms taking into account the real conditions among educators in teacher education institutions.

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