

RECONCEPTUALISING TEACHER EDUCATION IN THE SUB-SAHARAN AFRICAN CONTEXT

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1. Introduction

The concern about teacher quality in many parts of Africa and the role teacher education should play in its improvement is becoming an important subject in education development on the continent. This is partly the result of increasing evidence that despite gains in basic school enrolment, as a result of developing countries implementing programmes to provide primary education for all (EFA), gains in student achievement have been more difficult to attain (Lockheed & Vespoor, 1991; Sunal 1998)

Ghana is a typical case in point. Since 1987, basic education reforms have seen gross enrolment ratios (GER) at primary school level shoot up by about 37% (Akyeampong 2001), but the gains in student achievement expected from overall reforms has been less impressive. Yearly criterion-reference tests (CRT) which began in 1992 and were designed to monitor progress in student achievement following the reforms paint a picture of continuing under-achievement and a very slow rate of progress. For example, of the pupils tested at grade 6 in public primary schools in the 1996 national CRT, only 6% achieved a criterion score of 60% and above in English. Even more worrying, less than 3% achieved a criterion score of 55% and above in Mathematics (MOE/PREP, 1996). Other studies have confirmed that indeed a significant part of the problems have to do with teacher quality. Notably, poor instructional quality and the lack of professional commitment have been recognised as particularly problematic (Fobih et. al., 1999), thus raising the prospect that teacher education programme content might be lacking in producing teachers capable of improving the quality of basic education (Akyeampong & Lewin 2002).

Recently, teacher education in Africa has been the target of reforms, mainly involving structural changes that shift more of training time into schools as the place for learning to teach. Nevertheless, recent studies in some sub-Saharan African (SSA) countries reveal that teacher education programmes may be in need of more radical reform, if it is to produce teachers with the commitment and competence that can address the challenges of improving student learning in schools (Lewin & Stuart, 2001).

In the literature, teacher education researchers are calling for greater exploration of the interface between educational theory and the realities of teaching, and proposing models of learning to teach that aim at deepening teachers' situational understanding of teaching to enhance

their professional efficacy (see, Wideen & Grimmett, 1995; Danielson, 1996). Unfortunately, in the African context we do not see much of an effort to effect changes in teacher education that deepen teachers understanding of local needs and show how student teacher learning outcomes can be improved to bring about changes in schools. Partly this might be due to the paucity of teacher education research that reflects African concerns to produce insights for changing the way in which teachers have traditionally viewed their professional roles and responsibilities in the classroom.

Studies show that African teachers may be aware and appreciate the value of more progressive pedagogical approaches that would improve the quality of student learning, but fail to make them a consistent part of their practice (Akyeampong et. al., 1999; Penny & Jessop, 1998; Lewin & Stuart, 2001). What may account for this? Some are of the view that the basic assumptions upon which the more progressive instructional approaches are based are not present in the African context, causing their value to be compromised and their relevance restricted (Lewin & Stuart, 2001). Issues such as the teaching culture, basic teaching and learning infrastructure and the professional role and identity of teachers may be quite different in African contexts, making certain adjustment to changes more difficult.

In this paper an attempt will be made to explore factors influencing the conception of teaching and learning in SSA primary schooling and how teacher education might have contributed to current conceptions. Based on a critical analysis of the relevant issues, the paper will suggest an approach to teacher education that brings into sharper focus the implications of the realities and needs of schooling for changing how teachers traditionally view their professional responsibilities and practices.

But first the paper starts with a look at what the dominant approach to teaching and learning as portrayed in the literature on African schooling is, since that has been considered by some as the major resistive force to change (Jessop & Penny, 1998).

2. Characteristics of teaching and learning in primary schools

Teaching in many developing countries is characterised mainly by authoritarian, teacher-centred approaches that are linked to behaviourist approach to learning (Avalos 1991). This approach originating from the work of Pavlov and Skinner, emphasises the ways in which the knowledge, communication and practical skills of the teacher brings about learning in terms of observed changes in pupils. Thus earlier research on teaching sought to delineate those particular teachers classroom behaviour that produced the most gains in student achievement, which was mostly measured by standardised tests (Darling-Hammond, 2000).

Recent research on teaching in Africa shows that the behavioural approach to teaching and learning continues to be the most dominant approach. Kanu (1996) studied classroom practices of

social studies teachers in the West African state of Sierra Leone and commented that the teaching learning pathway was in one direction mainly,

Teacher asking the students to read sections of the prescribed textbook; teacher engaging in a monologue to explain what has been read to ensure that all the essentials (usually factual details) have been covered; and teacher testing the students to see how well they can recall the material contained in the reading (p. 175).

Anyone who has observed classroom discourse in many African primary schools will recognise this as a familiar pattern of instructional behaviour. Kanu believes that a major reason why this pattern is so endemic is because Government prescribed textbooks, often filled with factual knowledge that students are required to remember, have come to be accepted as prescriptive material for instructional practice. Teachers appear incapable of using textbooks more creatively by reframing or contextualising the content to meet particular teaching setting needs such as student background characteristics, school and community ecological context etc. Teachers seem rather concerned with imparting knowledge as it is presented in the textbooks.

Tabulawa (1997) points out that Botswana primary teachers' concerned with imparting knowledge try to ensure an orderly classroom environment. Students in this environment also perceive learning as acquiring and assimilating knowledge. According to Tabulawa, the view of schooling as vocational coupled with an examination culture that filters students towards paid jobs in the labour market has given life and sustenance to pedagogical classroom practices founded on behaviourism. In this environment teachers' and students' roles in classrooms are clearly defined and mutually respected. As Tabulawa explains,

It was students' understanding of *doing schoolwork* as *receiving* the teachers' knowledge that helped them define their own as well as the teachers' roles and responsibilities in class. This was also a view shared by parents who also believed that students acquired school knowledge by listening and carrying out orders from the teacher and by studying hard (emphasis in the original, p. 200-201)

This is a strong school culture that defines many teachers' thinking about their professional role and responsibility particularly in the classroom, although it does not mean that teachers may be unaware of other more effective pedagogical practices. Akyeampong, Pryor and Ampiah (1999) studied fifty Ghanaian teachers' understanding of learning, teaching and assessment and found that the teachers instinctively defined learning based on models consistent with transmission or behaviourist theories. But probed further, they were able to visualise real contexts in their classrooms where children actually learnt through social interaction and interrogation of ideas. This led them to conclude that constructivist learning was recognisable to the teachers, but it had just not received any validation. It appears that in Ghana, the focus of teacher education curriculum, mainly emphasising prescriptive teaching knowledge and skills has been partly

responsible for legitimising behaviourist teaching over other approaches (Akyeampong et. al., 2000).

Another characteristic feature of primary school teaching is chorus learning and memorisation. When Sunal (1998) surveyed 149 primary school teachers in Nigeria and interviewed about 65% of this group to build a portrait of classroom teachers' experiences after years of universal primary education effort, she found that "memorisation and recitation were the instructional strategies most used (61%) in teaching" (p. 21). She attributed this to the limited availability of instructional materials and lack of creative teaching skills. According to Sunal "utilising other strategies requires skill and the commitment of large amounts of time for planning and developing resource materials" which the teachers lacked training for (p. 26).

Jessop and Penny's (1998) study of teacher voice and vision in the narratives of rural South African and Gambian primary school teachers also revealed teachers as possessing authoritarian teaching values that were premised on the notion of knowledge as objective and to be transmitted from teachers to students. Also, they found that teachers had virtually relinquished responsibility for "exercising agency over what they taught, to whom, how and for what reason" (p. 393). In other words, these teachers saw their classroom role as mere implementers of a pre-crafted curriculum and viewed textbooks and syllabuses as recipe manuals for classroom practice. Consequently the teachers did not place much value on the practical knowledge that they might have gained through their teaching experiences. Jessop and Penny referred to one aspect of teachers understanding about teaching emerging from their data as the 'instrumental frame'. According to them, this manifested itself in the form of learning rules without understanding and a fixed view of what constituted knowledge. In particular, they noted that Gambian teachers showed "a lack of discrimination and judgement over what may be appropriate in any one teaching and learning situation" (p. 397).

Being able to decipher what is appropriate in a teaching situation is considered critical to becoming effective as a teacher (Feiman-Nemser & Remillard, 1996). Recent research on teaching indicates that effective teaching is contingent on an array of intervening variables that mediate the effect on student learning outcomes and achievement (Danielson, 1996). Although it is still recognised that certain specific behaviour or actions can positively influence student-learning outcome, the effect has also been noted to vary under different circumstances. According to Darling-Hammond et al., (1999), research on teaching suggest that effective teacher behaviour may even vary for students due to differences in their socio-economic and psychological characteristics. Consequently, as Labaree (2000) points out "there is always a *ceteris paribus* clause hovering over any instructional prescription" (p. 231). Thus, if teachers are unable to adapt and change their teaching strategies appropriately in response to specific requirements of the teaching situation, as Jessop and Penny point out some Gambian teachers seem unable to do, their ability to enhance student learning would be greatly compromised.

In Ghana, some studies have found that beginning teachers find it difficult to adjust their teaching strategies to the level required for student understanding. In a study about learning to teach in Ghana, Akyeampong et al., (2000), found that the commonest instructional problem beginning teachers had, as pointed out by Headteachers and beginning teachers alike, was “teaching above the level of pupils”. According to them, it indicated an inability to consider pupils’ background and learning characteristics and other important teaching contingencies to plan appropriate instructional strategies. When asked to describe their best lessons and explain why they considered them so, the account of Ghanaian beginning teachers very rarely touched on actions based on judgement about what may be appropriate given a set of circumstances, and what the effect was in terms of student learning outcomes. Invariably, their descriptions centered on the value attached to predetermined teacher behaviour as exemplifying effective or good teaching (Akyeampong, 2001). These strategies had become an end in itself and not necessarily linked to the evidence of its positive effects on student learning outcomes. As Akyeampong and Lewin (2002) point out, for most student teachers and beginning teachers in Ghana, teaching is predominantly about presenting facts and applying predetermined teaching strategies.

Research exploring African teachers’ roles and competencies in practice have suggested that the prescriptive behavioural approach has become so firmly entrenched in the professional psyche of teachers that progressive teaching methods requiring active discussion and collaborative approaches etc. find it difficult to take root in classroom practice (Sunal, 1998). What are some of the reasons for this happening and what are some of the possible ways to make the transition to change more feasible? This is the subject of the next section.

3. Threats to pedagogical change

To understand the difficulties in dislodging the authoritative and prescriptive instructional style of many sub-Saharan primary school teachers requires that first, we understand the forces that shape these practices and make them the favourite of teachers.

3. 1 Traditional social values

One view articulated by Tabulawa (1997) is that because behaviourist teaching strategies and ideologies are congruent with values of social interaction and behaviour between adults and children within African societies, they have become more acceptable to teachers. Tabulawa’s argument is essentially that ; the behaviourist approach to teaching and learning fits closely with African socio-cultural values about knowledge and how it should be transmitted from adults to younger members in society, thus making its institutionalisation relatively easy.

Using Botswana as a case study, Tabulawa’s (1997) argues that:

The historical and empirical evidence ... indicates that the authoritarian pedagogical style that so much characterises classroom practice in Botswana has evolved over a long period

of time and is now part of the immunological condition of the education system. (p. 202).

In effect, the authoritarian pedagogical practices evident in primary schooling are the result of an evolution of education development in Africa. This education can be traced to the work of missionaries and colonial authorities who set up schools with very rigid rules of operation that have since remained a salient aspect of schooling. As Shipman (1971) observes, "punctuality, quiet orderly work in groups, response to orders, bells and timetables, respect for authority, ... punishment" (p. 54-55, quoted in Tabulawa, 1997) were early characteristics of schooling that have continued to have influence on attitudes and behaviour in teaching and learning. For example, O'Sullivan found vestiges of such influence in some Namibian teachers who having been educated in the Bantu education system "which did not encourage them to ask questions, to criticise or to develop and express their own ideas" (p. 112) were less enthusiastic about reflective teaching approaches. Similarly, Harley et al., (2000) note that certain values in Zulu rural communities of South Africa became hindrances to changes that sought to encourage students to enter into greater critical dialogue with teachers. The teachers' dilemma in accepting this change was that it could lead to children becoming more critical and start to "question their parents' authority and adopt values that conflict with their community" (p. 297). Undoubtedly, if progressive teaching strategies are perceived as possible threat to shared norms, values and assumptions of behaviour in society, they will not be easily absorbed into praxis.

The literature suggests that teachers' conception of themselves, their roles and identities are shaped by their own biographical experiences, of which, the home environment (a microcosm of society) plays a crucial part (Wideen et al., 1998). Thus, traditional social values about knowledge, teaching and learning cannot be lost in becoming a teacher.

The fact is that, in many traditional African societies knowledge is valued as something to be handed down from elders to younger members. Although in adult social interaction discussions and sharing of ideas may be encouraged before reaching consensus (Sunal, 1998) the same might not be encouraged within the social relationships between adults and children. Older members of the community are respected because they possess knowledge or wisdom and can teach it to the young, whose role is to listen rather than be preoccupied with questions. Thus, pedagogical classroom practices where children and adults are expected to enter into dialogue and pursue inquiries together may be seen as going against the fundamental values underpinning social interaction between adults and children.

But, neither can we conclude that these traditional social values are immutable. Societies are dynamic and are known to adapt and change. Already, globalisation is changing the way societies view themselves and their aspirations. The critical question is whether teacher education creates the space for reflecting and contesting traditional assumptions about teacher roles and identity, and in a way that fosters conceptual shifts in teacher thinking and practice. By creating space where these issues are dialogued and brought into the mainstream thinking of teachers, it should

become possible to make teachers more conscious of the impact of the social context on teaching and learning, and then adopt appropriate instructional practices that can promote effective learning.

3. 2 Stifling role of external examination system

Another threat to changing traditional pedagogical classroom practices in SSA is the powerful role external examinations play in social advancement, and its negative backwash effect on teaching and learning.

Teachers everywhere have to juggle the many conflicting and competing values within their professional world and adopt professional roles and competencies that protect their credibility among their students and within the larger society (Harley et al., 2000). Akyeampong, Pryor and Ampiah (1999) noticed this kind of conflict among the Ghanaian teachers they studied. The teachers seemed well aware of the fact that memorising facts constituted unproductive learning but nonetheless, felt obliged to rank it highly because traditional testing practices seem to value highly such knowledge. They observed that,

Ghanaian primary schools have to balance many conflicting pressures. A very apposite example of this ... was provided by a teacher in one of the few groups who, when sorting statements placed memorising facts at the top of the list and immediately remarked that “*when you memorise facts, you tend to forget them straightaway*”. The obsession with testing which demands the recall of facts and that hangs over African education as almost the sole arbiter of educational success, makes such seemingly conflicting views a rational statement of the paradoxical context in which teachers have to work (p. 13)

There is enormous pressure on students to attain good results to enable them climb into next levels of education and increase their chances of securing good jobs in a shrinking labour market. But in fairness, this is not unique only to African contexts. Examinations in developed societies often serve similar purposes. What makes the effect of the examinations culture on schooling experience in Africa perhaps much more stifling might have to do with the weak economies of African countries that raises the stakes for selection and socio-economic advancement. As Ayassou (1991) points out “it is paradoxically true that countries which lack financial means and trained human resources are often those with very selective and uneconomical school systems” (cited in N’tchougan, 2001 p. 151). Teachers undoubtedly feel pressurised into assuming classroom roles which privileges the kind of knowledge expected by external examinations. Often this means adopting didactic methods of teaching.

The threat that external examinations pose to changing curriculum and pedagogical practices to more critical inquiry approaches is illustrated in Lewin and Dunne’s (2000) study of Primary science assessment practices in nine Anglophone African countries¹. One aspect of their analysis

revealed that "knowledge type items predominantly requiring recall constituted up to 70% of all items. Over 25% of items could be classified as comprehension, and only 4% appeared to be at the level of application" (p. 7). Overall, Lewin and Dunne's "analysis suggests that often it is possible to achieve pass grades without demonstrating achievement at higher cognitive levels" (p. 4). Given such kind of bias from high-stakes examinations, it would be difficult for teachers to place emphasis on interactive and experiential learning requiring higher cognitive ability, when at the end the kind of knowledge examinations seek to test undermine the very changes teachers are expected to foster.

Restructuring examinations to broaden the competencies they demand is an issue which need tackling at the policy level to compliment pedagogical changes expected at the school level. Also, it is important for African examinations systems to reform grading policies to give more recognition to a much wider range of student ability levels, and send the signal that every educated child is of potential value to social and economic development. To achieve this it might be necessary to de-emphasise grading on the curve and instead, shift to standards or criterion-referenced grading so that, selection into next levels of education are based upon clearer understandings of the potential of each student and their worth to society.

3. 3 Structure of knowledge in textbooks and curriculum materials

Another threat posed to classroom pedagogical reform in sub-Saharan Africa is how school textbooks and other curriculum materials present knowledge. Particularly, knowledge in textbooks is mostly presented as uncontested facts and often set in abstract context. This has the potential to further validate authoritarian instruction where knowledge is unquestioned and students assume a passive role in learning. It is common to find primary teachers copy a section of a textbook on the chalkboard whilst students busy themselves copying especially when there are very few copies of textbooks available (Graham-Brown, 1991). Ensuring that African primary schools have a wider variety of learning resources reflecting different approaches in knowledge construction is key to improving how teachers use textbooks for classroom learning. But achieving this remains a gigantic task given the problem of textbook undersupply in sub-Saharan Africa.

The network of Educational Innovation for Development in Africa 'NEIDA' (1992) estimated that by the year 2000 Africa would need US\$1390 million worth of educational materials, but was only capable of importing US\$625.7 million worth (representing just about 45%). Thus, textbook production and supply has come to occupy a special place in the effort to improve basic education in developing countries (Windham, 1988 ; Lockheed & Hanushek, 1988), and for good reason - textbooks to pupil ratios can be as low as one to eight (Fobih et al., 1999; NEIDA,

¹ The countries are ; Botswana, Kenya, Lesotho, Malawai, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe

1992).

Perhaps the development of new information and communication technologies (ICTs) is the way to improve the situation, since it could ensure that both teachers and students have access to varied forms of information that illustrate how knowledge might be constructed, both locally and globally. ICTs could also create the environment for less dependence on the teacher as the source and provider of knowledge. However, as Lewin (2000) points out, the infrastructural support that ICTs require for them to operate successfully may be lacking in many developing countries. However, if the support base for ICTs can be improved (a daunting task), it is reasonable to expect interactive discourses to become more valued and feature strongly in classroom practice of sub-Saharan African schools. Teacher education can help by providing the kind of training that will motivate and equip teachers with skills to construct relevant curriculum materials, and learn how to use more creatively what limited resources might be available in schools.

4. Creative and adaptive behaviour : key to effective practice

Creativity and adaptive skills are essential prerequisites for effective teaching. A few examples in the literature suggest that some African primary teachers can attain a satisfactory level of effectiveness despite the lack of textbooks and other infrastructural facilities. For example, Harley et al., (2000) found that some South Africa teachers working in under-resourced schools, with few textbooks and stationery, bare floors, dull walls - typical of many African schools, were effective in achieving positive goals of instruction. Such teachers did not necessarily follow policy prescriptions about the goals of classroom practice, but demonstrated competencies that were more in tune with the micro realities. However, Harley and his colleagues noted that the conditions unquestionably encouraged a teacher-centred pedagogical approach. Similarly, O'Sullivan (2001) found that when she "encouraged teachers to use sand as a writing tool in view of the shortage of textbooks and paper" (p. 105), the strategy yielded effective results.

Croft (2002) studied lower primary Malawi teachers working under very deprived environments and saw evidence of teachers with a deep contextualised understanding of children and who used their own experience to improve practice. Some of the practices she observed included for example, singing songs for both learning and classroom management, using older/brighter children as models, giving slower individuals attention after school. Croft described what she saw in whole class teaching as "children-centred" and argued that it was effective in promoting student learning.

Such cases, albeit few in number, offer the hope that African primary school teachers can become effective when they assume greater pedagogical flexibility in response to better understanding of the micro realities of teaching situations. Besides teachers with highly adaptive skills would be more psychologically prepared to address the challenges of teaching in especially

rural communities where “the nature of the challenge becomes exponentially daunting” (Harley et. al., 2000, p. 288).

Teacher education in Africa has an important role to play in facilitating greater pedagogical flexibility among primary teachers and in so doing, change the way in which teachers have traditionally viewed their professional roles and responsibilities in the classroom. But to achieve this satisfactorily, would require significant changes to teacher education pedagogy in Africa. Before discussing the form this change should take, it is instructive to examine briefly what the underlying philosophy of learning to teach in some teacher education systems in sub-Saharan Africa is currently like.

5. Learning to Teach in sub-Saharan Africa : Some insights from the MUSTER² studies

The discussion in this section is based upon the four African countries involved in MUSTER. The MUSTER studies offered a good opportunity to critically examine the underlying philosophies of some teacher education programmes in Africa and to evaluate their potential for producing effective teachers.

Generally, whilst many of the formal programme aims - and often the espoused aims of teacher educators - highlighted professional attitudes, responsible behaviour, and interpersonal skills, there were no specific areas in the curriculum as documented or as delivered where these were discussed or developed (Lewin & Stuart, 2002). This highlights a major weakness of teacher education in the countries studied. According to Lewin & Stuart:

The curriculum documents often list a range of student-centred, interactive and participatory methods - demonstrations, group work, role-play, fieldtrips, project work - but observations in three of the African sites revealed a predominantly teacher-centred transmission mode. Teaching ‘subject content’ resembled traditional high school methods: the college tutor would present information orally, using the board or textbook, interspersed with (tutor) questions and (student) answers; only occasionally were attempts made to develop a class discussion. ...In the main, trainees were *told*, about how to handle primary classes, and occasionally *shown*, (through demonstration lesson), but very seldom did they actually *experience* the kind of student-centred methods that they preached (emphasis added p. 59).

The MUSTER studies showed that the intended curriculum was rarely in evidence at the

² Multisite Teacher Education “MUSTER” project involved four African countries namely ; Ghana, Malawi, Lesotho and South Africa. Trinidad and Tobago was the fifth non-African country involved in MUSTER. MUSTER, which began in 1998 and ended in 2001, examined policy-related issues and the nature of teacher education. Funding for MUSTER was provided by the British Department for International Development (DFID).

practice level. Mainly teacher education pedagogy was prescriptive and teacher-centred reflecting similar practices at the basic school level.

In a comparative analysis of the curricula of these countries and through interviews for college tutors' views of the kind of teacher they wanted to produce, two broad themes stood out. The first was to produce a teacher who knew their subject and could teach it effectively. This meant in practice an emphasis on subject content knowledge and pedagogical knowledge. Secondly, someone who related well to children and could adjust to the challenges of a teacher's life, which at the college training level in Ghana, meant trainees undergoing strict discipline and engaged in daily chores such as weeding college compounds and fetching water (Akyeampong & Stephens, 2002).

The following oversimplified phrases generally reflect the emphasis in the different country systems. The teacher produced by training was expected in Ghana to be a 'technical practitioner'; Lesotho - well grounded academically ; Malawi - an efficient instructor and in South Africa - a critical educator (Lewin & Stuart, 2002).

In all of the programmes, perhaps less so in the case of South Africa, there seemed to be an assumption that once student teachers had acquired prerequisite knowledge about teaching, some basic practical skills, and had improved their academic subject knowledge base, they were effectively ready for classroom practice. Learning to teach was presented and experienced as an exact science. The dilemmas teachers face in teaching was not adequately represented in the curriculum, but rather emphasis was placed on classroom ritual that leads to a notion of teaching as relatively easy and unproblematic (Labaree, 2000). In Ghana, trainees out on teaching practice soon found out that many school and classroom realities made implementing teaching strategies learnt at college simply impracticable (Akyeampong, 2001).

The MUSTER studies revealed very little evidence that teacher education in sub-Saharan Africa was a transforming experience that shaped prospective teachers motivation and pedagogic beliefs. In the Ghanaian context, for example, Akyeampong and Lewin (2002) explored changes in becoming a teacher from the perceptions of three groups of teacher education trainees - those beginning training, those completing training and those with two years experience in schools. They concluded that the effects of training did not show unambiguously in their data. For example, although they found that enthusiasm for teaching facts diminished with training and time, it still remained a dominant perspective. Similarly, although group work was emphasised and "rated highly by student teachers and newly qualified teachers this seemed more a reflection of an aspiration, than a commitment to use the approach" (p. 12).

Generally, two broad themes about learning to teach appear missing. First, the creation of learning experiences that would make teachers understand that teaching is an ill-defined problem that can have no predefined solution strategies (Yarbrough, 1999), calling therefore for emphasis

on creative adaptive behaviour. Secondly, studying teaching as it actually occurs in real classrooms to develop insights into the interplay between theory, practical knowledge and teaching culture. What is it that teachers do with the knowledge they possess in certain situations that makes them so effective, or what hinders others from being effective when some are able to operate successfully despite the odds? What practical knowledge about effective teaching have the more experienced teachers developed from their many years in teaching? Responding to such questions should lead to more representation of the local physical and socio-cultural context in teacher education curriculum planning.

As Jaji and Jaji (1998) point out, “whenever a curriculum does not fit a situation, we can be sure that there will be some kind of mismatch between the intended, implemented, and attained curriculum” (p. 155). This is clearly demonstrated in the teacher education programmes that MUSTER studied. In particular, the teacher education curriculum of these countries closes prospective teachers off from experiencing the world of teaching in a way that will assist them in adjusting their knowledge and skills of teaching to local contexts.

6. Shifting learning to teach to school-based contexts: Ghana & Malawi

All the teacher education programmes MUSTER studied emphasised the importance of school-based training and sought to make it an avenue for developing practical knowledge about teaching. But a critical analysis of the school-based curriculum in these countries reveals that the expected learning outcomes are narrow and superficial. Interrogation and critique of practical teaching situation, important strategies for developing deeper understanding of teaching were noticeably missing in the practicum curriculum. Teacher education restructuring in both Ghana and Malawi represent typical cases of this missing element.

Ghana in 2000 embarked upon restructuring of its pre-service basic teacher education programme leading to a change from the 3-years residential college programme to two years college training and *one full* year spent training in schools. The expectation from this change was that “through work-study into schools ... trainees will learn to teach by teaching and thus become competent and efficient basic school teachers” (GES/TED, 2001, p. 3). The Teacher Education Division (TED) of the Ghana Education Service (GES) produced a training handbook to guide trainees to achieve this objective. Although the handbook defines clear boundaries for professional practice e.g. role of feedback in teaching and learning, generally it oversimplifies teaching by denying space for critical study of teachers’ lives, pupils and school community characteristics, to understand how these interact to impact on teaching and learning, and how teachers must adjust their professional practices to maximise the impact on student learning. The handbook appears to assume that the problems of teaching are uniform and clearly visible. For example, it specifies in advance, the kind of social adjustment trainees need to make in order to be successful in their professional life, spelling out for example, the ‘rules’ for living in a compound house³ and how trainees ought to prepare their meals in the field. During

classroom observation trainees are expected to focus on pre-specified teacher behaviour e.g. use of feedback techniques, use of teaching and learning materials, structure and content of lesson plans etc. Professional learning rarely forages into the area of teachers' practical knowledge to understand how the social context has shaped them, and the implications for adapting theory to practice.

In Malawi, one- and two-year residential training programs were replaced in January 1997 by a 2-year mixed mode integrated in-service teacher education (MIITEP), where unqualified servicing teachers spend 3 months at college followed by 20 months distance learning under supervision in their schools. As in Ghana, this extensive period of training in schools does not offer the opportunity to develop personal or professional agency in teaching that encourages trainees to take greater responsibility for change once they qualify as teachers (Akyeampong & Stephens, 2002). Essentially, the pedagogy of school-based teacher training in Malawi portrays teaching as unproblematic once certain prescriptive actions and behaviour have been fulfilled. As Lewin and Stuart (2001) comment:

School-based units in the MIITEP programme focusing on management and administration of schools, keeping records', roles of heads and PTA, school and community relationships, professional ethics and conditions of service, are all presented as 'given', without much contestation and opportunity to critique and evaluate practical situations that might lead to conceptual shifts in teacher thinking and practice (p. 78).

Another problem with school-based teacher education in both Ghana and Malawi is that, they attempt to socialise teachers into a uniform culture based on the assumption that schools, communities and pupils are the same, when in actual fact these are highly variable and mediate the effect of teaching on student learning outcome. For example, primary schoolteachers in Ghana face acute textbook shortages, and in the more rural communities have to grapple with the effect of certain commercial activities on school attendance e.g. fishing, farming and, girl-child labour (see Akyeampong et. al., 2000; Hedges, 2000; Fobih et. al., 1999). These are glossed over as if they are inconsequential to effective classroom teaching and learning.

What we see missing in the school-based programmes of both Ghana and Malawi is the lack of a professional learning model that encourages trainees to delve into such issues as student subculture, classroom ecology, mix ability groups, community role in school improvement etc., and the implications these might have for teachers' professional roles and competences.

The next and final section of this paper suggests an approach for changing the prescriptive focus of teacher education programmes to one that emphasises the importance of teachers' appropriate

³ Compound houses are living environments housing many families. Many beginning teachers in Ghana may find that

representation of teaching based upon understanding of local context.

7. Enhancing relevance and impact of teacher education : the way forward

Two issues emerge from the discussions so far, one is that teacher education in SSA does not appear to feature strongly the ecological context and explore it for developing innovative and exemplary practice. Secondly, learning to teach in schools does not adequately set up learning situations where trainees can develop personalised understanding of teaching by analysing teaching contexts and experimenting with new practices developed in direct response to real teaching needs (cf. Joyce & Showers). Rather what we see in practice is teacher education pedagogy somehow reinforcing already existing values about teaching and learning found in schools. There is a clear gap between those aspects of the espoused curriculum that stress student-centred, interactive and participatory methods, and what is enacted in practice, where lecture approaches are frequently used and teaching is presented as an exact science.

It appears that teacher education in SSA context suffers from poor conceptualisation, since it does little to engage constructively with the “realities and practical problems of schools” (Grimmett, 1995, p. 205), as a way of contextualising educational theory and making it relevant for practice. As Akyeampong and Stephens (2002) point out:

Often teacher education programmes, particularly we would say in the African context, address themselves to the theory and practice of teaching without addressing issues that are directly related to images and practices of teaching located at the heart of the educational system. We believe there is an urgent need to reflect on and make explicit the commonly accepted socio-cultural values and norms about teaching and the profession in particular contexts, as part of the strategy to improve teaching and educational quality (p. 13)

To promote genuine change in teachers’ roles and competences two important steps must be taken. The first is for teacher education programmes to create space for exploring features of effective teaching and learning particular to schooling in African contexts. Some of the questions that might be helpful in shaping what should go into such curriculum are, for example:

- What are some of the non-academic activities that teachers use or can be found within local communities that might be useful in creating a congenial atmosphere for learning?
- What values and understanding about personal responsibility and effort exists to motivate effective teaching and learning?
- What activities and games in the local community can be used to create natural interactive situations for students to engage in meaningful group work learning?
- What good examples exist, or can be created of schools, communities and teachers networking together to achieve positive student learning outcomes?

Such questions seek to direct teacher education to look within for good ideas and strategies for improving teacher professionalism. It also serves to highlight teaching as an intensive and complex activity.

A second important step is to reorganise teacher education instructional materials so that they are less close-ended - this is to break with the deterministic tradition of teaching. By including more open-ended and collaborative inquiry based materials into teacher education programmes, we can deepen practical knowledge of teaching and enhance the personal responsibility that is needed to bring about change in schools and classrooms. Such an approach will also elevate the view of effective teaching as a function of teachers' professional reasoning ability and not of predefined behaviour. According to Shulman (1987) pedagogical reasoning is linked to the practical aspect of teaching through teachers' *comprehension* of purposes, subject matter structures etc. and ability to *transform* these through stages of preparation, representation, selection and adaptation. This notion of teaching should underpin teacher education pedagogy and the assessment tasks designed for teacher certification.

It is also important for teaching and learning to be reorganised so that teacher trainees take greater responsibility for how the content of learning to teach is developed, shaped and documented based upon local professional learning experiences. But, this must be preceded by changes to the organisational structure of training. Colleges and schools ought to form training partnerships and create the space and time for genuine collaboration between experienced teachers and teacher educators in training prospective teachers.

Teacher education assessment practices in developing country systems have received very little attention in recent reform efforts. Limitation of space will not permit discussing the challenges facing the reform of teacher certification assessment in sub-Saharan Africa except to point out that, it too must be reconceptualised to align with pedagogic changes in teacher education. Based upon the issues raised in this paper, it is necessary to design teacher certification assessments that make practical problem-solving competence in localised contexts a key component of teacher certification decision-making. Ultimately, the goal of teacher certification should be to determine to what extent prospective teachers have "... acquired the *knowledge* and *judgement* required to evaluate what strategies are appropriate in very different situations and whether (they) can apply these understandings in practice" (Darling-Hammond et al., 1999, p. 101). Assessing such abilities will require more complex assessment methodology than is currently in use, and will call for flexible assessment criteria and trained assessors who can apply them intelligently.

Several issues have been raised in this paper that call attention to the need to elevate the local context in teacher education curriculum. Table 1 below presents examples of issues that have been found to be relevant in the Ghanaian context of teacher education that could be turned into opportunities for improving the outcome of learning to teach (Akyeampong, 2001).

Table 1 Issues for teacher education curriculum content

Issue	Professional Learning Tasks
1. Student background characteristics	Profiling student background characteristics relevant to learning and incorporating the information into teaching plans.
2. School curriculum materials	Emphasis on collaborative inquiry, redesigning curriculum materials to induce student participation in knowledge construction.
2. Assessing learning	Exploring classroom teachers' use of informal and formal assessment information to appraise students' progress and understand learning needs.
3. Students' centred instruction	Developing innovative practices that increase student participation in learning under different classroom conditions eg. Using question and answer teaching, chalkboard work by pupils, games etc.
4. Teacher Lesson Notes	Planning lessons to demonstrate quality in teachers' professional reasoning and not simply fulfilling prescribed lesson plan formats.
5. Group Work	Developing and testing relevant curriculum materials that create opportunity for children to contest and construct knowledge <i>together</i> . Exploring local settings that promote genuine group work among children, and how that might be best represented in classroom instructional settings.
6. Mixed Ability Grouping	Management of mixed ability teaching—a common feature of schooling in rural Ghana.
7. Instructional Resources	Exploring the use of concrete and semi-concrete in instructional ideas found in local context.
8. Classroom Management	Exploring the psychological effects of caning on learning behaviour and personal development.
9. Pedagogical Knowledge and Skills	Working with regular classroom teachers to explicate the nature and function of practical knowledge in teaching
10. Values in Teaching and Learning	Exploring the characteristics of local teaching cultures and the factors that shape them. Sensitising prospective teachers to the values underpinning classroom instructional organisation.

What should become of the more conventional teacher education curriculum such as, ‘pedagogic content knowledge’, ‘education and professional studies’, ‘subject content’ etc.? Along with learning and educational theories (e.g. child development), their contents should be presented in learning contexts which allow them to be deconstructed, critiqued where necessary in the light of local culture, norms and conditions. For example, certain portions of the curriculum could be presented” in the form of a narrative accompanied by open-ended, higher-order study questions and a concluding kicker, a dilemma producing dissonance ... to facilitate student discussions ...”(Grimmett, 1995, p. 210), and thereby shift responsibility for understanding teaching to trainees.

5. Conclusion

This paper has argued for changes to teacher education in African contexts that hopefully can improve its relevance and enhance its impact. A critical analysis of the issues confronting teacher education was undertaken and several points were noted as elements that need special attention. Teacher education will not have the desired impact if it is disengaged from the ecological context. This point has been emphasised in the paper. Also, the strong behavioural and authoritarian perspective will simply not disappear because of some ‘superior’ models that are introduced. Teacher education in Africa must have a distinctive character of its own that is connected in all its facets to the experiences of schooling to evolve better ideas and strategies that can be integrated into praxis.

Also it has been argued that other features of the macro education context-examinations culture, instructional resource availability and even more important how they provide opportunities for the social construction of knowledge,must be recognised as equally significant and addressed, if teacher education approached along the lines discussed in this paper is to lead to improved teacher quality.

Finally, the paper makes the point that simply locating more of teacher education in school-based context, by itself, will not improve the outcome of training ; at least not until the curriculum provides learning experiences which actively draws trainees into critical dialogue with teachers to develop situated understanding of how theory can be transformed into practical knowledge for effective classroom practice

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