The Continuum of Teacher Professional Development: Towards a coherent approach to the development of secondary school teachers in Uganda

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Abstract

Despite the critical role secondary education is expected to play in society, many countries in Sub-Saharan Africa are struggling to institute competitive secondary education systems. Few countries have viable mechanisms for recruiting able secondary leavers to secondary teaching, and lack coherent strategies for retaining and retraining those who join secondary school teaching. Yet the success of Education for All and increased participation at the primary level in many countries has resulted in an enormous demand for wider access to better quality secondary education. The quality of teachers in such a situation assumes greater importance, as changing needs place greater pressures on teachers such as having to deal with the challenge of large classes and learners of different characteristics. Teachers would need to be supported more than ever before, raising the need to step up the continuing professional development of teachers, which is an often neglected aspect of secondary education in Sub-Saharan Africa.

1. Secondary school education in Sub-Saharan Africa and the need for teacher professional development

National economies are increasingly knowledge-based and high quality schooling is becoming more important than ever before (Musset 2010). Modern sector employers need graduates with more advanced literacy, numeracy, and problem-solving skills than are provided by primary schooling alone. Secondary education is considered to be capable of providing society with educated people who are needed for many areas of work, including the critical area of primary teaching. In spite of this paramount role secondary education is expected to play, many countries in Sub-Saharan African are struggling to institute competitive secondary education systems. Evidence abounds and the literature points to the acute demand for secondary school teachers in many parts of Africa, which far exceeds the supply due to factors such as secondary teacher attrition, bottlenecks in the teacher preparation system, and perceived unattractive conditions of service. Few countries have strong policies, strategies, and programs for recruiting able secondary leavers to secondary teaching, and lack coherent strategies for retaining and retraining those who join the secondary school teaching force (Mulkeen et al, 2007: v). In addition, many secondary school Principals are ill-prepared to meet the demands posed by the changing nature of their jobs, yet if well prepared they can help to create favourable environments for teacher development in their schools (DeJaeghere et al, 2009 and Mulkeen et al, 2007).

Although for many years national and international attention has been focused on primary education especially on achieving the Education for All (EFA) goal on education, attention is now increasingly being directed toward secondary schooling, with a particular focus on the lower level of secondary schooling (junior secondary), for several reasons. Demand for increased secondary provision has grown as a consequence of greatly increased primary completion rates. As school participation rates rise and retention rates improve, some countries are now faced with enormous social demand for wider access to better quality, more relevant, junior and senior secondary education (Alvarez *et al* 2003).

Yet as demand and access to secondary education widens, so is the increased pressure on the education systems. For example, the increased demand for secondary teachers that substantially exceeds supply, combined with severe budget constraints, puts pressure on governments to seek effective and efficient approaches to recruiting, preparing, supporting, and retaining qualified secondary school teachers and principals (Mulkeen et al, 2007: 2). The quality of teachers in such a situation assumes even greater importance, as changing needs place greater pressures on teachers. For example, increased enrolments mean larger classes for many teachers, attracting students who may have different characteristics than they did in the past, when access was restricted to the more academically able. It is also likely that new entrants may not have adequate mastery of the language of instruction or sufficient numeracy, and may have only a rudimentary grasp of scientific thinking (Mulkeen et al, 2007, Lewin 2002). Teachers would need to be supported more than ever before, raising the need for stepping up Continuing Professional Development (CPD) of teachers, a for-too-long neglected aspect of secondary education in Sub-Saharan Africa. CPD has been defined as the means of updating, developing and broadening the knowledge teachers acquired during initial teacher education and/or providing them with new skills and professional understanding (OECD 2005).

Much of the research relating to the development of teachers and principals (head teachers) in Sub-Saharan Africa has focused on the primary level, leaving a relatively scanty literature on secondary education teachers and principals. Though insights into Teacher Professional Development (TDP) at the primary level could have useful lessons for the secondary school level, policies and operational issues in the recruitment, training, deployment, supervision, and retention of secondary teachers and principals differ from those associated with teachers and principals at the primary level. For example, because of the level and complexity of the material to be taught, preparation of secondary teachers involves a greater emphasis on the subject content than at primary level (Mulkeen et al, 2007: 3). Yet teachers express a strong desire for more professional support in general; better teaching and learning resources, supportive supervision, and ongoing in-service professional development. In-service professional development for secondary teachers is a very promising area of policy and program intervention in improving the recruitment, retention, and retraining of secondary teachers (Mulkeen et al, 2007: x).

2. Secondary education provision in Uganda

A number of policy changes in Uganda in recent years have impacted lower secondary education provision. The success in terms of access to Universal Primary Education that was introduced in 1997 was followed by an enormous demand for secondary education. To address this demand, the government introduced the Universal Post-Primary Education and Training (UPPET) policy in 2007. Under this policy, the government covers a wide range of expenses for students enrolling in government-aided schools, and bursaries to those eligible (those scoring 4-28 aggregates) in selected private secondary schools in sub-counties without government-aided secondary schools. This policy has far-reaching implications on secondary schools and teachers such as having to cope with large classes and having to deal with learners from multiple abilities and socio-economic backgrounds, among others.

Preceding the UPPET policy was the science policy which was introduced in 2005. This made all science subjects (biology, chemistry, and physics in addition to mathematics) compulsory at Ordinary (lower secondary) Level (O-Level). This policy was introduced to an already struggling science education sector. Performance in the science subjects as reflected by the results of national examinations administered by the Uganda National Examinations Board (UNEB) at O-Level has been unsatisfactory for the past 3-4 decades. The Ministry of Education and Sports (MOE&S) refers to a study conducted by UNEB in 2004 which shows a consistent high failure rate in science and mathematics. The study shows that for five consecutive years (2000-2004), more than 40% of secondary school students failed science and mathematics (MoE&S 2007a: 3-4). For example, while 45.1% of the candidates failed mathematics in 2003, only 1.5% achieved Distinction in mathematics. This trend of failure persists to-date. In the recent 2009 O-Level results, science subjects were noted to have continued to register high rates with over 50% of the candidates unable to pass with the minimum grade 8.

This state of affairs raises the need to explore the quality enhancement measures that are in place to train and equip secondary school teachers, more so the science teachers, with effective pedagogy and school administrators with the skills to create enabling environments for effective learning. This would provide a basis for any strategy for sustainable professional development mechanisms in Uganda's education system.

3. The training and development of secondary school teachers in Uganda: An overview

According to the official statistics accessible from the MoE&S, there were 50,767 secondary school teachers in total in 2007 (MoE&S 2007b). Of these teachers 39,520 were male and 11,247 female. By the year 2010, there were 10,504 and 7,221 science teachers in government and private schools respectively (MoE&S 2010). Unfortunately the data is not segregated according to the particular level of secondary education i.e. either lower secondary (Ordinary Level) or upper secondary (Advanced level). The minimum qualification for teaching at O-Level is

Advanced Level (A-Level) with a diploma in education obtained from a National Teachers' College (NTC). Teaching at A-Level requires A-Level and a bachelor's degree or B.A/BSc with a postgraduate diploma in education (PGDE) qualifications, although in situations of scarcity of graduate teachers, diploma holders tend to teach a specific subject across O- and A-Level.

Table 1 below, highlights the level of qualification of secondary school teachers in Uganda. All teachers in category 1-5 (34,246 teachers in total) (67%) possess the required qualifications for teaching at the secondary school level. The table shows that the majority of teachers (17,520) possess a diploma in education qualification, followed by those in possession of a degree in education (13,735). Worryingly, the qualification of 13,610 teachers (27%) cannot be accounted for (see category 9 below). The rest of the teachers (category 6-8) (6%) are teaching in secondary schools without the minimum qualifications.

Table 1: Secondary teachers in Uganda by education level 2007

Category	Education Level	Male	Female	Total
1	Doctorate	37	5	42
2	Masters Degree	858	344	1202
3	Graduate	10315	3420	13735
4	Post Graduate Diploma	1384	363	1747
5	A Level + Cert./ Dipl	13741	3779	17520
6	A Level	2123	313	2436
7	O Level + Cert. / Dipl	256	85	341
8	O Level	109	25	134
9	Not Stated	9560	4050	13610
	Total	**38,383**	**12,384**	**50,767**

Source: MoE&S (2007b)

Although the available accessible data on teacher qualification presented above is not specific to lower or upper secondary teachers, it helps to illuminate the dire need for continuing the professional development of teachers who are practicing with different levels of qualification. Certainly the need for and execution of CPD would vary across the different categories of teachers. It can be observed that some of the teachers have actually upgraded to Masters and Doctoral levels implying that individual initiatives have been considered worthwhile. It can be expected that CPD will be highly demanded by those in category 3-5 that constitute over 60 per cent of the total number of secondary school teachers although they possess the required minimum qualifications. Another challenge is to ascertain the best approaches for CPD in stratified staffing situations. A case in point is the 6 per cent without minimum qualifications whose needs would have to be addressed differently – first by ensuring that they acquire the

necessary Initial Teacher Education (ITE) and thereafter establish the different sets of skills and knowledge that they may gain through CPD. At the same time, the 27 per cent whose qualification was unknown can create ambivalent conditions concerning the appropriate CPD capacities. Even more challenging in the development of CPD in the case of Uganda are the gender discrepancies in the qualification of the female and male teachers. In each category the numerical difference between the male and the female teachers would possibly necessitate reflection on whether the TPD or CPD can be structured with some gender-mindedness. On the whole, the process of TPD and CPD would deserve considerable reflection on its conceptualisation prior to extensively offering strategies capacitating secondary school teachers in Uganda.

4. Conceptualising TPD and CPD

TPD is increasingly becoming an integral component of education reforms and educational policy shifts. Indeed, in the developed countries, professional development for teachers has dominated educational policy changes and research since the mid 1980s (Hurd et al 2007, Ling and Mackenzie 2001). This has been premised on the fact that success of any reforms for school improvement hinges on the professional development of teachers (Villegas-Reimers 2003: 29). In fact, "teachers are constantly called upon to add more and more tasks and content areas to their curriculum and to their professional role…" (Ling and Mackenzie 2001: 89). Yet, at the same time, the trajectories of teacher professional development are as diverse as they are context dependent (Komba and Nkumbi 2008: 69). A review of the literature illuminates the national, school and individual teacher initiatives for professional development. For instance, Hurd et al (2007) report on the increasing centralisation of professional development at the policy level in the United Kingdom. In their analysis, the subtle linkages between ITE and CPD, an initiative aimed at improving the quality of teachers, are highlighted. Elsewhere, it has been illustrated that schools have had their plans for professional development financed by governments through in-house programmes with a focus on particular curricula policy shifts. Additionally, alternative avenues for professional development have taken the form of conferences and seminars organised by subject associations (Ling and Mackenzie 2001: 90-91).

In African countries like Tanzania, TPD has focused on the improvement of the professional, academic and technical capacities in terms of coping with the developments in science and technology. Although the national government ministry has a department in charge of TPD, the findings reported were based on interviews with the education managers at the local government levels among other informants. Clearly, the role of the local governments, which in this case are part of the national government, shows that there has been some organised engagement and support for professional development (Komba and Nkumbi 2008: 74-76). But, and unsurprisingly, the teachers reported that their schools had not invested much in the process of professionally capacitating their teachers despite the overwhelming increase in the number of teachers who had individually upgraded. Obviously, the ongoing initiatives illuminate tremendous and systematic efforts to capacitate teachers in the different jurisdictions.

This paper seeks to complement the existing literature by applying the conceptions of Mulkeen et al (2007) who view professional development of secondary school teachers to include four levels i.e. training, recruiting, retaining and retraining (Figure 1). Their view is that the four levels overlap for the holistic quality enhancement of the teaching force, and none of the four should be prioritised or neglected at the expense of the other. This is the same framework within which we also situate our understanding of the continuum of TPD in the context of secondary school teachers in Uganda, arguing that in most cases more focus is placed on the first two levels, neglecting the last two, with the last one on retraining left to the good will of any interested stakeholder.

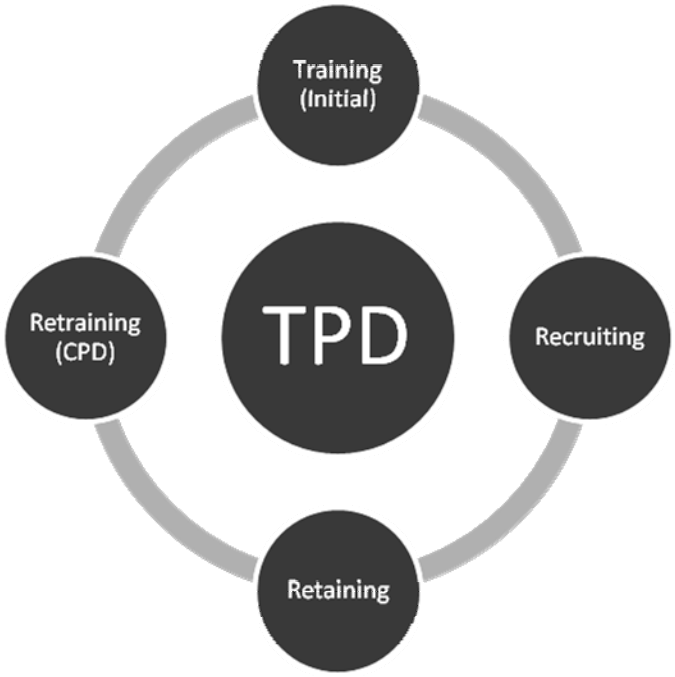

Figure 1: Levels of Teacher Professional Development

Retraining or CPD, the main focus of this paper, manifests itself in various ways. For example, Conway et al (2009: 51) have argued that CPD can be developed to help and support teachers extend and deepen subject matter knowledge for teaching; extend and refine repertoire in curriculum, instruction and assessment; strengthen skills and dispositions to study and improve teaching; expand responsibilities and develop leadership skills; and develop a professional identity. Such a framework does not only help guide the spectrum of CPD but can also be used as a criteria for evaluating any CPD initiatives as a means of ascertaining their impact on teaching, learning and the leadership of secondary school teachers.

5. TPD programmes for secondary school teachers in Uganda

The Education Sector Strategic Plan (ESSP) 2004-2015 highlights the importance of

establishing continuous in-service training to enhance the quality of education (Sub-objective 2.2 and Strategies b) (MoE&S 2005). Tackling continuing professional development of secondary school teachers is even more urgent at this point in time. As noted earlier, the government has targeted the improvement of access to secondary education through the UPPET policy. However, the UPPET policy will have to be combined with quality enhancement measures if it is to lead to the desired learning outcomes. Lessons learnt from the previous implementation of the Universal Primary Education (UPE) policy point to the need to in-build quality assurance measures within an attempt to widen education access. Failure to do so leads to an emphasis on quantity at the expense of quality. It was also noted above that teaching and learning at the secondary level in Uganda faces serious challenges evidenced by the high failure rates in science and mathematics. It is therefore indispensable to provide quality enhancement for teachers, albeit putting into consideration the specific disciplinary, geographical and individual needs.

CPD for secondary teachers in Uganda and science teachers in particular, is not new. The Secondary Science Education and Mathematics Teachers (SESEMAT) Project jointly funded by Uganda's Ministry of Education and Sports and the Japanese Government has been going on since 2004 (Mo&ES 2007a). It is also true that some teachers undertake further training, which can be classified as in-service training undertaken on the teachers' own initiative. However, it is necessary to undertake an audit of all existing forms of teacher professional development initiatives with a view to coming up with a holistic framework for continuously developing secondary teachers in Uganda.

Clearly there have been and are still ad hoc programmes in place intended to continuously up-skill secondary school teachers in various ways in Uganda. Some teachers interviewed by Mulkeen et al (2007: 52-53) in Uganda and in five other African countries in the study revealed that they had participated in an in-service teacher education program, but felt that the in-service professional development (INSET) they received prepared them to a lesser degree than their initial training. In-service programs served three different purposes: (a) upgrading untrained teachers' qualifications; (b) providing master's degree-level programs for qualified teachers; and (c) offering short-term training related to subject and pedagogy areas. The first two purposes were commonly mentioned and the third purpose was not identified as a common practice. However, some teachers interviewed by Mulkeen et al (ibid) stated that short-term professional development is usually conducted by teacher associations—such as the Mathematics Teacher Association, and is generally supported by donor projects. Those teachers who attended in-service programs did so in specific subject areas, such as science, math, computers, and, in a few cases, English. A few teachers participated in in-service professional development that was focused on more general issues of pedagogy or assessment. While the teachers did not regard the in-service professional development to be as helpful as their initial training, they felt that it provided them with more confidence in teaching as well as a venue in which to share ideas and solve problems. A number of teachers and principals stated that the in-service professional development served as a mechanism for retaining them in the profession.

Apparently, ITE has been arguably the most effective mechanism for TPD as it provides

foundational knowledge and skills on which the teacher can build as they operate in their school environment. As Musset (2010: 3) has rightly asserted, “to teach is a complex and demanding intellectual work, one that cannot be accomplished without the adequate preparation”. It is thus worthwhile for education systems to strengthen initial teacher training for all teachers or even make similar arrangements for practicing teachers who may not have minimum qualifications. Whereas other forms of TPD were important, their impact remained minimal. Hence, it is argued that teachers having minimum qualifications would need a different set of TPD that focuses on reflective practice where they identify some of the challenges they face and any best practices. A combination of the two forms of TPD would certainly ensure that teachers continually improve on their practice hence creating a continuum. Perhaps what is unclear is how to harmonise these approaches so that mechanisms that permit continuous processes of TPD are coherently harnessed and maintained by keeping in mind the changing needs of the teachers and contexts in which they work.

6. Towards a coherent approach to TPD and CPD for secondary school teachers in Sub-Saharan Africa, Uganda in particular: Suggestions from the literature

Cochran-Smith (2001), Mulkeen et al (2007) and Conway et al (2009) offer some insightful suggestions on which Uganda’s secondary education system could build to make headway into improved TPD in general, and CPD in particular for the secondary school teaching force. The suggestions include designing teacher education as a continuum, starting with initial pre-service education and continuing with a strong ongoing in-service professional development program for secondary teachers that would support them throughout their teaching careers. Teachers need both support and supervision throughout their careers. Mulkeen et al (ibid) caution that it would be naïve to assume that teachers can go through a pre-service program and then perform well for the remainder of their careers without further professional development. Conway et al (2009) have also argued that:

> Learning to teach happens over a number of years. Internationally, educating teachers to the level that is now required in the knowledge society is seen as something that needs to happen over a number of years, extending well beyond the initial professional education phase, and which encompasses the integration of a wide variety of knowledge and experiences in supportive contexts. …It is now widely recognised that ITE cannot give teachers all they need for a demanding career spanning a number of decades. Rather, the focus of initial teacher education ought to be on providing teachers with a set of high-level beginning competences rather than preparing fully-formed teachers. (Conway et al 2009: xiv)

In the Ugandan context, any attempt towards instituting CPD programmes should not begin on a blank slate. There are many ongoing professional development programmes for secondary

school teachers, some general, some discipline-specific such as the SESEMAT for science teachers, and some tailored around new policy and curriculum changes such as helping teachers integrate HIV/AIDS education or gender or human rights in their teaching. There is need to document whatever programme is in place and lessons that could be drawn from it to feed into the national in-service professional development programme. Whatever unified programme emerges, it would need to be piloted and longitudinal action research undertaken to document its effects and consequences over time on improvement of secondary school leadership, teaching and learning. Any in-service programme that emerges should also build on a strong induction and mentoring program for new teachers. Hence the need to ensure that the chain (continuum) of teacher professional development is not broken i.e. initial training, recruitment, induction and mentoring, and retraining. These should all overlap for a holistic approach to teacher development. Anthony and Kane (2008) and Halliday (1999) emphasise that the enthusiasm and commitment of newly appointed teachers, particularly those straight from colleges of education, must be captured. They argue that the first years are crucial to the professional development of a teacher. Experienced staff and, particularly, school principals have a key role in assisting and mentoring new teachers so that they improve and consolidate their teaching and classroom management skills.

A key teacher support missing in many school systems is the ongoing opportunity to talk with other professionals regarding personal challenges and experiences in the classroom. Such practice has been successful with principals and other promoted staff in mentoring beginning teachers in an induction stage so that they improve their teaching and classroom management abilities in the first years of teaching (Halliday 1999). Local groupings of teachers working together to learn (learning communities or communities of practice), and school-based teacher professional development through action research or lesson study where teachers are encouraged to share experiences, reflect upon and explore ways of strengthening their practice is a promising alternative to large-scale workshops that have little impact on teachers' practice. Thus Conway et al (2009) have recommended the need for what they term "a curriculum of teacher learning" which is longer term and sustainable. They argue that

> …opportunities to fully examine firmly-held beliefs, for example the apprenticeship of observation, with a view to developing a vision of good teaching cannot be undertaken in short, tricks of the trade courses devoid of opportunities for observation, coaching and feedback from experienced teachers [and/or peers] and deep engagement with subject matter and pedagogical strategies in multiple contexts. Second, the capacity to learn from teaching is important across the continuum. …CPD initiatives should provide opportunities for teachers to interactively examine practice in new ways and to share practice expertise and dilemmas with peers in a community of learners. (Conway et al, 2009: xxix)

One other option of in-service delivery that has potential—on the basis of cost savings and reaching geographically separated beneficiaries—is distance education. Distance learning may be

a less expensive option than study leave, and it permits teachers to continue to teach instead of taking them out of the classroom (Ware 1992, Aguti 2003). To be effective, however, distance learning requires considerable follow-through and support (in school-based workshops, seminars, and other means of sharing experiential knowledge and mutual support). However, it is important to explore the most effective way of delivering distance education programmes. For example, it would be useless to plan to deliver it via internet or radio when most schools are not equipped with networked computers and teachers hardly listen to radio programmes. It might be more effective to use printed material via mail even though it may sound a less efficient approach in this modern era of technology.

One of the potentially valuable initiatives in ongoing teacher development is the involvement of experienced teachers in the design and delivery of courses at the school (or cluster of schools) level. This has the double benefit of ensuring that the courses are relevant and practical, while also providing development opportunities for the experienced teachers (Gaynor 1998; Condy 1998; Monk 1999). But this can only succeed if there is a strategic programme for retooling the leadership at school level to provide support and an environment for such professional development programmes. Therefore, there is a need to develop strong supportive supervision structures. The most cost-effective way may be to develop the role of the school principal in this area (Mulkeen et al 2007, DeJaeghere et al 2009). There needs to be a system to help teachers develop good practice and to ensure that teachers are in place and teaching the required course materials. However, in many African countries such inspection systems focus on fault-finding rather than support. In some cases, supervisors or inspectors lack the resources to travel to schools (VSO 2002).

7. Conclusion and way forward for Uganda

We hope this paper contributes to the ongoing debate around the professional development of secondary school teachers in Sub-Saharan Africa as well as providing synthesised information to policymakers and other stakeholders as a basis for the development of strategies aimed at increasing the quality and effectiveness of secondary teachers. As Mulkeen et al (2007) have recommended, there is a need for "creating balance between pre-service and in-service programs, and the development of strong ongoing professional support programs for serving teachers" (p. x). However, we are also mindful that the secondary data drawn on here would have to be enriched with field study, which is to be undertaken by the authors in the coming months. It is important to explore the different actors in the continuing professional development of teachers in Uganda, their programmes, and the experiences of teachers with different professional development programmes. We hope such a study will fill the gap identified in the literature to the effect that prior studies on the subject have tended to be merely descriptive of particular country efforts to retain and retrain teachers, without offering solid evidence of the effectiveness of the approaches being described. We hope accounts of teachers undergoing different CPD programmes on offer by different actors in the Ugandan secondary education system would provide some useful insight

into the effectiveness and/or ineffectiveness of what is available. Since "different stakeholders support different approaches to improving education, each advocating the efficacy of the particular approach they favor" (Mulkeen et al 2007: xi), it is critical to create some harmonisation and coherence within a given country. We are not advocating for putting in place a "one-size-fits-all" programme that DeJaeghere et al (2009) have cautioned against, but it would be useful to document good practice from the different programmes offered by the different actors for possible sharing across geographical and disciplinary boundaries.

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