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Challenges for Teacher Education in Developing Countries: The Case of Tanzania

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Teacher education is the base in the process of developing teaching and learning in a systematic way. The role of teacher education is crucial for the professional development of teachers expected to work at various levels of education. However, teacher education in developing countries faces great challenges related to recruiting, training and sustenance of teachers. In this article we describe challenges teacher education in Tanzania faces and explore connected phenomena and problems. The article firstly gives an introduction including the economic situation of the country and an overview of the school and education system in Tanzania. Secondly, the article describes the current challenges that face the teacher education sector; and thirdly, it discusses how the challenges are further intensified by globalization processes which seem to create confusion between national identity and global trends. In general, the article argues that developing effective teacher education is a responsibility Tanzania must shoulder to meet global challenges where effective teacher training and teacher professional development are indispensable. Pre-service and in-service programmes must be organized to help to update and familiarize teachers with new developments in education in terms of pedagogy, theories, and content.

Key words: Teacher Education, Tanzanian Economy, Globalization, Tanzania

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Introduction

Teacher education in Tanzania, as in other countries, is the foundation of the teaching and learning process at different levels of education. It is designed to respond to key priority areas of primary and secondary education and at the same time manage its own growth (Wepukhulu, 2002). In this regard, the main role of teacher education is to prepare and produce academically and pedagogically competent teachers committed to their teaching, learning and achievement of their students: professionals who are able to continue to develop their own knowledge and skills (Meena, 2009). In order to meet the intended role, the overall objective of teacher education in Tanzania has been set to improve the teaching and learning approaches in schools and Teacher Training Colleges through the development and implementation of appropriate intervention strategies. The strategies include an improved pre-service education and training (PRESET) programme and an effective in-service education and training (INSET) support for tutors and school teachers. The aims of both pre-service and in-service teacher programmes are stipulated in the Educational and Training Policy (ETP) document which was introduced in 1995 (United Republic of Tanzania, URT, 1995, 2005).

The PRESET programme is meant to supply well-trained teachers for the entire education system. According to Teacher Education Master Plan (TEMP), the aims of the PRESET programme include producing adequately qualified teachers to cater for the challenges impacting on different levels of education. In particular, the training aims to develop the teacher trainees in terms of knowledge, pedagogical skills, creativity and innovation, and to improve their techniques in educational research assessment and multi-grade teaching. Furthermore, the pre-service training aims to enable teacher trainees to acquire organizational, leadership and management skills in education and training (Ministry of Education and Culture, 2001).

INSET (also teacher professional development – TPD programmes) is given to teachers who are already working, including newly employed teachers. INSET is supposed to be provided constantly and consistently in order to improve the quality of teaching among teachers, as well as acclimatizing new teachers so that they can carry out effective teaching and learning (Ministry of Education and Culture, 2001). Without this training, teachers will become out of date, and unlikely to cope well with global challenges and the implications they bring to the teacher education.

Despite that Tanzania has well-established teacher training programmes, the teacher education sector in Tanzania is beset with various challenges

attributable to economic constraints and teacher professionalism. The situation is not unique for this African country, similar problems and challenges are found in several Sub-Saharan African countries. A recently published book, written by many authors, presents and analyzes the situation in Sub-Saharan Africa in general, and specifically in e.g. Uganda, Kenya and Gambia (Griffin, 2012).

The challenges in Tanzania include allocation of meager funds for the development of the education sector. As a consequence, a poor teaching and learning environment, low teachers' salaries, poor working environment, poor teacher recruitment, teacher training and retention, and lack of professional development programmes. The challenges are further accentuated by globalization processes which have, as a result, necessitated various education plans, reforms and innovations.

This article utilizes different sources of information and makes a descriptive document analysis from research and policy related documents. In short, the review assumes the status of a position paper rather than a research report. The article provides a foundation for understanding the many challenges imposed on the teacher education sector in a developing country, based on the case of Tanzania.

In the following sections, brief overviews of the state of the economy in Tanzania and school and education system are outlined. The information is intended to set out the background to the environmental and working conditions that create challenges to teacher education in Tanzania. The effects of global trends on education are presented towards the end of the article also as a concluding remark.

The state of the economy in Tanzania

Tanzania is a Sub-Saharan country located in East Africa. The area of Tanzania is approximately 945,000 square km, which has risen from a population of 35 million in the 2002 Tanzania National Census to a projected figure of 46 million in 2012 (National Bureau of Statistics, NBS, 2010). This gives an overall population density of 48 per square km. This figure explains the high birth rates of the country, which has one of the fastest growing populations in the world. The Tanzanian population is growing at about 2.9 percent, a rate which is high compared to the average population growth rate for the world (1.17%) (Wikipedia, the Free Encyclopaedia, 2011). With the policies of Education for All and Universal Primary Education, the high population growth will affect educational needs and challenge the availability of resources over time.

In addition to the fast growing population, Tanzania is also among the poorest and least developed countries in the world. More than 50% of the country's population lives below the poverty line, and 85% of those are situated in rural areas (United Nations Development Plan, 2011; United Republic of Tanzania, 2012). Country statistics indicate that the economy of the country depends heavily on agriculture which accounts for 28% of GDP, provides 85% of exports, and employs about 87% of the work force (International Fund for Agricultural Development, IFAD, 2011; World Bank, 2012). According to National Bureau of Statistics (2010), households engaged in agricultural activities such as farming, livestock, fishing and forestry are the poorest. Due to the poor economic state, it is anticipated that there will not be enough funds to support different public sectors, including education.

The school and education system

The structure of the school and education system in Tanzania consists of 2 years of pre-primary, 7 years of primary, 4 years of elementary secondary, 2 years of advanced secondary level and 3 or more years of university (2-7-4-2-3+). Generally, the delivery of education is guided by the Tanzania Development Vision 2025, formulated in 1995. In this document, education is treated as a strategic agent for mindset transformation so as to create a well-educated and learning society that will be able to respond to development challenges and to compete effectively at international and regional levels (United Republic of Tanzania, 1995, 2001).

Education is undertaken by various stakeholders such as the government (schools owned by the government are usually known as public schools), non-governmental organizations (NGOs), communities and individuals. However, the Ministry of Education and Vocational Training has the legal mandate for policy formulation, while the Local Government Authorities (districts, town, municipal and city councils) assume full responsibility for management and delivery of both formal and non-formal education services (United Republic of Tanzania, 2006). The management of pre-primary, primary and secondary education is under the supervision of the Prime Minister's Office, Regional Administration and Local Government (PORALG).

Pre-primary education is largely regarded as preparation for primary schooling and serves children from the age of five to six years (United Republic of Tanzania, 1995). Although pre-primary education is not compulsory, the government is making an effort to ensure that every

primary school has a pre-primary school (Mtahabwa & Rao, 2010). Usually there is no formal examination which promotes pre-primary children to primary schools. Instead, pre-primary education is formalized and integrated into the formal primary school system.

Primary education is considered as the main delivery system for the basic education of children outside the home (United Republic of Tanzania, 1995). The official entry age to primary school is 7 years; thus children are expected to complete primary education at 13 years of age. From the beginning of 2002, the Tanzanian government made primary education free and compulsory, and as a consequence enrolment increased in schools. This was naturally an advantage especially for poor families which could not afford to support their children's education. Findings from studies conducted in poor rural areas in Tanzania showed an almost total lack of reading materials in the environments of Tanzanian children that could support the development of literacy skills which would eventually improve school learning (Ngorosho, 2010, 2011a).

The completion of primary education is marked by sitting for the final Primary School Leaving Examination, which is mainly used for secondary school selection purposes. Children who are not selected to join government secondary schools have the opportunity to enrol onto a two year course for basic technical and vocational education or join private secondary schools. However, the remaining portion, which is usually big, of grade seven graduates goes back to society.

Secondary and higher education is divided into two cycles: the first cycle constitutes four years and prepares students for the Certificate of Secondary Education Examinations (CSEE). Students who are not selected for advanced secondary education have the option to join technical colleges, including teacher training colleges. The second cycle of secondary education lasts for two years and leads to the Advanced Certificate of Secondary Education Examinations (ACSEE). Students unsuccessful at gaining university entrance pass grades may apply for the diploma course at secondary teachers' colleges.

Teacher education in Tanzania (Figure 1) is carried out in two locations: at colleges of teacher education and at universities. The colleges of teacher education train Grade IIIA teachers for primary schools and provide a diploma in education for teachers to teach in forms one and two in the ordinary level secondary schools. The universities have faculties of education and departments of teacher education where teachers for ordinary level and advanced level secondary education and tutors for teachers' colleges are trained.

Due to a shortage of university graduate teachers, diploma teachers find themselves teaching up to form four (Babygeya, 2006). Diploma and degree graduates who are sometimes found in the primary schools were not initially trained for primary schools; rather they pursued further education at a university. There is, however, a plan to establish a diploma in primary education (Ministry of Education and Vocational Training, 2007).

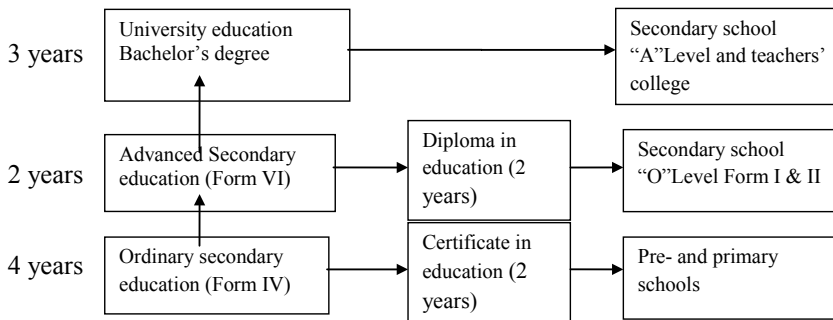


Figure 1: Teacher education structure: Modification of Malmberg & Hansén (1996).

Figure 1 indicates the interdependence of the different levels of education which are linked by teacher education. That is, teacher education in Tanzania is designed to respond to other education sectors – the primary and secondary education – and at the same time manage its own growth (Ministry of Education and Culture, 2001). Consequently, challenges emanating from the different levels of education also affect teacher education.

Challenges facing teacher education

Challenges affecting teacher education are noteworthy and can be associated not only with the environment and working conditions but also with the recruitment, training and sustenance of teachers. The state of the economy of the country together with globalization deepens the challenges even further. The challenges are described in the following sections.

Challenges related to the state of economy

Tanzania is one of the poorest countries and the national budget depends heavily on external sources. For example, about 62% of the 2011/2012 total national budget was obtained from donor countries (Ministry of Finance, 2011). Donor dependence might affect the rate of progress of development activities including the delivery of education due to the fact that the availability and timely release of the money depends on the donor country. In this regard, implementation of the country plans might either be delayed or not realized.

Due to the poor economic situation, the total budget for education has been declining every year to reach only 17% for the fiscal year 2011/2012 (Hakielimu, 2012; Ministry of Finance, 2011). About 70% of this budget was allocated to the development of educational activities. The uncertainty of funding for supporting education translates into a poor teaching and learning environment. The core problems, such as poor teaching and learning environment, shortage of teachers and poor performance, lead to challenges in teacher education. In the following sections the challenges are described.

To improve the teaching and learning environment, the government of Tanzania introduced the Primary Education Development Plan, PEDP (United Republic of Tanzania, 2001; Ministry of Education and Vocational Training, 2001). The plan covered the provision of primary education, as well as education for out-of-school children and youth, Complimentary Basic Education in Tanzania, COBET. The targets of priority investment for PEDP were: enrolment expansion focusing on classroom construction, teacher engagement and teacher deployment; quality improvement encompassing in-service and pre-service teacher training, teaching and learning materials provision; and system-wide management improvement through a range of capacity building efforts. Unfortunately, the implementation has not kept up with the plan. Scarcity of buildings for classrooms and teachers' houses is especially acute in the rural areas. As a result, there is extreme overcrowding, with class sizes ranging from 83 children (in Ruvuma region) to 89 children (in Tabora region) in some schools (Ministry of Education and Vocational Training, 2011). The large class size has led to a shortage of books, desks, and buildings. The situation is clearly seen through studies in the urban areas of Dar-es-Salaam in Tanzania, where the findings revealed that six children shared one desk and eight children shared one book (Kumburu, 2011; Mbelle, 2008).

Lack of teachers' houses produce unfavourable living conditions for teachers, especially in the rural areas where there are already harsh living conditions intensified by unreliable transport. Schools are located sometimes as far as 404 km from township areas where there is abundant transport like buses (Ministry of Education and Vocational Training, 2011). Transport in the villages relies on bicycles, motorbikes and lorries. Davidson (2007) argues that the teacher in the classroom is the main instrument for bringing about qualitative improvement in learning. But with a poor living environment, the teachers are not motivated and thus they perform below their ability (Benson, 2005).

Where living and working conditions hinder effective teaching and learning processes, the teacher education sector as an important vehicle will be affected in its mission to attain the goals stipulated in the Tanzania Development Vision 2025 (United Republic of Tanzania, 1999). The vision envisages making Tanzania a nation with high quality of education at all levels.

The results of poor living and teaching conditions translate into poor performance among the learners. Low school performance is indicated by the national examination results. Education statistics on children's performance in the final Primary School Leaving Examinations (PSLE) reveal that the overall pass rates in the PSLE examinations, taken by children aged 13 have not been impressive for the past four years. In 2006, the pass rate was 70.5% of all pupils enrolled in grade seven. In 2007, the pass rate dropped by 16.3% from 70.5% to 54.2%. The pass rate dropped further in 2008 to 52.7% and in 2009 it was 49.4%, indicating that almost 50% of the children failed. In 2010, the pass rate improved to 58%. As a consequence of low school performance, high dropout and low promotion rates are created (Table 1).

Low performance especially in reading and writing skills was reported from recent studies conducted in rural areas of Bagamoyo District in Tanzania. About 30% of the children involved in the study did not write any of the words in the test instrument correctly, and only 50% of them could read the words correctly (Ngorosho, 2011a, 2011b). Learning to read requires sufficient knowledge of the sounds of the language and how the writing system of that language works (McGuinness, 2004).

Further results from the mentioned studies indicated that grade 2 children had difficulties in identifying initial word sounds and also in deleting sounds and syllables from words (Ngorosho & Lahtinen, 2010).

Table 1. Dropout by reason in public primary schools for 2011

| Reason | Grade | | | | | | | Grand total | Drop-out reason (%) |
|------------------------------|-------|------|------|-------|-------|-------|-------|-------------|---------------------|
| | I | II | III | IV | V | VI | VII | | |
| Truancy | 3317 | 6103 | 7494 | 9894 | 7931 | 12005 | 10341 | 57085 | 74.9 |
| Pregnancy | 0 | 0 | 0 | 22 | 123 | 444 | 467 | 1056 | 1.4 |
| Death | 283 | 443 | 457 | 435 | 324 | 406 | 309 | 2657 | 3.5 |
| Unable to meet basic needs | 321 | 623 | 618 | 663 | 495 | 1356 | 509 | 4585 | 6.0 |
| Illness | 79 | 202 | 228 | 273 | 211 | 309 | 277 | 1579 | 2.1 |
| Taking care of sick relative | 51 | 93 | 89 | 132 | 77 | 274 | 100 | 816 | 1.1 |
| Others | 464 | 963 | 1086 | 1219 | 1053 | 2346 | 1337 | 8468 | 11.1 |
| Grand Total | 4515 | 8427 | 9972 | 12638 | 10214 | 17140 | 13340 | 76246 | 100.0 |

Source: Ministry of Education and Vocational Training, BEST, 2011.

Moreover, the children made errors of omission, addition and substitution of letters. This finding indicated that in order to write correct spelling, children required knowledge about grammar, structure of sounds of the language (phonology), dialects and orthography (which is related to rules about the correct way of organizing letters in order to write words correctly (Alcock & Ngorosho, 2003). Based on the findings, it was necessary for an early and systematic screening of children at risk of reading and writing difficulties and of actions to support the development of these children. Using grade one primary school children from four primary schools in Morogoro Municipality, Kalanje (2011) constructed a group-based screening instrument in Kiswahili language for identifying readers at risk of developing reading and writing difficulties.

According to Lyytinen, Erskine, Kujala, Ojanen, and Richardson (2009), when reading difficulties are left to develop for years, the child's development in acquiring the skills necessary to achieve reading are already affected. Such an effect was clearly seen in the PSLE for 2009 (Ministry of Education and Vocational Training, 2009). The pass rate for the Kiswahili examination which mostly measures the ability to read and write was 69%. In this regard, about 31% of the pupils completed primary education without adequate literacy skills. In addition, more than 5000 grade seven children who passed

and were selected to join secondary education in 2011 were found not to be able to read and write (Editor, 2012). The Ministry of Education and Vocational Training had ordered all the heads of secondary schools to give a pre-form one screening test to identify students who were selected for secondary education but who did not know how to read and write.

Dropout has, for several years, been a problem in primary schools, especially in public primary schools. About 63% of 13 year-old children completed grade seven in 2011. About 37% of children enrolled in grade one in 2005, failed to complete the seven years of primary education (Ministry of Education and Vocational Training, 2011). The main cause for dropout in primary schools in 2011 was truancy (74.9% of dropouts). Dropout challenges teachers to use effective teaching and learning methods in order to improve school performance and thus motivate children to stay in school.

Low promotion rates in primary schools are more seen in grades 1 and 4. As a result, high repetition rates are expected to occur in similar grades. Promotion rates from grade 1 to grade 2 and from grade 4 to 5 were less than 90% from 2006 to 2008 (Ministry of Education and Vocational Training, 2011). Close to 10% of grade 4 pupils were not promoted to grade 5. This is a significant percentage of pupils who are upgraded from the lower grades into grade 4 with low achievement in literacy skills. When those who fail emerge from school lacking basic reading and writing skills and obtain no other education, they face a lifetime of disadvantage. This kind of situation challenges the training of teachers to include teaching methods of promoting children's development in literacy skills.

Challenges in teacher education

Teacher education colleges offer a two-year course covering the following components: firstly, subject content knowledge. This section covers acquiring knowledge and understanding of school subjects in the primary and secondary curriculum/syllabus. It is important for teachers to be conversant with the knowledge they will share with learners in schools.

The second component in the teacher education syllabus is curriculum content, which covers subject matter and pedagogic content knowledge, often known as methods courses. Key aspects of this content knowledge include approaches to teaching large classes, multi-grade strategies for small schools, language code switching, and how to plan lessons according to the social constructivist approach (UNESCO, VII, 2010/2011). The syllabuses for primary and secondary education have been reviewed in the spirit of the constructivist approach (United Republic of Tanzania 2005; Ministry of

Education and Culture, 2005). The reviewed syllabuses emphasize learner-centred methods of teaching and learning. The review also emphasizes a participatory approach to teaching which aims at benefiting children with different abilities (Hardman, 2009).

However, there has been a dilemma as to whether the focus of the curriculum should be on the subject matter (content) or pedagogy (methodology), or both. Research findings reveal that teachers are not well-trained and this leads to deterioration of education in the primary and secondary schools (Babygeya, 2006; Osaki 2000). As a result the curriculum emphasizes mastery of subject matter in order to improve trainees' academic qualifications. This role is supposed to be covered in the primary and secondary schools. The innovation has posed several challenges, including a shortage of qualified educators in terms of pedagogy and ineffective utilization of time. Meena (2009) investigated conceptions of curriculum innovation among teacher educators. The study results show that teacher educators seem to see more obstacles and limiting factors than new solutions.

Professional studies cover aspects of becoming a teacher that extend beyond the subject area and teaching methods. They cover, for example, how children learn and how cognitive, affective, psychomotor, and social development take place; knowledge and skills in classroom management and pastoral care; craft knowledge of effective techniques to promote learning; acquisition of professional identities as a teacher; awareness of relevant educational history, psychology, sociology, philosophy, legislation, responsibilities, etc. (Hardman, 2009). Such topics are significant with respect to locating children's learning of social aspects in the classroom and outside of school such as the home background and family status (Lewin, 2000). Currently, ongoing studies about quality education in Tanzania are being carried out through a doctoral programme offered by Åbo Akademi University in Finland. The studies cover areas of teacher education and secondary education (Chambulila, ongoing study; Jidamva, study in progress) and special education (Kapinga, ongoing study; Mnyanyi, study in progress).

Also, opportunities to practice teaching under the supervision of teachers and college tutors or some other form of educational practice are provided through teaching practice. The aim is to enable teacher trainees to integrate the insights and concepts derived from what is taught in college, with the contextual and situated knowledge of specific classrooms and pupils (Ministry of Education and Culture, 2001).

The outlined section of the teacher education curriculum should enable teacher trainees to cope with existing teaching and learning problems. However, challenges emanating within teacher education have been identified relating to funding, recruitment, retention, and the teacher education curriculum. The challenges relate to the low budget allocated to education, with teacher education not receiving sufficient development funds. As a consequence, physical infrastructures are falling apart mainly due to age and inadequate funding for maintenance and repairs (Hardman, 2009). Furthermore, because of low funding, which is not enough to purchase teaching and learning resources, effective training is not realized. Tutors are not offered systematic continuous professional development programmes to update their teaching knowledge and skills. Teacher professional development is in fact a continuous process even during the actual teaching period. Lack of teacher professional development is inconsistent with a statement stipulated in the Tanzanian Education and Training Policy which emphasizes that in-service training and re-training should be compulsory in order to ensure teacher quality and professionalism (United Republic of Tanzania, 1995, 2005).

It is a challenge to ensure that the teaching profession remains an attractive career attracting high quality applicants. Recruitment of qualified trainees into the teaching profession has been problematic in the teacher education department in Tanzania. In a review of teacher education in Tanzania, Hardman (2009) found that the academic level of the majority of trainees was weak, and many had only the minimal qualifications necessary for entrance. Thus, the trainees were unlikely to be competent and efficient after the completion of their teacher training course. Tanzania recruits primary school teachers from the bottom third or fourth pass rates of graduates in elementary secondary school examinations (Ministry of Education and Vocational Training, 2012). This is in contrast to developed countries, where teachers are selected from the top performance rates (The Economist, 2007). This presents a major challenge in terms of the effectiveness of teaching and learning process. Such teachers are unlikely to have secured grounding in core subjects for primary education, which is something that will contribute to poor pupil performance.

Furthermore, a substantial proportion of trainees entering teacher colleges in Tanzania see teaching as a career choice of last resort or as a transitory phase in a hunt for opportunities for further study (Towse, Kent, Osaki, & Kirua, 2002). Most of the trainees had failed "O"Level in key subjects and the effect can be seen in poor pupil performance. Spear, Gould, and Lee (2000) argue that teachers with a better knowledge of subject

material and greater written and verbal language proficiency have better-performance students.

With regard to secondary schools, a shortage of qualified teachers has resulted in the use of large numbers of professionally unqualified teachers. Due to the expansion of secondary education through the Secondary Education Development Plan (2004 – 2009), the government embarked on a three-month programme to train students who had completed “A” Level secondary and then provided them with a licence to teach in secondary schools, on condition that they would later pursue their Bachelor’s degree by distance learning through the Open University of Tanzania. The trainees who joined this scheme were those who had not qualified to join a university and thus they had resorted to joining the teaching profession.

Teacher education is further impaired by the flow of teachers who leave the profession before retirement. It is challenging to retain teachers in schools for various reasons. In part, teacher retention is affected by economic factors, as teachers decide to leave teaching and seek better paid jobs. According to the education statistics, almost 5% of primary school teachers who had left the teaching profession in 2010 did so because of obtaining better paid jobs. About one percent was removed from the teaching profession because of bad conduct. Leaving teaching is also exacerbated by teaching conditions which teachers find stressful due to the insufficient supply of textbooks and teaching materials, poor teaching and living accommodation, and high number of children in the classroom (Caillods, 2001). Dropout may increase due to some teachers considering teaching only a stepping stone. In a study by Towse et al (2002), one respondent claimed that teaching was the only job that would allow him to advance to the higher levels of education. After further studies some teachers would not return to teaching, and thus the profession was unintentionally promoting a flow of teachers out of it. Dropout has the effect on schools that it leaves in less capable teachers who might be demoralized by thinking that teaching is for less qualified teachers.

From the above discussion, challenges placed on teacher education are found in the classroom, at teacher training colleges and in the living environment, especially where there is a shortage of houses for the teachers. The challenges are also attributed to teachers’ academic qualifications. The following section describes challenges caused by global processes.

Globalization effects on teacher education – a conclusion

Globalization refers to the transfer, adaptation, and development of values, knowledge, technology, and behavioural norms across countries and societies in different parts of the world (Cheng, 2000). Dimmock and Walker (2005) argue that in a globalizing and internationalizing world, it is not only business and industry that are changing, but education, too, is caught up in that new order. Since this responsibility is within a nation and there is inequality in terms of economic level and perhaps in cultural variations in the world, globalization seems to affect others directly. This situation provides each nation with the challenge of how to respond to this new order. As a result, education systems of nation-states have undergone reform(s) as a response to the effects of globalization (Luijten-Lub, 2007). Tanzania is no exception in this endeavour.

Since 1995 when the Education and Training Policy was formulated in Tanzania, the education sector has undergone several reforms that were geared towards improving access, equity and quality, as well as capacity building (United Republic of Tanzania, 2004a). To achieve the goal, the government embarked on two huge education development plans – the Primary Education Development Plan (PEDP), which started to be implemented in 2002, and the Secondary Education Development Plan (SEDP), in 2004 (United Republic of Tanzania, 2001; URT, 2004b). The on-going reforms in primary and secondary education are running concurrently with innovations in teacher education.

PEDP covers the provision of primary education, as well as education for out-of-school children and youth, Complimentary Basic Education in Tanzania, COBET. PEDP is implemented in phases of five years, and the first phase started from 2002 through 2006. Implementation of the second phase covers another five years from 2007 to 2011. The targets of priority investment for PEDP include: *enrolment expansion*, focusing on classroom construction; teacher engagement and teacher deployment; *quality improvement*, encompassing in-service and pre-service teacher training and teaching and learning materials provision; and system-wide *management improvement* through a range of capacity building efforts (United Republic of Tanzania, 2001, 2007).

The targets of priority investment for SEDP include improvement of access – the initial aim was to reach 50% of the transition rate from primary to secondary education by 2010 through optimum utilization of teachers and expansion of school facilities, and supporting non-government Education statistics indicate that about 51% of grade seven pupils were selected

to join secondary education in 2011 (Ministry of Education and Vocational Training, 2011). Another area of implementation is equity improvement by allocating more resources in the education sector, improving the retention and performance of girls, improved provision of education to marginalized groups and reduction of fees for day students (Sekwao, 2004). Quality improvement aims to raise the student pass rate.

The challenges imposed by the reforms in the primary and secondary education sectors have necessitated innovations in teacher education. Teacher education innovations aim to increase the number of primary school teachers in responding to the increase of the enrolment rates. Furthermore, a number of innovations have been introduced in pre-service teacher training in an effort to respond to the PEDP implementation outcome. For example, the government had to embark on a two-tier system to prepare grade IIIA teachers, who usually teach in primary schools. The trainees had to be in colleges for one year and spend the second year in the field, where they were assisted by educational officers at the school and district level. Moreover, the professional development of teachers is addressed by providing in-service training in skills which involve pupil participation. The intention is to minimize the tendency of teachers to use methods that deny pupils the required-teacher pupil interaction.

The impact of the education reforms in primary and secondary schools is more noticeable in poor teaching and the learning environment in the schools. There is an acute shortage of teaching and learning resources, which compromises quality education. Briefly, the reforms called for increased resources which the country does not have due to its poor economic situation. The government has been forced to call for assistance from different partners in education.

Globalization includes the growth of global networking (e.g. the internet, worldwide e-communication, and transportation), global transfer and interflow in technological learning areas and the use of international standards and benchmarks (Makule, 2008). We therefore expect values, skills and knowledge acquired from a nation's education system to be globally relevant, but at the same time to be relevant for the growth of the nation's social and cultural identity. Certification in the levels of education described above depends solely on teacher education, which bears the responsibility of educating teachers, whose task it will be to certify and socialize a new generation into society. In Tanzania, certificates are provided for educational programmes as stipulated by the government. Also, certificates can be given for short courses, in-service training, workshops, seminars and experiential learning.

Use of certification focuses on the needs and different levels of education of a particular country and society. This is due to the fact that school systems differ from one country to another. For example, primary education in Tanzania is provided for seven years, compared to Norway, where primary education is offered for ten years. In this regard, a teaching certificate can be a difficult document to transfer. For certification to be accepted internationally, the process might require understanding of a nation's policy towards teaching certification and thus involve undergoing scrutiny and the protocol of the new nation.

Furthermore, standards for teaching are specific in that they articulate the actual knowledge and skills teachers in a country should know and be able to perform successfully. In this respect, reaching global understanding of 'the best pedagogy of teacher education' is faced with the challenge of determining best practices and selecting appropriate materials. It entails answering questions such as how to focus resources related to both content information and teaching strategies: are they consistent with the local, state, and national curriculum and assessment standards? In summary, it is difficult for a teacher educated in one nation, for instance, Norway, to be certified to teach in Tanzania.

Although international teacher certification seems difficult because of the values attached to the objectives of education in different societies, the impact of globalization is inevitable, although with different manifestations and translations. Tanzania has therefore to strive to improve its economy and hence improve the teaching and learning environment. In this regard, the country will be able to address challenges that the teacher education faces as well as the consequences of global trends. Since Tanzania will always be affected by global events taking place elsewhere in the world, teacher training and teacher professional development programmes must be organized to help to update and familiarize teachers with new developments in education in terms of pedagogy, theories, and content.

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