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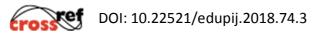
# Emerging Fundamental Issues of Teacher Education in Tanzania: A Reflection of Practices

SAMSON J. MGAIWA

#### **Abstract**

Quality of teachers is recognized as one of the critical dimensions for promoting student learning in schools. However, in Tanzania there are several emerging issues that affect teacher education and teachers, and as a result affect students' learning. The existing corpus of literature indicates a death of studies on the systematic understanding of issues that affect teacher education in Tanzania, especially at a time when education across the world is encountering a number of challenges. Employing documentary review and interviews as data collection methods, this paper attempts to analyze the emerging issues affecting teacher education in Tanzania. Employing the Teacher Education Model for the 21st Century, the paper identified five major issues affecting teacher education namely; lack of specific policies for teacher education, lack of continuing professional development, lack of an autonomous teacher regulatory body, inadequate ICT and teacher education, and poor quality of candidates joining teacher education. Generally, the findings indicate that teacher education is not effectively planned in terms of policy imperatives to meet the contemporary professional demands for 21st century education in Tanzania, and beyond. Finally, conclusions and certain recommendations which take a futuristic perspective in preparing 21st century teachers are offered.

**Keywords:** teacher education, teachers, students' learning, Tanzania.



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#### Introduction

The future of any nation that desires to graduate from poverty and be competitive in the world of knowledge economy is reliant upon the quality of its teachers. In fact, the knowledge economy the world now embraces is dependent upon ability of individuals, and that ability of individuals is determined by the quality of teachers a country has. Logically, the two are inextricably concomitant. Based on these arguments, education in Tanzania, as in many other countries around the world, is considered as a basis for economic, social, political, and technological development. As such, in order for education to contribute to development endeavors, the quality of education is vital. Nevertheless, quality of education is dependent upon many factors (i.e., inputs and processes), including the quality of teachers. Although robustness of any educational system is dependent upon many factors, scholars such as Mosha (2006) and Komba and Nkumbi (2008) argued that the quality of teachers in the education profession form an important component for effective education system delivery. In fact, the transformation of a nation in all spheres of life, to a large extent, relies upon the quality of its education system. The quality of education and its graduates as an output of the education system, on the other hand, is dependent upon the quality of inputs and processes when the education system is viewed as a complex manufacturing industry.

A growing corpus of literature acknowledges that the development of a quality education system relies upon the quality of its teachers (Goodwin et al., 2014; Hardman, Ackers, Abrishamian, & O'Sullivan, 2011; Mosha, 2006). Therefore, there is no way to achieve quality education if the quality of teachers are of an unacceptable standard, even when the educational policies, plans, curriculum materials, and educational leadership are all of the requisite standard. Based on this view, teacher preparation and professional development is at the hub of any effective and efficient education system. Besides, teachers are vital components of any education system because they form an important pillar for students' learning by converting national philosophy, educational policy and curriculum goals into instructional objectives and eventually create the environment for students' learning (Richmond & Floden, 2017). Principally, it is well-known that educational policies, educational plans, and curricula by themselves do not develop new knowledge and skills for students; the same can be said for school infrastructure and school leadership. In fact, educational policies, curricula, school leadership, and infrastructure, rather create the environment for teachers to seek new knowledge and skills and turn them into new practices for student learning (Ball, 1998). Therefore, to have quality teachers requires wellarticulated educational policies that, among other things, concisely articulate a wide scope of teacher preparation and continuing professional development. This argument is supported by prominent scholars in teacher education such as Schwille, Dembele, and Schubert (2007), who argue that teacher preparation should take into account the concept of "continuum of teacher learning" (p. xx) which encompasses a range of teacher learning, from the initial stages of training to early career years and throughout their teaching career. This implies that in the pursuit of teacher preparation, consideration should not only be given to formal teacher preparation, induction and in-service professional development programs, but also other informal influences on what and how teachers learn and teach (Schwille et al., 2007). However, it is not the gist of this paper to interrogate the full range of teacher preparation, but rather to examine issues surrounding teacher education,

particularly on the formal influences, (i.e., pre-service teacher's preparation, induction, and continuous professional development). Paradoxically, the literature indicates a demise of systematic understanding of emerging fundamental issues which affect teacher education in Tanzania. For example, Milinga (2016) examined how teacher preparation for inclusion can be enhanced at universities and university colleges in Tanzania through prosocial education. Therefore, this paper aims to analyze the major issues surrounding teacher education in Tanzania, from pre-service teacher preparation and induction, to continuing professional development and support. It is strongly believed that making a systematic understanding of the emerging fundamental issues in teacher education will inform the ongoing debate on the quality of education in Tanzania, and other countries of similar contexts, and subsequently find strategic common solutions to the existing issues affecting the education sector. Following this introduction, the remainder of this paper is organized as follows. Section 1.1 introduces the basic facts about teacher education in Tanzania; Section 2 addresses the emerging fundamental issues in Tanzanian teacher education; Section 3 presents the opportunities for change; and Section 4 offers recommendations and conclusions.

#### Teacher Education and Tanzanian Education system

The concept of teacher education has a varied meaning among scholars. In most cases, teacher education has been defined based on two major aspects (i.e., pre-service and inservice). For example, Oyekan (2002), while capitalizing on the pre-service dimension, defined teacher education as the provision of professional education and specialized training within a specific period for the preparation of individuals who intend to develop and nurture the younger generation into responsible and productive citizens (p. 12). On the other hand, Izuagba and Obiefuna (2005), in addressing the in-service perspective, defined teacher education by referring to all programs designed to help teachers already in-service to continuously update their knowledge, skills, and attitude in order to contend with continuing changes in methods, course content and resources used in teaching. With the idea to accommodate the two aspects (i.e., pre-service and in-service), Nakpodia and Urien (2011) defined teacher education as the process which nurtures prospective teachers and renews qualified teachers' knowledge, skills and attitude in the form of continuous professional development. This paper adopts this definition because it takes into account both the preservice and in-service dimensions of teacher education.

Teacher education in Tanzania is currently managed by the Ministry of Education, Science, and Technology (MoEST). The ministry manages a total of 34 public teacher's colleges and provides guidance to about 14 registered privately-owned colleges that prepare teachers at the certificate and diploma levels (Kitta & Fussy, 2013; Luwavi, 2012). Universities, which are under the supervision of the Tanzania Commission for Universities (TCU) and the directorate of higher education at the MoEST are responsible for the preparation of undergraduate and post-graduate teachers. The teacher education directorate at the ministry is responsible for the management of teacher education nationwide. The directorate deals with the preparation of "Grade A" (certificate) and Diploma teachers to satisfy teachers' needs for pre-school, primary and secondary education (Ministry of Education and Vocational Training [MoEVT], 2010a). In order to ensure that, there is a reliable and dependable quality standard for graduates of teacher education, with examinations and certification of Grade A and Diploma teachers administered nationally by the National Examination Council of Tanzania (NECTA). For example, in a bid to improve

education delivery, particularly within the last decade, the Government of Tanzania has been implementing educational reforms under the umbrella of the Educational Sector Development Program (ESDP). Although the on-going reforms have focused on sector-wide reform in primary and secondary education, it has been implemented concurrently with innovations in teacher education due to the fact that the three subsectors are all interdependent. Despite these reforms, the educational sectors, including higher education, are all face quality challenges. For example, while at the primary and secondary school levels the quality of education has been repeatedly reported as poor (Sifuna, 2007; Sumra & Rajani, 2006; Vavrus, 2009), at the higher education level, Mgaiwa (2018) and Mgaiwa and Ishengoma (2017) identified several institutional challenges which curtailed the quality of higher education, including the quality of teaching graduates.

Teacher education in Tanzania is featured by key issues of recruitment, structure, curriculum, governance, financing, and accreditation and standards that are taken into account when making decisions about the teaching profession. This section of the paper focuses on the first two issues; recruitment and structure. Teacher training is currently offered through three clusters: Grade A (certificate) teachers, Diploma teachers, and Degree graduate teachers. Grade A teachers are prepared to teach pre-primary and primary school students, whilst Diploma holders are prepared to be secondary school teachers, although most also teach in primary schools. Degree graduates are prepared to teach in secondary schools, but mostly high schools and teacher training colleges.

Underscoring the importance of quality and competence of school teachers, the minimum entry qualification to be admitted in training colleges has been revised several times (i.e., in 2009/2010 and 2016). For instance, as from the 2009/2010 academic year, a two-year Grade A teacher certificate training program was offered to candidates having passed the Certificate of Secondary Education Examination (CSEE) with a minimum qualification of "Division IV" 27 points, compared to a previous minimum entrance qualification of Division IV 28 points. Moreover, credit passes in English and Mathematics subjects were preferred for selection to join teacher colleges, particularly public colleges.

The diploma in education is a two-year course for candidates with a minimum qualification of two principal passes and a subsidiary in an Advanced Certificate of Secondary of Education Examination (Kitta & Fussy, 2013; UNESCO, 2010). As such, from the 2018/2019 academic year, a diploma in education will also include Form Four graduates, but they will have to pursue their Diploma in Education in three years, whilst also pursuing their Advanced Secondary Education and taking the Advanced Certificate of Secondary Examination (ACSE) prior to their final diploma examination. For the Grade A course, from the 2016/2017 academic year, the entry qualification to the Grade A teaching certificate course was increased from Division IV 27 points to at least Division III with at least two principal passes in Certificate of Secondary Education Examination (CSEE).

Similarly, for a Diploma in Education, entry qualification increased to at least Division III with two principal passes in teaching subjects. Nevertheless, this is still a very low qualification for a country aspiring to prepare a quality workforce capable of competing on the world stage as a knowledge economy.

At the bachelor's degree level, prior to 2005, training lasted for four years. However, anecdotal evidence indicates that the significant demand for teachers over the past decade

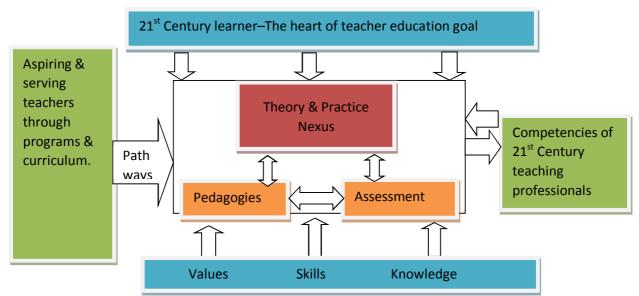
led to the duration being reduced down to three years. As such, training at this level varies in specializations and constitutes two categories of teachers. Category one teachers are prepared as college tutors and specialize in professional courses with fewer academic subject courses. Category two teachers are prepared for teaching in secondary schools, and learn more academic subjects with relatively fewer professional courses. However, the entry qualification for the two categories is relatively low compared to other professions. This is because the teaching profession in Tanzania is not considered a competitive job that attracts good quality candidates compared to professions such as law, engineering, computer science, medicine, and natural science professions.

Based on the reviewed literature, it is evident that there is a dearth of systematic understanding of the issues that surround teacher education in Tanzania. Besides, there has been no studies that have examined the emerging fundamental issues which affect teacher education in Tanzania by looking at their practices. Most previous studies concentrated on one variable or aspect, and the way it could affect the education system whilst ignoring other aspects that remained unchanged over the years.

Generally, the rationale behind analyzing the emerging fundamental issues in teacher education will help the Tanzanian government to make interventions on such issues and, as a result, revitalize national teacher education in order to realize educational excellence and thereby improve the quality of education. However, for these interventions to register a notable impact on the quality of education, it is imperative for there to be a systematic understanding of what major issues have constricted teacher education in Tanzania in the past in order to improve future educational decisions, practices and plans. Therefore, this paper responds to such a call by taking a new perspective in undertaking a detailed review and seeking stakeholders' insights on the emerging fundamental issues which face teacher education in Tanzania.

#### Conceptual framework

In pursuit to realize this research objective, a teacher education model for the 21<sup>st</sup> century was adopted from Singapore National Institute of Education (NIE). The main assumption of the model being that the 21st century learner is at the center stage of teacher education goals. From the conceptual framework shown as Figure 1, it is assumed that each child should be nurtured to optimize his or her moral, intellectual, social and aesthetic potential. The model further assumes that preparation and development of teachers is not an end in itself, but a step towards achieving the desired outcomes for students in schools. The *Values, Skills, and Knowledge Framework* serves as a key guiding principle which ensures that teacher's learning is supported by a foundation of skills and knowledge, which in turn is securely bound by a set of core values.



**Figure 1.** Teacher Education Model for the 21<sup>st</sup> Century Source: Adopted from Singapore National Institute of Education.

On the conceptual framework, *pathways* mirrors a holistic teacher education which offers innumerable points of entry to a wide range of programs which empower teachers to make informed decisions about learning options so as to achieve their academic and professional aspirations. Teacher learning is an endless process and because of changing educational, societal, and technological factors, teachers in Tanzania must be given timely and appropriate opportunities at every stage of their careers in order to upgrade and develop their professional capability. Therefore, based on this argument, this conceptual framework is geared towards preparing future educators and further developing the capacities of in-service teachers. The various programs cater to a wide range of disciplines taught in schools, whilst specific learning objectives are epitomized in each course curriculum. Within this framework, *curricula* are designed to offer a holistic learning experience, with a focus on content knowledge, pedagogical skills for teaching specific subjects, and communication skills, as well as emphasizing the psychology, philosophy, and sociology of education.

The theory-practice nexus and institutional frameworks for transforming pedagogies and assessment are indispensable elements of teacher learning that drive programs, curriculum development, and innovation. As such, the assorted approaches are geared towards strengthening the theory-practice nexus to help teachers more effectively transition into schools, as well as to acclimatize to the changing school environment. Pedagogical instruction involves furnishing teachers with a wide range of pedagogical skills in effective teaching, facilitation of learning, mediation of the knowledge base and design of learning environments. The use of apposite evidence-based assessments to evaluate learning upshots of students is also an important instructional tool that teachers must acquire. In the context of strengthening the *Theory-Practice nexus*, the success of this model relies on a strong tripartite relationship between the Ministry of Education, Science, and Technology (MoEST), colleges, and schools.

#### Methodology

The current research was conducted at seven research sites (four schools, two universities and one college of teacher education) in Iringa municipal, located in the southern highlands of Tanzania. Two main data collection methods were employed: documentary review as the main data collection method, and in-depth interviews. In accordance with the observance of ethical research principles, the research sites and the interviewees were anonymized. As a large part of the data was collected through documentary review, data generation involved examining and evaluating documents both in print form and electronic format. This process was conducted based on Bowen's (2009) argument, in which the focus is on generating meaning, gaining understanding, and advancing knowledge on human behavior, events and actions from the past through to the present. Therefore, in order to make a generation of information feasible through document analysis, the libraries of the University of Hong Kong and Mkwawa University College (Tanzania) were used.

Based on the main objective of the research, two main criteria were employed in sorting documents for review; namely the document type (i.e., peer review journal articles, books, and official reports from the Tanzanian government, universities, and supranational organizations such as the UNESCO). For the purpose of making sure that selected documents elicit dependable data, the author followed the four conditions for managing documentary review sources in social sciences as developed; viz., authenticity, credibility, representativeness, and meaning. Therefore, original documents published by individual scholars were scrutinized and synopses noted. Largely, the researcher collected several published works, government reports, program reports, educational policies, and training manuals. In addition, the researcher conducted interviews with tutors, lecturers, and secondary school teachers in order to garner insight as to the emerging issues that surround teacher education in Tanzania.

For the interview sourced data, a total of 12 participants were interviewed in depth (classroom teachers, college tutors, and academicians). Based on this research, classroom teachers were selected purposively because they were considered to have information and experience on the emerging issues regarding teacher education. On the other hand, the university academics and college tutors were selected so as to add insight about the practice of teacher preparation and experience of undertaking education sector research. Data collection for each interview lasted between 15 and 25 minutes, and all interviews were audio-recorded with the interviewees' consent. The overarching questioning during the interviews focused on the following key issues: What emerging fundamental issues do they consider exist within teacher education in Tanzania? What strategies do they consider would help solve the existing fundamental issues affecting teacher education in Tanzania? Owing to English being the language of instruction in Tanzanian secondary education, teacher colleges and higher education, all of the interviews were conducted in the English language. In order to assure the participants would be granted anonymity and confidentiality, a consent form was prepared and all invited research participants were requested to sign it to confirm their voluntarily participation in the study.

Data collected from both the documentary review and the face-to-face in-depth interviews was analyzed based on Braun and Clarke's (2006) six steps of thematic analysis

(i.e., familiarization with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing a report) (p. 87). During the reporting of the in-depth interviews' findings, pseudo names were used to represent the four research sites (i.e., "RS1," "RS2," "RS3," "RS4," "RS5," and "RS6"). As such, the researcher refrained from using the participants' actual names; instead using pseudo names (an alphabet letter) to represent the participants from each research site (i.e., Participant Q, R, X, U, V, Y, Z, W, S, T). Braun and Clarke (2006) argued that for advanced and insightful data analysis, data collection, transcription, and subsequent analysis should be conducted by the researchers themselves. In this regard, the researcher collected, transcribed, and analyzed all of the data. Thematic analysis was used as it was deemed to ensure that all opposing themes would be recognized. After analysis of the data, six major themes emerged in this research study: Lack of specific policies for teacher education; lack of continuing professional development; lack of an autonomous teacher regulatory body; inadequate ICT and teacher education; and, poor quality of candidates joining teacher education. In support of the findings for these themes, participants' quotations are presented verbatim to demonstrate key issues from the interviewees' perspectives.

#### Results

Lack of specific educational policies for teacher education

The Tanzanian education system has benefited from many policy directives and reforms over the past two decades. Among them are Tanzania Development Vision 2025 launched in 2000, the Education and Training Policy (ETP) of 1995, the current education policy from 2014, the Technical Education and Training Policy of 1996, the National Higher Education Policy of 1997, the Educational Sector Development Program (ESDP) of 1997, The National Strategy for Growth and Reduction of Poverty (NSGRP) of 2005, Education for All (EFA), The Millennium Development Goals (MDGs) from 2000, and the ICT Policy for Basic Education that was launched in 2007. These policy initiatives and reforms have shaped thinking and guided design and implementation of educational activities and programs in Tanzania.

Teacher education has been rendered an imperative task of ensuring quality and meaningful learning is realized by students in order to achieve such goals. The ESDP subprograms (PEDP and SEDP), for example, were implemented concurrently with an increased and improved teaching workforce. As such, the government, working in partnership with the private sector, has been participating in teacher preparation and continuing professional development to equip teachers with the requisite knowledge and skills to facilitate student learning (Ministry of Education and Vocational Training [MoEVT], 2010b; United Republic of Tanzania [URT], 1995, 2000, 2005, 2007). However, the teacher education system in Tanzania has been in operation without any specific national policy to guide its provision and management. Arguably, this may be attributable to the current questionable quality of teachers that Tanzania has experienced in the past two decades or so. Therefore, in order to change this state of play, there is a dire need for the Government of Tanzania to have a specific National Teacher Education policy that will guide the provision, support, and management of teacher education; or teacher education needs to be given special emphasis in the national educational policy as the heart of any country's effective education system. In a detailed face-to-face interview with a policy expert from one of the universities, the interviewee had the following to say:

With my experience of analysis and research on educational policies, teacher education is one of the areas that lacks policy document and requires an independent policy document because teacher education forms an important basis for all other education levels in the country. [Academic Staff, RS6]

From this quotation, it is clear that teacher education in Tanzania lacks adequate policy support to render teacher education effective and thereby realize the country's educational goals. Therefore, this paper highly emphasizes that policymakers should take on this responsibility and accordingly advise the government of the need for an independent and specific policy for teacher education.

## Lack of continuous teacher professional development

Continuous Professional Development (CPD) is the process by which teachers (like other professionals) reflect upon their competences, maintain up-to-date competences, and further develop their competences. Teacher professional development provides opportunities for teachers to explore new roles, develop new instructional techniques, refine their practices and broaden themselves both as educators and as individuals. As the world that prospective teachers are being prepared to work in is continually changing, and because the teaching skills required are evolving likewise, no initial course of teacher education can be sufficient to prepare a teacher for a career of 30 or 40 years (Soko, 2012, p. 7). It is from this argument that a teacher is considered as always a learner, and thus, the training of qualified teachers does not end with their graduation from Teacher College, but rather continues throughout their entire teaching career. In order for teachers to continue working efficiently and productively towards a meaningful quality of education, they must be afforded opportunities for professional development in order to ensure they are kept professionally up to date and able to face new global teaching challenges (Soko, 2012). With this kind of thinking, governments, voluntary agencies, non-governmental organizations and individuals commit significant resources including funds towards building and developing Teacher Professional Development (TPD). Despite its importance, TPD requires the support of both government and non-governmental organizations. However, findings from Komba and Nkumbi's (2008) study on stakeholders' perceptions and practices on teacher professional development in Tanzania indicated that TPD was inadequately supported and motivated by government and non-governmental organizations alike. This finding was also supported by Kitta and Fussy (2013), who also pinpointed in their review that teacher professional development was weak and unsupported by government and nongovernmental organization stakeholders and that it affected the preparation of quality teachers in Tanzania. As such, during the interviews, there was a feeling from many participants that professional development was not fully supported, especially by employers. For example, some of the interviewed teachers mentioned the following:

I think there is little support for teacher professional development. As in my case, although I have worked for 13 years, I have attended training only once despite the fact that at some point the curriculum was changed and was obvious it would require all teachers to update our knowledge about the new curriculum's requirements. [Participant T, RS2]

When I wanted to go for further studies which I financed myself, my employer was reluctant to release me despite the fact that the policy allows for TPD. I applied three times, yet I was not released until my fourth time of application. [Participant Z, RS3]

These quotations indicate that TPD is very limited and that employers do not support teachers who are motivated to train themselves by attending further studies and hence they have to cross many hurdles in order to pursue further studies. These findings, however, support the findings of Komba and Nkumbi (2008), who revealed that teacher professional development in Tanzania is poorly coordinated and rarely budgeted for. The findings on practices indicate that the conception of TPD combines both the improvement of teachers' academic qualifications and professional growth. However, the extent to which education authorities support this process in Tanzania varies, as does the effectiveness of the different approaches for TPD. A growing body of research suggests that in order to be most effective, TPD activities should be spread over time, be collaborative in nature, use active learning approaches, be delivered to groups of teachers, include periods of practice, coaching, and follow-up, promote reflective practices, encourage experimentation, and respond to teachers' needs (Komba & Nkumbi, 2008). Arguably, developing quality teachers and empowering them is fundamental to the development of not only the education sector but also of society. As such, the focus on teachers' professional development is the only effective route to the realization of quality education through a national education reform strategy. Therefore, there is a dire need to change the practices of the past by clearly planning TPD and fully funding the process at all levels in order to improve the quality of teachers so that they can cope with the ever-changing world of teaching.

Lack of induction and mentorship programs to beginning teachers

Teaching involves the use of a wide body of knowledge about the subject being taught, and other sets of knowledge about the most effective ways to teach that subject to different kinds of learners. Therefore, teaching requires teachers to continually employ a complex set of tasks. It is widely acknowledged that the initial years of teaching for beginning teachers are the most stressful, with difficult moments throughout a challenging period (Luft, 2009). Some scholars such as Murray (2008) and Turner (1993) argued that such challenging moments are, to a great extent, attributable to discrepancies between what is taught in colleges and the actual teaching context in schools. In a bid to offer some solution to such discrepancies, Lee (2018) argues for bridging the gap between content-based preparation at universities and culturally situated pedagogical training within the context where teachers are likely to be hired. He emphasizes that in doing so results in teachers with higher levels of self-efficacy, agency, and professional confidence (p. 1). Besides, key findings on most successful probationers and their colleagues who were found to be less successful indicated that personal cognitive style and the level of support they received in their placement were the determinants of some teachers' relative levels of success (Turner, 1993, p. 41). During interviews held with teachers in the current study, some mentioned the existing state of the art on the induction and mentorship of beginning teachers:

I and my two colleagues started in the teaching profession in the last four years, but we were not exposed to any kind of induction that would help us in our initial years of our teaching career. [Participant X, RS4]

Although my classmate told me they had a kind of orientation for one day that focused on the basics of teaching and the school environment, at my school it was not the case. It is four years since I joined the teaching career, but I have received neither an induction nor any other form of training. [Participant R, RS2]

These two quotations clearly indicate that there is less induction and mentoring support among beginning teachers in Tanzania, as evidenced by the current study. These findings may imply that teachers in Tanzania might be less efficacious in their career because of a lacking of essential induction and mentoring support during the early years of their teaching career. This is supported by the findings of a study by Turner (1993), who revealed a relationship between ineffective support of new teachers and low level success in their probationary year. Turner's findings have since found support from Lee (2018), who argues for the need to address the gap between what teachers learn as pedagogical content knowledge and the actual teaching environment through induction and mentoring, and that such programs can increase the levels of self-efficacy, agency, and confidence among beginning teachers. Further evidence indicates the a high proportion of teachers who either do not enter the profession after completing initial training, or who leave the profession after their first teaching post (Wong, 2004). Due to such observations, a number of countries have put in place comprehensive systems of support to help beginning teachers during their first years in the profession. For example, revealed the existence of induction programs to enhance teacher expertise, professional development, job satisfaction or retention rates for both beginning teachers and experienced teachers.

Realization of the need for induction for beginning teachers in England led to the UK Government initiating the Training and Development Agency to support the induction of New Teacher Educators (Murray, 2008). Conversely, there is a serious lack of induction programs for beginning teachers in Tanzania. Most beginning teachers enter the teaching profession without any form of induction program that would motivate them and make them committed to the job. During interviews with teachers in the current study, nine out of twelve interviewed teachers said that they had never received any induction during their early career. For example, two interviewees mentioned the following:

I have worked for 13 years now, but when I reported to take up my new appointment as a teacher I did not receive any kind of induction program to orient me into the teaching career. [Participant Y, RS3]

Because I did not receive induction training, I couldn't know the extent to which an induction program could help, but I didn't receive any induction at the beginning of my career. [Participant U, RS2]

Elements of an induction program can include; *mentoring*, which is essentially the allocation to each beginning teacher of an experienced teacher who is specifically trained as a mentor. As such, the mentor may provide both emotional and professional support, as well as guidance to beginning teachers. Another element may be a *peer network*, with input from educational experts for mutual support but also for the purposes of *peer learning and support* for the process of self-reflection that all teachers engage in (e.g., through the keeping of a journal). The induction process is important not only because it helps teachers to engage in effective teaching, but it also increases the retention of beginning teachers to the profession, improves their teaching performance, and promotes teachers' personal and

professional well-being as it develops their identity and practical sense in teaching. However, despite this critical importance of mentorship of beginning teachers, there is no formal system of mentorship in Tanzania's education system for beginning teachers entering the teaching profession. For example, during interviews held with experienced and beginning teachers in the current study, it was evident that no formal mentorship programs supported beginning teachers. One interviewee stated the following regarding the state of the art of mentorship:

Actually, mentorship in schools is not visible. I have worked for ten years now but I can evidence that I have not witnessed formal assignment of mentorship to me or my colleagues, or even to the beginning teachers that we receive regularly as posted for duty at our school. [Participant Q, RS1]

This quotation implies that schools in Tanzania do not have formalized mentorship of early career teachers. As a consequence, beginning teachers find difficulty coping with the teaching career in their initial years.

Poor quality of candidates who join teacher education

The teaching profession in Tanzania, as in many other developing countries, has failed to attract the best qualified candidates. More often, teacher training colleges receive the medium, if not least, qualified candidates as compared to other professions. This argument finds support from Mosha (2012), who revealed that none of the candidates selected to join certificate teacher education program in 2011 in Tanzania had Division I passes. Less than 15% had Division II passes and the remaining 85% had weak passes of Division III and Division IV. This was similar to that of candidates selected for diploma and degree programs in education. Similarly, this observation was also supported by Anangisye (2010), who stated that it is usual to find students with Division 0 (zero) which is the lowest performance level in teacher training programs. Luwavi (2012) conducted a study at Butimba Teachers' College, which is one of the public diploma colleges in Tanzania. Luwavi found that more than two-thirds of student teachers who were enrolled to a pursue diploma course in education between 2010/2011 and 2011/2012 had qualifications that were less than the minimum requirement; that being applicants had at least two principal passes and a subsidiary.

During interviews with in-service teachers and academics, some had the following to say:

I joined a Diploma in Education program with a Division II in a science subject. To my surprise, some of tutors were puzzled as to why I joined for a Diploma in Education with such good qualifications instead of other more prestigious programs such as medical or science related fields. [Participant T, RS2]

...in fact, I did not find any college to accept me after my advanced secondary school results. My parents and other relatives felt very desperate for me and some said if you have failed even joining teaching, which profession do you think you can join? [Participant V, RS3]

Another academic member of staff, when asked what he would consider as a pressing issue related to teacher education, mentioned the quality of candidates who joined teacher education, saying:

...some issues regarding teacher education are not openly debated, but actually, the quality of candidates who join teacher education is very poor at times. As universities, I would say that the candidates we admit are not all of the requisite quality. Although some may seem qualified in terms of grades as per the current official criteria, their ability indicates a lower quality because we see the actual ability when we teach and assess them in our examinations. [Academic Staff, RS6]

These three quotations provide evidence on the practice of poor candidate selection for teacher education, and even teachers seem to surprised when they find a candidate with good qualifications joining a teacher education program. While some scholars such as Floden, Richmond, Drake, and Petchauer (2017) emphasized the significance in spanning the continuum of issues in teacher education, from assessments used for admission and graduation, to the nature and quality of professional support for beginning and experienced educators (p. 360), conversely, in Tanzania it appears commonplace to find that candidates who join teacher education are less qualified than those joining other professions. This might imply to affect the quality of education because, under normal circumstances, it is difficult for low academic level candidates to be trained as teachers and to produce excellent students. The poor quality of candidates is also evidenced by steps taken by the ministry of education to ban a Diploma in Education program which admitted less qualified students at the University of Dodoma. Although this situation has improved in recent years compared to the previous decade, arguably, the system cannot take less qualified candidates with little knowledge and then successfully train them to be quality teachers that can produce "A" class candidates that can be trained as medical practitioners, engineers or in other noble professionals of high repute. Most applicants take education as their last resort after failing to be admitted to a program of their interest. More often than not, candidates who join teacher training colleges simply do not aspire to be in the teaching profession, but rather join because their prior poor level of qualifications drove them towards teaching. In recent years and in particular those students joining university programs matching their interest were attributed to student loans offered to education students following the shortage of teachers in the country.

Sometimes, financial constraints force a majority of candidates from low income families into pursuing education programs due to costs being highly subsidized by the government in contrast with other courses. The strategy of governments subsidizing some training costs has also been used by countries such as China, Mongolia, and Nigeria in order to attract candidates to the teaching profession; with a target of them working in disadvantaged rural areas after graduation for a certain amount of time based on sponsorship contractual arrangements. In order to attract qualified, talented and competent candidates into the teaching profession, there is a need to revitalize the remuneration system and maintain the status of the teaching profession as it was in the past.

#### Lack adequate use ICT in teacher education

The development of science and technology has changed the teaching and learning environment. Scholars credit Information and Communication Technology (ICT) for its potential ability to the learning needs of individual students; promote equality of opportunity; offer high quality learning materials; and increase self-efficacy and independence of learning amongst students of all ages (p. 249). Nowadays, one cannot teach or learn the same way as happened decades ago. This is due to the rapid and multifaceted

changes brought about by ICTs that have had a strong influence on knowledge, teaching, and learning (UNESCO, 2011). Pupils themselves are changing and evolving as each decade passes. Therefore, based on these rapid changes, education provision must continuously adapt to the new generations of pupils in terms of information, communication, computers, and technology. For instance, the quick and wide usage of social media such as Facebook, Twitter, WhatsApp, and WeChat are developing. The critical question is to what extent do schools take into account the development of ICT and other technologies into teaching and learning? Schools have to mix presence and distance, to manage time and space for learning, to prepare pupils for lifelong e-Learning. However, a growing body of literature indicates that the state of the art for ICT infrastructure in Tanzanian schools and even in Tanzanian universities is poor and does not support student teaching and learning. For example, at the University of Dar es Salaam, despite the university policy of integrating ICT in its institutional transformational program since 2000, a decade later, Mtebe, Dachi, and Raphael (2011) noted that the ICT infrastructure was still one of the pressing challenges which curtailed course offerings through Open Distance eLearning (ODeL). These findings were similar to those of Leach, Ahmed, Makalima, and Power (2005), who found deficit in ICT infrastructure in the global south. Similarly, this situation was also revealed during the interviews held in the current study with college tutors and school teachers. For example, a couple of the interviewees said the following:

It is difficult to say there is ICT infrastructure in schools. My school has only one computer which is used by the head of school and academic office for administrative matters. We don't have computer laboratories and even our skills to use ICT is inadequate among us because for now we don't have any teachers specializing in ICT at our school. [Participant R, RS1]

...the condition of ICT is horrible; look here, this school has 23 teachers in total, but only two own personal laptops, yet the school has two computers, one for the head of school and another is used for academic matters by the academic office. Indeed, our students have neither a computer laboratory nor any ICT facility for them to learn how to teach using ICT. We just teach by theory. [Participant W, RS4]

An interview conducted in a teacher college also reflected a similar trend. For example, one of the tutors interviewed had the following to say regarding the condition of ICT at her college:

Yeah, ...our college has some ICT infrastructure, including a computer laboratory, although it is inadequate; but worse is that we don't have Internet connection because of an inability to pay for the bewitch we are supposed to use. [Tutor, RS7].

These quotations convincingly show that the availability and usage of ICT facilities to be a critical problem in need of immediate attention. This situation might imply that teachers in Tanzania are not only lacking computers in their schools, but also the necessary skills to use ICT facilities. Therefore, the Government of Tanzania needs to urgently realign its position in availing necessary school facilities including ICT to schools. Although some years back the Ministry of Education Science and Technology (MoEST), with support from the Swedish International Development Cooperation Agency (SIDA), initiated a program to introduce ICT to teachers' colleges in 2005, its effectiveness has been constrained by a lack of ICT facilities. The program aimed at improving the quality of teacher education by using ICTs to improve

both pre-service and in-service teacher education, but in reality this was without the necessary support of ICT facilities. Implementation of the project helped college tutors and student teachers to develop basic ICT knowledge and skills that could assist them in facilitating student learning, but only if the facilities could be availed (Ministry of Education and Vocational Training [MoEVT], 2010b). However equipping teachers with ICT knowledge and skills is meaningless if the schools in which they to work have no ICT infrastructure. For the current state of the world of science and technology, equipping teachers with ICT and developing ICT infrastructure is unavoidable for a country that wants to improve its education system and graduate from ignorance. Therefore, ICT in education should be a government priority, and Tanzania must take the opportunity to learn from developed countries' experience of establishing ICT infrastructure in schools, both rural and urban.

### Acute shortage of qualified and competent teachers

Tanzania has faced an acute shortage of well-qualified and competent teachers for a long time, and particularly in the past 15 years after the start of the Education Sector Development program (ESDP). There is no doubt that teachers are indispensable constituents to student achievement. However, this component has not been taken seriously in Tanzania because some schools, and some community secondary schools in particular, have been reported to operate with just two or three teachers. There is another well-known nightmare of countenancing Sixth Form leavers and some with weak performance levels to serve as secondary school teachers. This indicates the low value and short-sighted vision accorded to the teaching profession. It is important to note that the persistent acute shortage of teachers Tanzania has been facing for the past decade cannot warrant the recruitment of just anybody as a classroom teacher. It should be noted from the onset that teaching is not a profession for those without training, but rather it is a noble profession that needs thoughtful selection, training, continuous professional development, mentoring and commitment to the profession. As people, teachers are pivotal to the development of an educated society, and may equally ruin it or develop it. The late Nyerere once said;

Those who have responsibility to work with the young have a power which is second to none...the assumption that teachers are not powerful is one of the biggest fallacies in our society. For teachers can make or ruin our society. It is not the power of man with a gun; it is not a power that which can be seen by the fool. But it is the power to decide whether service or self shall be the dominant motive in Tanzania of 1990 and thereafter (Dachi, 2012).

During interviews with participants in the current study, several interviewees mentioned a shortage of teachers, especially in science subjects: For instance, one noted that:

Shortage of teachers, especially science teachers, is a concern for many schools. We normally realize this concern during teaching practice, because most of the schools want us to send them novice science teachers because of the acute shortage they face. [Tutor, RS7]

This quotation implies that the shortage of teachers in Tanzania is a critical problem, and particularly with science teachers. As such, this acute shortage has been sometimes perpetuated by unequal distribution of teachers between rural and urban areas. Nationally, the number of teachers has increased 26.3%, up from 107,111 to 135,318. However, the proportion of less qualified teachers has risen. The focus, while implementing the PEDP, has

been on better conditions at the school level, and less on the content or pedagogic capacities of teachers. This was commented on the PEDP Reviews of 2003 and 2004. For instance, "the teaching and learning process needs to be transformed to become participatory, interactive, gender-sensitive, child-focused in safe and supportive school environments" (Davidson, 2004, p. 19).

#### Conclusion

In improving the workforce quality in Tanzania and revitalizing the quality of education at all levels, this paper has been based on the premise that it is imperative to undertake a systematic analysis of the issues currently emerging and seemingly undermining the quality of teacher education, and subsequently the quality of education. The paper has established several emerging fundamental issues namely: Lack of specific policy for teacher education; lack of continuing professional development; lack of National Qualification Framework for Teacher education; lack of autonomous teacher regulatory body; inadequate ICT in teacher education; and, poor quality of candidates joining teacher education. In view of these findings, this paper concludes that any initiative aimed at revitalizing education in Tanzania should put teacher education at center stage, because it is critical to have a wide scoping understanding of teacher education issues prior to coming up with appropriate concrete solutions. As such, given the conversed emerging fundamental issues seemingly to surround teacher education, it is also fair to conclude that teacher education in Tanzania is currently surrounded in jeopardy, with issues affecting the health of the national education system. Therefore, these issues call for immediate attention and for examination in order to progress towards a quality education system.

This paper recommends that it is essential to raise the status of the teaching profession to a level at which it attracts the best qualified applicants to join the teaching profession. With the current socially devaluated status of the teaching profession, coupled with its low remuneration, it is almost impossible to improve the quality of the teaching workforce and attract the best and most talented candidates in the teaching cadre. Therefore, there is a dire need to revive the status of the teaching profession by revitalizing the remuneration and incentivization systems so as to attract the best into the profession. This requires several steps, including the political will to recognize and adequately increase motivation and thereby make teachers more satisfied with the profession.

Harnessing rapidly developing technologies (i.e., ICTs) in teacher education is also important in order to provide maximum learning opportunities for student teachers, especially those in remote areas of Tanzania, where conventional resources such as libraries are impossible to adequately resource. Generally speaking, schools in Tanzania have limited ICT infrastructure and are not connected to networks although it is well-known that there are many excellent examples of success stories in teaching with ICT, but schools are not really prepared for digital education. Therefore, because learning in a digital society brings about new challenges for schools, and since pupils will now be digital natives, the Government of Tanzania and its schools should find immediate ways to address these challenges so that students and teachers can engage effectively in teaching and learning without issues that unnecessarily curtail the process. The quality of the teaching force also requires immediate attention. With the over-expansion of primary and secondary schooling enrolment in the past decade, the demand for teachers has significantly increased.

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