

COMPETENCE BASED CURRICULUM IN STUDENT-TEACHER EDUCATION PROGRAMS IN TANZANIA: RESOURCES, STRATEGIES AND ASSESSMENT

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Abstract: Quality of education depends on various factors among which are good preparations of student-teacher education programmes. Student-teacher preparation has a crucial significance in implementing competence based curriculum. The main stakeholders in implementing competence based curriculum are teachers, thus the professional competence of teachers can endow learner's competent knowledge in their profession which promotes national and global development. Soon after her independence in 1961, Tanzania, like many other African countries, adopted a content based curriculum. However, in 2005, Tanzania introduced a curriculum which led to the development of competence based curriculum for learning and assessments in education. This study investigated issues surrounding the implementation of competence based curriculum in student-teacher education programmes. Specifically, the study focused on the resources, instructional strategies and assessment procedures in implementing competence based curriculum. In view of the findings, it seemed that the implementation of competence based curriculum in student-teacher education programmes schools was quite effective. Thus, it was recommended that effective programmes and regular training for student-teachers should be conducted in order to enable them acquire up-to-date teaching skills as required by the changes introduced in the education curricula.

Keywords: Competence Based Curriculum, Student-teacher, Education, Tanzania.

1. INTRODUCTION

Curriculum of a school can be viewed as the formal and informal contents and processes by which learners gain knowledge and understanding, develop skills, and alter attitudes, appreciations, and values under the auspices of that school (Doll, 1978). A curriculum can either be content or competent based. Competence Based Curriculum refers to the mastering of skills, ability, knowledge and capabilities which enable a learner in solving different problems in the society. A learner receives a knowledge in the learning and teaching context and can have ability to apply that knowledge in the real setting or field (Mulder, Gulikers, Biemans, & Wesseling, 2009).

The history of competence based curriculum can be traced back to the early 1970's when competence based education emerged for the first time in the United States of America (Richard & Rogers, 2001). It was a kind of an educational movement that defined educational goals in terms of precise measurable descriptions of knowledge, skills, and behaviours students had to possess at the end of the course of study. Thereafter, the movement spread into European countries such as the United Kingdom and Germany in the 1980's (Wolf, 2001). Australia adopted the competence based curricula in the 1990's and since then, other countries worldwide have been motivated to implement the competence based curriculum in schools due to the ever changing technology and global market. In Africa, competence based curriculum was adopted for the first time in South Africa in 1998, following the acute shortage of professionals like engineers, technicians and

artisans. South Africa adopted the competence based curriculum in a bid to change attitudes of all South Africans and equip them with employable skills to cope with challenging issues in the 21st century (Komba & Mwandaji, 2015).

Although the curriculum for any education system requires regular reviews in order to make adjustments to accommodate the ever changing societal needs, it is important to ensure that there is a mechanism to follow up on the implementation of the innovations imposed in the curriculum. Kimaryo (2011) noted that, the implementation of competence based curriculum in schools had been complex since its introduction because student-teachers still focused on developing content with the hope that the learners would develop the intended competences automatically. Effective implementation of competence based curriculum depends on the teaching of competence based curriculum and the student-teachers' understanding of both the content and pedagogy. There are conditions which can ensure successful implementation of competence based curriculum as proposed by different scholars.

Rutayuga, (2014) proposed conditions for successful implementation of competence based curriculum as follows;

- Generating awareness among stakeholders.
- Promoting knowledge and skills to teachers and trainers during lesson delivery as well as in mode of assessing competence.
- Provision of fund which will support teaching and learning materials such as textbook, facilities, teaching aids etc.
- Shift from paper based criterion to actual practice of knowledge competence.
- Creating conducive environment for teaching and learning.
- Fostering awareness among global stakeholders including external expertise.

In Tanzania, the education sector has undergone several reforms since 1995 when the Education and Training Policy was issued. Most of the reforms have focused on improving access, equity, quality and capacity building. With regard to curricula review, Tanzania reviewed its education curricula at different levels of education from 2004 to 2008. The review was basically intended to make a shift from the traditional content based curriculum to competence based curriculum. In the same light, it was also an attempt to improve the quality of education by enabling learners to develop the required competences relevant in different spheres of life (Komba & Mwandaji, 2015). Komba and Kira (2013) stated that, the review of the curricula was prompted by economic, political, and cultural changes. Komba and Kira (2013) added that, the old curriculum was ineffective as the graduates failed to demonstrate their skills and competences that fully addressed local, national and global market demands.

A good number of studies have investigated different issues on competence based curriculum (Kalugula, 2000; Wangeleja, 2007; Kafyulilo, Rugambuka & Moses, 2013; HakiElimu, 2012). For example, Kafyulilo et al. (2013) conducted a study on the implementation of competence based teaching approaches in Tanzania. In this study, the authors revealed that pre-service teachers needed a kind of practices with the competence based teaching approaches in order to be able to effectively implement the approaches in their teaching. Moreover, in the studies conducted by Wangeleja (2007) and Kalugula (2000), the findings indicated that the teaching of competence based curriculum required the teachers' understanding of both the content and pedagogy. In the same light, a study conducted by HakiElimu (2012) had attributed the trend of students' poor performance in the Certificate of Secondary Education Examinations (CSEE) in Tanzania with the poor conceptualization and implementation of the education curriculum. However, there are limited studies which have been conducted to investigate the implementation of competence based curriculum in Tanzanian in student-teacher education programmes. In this regard, it was pertinent to focus on the implementation of competence based curriculum through student-teacher education programmes in Tanzanian, specifically looking at resources, strategies and assessment.

Competence based curriculum in Tanzania

Generally in African Countries, Competence Based Curriculum was executed effectively in the 21st century though many challenges were encountered in its implementation. In the 2000s' Tanzania introduced competence based curriculum which encouraged a learner to master knowledge, skills and abilities. Review of content based curriculum in Tanzania was done during the period 2004-2008 and later was changed to competence based curriculum at all educational levels so as to stimulate learners competence which will promote quality of education in Tanzania (Komba & Mwandaji, 2015).

Kavindi (2014) found that, development of competencies starts from Competence Based Curriculum objectives and goals, preparation in teaching, implementation in teaching in classroom and lastly assessment and evaluation of such competencies. The educational levels from primary education to higher education emphasized the use of competence based curriculum in order to improve quality of personnel in competence knowledge in all professions (Tilya & Mafumiko, 2018). This was stipulated in the educational vision 2025 of Tanzania, to have a quality education of well-educated society who can know how to use their knowledge in solving different problems in the society (URT, 1999).

Implementation of Competence based curriculum in Tanzania has gone through several challenges in teaching and learning at all educational levels. Rutayuga (2014) found challenges of competence based curriculum as the lack of teaching and learning resources, instability of fund and political will to support implementation of competence based, lack of knowledge to teachers due to inadequate training, Poor support from educational stakeholders, and inadequate use of instructional strategies which influence competence based. Therefore competence based curriculum implementation in Tanzania needs to be tackled from student-teacher preparation as they are the main stakeholders in implementing competence to learners of different professions. Global changes are in search for professional competences so as to cope with change.

The introduction of competency based curriculum in the education system of Tanzania shifts the orientation of the content, largely but not exclusively, away from the rote memorization of factual knowledge to competency based learning which is largely instrumental. This focuses much more on the understanding of concepts, and the acquisition of skills and competencies, which in turn calls for changes in teaching, learning and assessment approaches (Komba & Mwandaji, 2015). Komba and Mwandaji (2015) showed that, student teachers in Tanzania education are not well prepared to cope with the real pedagogies of implementation of competence based curriculum in different education level. Thus the need for changes in the instructional approaches, calls for changes in the student-teacher training program to equip teachers (both in-service and pre-service) with the necessary competencies for handling the new teaching paradigm Teachers need to have considerable skills to match the curriculum to learners and thus, requiring modification in the curriculum of teacher training colleges and an intensive widespread in-service training for all those already teaching (Wood, 2008).

2. METHODOLOGY

This is a review study of implementation of competence based curriculum in student-teacher education programs in Tanzania, specifically focusing on resources, strategies and assessment. This emphasized a review on the global and general conditions of successful implementation, challenges and solutions to competence based curriculum. This helped in finding and assessing the standards of implementing competence based curriculum globally. The study was reviewed through different literatures from secondary sources, ProQuest, springer, web of science and other trusted online materials which are relevant about implementation of competence based curriculum in Tanzania. These provided a lot of data on resources, instructional strategies and assessment concerning implementation of competence based curriculum in student-teacher educational programs.

3. FINDINGS AND DISCUSSIONS

- *How resources are utilized in the implementation of competence based curriculum?*

Makunja (2016) showed that, available textbooks in the education do not reflect what the student-teacher learns in the syllabus and this can endow professional competence in the future. Many textbooks are out-dated and are not needed anymore due to several changes which take place in the society. Other textbooks encourage a learner to cramming and not to understand the topic; this leads to failing to achieve competence based curriculum by using such kind of textbooks.

Kanyonga, Mtana and Wendt, (2019):Kavindi (2014) argued that there is inadequate teaching and learning materials and facilities in implementing competence based curriculum. Libraries and laboratories are inadequate and these are crucial issues to have in the school context especially for a student-teacher who takes science subject where mostly learning is done by doing some experiments in the laboratory, students cannot understand and apply the knowledge which they learn in the classroom. Makunja (2016) also showed that, book to student ratio to be 1:7, 1:10, 1:12 or even higher than that; some schools have only four textbooks of a particular subject. In educational programs a lecturer may have minimum 20 student-teachers supervised by him or her; also in assessing student in the field, a lecturer can assess two or more student-teachers. Therefore, it can be difficult to implement competence knowledge due to time limits (Kavindi, 2014).

Again, Komba and Mwandaji (2015) revealed that, teaching-learning resources are inadequate. In student-teacher programs some of the courses needs manila card to show how a teacher can stimulate the cognitive ability of student to understand knowledge competence in the classroom. Teaching-learning aids play a great role in the classroom: it stimulates understanding of competence knowledge by using objects or devices which can be relevant to the performed task in the learning and teaching environment. There's no link between real context and lesson plan as some teaching-learning resources in educational programs does not reflect how such knowledge can be applied. If the given knowledge does not reflect competence based, it can encourage cramming and memorization (Komba & Mwandaji, 2015).

- ***What and how instructional strategies reflect Competence Based Curriculum?***

Komba and Mwandaji (2015) found that, teacher centered methods are commonly used which does not give student-teachers opportunity to interact or to participate in different classroom activities in order to apply some experience about the performed task given. Student-teacher needs constant practice in order to gain experience in teaching students in the school context. Teacher centered method does not give a wide range for the student to participate in teaching and learning process. In Tanzania, most of the classes have large number of student (overcrowded classrooms) which hinders learner centered method as well as to create a challenge for implementing competence based curriculum. Student-teacher interactions in the class can stimulate critical thinking as they can relate the application of knowledge in a daily life so as to cope with the societal changes. This method quickens the implementation of competence based curriculum. In Tanzania, learner centered method in many educational level has not been efficient and effective due to student teacher ratio, time, teaching and inadequate teaching-learning materials.

Fernández (2019) noted that, learners centered method as a participatory method, where a teacher is a motivator or facilitator in the classroom and this encourages self-assessment and reflection. Students are source of learning and teaching by exchanging and sharing experience and ideas. Makunja, (2015) emphasized that most of the teachers in Tanzania do not recognize how to adhere to competence based curriculum in teaching and learning process during classroom lessons. Makunja concluded that the teacher cannot implement learner-centered method due to large number of student in a class and the limited instructional periods. In Tanzania there has been puzzlement on how to select teaching and learning methods based on the situation of teaching and learning environment. Participatory method stimulates critical thinking, discovery, learning by doing especially where the student-teacher will be main agent in implementing competence based in the professional competence. Teaching and learning resources and student centered are not supportive to implement Competence Based Curriculum (Tilya & Mafumiko, 2018).

Kafyulilo et al., (2013) indicated that, there are some student-teachers who have limited knowledge of using teaching and learning approaches in implementing Competence Based Curriculum. During the time of practice in the school context, most of the assessors who assess student-teachers justified that student-teachers fail to prepare lesson plan which reflect performance competence test at the end of the lesson. Athuman, (2017) asserted that teachers are still using lecture methods on how to implement Competence Based Curriculum approaches theoretically and this accounts for failure on the part of student-teachers to demonstrate their competence in the real context. Again, Kanyonga et al., (2019) found that most of the teachers are not knowledgeable in learner centered method especially in practical modules. In educational programs, student-teachers who offer science subjects must go through learning by doing in many of the modules, thus if a teacher uses other methods it cannot endow their competence knowledge in understanding the lesson hence failing to impact to their student after graduating.

- ***How student teachers are assessed and evaluated in Competence Based Curriculum?***

Komba and Mwandaji (2015) found that, teachers fail to assess student in the class by using formative assessment which can be a corrector to asses, if student cannot apply such knowledge in class. In teacher education, student-teachers can be assessed during presentation in the class or other performing tasks. A teacher can evaluate student-teachers' competence and skills, know their difficulties in mastering competence and provide remediation after receiving feedback.

Kavindi (2014) postulated that, in Tanzania education programs, continuous assessment was not used. Continuous assessment can evaluate a student-teachers' daily processes to solve issues relating to competence knowledge given, however, a teacher can employ other teaching-learning methods or materials which reflect competence based curriculum in order to communicate well to students. Assessment done by way of writing exams for example, mid-term or long-term acts as a way to evaluate student-teachers' competent knowledge but such exams only encourages memorization and cramming of content knowledge.

Mosha (2012) found that, formative and summative assessments are used to evaluate Competence Based Curriculum. Tanzania examination system cannot evaluate how students master competencies in their courses. A student-teacher after successfully graduating gets employed due to their grades on the transcript. There are no conditions for entrance to competent profession and this account for the reasons why we cannot identify a master teacher and a chartered teacher. Therefore student-teachers must be able to practice all professional competences in the real situation. Developing practical assessment is good for assessing and evaluating professional competencies in order to implement competence based curriculum in the coming generation (Stukalenko, Murzina, Kramarenko, Ermekova, & Rakisheva, 2016). In Tanzania, most of the student-teachers after graduating are faced with the challenge of competitive power to fit in the labor market due to incompetence of their profession as many report have shown.

4. RECOMMENDATIONS

Globally, there is an economic change which influences change in labor market as the need for people who are competent in a specialized field (Makulova et al., 2015). In Tanzania, competence based curriculum can lead to learning outcome of having competent personnel in all professions so as to match with a global and local market. Student-teachers in educational programs need a good preparation in order to implement competence based in the field. A teacher is a tunnel of all professions. Rutayuga (2014) proposed five key themes in understanding competence based curriculum as a direction to solve challenges. These included; creating awareness among stakeholders to understand meaning of competence based curriculum, promoting network between industry so as to support professional competence, understanding perception and attitude of stakeholders in implementing competence based curriculum, promoting social relation and normative behaviours, and designing a modern environment in learning and teaching so as to stimulate competence based curriculum.

- ***Learning and Teaching Resource***

Tekir and Akar (2019) suggested that, teaching and learning materials should be creative and appropriate in order for student-teachers to understand a well performed task and know how to use such knowledge in their profession. Tilya and Mafumiko (2018) argued that the government should provide availability of teacher resources to solve the challenges of implementing competence based curriculum. There is the need for efficient teaching aids or methods for student-teachers to understand a performed-based task in the teaching-learning context. Again, Chishimba (2001) suggested that, student-teachers should be closed to the real setting of the classroom in order to experience what they have been taught during lectures. Learner subjects should be relevant in the real context in order to gain competence knowledge. Hatcher et al. (2013) proposed that, a teacher should understand what degree the program structure is built to accommodate the individual students' trajectory of developing competence in order to use time effectively to help a student to become competent.

- ***Instructional strategies***

Kitta and Tilya (2010) recommended that, to use learner-centered method, teachers should act as coaches during teaching and learning instruction. With this, students improve their knowledge base by generating new ideas; improving teacher-student interactions, encouraging learning by doing and stimulating critical thinking. Learner-centered method improves autonomy and self-competence to the learners, unlike teacher-centered methods which does not allow students to interact during the instructional period.

Kellie et al (2002) as cited in Sudsomboon, Anmanatarkul, and Hemwat (2007) proposed stages of Curriculum Based curriculum instructional strategies process; establishing instructional objectives which are measured and observed, performance based to measure how students are learning by linking to competence in the objectives, learners having the potential to gain competences, providing feedback to learners on time, and using different types of assessment to evaluate learners competence. Students who are faced with the challenge of mastering competence can be helped individually by the instructor. Students can be assessed several times for learning competence and learning outcomes.

Gadusova and Predanocyova (2018) asserted that, a teacher should encourage and be more familiar on how to use learner-centered methods because it focuses on Competence Based Curriculum. Learner-centered methods encourage learning by doing, SWOT analysis, Discovery learning, case studies, practical activities and other activities which is based on creating, thinking, discovery and doing. Teaching and learning methods should be emphasized in educational program to enable student-teachers learn practically by reflecting a subject with competence based knowledge so as in the future

(after graduating), they can be able to teach others to be competent (Mndebele, 1997). Therefore, teaching and learning must be interactive to enable the teacher to discover learners' difficulties and ways to solve such problems in order to stimulate competence in understanding, skills, abilities and knowledge to be applied in real situations (Bernikova, 2017). URT (1995) stipulated a change of paradigm in education from content based curriculum to competence based curriculum and a student centered syllabus to enhance students and teachers interaction. This will stimulate student critical thinking. Student-teachers should be trained to use learner centred method in implementing curriculum based during their educational programmes. Again, orientation courses are encouraged to create conducive environment in teaching and learning instruction.

- **Assessment**

Niemi (2011) showed that, Finland student-teachers are assessed several times on their competencies for the teaching profession in order to improve quality of education in the future. Tanzania should emulate such system of assessing student-teachers for competence skills development in the teaching and learning context.

Dinther, Dochy and Segers (2015) suggested that, educational programmes should intensify internship period in order to endow student-teachers' competence knowledge through assessment and evaluation whether formative or summative assessments. In an educational institution, for student-teachers to master the competence knowledge, there's the need for learning by practice. Assessment is a powerful tool in assessing and evaluating competencies at any field of study and internship is one assessment tool for student-teachers in educational programs; this will enable student-teachers to be competent and experienced.

Sumaryanta, Mardapi, Sugiman and Herawan (2018) also emphasized a change in the form of assessment. A learner should not be assessed only in learning achievement but also on mastery of competence in order to catch up with the competence based curriculum. If the assessment approaches are effective, it will enable a swift implementation of competence based curriculum and its sustainability.

5. CONCLUSION

Competence Based Curriculum influences a rapid change in the society to solve different issues in the society. There is the need to maintain a quality of educational candidates especially in the teaching profession. Competency based teaching approaches are not well implemented in educational institutions in Tanzania and in the same vein if pre-student-teachers who graduate from institutions do not acquire sufficient and applicable knowledge about competency based approaches, it would be a sheer dream to expect them to apply the approaches in their teaching. Since teachers are the cornerstone in the implementation of any educational innovation, the implementation of competence based curriculum in Tanzanian schools is essentially dependent upon the teachers' knowledge and skills on what the competence based curriculum entailed. Effective implementation of competence based curriculum in terms of teaching-learning resources, instructional strategies and assessment can give a good road map for achieving and maintaining quality education by raising knowledge competences.

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