

Implementation of Competence Based Curriculum in Tanzania: Perceptions, Challenges and Prospects. A Case of Secondary School Teachers in Arusha Region

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Abstract

This study investigated secondary school teachers' perception on the implementation of competence-based curriculum (CBC). The mixed approach study employed cross-sectional survey research and case study design involved 233 teachers who were selected randomly, 10 head of schools and five district educational officers who were selected purposively. The data were collected through questionnaires and interview schedules. The quantitative data were analysed using SPSS 21 and thematic content analysis was used to analyse qualitative data. The study revealed that teachers had positive perception on the shift from content-based to competence based curriculum with a mean of 4. However, majority of the teachers indicated a less capacity to implement competence-based curriculum as more than 70% didn't attend in-services training. More than 60% of teachers cannot prepare teaching and learning activities as required by the competence-based curriculum; also, teachers claimed that large class size and inadequate resources like books and laboratory equipment lowers the capacity to implement competence-based curriculum. The study recommends that regular training for in-service teachers should be conducted to up-to-date teaching and learning of skills, knowledge attitude and values required to implement CBC.

Keywords: Secondary school teacher. Perception. Competence-based curriculum.

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Introduction

The Tanzanian government commitment to education as an integral part of its social and economic development started shortly after independence. The competence-based curriculum (CBC) has emerged as a prominent approach in Tanzania since 2005. The approach is intended to prepare students with inquiry minds who have the creative and employability skills and can perform different responsibilities. The CBC provides a framework through which the evolving ideas about teaching, learning, and assessment can be unified. CBC follows the constructivism theory which is a general term for a discovery-oriented approach to teaching and learning.

The constructivist learning theory is related to this idea of a competence-based curriculum Works of Dewey, Montessori, among others provide the historical models of constructivist learning theory where competence-based learning falls under (Hoy & Miskel, 1987). Constructivists believe that to learn, students should be given basic skills, and problems to solve. If students are not given or exposed to these activities inside and outside of the classroom it is difficult for them to develop competencies as advocated by the constructivists.

However, studies show that teachers in various secondary schools in Tanzania do not use learner-centred approach, It means that students do not perform activities such as laboratory practical or experiments that are the basis of knowledge and skills to be used to solve problems in their everyday life (Tilya & Mafumiko, 2010). Likewise, (William, 2008) has revealed the dominant situation of learning in Tanzanian secondary schools and has noted that students are not given such activities that build skills, attitude, knowledge, competencies and confidence among them. In this regard, students become less successful to compete in the labour market and self-employment. Despite the role of the constructivist approach, the learning environment in secondary schools in Tanzania does not encourage the discovery and innovation of ideas and the construction of new knowledge in the course of learning, students have usually been filled with theories and abstract concepts (Shemwelekwa, 2008).

In Tanzania, the history of CBC can be traced back to 1967 when the philosophy of Education for Self-Reliance (ESR) was initiated (Tanzania(URT), 2003). The general purposes of ESR among others were; to preparing learners to actively and creatively participate in the current development concerns of Tanzania, and preparing learners to cope with the problems in the foreseeable future of Tanzania on the basis of self-reliance.

This suggest that the philosophy of education emphasized the need for a curriculum reform to integrate theory with the acquisition of practical life skills and promoting the development of competencies.

The revised curriculum which shifted from content-based to competence-based, emphasized merging of theory and practice. It opens rooms for the learner to build skills and competencies in subjects they learn. Teachers are the facilitators in the CBC. The competence-based teaching and learning provide an opportunity for learners to carry out investigations, to test their ideas and construct their knowledge and meaning as well as making inquiries as growing social scientists. Innovation has not been seriously used as a teaching strategy by teachers in secondary schools in Tanzania (Tilya & Mafumiko, 2010). Teaching practices adopted through the curriculum of 2005 necessitate that learners participate in classroom activities, become more involved in the learning process and take responsibility for their learning. Both teachers and learners are required to focus on predetermined outcomes that should be achieved during or at the end of each learning process. However, studies show that most teachers in Tanzania do not possess enough skills to implement classroom activities as stated in the curriculum of secondary education since they still use the traditional teacher-centered approach (Kahwa, 2009).

The current secondary school curriculum of 2005 intends to promote the students' ability to successfully perform activities in society by applying what they have learned (Darling-Hammond et al., 2013). (William, 2008) has noted that currently, there are few situations in which students are assigned to perform activities using locally available materials. However, the situation shows that students are not able to practice and apply what they have been learning to solve problems in society. Even though teachers are the primary implementers of the curriculum, studies have consistently shown a poor implementation of the competence-based curriculum in Tanzania (Alphonse, 2008; Paulo & Tilya, 2014). Few studies in Tanzania have been done to examine secondary school teachers' perception and their capacity to implement a competence-based curriculum. This study, therefore, sought to "*examine secondary school teachers' perception and capacity to implement a competence-based curriculum in Tanzania.*" Therefore, this study will address this problem in these two research questions:

- i. *What are the teacher's perception about the competence-based curriculum?*
- ii. *What are the teacher's capacity to implement competence-based curriculum.*

LITERATURE REVIEW.

Countries worldwide have been challenged by the continually changing science and technology and global market demand that leads to introduction of competence-based curriculum in education. Competence-based curriculum systems are now standard in the developed countries as well as in the developing countries (Maodzwa–Taruvinga & Cross, 2012; Paulo & Tilya, 2014). The emphasis on competence-based curriculum emerges from the increasing awareness of the need for direct competence development and not just the acquisition of knowledge as the only skills as a prerequisite for employability and a connection between learning and the labour market (Mulder, Weigel, & Collins, 2007). The system of competence based curriculum has been implemented differently across regions and in each country. Due to some specific factors, implementation, success and challenges of CBC across the world has been reported differently.

European Union in 2006 for example developed a framework for key lifelong learning skills which have eight competencies which member state must adopt to their education system. The developed eight key competences of the European Union framework are as follows: (1) mother-tongue communication; (2) foreign language communication; (3) mathematical skills; (4) virtual skills; (5) learning; (6) social skills and civic skills; (7) entrepreneurship; and (8) cultural expression. One of the main aims of these key skills is to ensure that initial education and training programs provide the foundation for further learning and working life for children and young adults (Pepper, 2011).

In Africa, competence based curriculum was firstly introduced in South Africa in 1998 as a means to combat shortage of experts in different fields. South Africa introduced the competence-based curriculum to change the perceptions of all South Africans and empower them with employable skills of the 21st century to cope with difficult issues (Achtenhagen & Grubb, 2001);(Nijhof, 2005).

The Ministry of Education Science and Technology of Tanzania (1995) has made many improvements in the education system. Still, the significant ones include 2005 reforms in the primary, secondary and teacher education curricula designed to meet national needs. The then national needs were the eradication of three enemies, namely poverty, diseases and ignorance (Mbelle & Kataro, 2003). Tanzania remains one of the developing economies in the world, so a special program is undoubtedly needed to equip learners with life skills (Pauw & Thurlow, 2011). Different studies have been conducted to investigate implementation success and challenges of competence based curriculum, among them are as follow. A study on introduction of English language competence based curriculum in Australia which was conducted among teachers, employed an online survey to determine the extent of curriculum implementation in their schools. Findings of the study indicated that teachers are more concerned with teaching methods than with content, be involved in curriculum development process and attend in regular training for proper implementation of any new introduced curriculum (Albright,

Knezevic, & Farrell, 2013). Another study on curriculum reform in China mainland between 2001 and 2008 found that although teachers were very autonomous in the classroom, they have trouble in implementing the new curriculum because they were not involved in the development process.

On other hand, the study by King (2013) shows that teachers are not well prepared for the implementation of competence-based curriculum from the universities. (Kavindi, 2014) in his study in teachers college, found that poor infrastructure and lack of enough tutor are some of the stumbling blocks toward the implementation of the competence-based curriculum. Also, Komba and Nkumbi(2008) observed that heads of schools and educational officers wishes their teachers to attend in-service training and professional development training in order to improve their competencies but lack of funds to finance such programmes remains as an obstacle. Moreover, Mwaimu (2015) uncovered that among the bottlenecks to effective implementation of competence-based curriculum is lack of clarity of policy since the policy does not state what the qualification of competent teachers is. The current criteria used to employ teachers are the academic qualifications only which are in their certificates, and they do not measure other skills.

Most of the reviewed studies on CBC have focused on accessing the actual implementation of CBC in schools. Some studies have specifically delved into specific subjects while other studies have employed simple surveys which include one category of respondents. Few of these studies have examined the preparedness of educational stakeholders in implementing the CBC in schools. However, several studies have examined the preparedness of schools in terms of facilities, leadership roles and in teaching and learning resources. None of these studies seem to examine the mind-set preparedness in implementing CBC. Gourneau (2005) notes that, effective attitudes by students affect positively lives of students and ultimately affects positively their educational lives. In this regard, the current study focused on examining teachers and school administration's capacity in implementing competence based curriculum in secondary schools in Arusha region.

METHODOLOGY

Research Approach

This study employed mixed research approach whereby both quantitative and qualitative approaches were used. The use of mixed approach in social science studies is very useful and important as it provides a better understanding of research problems that lead to better results in the course of solving the research problem more accurately (Hanson, Creswell, Clark, Petska, & Creswell, 2005).

RESEARCH DESIGN

This study used a case study and survey research designs which focused on applying mixed methods (quantitative and qualitative) to examine teachers perception and capacity to implement CBC in secondary schools in Tanzania. According to (Yin, 2012), a person can understand concepts more clearly than theories by case study as it presents extraordinary cases of respondents in real circumstances. The use of a survey research design enabled the researcher to reach large number of respondents in a short time.

AREA OF STUDY.

The study was conducted in northern Zone of Tanzania, Arusha region. Thus, the researcher intended to know the teacher's perception about competence-based curriculum and their capacity to implement it. However, schools selected from this region has different teachers trained from different universities, so it could give deep understanding on how they were prepared from teachers' college and universities .

SAMPLE SIZE.

Research sample can be defined as a subset of the population or a set of elements selected from a population (Bush, 2007). This study comprises the sample of 248 respondents; 10 heads of schools from 40 selected schools, 250 teachers from 40 different schools, and 5 District educational officers in the Arusha region. Meanwhile, gender and working experience were considered while selecting sample size in each category as shown in the Table No 1.

Category	Type of sampling	Sample
Heads of schools	Purposive sampling	10
Teachers	Simple random sampling	233
Senior educational officers	Purposive sampling	5
TOTAL		248

Data Collection Methods

As stated earlier, this study used a case study design to explore teachers' perception and implementation capacity of competence based curriculum in secondary schools. The use of different methods in this study added value in collecting the relevant data for this study. Hence, various methods was used for gathering information as

revealed by (Yin, 2012) that, a good case study benefits from having multiple sources of evidence. On the other hand, Yin also said in case study research, the main purpose of collecting data is to generate lines of evidence to make the findings strong. This research therefore used semi-structured interviews (key informant interviews) to obtain qualitative data and questionnaires for quantitative data collection.

FINDINGS AND DISCUSSION

From the data collected and analysed, there were several themes appeared to answer the two main objectives of this study: teachers' perceptions on the CBC and their capacity to implement CBC. The themes gathered from questionnaires and interview are presented and discussed below.

Teachers' perception about competence based curriculum

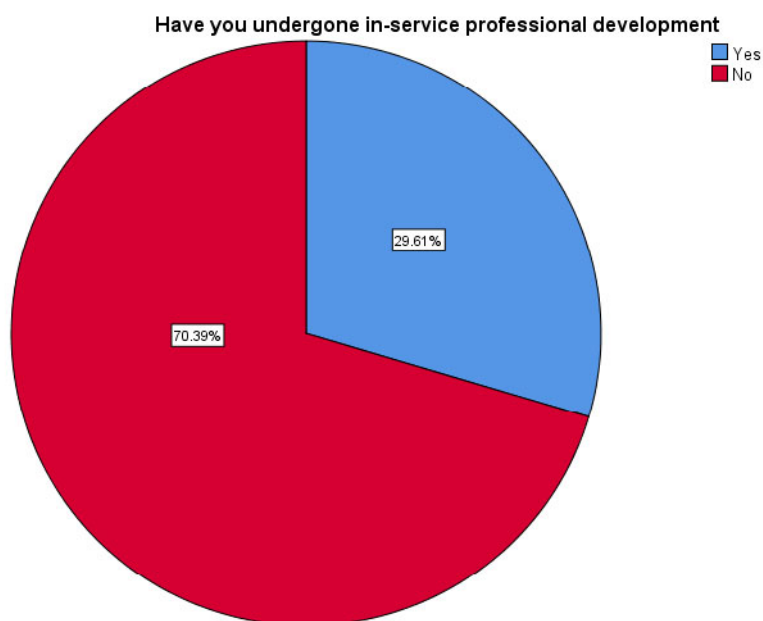
The study examined the level of teacher's belief about the CBC in relation to the implementation. The 5 likert scale was used to investigate their response on CBC belief. See table 2 below.

Table 2: Beliefs about the theoretical model (n=233)

Teachers perception					
	N	Minimum	Maximum	Mean	Std. Deviation
There was a need for a paradigm shift to CBC	233	1	5	4.11	1.081
The CBC has the potential to improve on the previous approach to education	233	1	5	4.06	1.099
The CBC model provides a realistic approach that can be implemented in the secondary education	233	1	5	4.19	.970
The competence-based curriculum improves the previous curriculum approach	233	1	5	4.14	1.075
The workload in implementation of the competence-based curriculum is in line with the benefits gained	232	1	5	4.13	1.165
Valid N (list wise)	232				

The finding from Table 2 shows that it is evident that most teachers show good perception about competence-based curriculum as the mean is above 4. It implies that most teachers agree to shift from content based to competence-based curriculum. Although standard deviation is slightly high above 1, it means that there are teachers who still think that shifting to competence-based curriculum was not of very important.

There are a number of teachers who still don't see the benefit of shifting to competence-based curriculum because more than 70% of teachers did not attend any in-service professional development courses or programs as shown in figure 1 below



The Extent to which secondary school teachers implement CBC

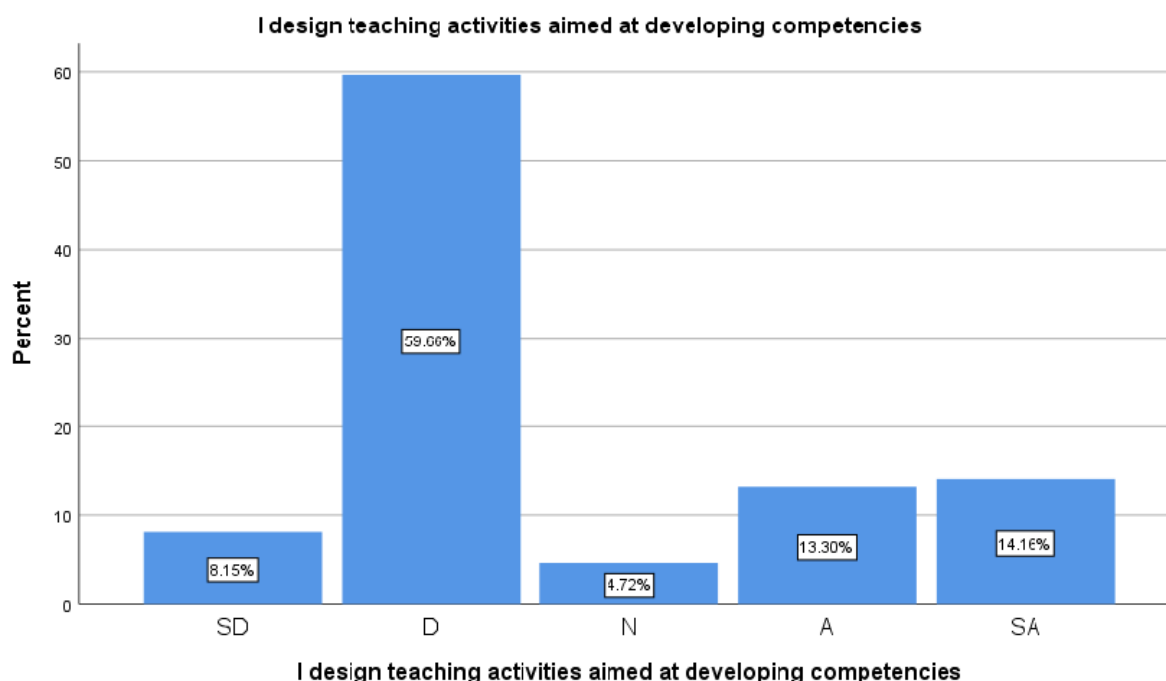
Table3: Extent to which secondary school teachers implement CBC (n=233)

	N	Mean	Std. Deviation
My lesson plan follows the competence based curriculum	233	3.82	.969
My lesson preparation follows the competence-based curriculum.	233	3.73	1.152
I design teaching activities aimed at developing the key competencies	233	2.66	1.229
The teaching methods that I use are consistent with the competence-based curriculum	233	2.49	1.218
I evaluate my students' achievement of competences when assessing their learning	233	4.02	.996
Many secondary school teachers still use teacher-centered methods	233	3.95	.999
I find it difficult using learner-centered methods	233	3.85	1.089
I prefer to use the usual talk and chalk or conventional method of teaching	233	3.89	1.065
I always involve learners in elaborating weekly plans, according to their interests and needs	233	2.04	1.398
My role as a teacher is to transmit knowledge, children have to follow and taking notes	233	3.96	.946
The big class size does not allow me to implement Competence- Based Curriculum	233	3.78	1.134
Using learner-centered methods in teaching scares me	233	3.81	1.142
We have enough materials for implementing Learner-Centered Methods	233	2.57	1.244
I am overloaded, I cannot prepare Competence-Based Lesson Plan	233	2.23	1.248
Valid N (listwise)	233		

Source: Field data (2020);

Results in Table 3 are presented in means and standard deviation, The finding which were aimed at finding out the teachers capacity to implement Competence based curriculum in classroom are as follow; Teachers ability to prepare lesson plan which follows competence based curriculum guideline has a mean of 3.82 which means majority of teachers agrees that they can have capacity to prepare lesson plan which follow competence based guidelines. Teachers ability to prepare lesson plan which follow competence based curriculum guideline also was high with a mean of 3.73 which implies mostly agree although the standard deviation is slightly high which is 1.2 implying that there a small number of teachers who can't prepare lesson plan which follow competence based curriculum guidelines.

Teacher's capacity to develop activities which leads to development of competences is very low with a mean of 2.7 which means mostly declare that they don't have that ability to develop activities which leads to development of student competencies as illustrated in graph 1 below



Graph 1. Teacher's capacity to design activities aimed at developing competencies

The results also shows that teachers capacity to use teaching methods that are in line with competence based curriculum to be low as most teacher disagree to use methods that are in in line with CBC with a mean of 2.49. The results about teachers using teacher centred method the mean is 3.9 and difficult using learner centred mean is 3.8 so most teachers agree that they can't use learner centred method in the classroom.

From the analysed data teacher's use of teacher centred can be justified by the finding which shows that lack of enough teaching and learning material with a mean of 2.6 which means majority of teachers disagree that there are enough teaching and learning materials to help them implement competence based curriculum.

The quantitative results shows that teachers perception on paradigm shift to be positive but on their capacity to implement Competence based curriculum there is a challenge as a significant number of teachers cannot prepare teaching and learning activities as required in the competence based curriculum guidelines, also teachers claims large class size and unavailability of resources like books and laboratory equipment lowers the capacity to implement competence based curriculum and also teachers are overloaded with classes this affect their lesson plan preparation which align with competence based curriculum, but also there are a small number of teachers who still believe and follow traditional teaching method as study found out that.

Qualitative findings for the research question

In assessing the extent to which teachers implement CBC, heads of schools were interviewed, and responded basing on their knowledge, teachers' capacity in implementing CB-curriculum, and the teacher's experience impact on the curriculum implementation and the school environment. Three heads of school from school A, B and C highlighted that;

".....Our teachers are very well trained and have experience in teaching for many years. We always consider well knowledgeable teachers since the purpose of education is to shape learners' behaviour and enable them to use it, so we have to consider trainees who are competent professionally basing on the curriculum of Tanzania and our school insist much following guidelines of competence based curriculum in teaching and all learning activities like experiments, the way of discussion, assignment and so many other associated activities" (Interview, 14th March, 2020).

Other three HoS, provided more detailed information that indicated they are aware of the competency of their teachers, their roles and impact to the students. In summary way, they underscored that:

".....We normally consider the curriculum guide to enrol the teachers who will meet the demand because education offered by school should shape those students and enable them to use it in real life situation as an independent and responsible citizen in the society" (Interview, 14th March, 2020).

Furthermore, the study noted many suggestions from heads of schools. Majority of heads of schools seemed to be aware with the modality of curriculum as they showed positive attitude that teachers know the concept of CBC. Heads of schools asserted that all schools should work to the best interest of the students entrusted to them. More interesting heads of schools reported that teachers competent but they lack in-service training to get more update about the paradigm shift. More information was provided from two HoS and in summary they their idea were paraphrased as follows:

"..... Schools must provide learning experiences that prepare learners for future life. Its usefulness depends very much on how it brings in students' experiences through active involvement during the learning process however shortage of classroom lead to large number of students in one class which is difficult for a teacher to use Lerner centred approach" (Interview, 14th March, 2020).

Other two heads of schools argued that, teachers are competent. They highlighted that:

"We assure the teachers are well equipped with competence based curriculum knowledge due to the fact that education should provide the skills that will last for the students in their whole life. Education should prepare learners who are competent in the world of work for economic independence, constructive life, responsible communities and rapidly changing society. Also, education should provide high standards of academic qualifications, creativity, assertiveness, good communication skills, decision making, choice making, empathy, adaptability, leadership, and social skills that are emphasized by employees in an ever-changing technological global society. But in our schools teachers lack resources like books, laboratory equipment's and also overload class periods because of few teachers especially in science subjects, this lowers the teachers capacity to implement CBC" (Interview, 14th March, 2020).

Further, two heads of schools from different schools responded by

".....A curriculum should consider learner centred approach because it is crucial for the constructive, progressive and reflective skills for the students, it equip them with knowledge, values and literate competencies that students need when they graduate from school so that they become consciously active participants as adults in their societies, but only when teachers have enough skills on implementing competence based curriculum" (Interview 14 Murch 2020).

The District education officer was involved in the study in order to examine their awareness of whether or not teachers working in secondary school are exactly aware of the curriculum that guide them to

work in efficient way for the benefit of students and the nation at large. From the general interview guide question, three of them suggested similar ideas by highlighting that:

".... The issue of curriculum and the knowledge of teachers is important because all forms of education and aspect provides attitudes, knowledge and skills to the students that will become the member of the society and they become able to take part in social, economic and political life for all days of their life. It is through education that students are helped to learn on how to cope with the current challenges. Teachers lack in-service training to update themselves with changing issues in CBC so that they can implement it well, and this is due to lack of funds for training from stake holders and government" (Interview, 15th March, 2020)

Another District education officer, reported that teachers abide to it and teach student based on the competence based curriculum. However, it was noted that not always do teachers adhere to the curriculum as there are some challenges which they encounter and some tend to deviate and use traditional teaching.

Two District education officers added different information by emphasizing that:

"..... We know that teachers know exactly that curriculum reform is important in educational advancement, and we are aware that emphasizing memorization or the application of simple procedures will not advance learners' critical thinking skills. Teachers have to follow exactly the competence based curriculum guideline by developing higher-order thinking skills needed for students and other individual for future so that they can engage in meaningful enquiry learning that has genuine value and relevance for them personally and their communities" (Interview, 15th March, 2020).

Additionally, District education officers responded as if there are challenges encountered during competence based curriculum implementation. The two senior education officers responded on teachers' knowledge regarding curriculum implementation by reporting on what they think might be taking place by stating that:

"..... The issue of curriculum has a lot of things behind its implementation. It does not only involve teachers. But we are not sure exactly that everything is taking place accordingly. For the view of developing the education, teachers must promote learners' creativity through curriculum as part of the constructive and progressive learning. Students must be active learners rather than viewers. They must view themselves as participants in producing knowledge and new ideas by guidance from teachers" (Interview, 15th March, 2020).

Conclusion and recommendation.

Although from 2005, Tanzania started to implement the competence based curriculum in secondary schools, the findings of this study have revealed that the majority of teachers show positive attitude of paradigm shift from content based curriculum to competence based curriculum. However there is a small number of teacher who though changing the curriculum to competence based was not necessary. The study also shows that teachers who believe the importance for paradigm shift, their implementation of curriculum is better than those who believe it not important. The study from selected schools show that teachers are not effectively implementing competence-based curriculum as required by the guidelines. It is because teachers are not capable of developing activities which are in line with competence-based curriculum. Also large class size, shortage of subject teachers and lack of in-service training to equip secondary school teachers with updated knowledge, skills and attitude required for implementing competence based curriculum was also a factor to impede secondary school teacher in implementing CBC. Teachers are the important in the implementation of competence based curriculum in Tanzanian schools, it is essentially dependent upon the teachers' knowledge, attitude and skills on what the competence based curriculum entailed. In this regard, the following recommendations are made: first, the Ministry of Education, Science and Technology needs to prepare and conduct various training programmes in order to provide teachers with necessary skills for the implementation of competence-based curriculum in secondary schools.

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