

The Role of Higher Learning Institutions Towards Implementation of Competence-Based Education in Tanzania

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Abstract

This study explored the role of higher-learning institutions in implementing competence-based education in Tanzania. Three objectives were involved: to assess the awareness and status of competence-based education among teachers, to investigate on the approach used in implementing competence-based education and to establish the role of universities in implementing competence-based education. The study was qualitative and involved interviews, observation and documentary review as data collection tools. Results indicate that some teachers need to be aware of competence-based education; most teachers employ traditional approaches, including teaching methods, strategies and assessments, rather than competence-based education. Moreover, other teachers are aware of and interested in competence-based education but have yet to receive the necessary training for implementation. As far as the roles of higher learning institutions are concerned, it was revealed in the study that universities follow the Tanzania Commission for University Guidelines. Although the guidelines are direct on competence-based education standards, universities are not implementing them accordingly. Again, only a few teachers have been trained in developing and implementing competence-based education. The study suggests training in competence education for university teachers and other teachers from all education levels.

Key Words: Competence-Based Education, TCU, Higher Learning Institutions

Background to the Study

Higher education institutions are moving toward adopting competence-based education (CBE) curricular to improve the quality and employability of graduates. This approach originated from teacher education curriculum reform in the United States of America (USA) in the late 1960s. Countries such as the United Kingdom (UK), Germany, Netherlands and Australia have implemented competence-based education approaches. However, how the approach has been adopted differs from one country to another depending on the respective country's historical, social, economic and technological advancement (Rutayuga, 2012). Competence-Based Education was successful in European countries and its highly competent graduates motivated other countries to adopt it.

CBE in Africa

Competence-Based Education (CBE) was first introduced in South Africa in 1998 to solve the problem of a shortage of experts in different fields. Also, 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 complex issues (Nijhof, 2005). Some other countries like Kenya, Tanzania and other West African countries adopted the CBE curriculum from South Africa.

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Studies from some African societies reveal that teachers have a positive attitude toward competence-based education but need to be better trained in CBE. Amutabi (2019), for example, conducted a study titled "*Competence-Based Curriculum and the end of an Era in Kenya's Education Sector and Implications for Development: Some Empirical Reflections.*" From the study, it is reported that after the introduction of CBE to stakeholders, there were conflicts between the government, parents, and Kenya National Examination Council. Parents started to engage in examination cheating, taking their children to academy schools, and registering children in Kenya Certificate of Primary Education exams. There were cases where the Kenya National Examination Council reported that over 10,000 candidates 'missed' exams when the truth was that those candidates made double registration in academies and rural public schools.

Again, Ogegbo, Adewusi and Abimbola (2020) conducted a study in three West African countries. The study explored teachers' knowledge and integration of competence-based practices in schools using an online survey research design. The findings revealed that teachers across the three countries had a positive perception of using competence-based approaches but lacked professional training and support, which enhanced the quality of their teaching and assessment.

Similarly, Cheptoo (2019) conducted a study on "*The Africanized Competence Based Curriculum: The Twenty-First Century Strides from several African countries*". The paper assessed the adoption of CBE in different African countries, the description of paradigm shifts to CBE and factors that call for the need to Africanize CBE. It was found that many countries in Africa that have adopted CBE are getting solutions to the local needs of the developed countries and have shown instrumental progress in contributing to the standards of their graduates.

CBE in Tanzanian Context

The CBE approach was introduced in Tanzania in 2000. It started as a move towards improving education because the education system was producing graduates who were not employable and had inadequate competencies to undertake work activities after the school cycle. The teacher-centered curriculum did not specify competencies to be attained by students at the end of the course (Lukindo, 2016). In the year 2002, CBE started to be implemented in technical colleges. At present, the approach is used in the Technical and Vocational Education and Training (TVET) sector, particularly in Vocational Education and Training (VET) centers and Technical Education and Training (TET) colleges (Kanyonga, Mtana & Wendt, 2019). Moreover, a revised English Language Syllabus for Primary schools was introduced for use in Tanzania in 2005. This syllabus emphasized using the Competence-Based Teaching and Learning (CBTL) approach. Competence-Based Teaching and Learning emphasizes promoting links at schools and using varied and relevant contexts to make the learning valuable and relevant. The aim is for students to develop intellectual, linguistic and problem-solving capacities, enabling them to tackle everyday challenging situations (Lukindo, 2016). Generally, the CBE curriculum supports the Tanzania National Development Vision 2025, which seeks to mobilize people so that they:

Attain self-reliance, a nation whose people have a positive mindset, cultivate a community spirit and be a nation with a high-quality education at all levels. A nation which produces the quantity and quality of educated people sufficiently equipped with the requisite knowledge to solve the society's problems, meet development challenges and attain competitiveness at regional and global levels (URT, 1999).

Literature and Theoretical Review

CBE has been adopted from several modern learning theories including behaviourists, functionalist, constructivist, cognitive theorists, as well as humanistic learning theories, however the theories that guided the study are the Behaviourism theories which are based on observable changes in individual behaviour. Behaviourists assumes that overt behaviours need to be repeated until they are internalized. The learner is expected to focus on a clear goal and can respond automatically to that goal (Araiba, 2019).

Again, Keller (1968) a behavioral theorist focus on instructional delivery that allow for mastery and self-paced learning. Keller's instructional design using learning modules involves breaking down learning objectives into specific activities that a student performs in order to gain knowledge of the material and demonstrate their learning. Thus, according to behaviourists a competence is treated as something a person should be able to do. It is a description of action, behaviour or outcome capable of demonstration and assessment.

Given the main theme of this study, it is expected that all levels of education should aim at behavioral changes from the graduating students. The role of teachers involves selection of methods and strategies that brings real skills and competences to the classroom by proper interpretation of curriculum for the benefit of students. In higher learning the lectures as guided by TCU are expected to set action based learning outcomes, while the ministry of education has the role for training teachers on the new paradigm at all levels.

Kouwenhoven (2013) reveals that CBE gives autonomy to teachers to assess an individual learner's mastery based on the learned competences and only once the student has demonstrated mastery of the learned competence, he/she can move on to other competences. This assessment ensures students retention and discourages the concept of students' failure. Moreover, through competence based approach learners are assessed on addresses what they are able to do rather than what they are expected to learn.

According to Jallow (2011) during teaching and learning process, competence based approach is considered as a tool of essential delivery of knowledge, skills and attitude required by an individual learner for effective performance in a course of study. The approach differs from other related teaching-learning approaches such as content based approach and process based approach because of its practice and assessment.

Statement of the Problem

Like many other African Countries Tanzanian government has done many efforts to enhance student's competence since 2005. However, in 2014 it was noted that after graduation, a number of primary school pupils could not read, write, and count effectively (Uwezo, 2014). According to Uwezo (2014), 20% of 42,033 standard VII pupils could not read comprehensively. Approximately, 900 class seven pupils in Kagera Region could not read a standard two-story. Moreover, Haki Elimu (2012) and UNESCO (2014a) reveal that some primary school graduates who entered ordinary-level secondary school education did not possess the required reading and writing skills also, illiteracy rate among primary school graduates, for example in Shinyanga region over 10,000 primary school could not read or write.

Although the reviewed curriculum (competence-based curriculum) focused on its breadth, relevance, and responsiveness to quality education and was expected to develop graduates with essential skills and competencies, the results were not promising (Kavindi, 2014;

Rodriguez & Mbiti, 2022). Recently, a study done by Shukia and Marobo (2022) reveals that there is some evidence that children join primary schools unprepared, resulting in high rates of underachievement, repetition, and dropout, especially the marginalized ones. This was also revealed by Adamson and Norman (2013) who reported that, the massive poor performance of form four students was due to the poor products of pupils joining secondary schools. Given the situation, this study explored the awareness, status and implementation of competence-based education in Tanzania, particularly Mpwapwa district, and assessed the role of Universities in implementing CBE and enhancing quality education.

Objectives

The study assessed the role of higher learning institutions towards implementation of Competence Based Education in Tanzania. The following specific objectives guided the study

1. To assess the awareness and status of competence-based education among teachers in Tanzania,
2. To investigate on the approach used in the implementation of competence-based education in Tanzania, and
3. To establish the role of universities in the implementation of competence-based education for quality purposes.

Methodology

The qualitative study was done in Mpwapwa District, Dodoma where interviews, documentary review and participant observations were used as methods for data collection. 60 participants were involved in the study; 50 were classroom teachers and 10 were head-teachers. Interview was applied to Mpwapwa District school heads while participant observation method was done to classroom teachers.

Table 1 shows the number of classroom teachers and school head teachers involved in this study. Teachers were selected purposively based on experience while school head teachers were randomly selected.

Table 1: Study Participants- Classroom Teachers

Experience (Years)	Female Teachers	Male Teachers	Total
5-10	5	8	13
11-15	6	7	13
16-20	8	4	12
21-25	-	1	1
26-30	6	4	10
31-35	1	-	1
Total	26	24	50

Source: Field Data (2021)

Findings and Discussion

Status and Awareness of CBE among Teachers

The researcher employed participant observations and interviews. The observation showed that most teachers employed questions and answers, lectures, and group discussions as teaching methods. Most teachers prepared three to four questions which pupils were asked orally at the beginning and the end of the lesson. However, most questions were not competence-based because they did not promote critical thinking among students. For example, most teachers asked learners, *"What did we learn yesterday or in the previous session?"* (Classroom Teacher 1, Mpwapwa District).

Through interviews, classroom teachers were asked whether they prepared competence-based objectives and employed competence-based teaching and learning methods. The findings showed that the majority of classroom teachers mentioned several competence-based methods. For example, some of the teachers explained the following concerning competence-based teaching and learning methods:

"I know many competence-based teaching and learning methods such as Brainstorming, jigsaw, role-play, dramatization, demonstration, think-pair-share, Gallery-walk as competence-based teaching and learning methods. I have also seen competences in the syllabus but I don't know how to prepare them"(Classroom Teacher 2, Mpwapwa District).

Another classroom teacher interviewed said the following about methods used in teaching:

"I mainly use questions and group discussions with the expectation that group discussions develop pupils' collaborative and communicative skills." (Classroom Teacher 3, Mpwapwa District).

Moreover, another teacher who was teaching standard IV responded that

"You know! questions and answers and lecture methods simplify the teaching process, especially in overcrowded classrooms. This class has 120 pupils; therefore, it is difficult to use other competence-based methods such as jigsaw and the like." (Classroom Teacher 4, Mpwapwa District).

These findings imply that most teachers know competence-based teaching and learning methods; however, learning environments like overcrowded classrooms limit them from applying CBE. Similar results were found by UNESCO (2014b), which argues that the teacher-student ratio should be considered for the effective use of CBE.

Preparation and Use of Competence-Based Instructional Materials

School heads were interviewed on the above title. It was found that the government of Tanzania provided instructional materials, mainly pupils' textbooks and teachers' guides. According to most of the interviewed school heads, syllabus, schemes of work, and lesson plans are competence-based. One of the school heads said:

"Instructional materials, particularly pupils' textbooks, teacher's guide, students guide and syllabus are prepared and distributed to schools by the Ministry of Education through Tanzania Institute of Education (TIE). So, most of them are competence-based. The schemes of work and lesson plans are competence-based, but because teachers are not trained, we are not sure whether such instructional materials are of the standard needed or not" (School head 1, Mpwapwa District).

Moreover, teachers who were observed while teaching standard VI narrated the following concerning the preparation, use, and influence of competence-based instructional materials on pupils' learning:

"Simple Teaching-Aids, which are often used to facilitate the teaching and learning process, are prepared by teachers. We use our home and school surroundings to improvise simple Teaching-Aids. Sometimes, we involve our pupils to prepare simple Teaching-Aids like moulded toys, drawn pictures and diagrams, and weaved materials." (Subject Teacher 1, Mpwapwa District).

Additionally, participant observations found that most classrooms lacked teaching aids such as pictures, charts, drawings and the like. This contradicts literature that discusses the significance of teaching aids. Weddel (2006), for example, portrays the importance of teaching aids as they enable pupils to learn better. One teacher was asked about the situation and claimed they used to put the materials on the classroom walls, but people destroyed them since they lacked windows and door shutters. However, teachers could be more creative by preparing movable teaching aids that can be stored in the office or at home.

Teachers' Awareness and Use of Competence-Based Assessment Methods

During classroom observations, it was found that pupils were asked simple questions to revise the past lessons. The questions were not asked to individual students; instead, it was like a chorus. Most exercises are given to students at the end of the lesson, comprising three to four questions. However, pupils answering questions in chorus contradicts the literature that wants pupils to be assessed as individual learners. Again through classroom observations, the study found that pupils were traditionally assessed. Most teachers used traditional assessment methods, such as asking simple questions to revise past lessons. The situation of pupils answering questions as a group rather than individually contradicts the literature that insists pupils be assessed individually.

Moreover, one teacher had the following statement as a response to why they ask chorus questions;

"I teach a class which has more than a hundred pupils. The only possible way of assessing them is to ask a few questions and let them answer the questions in chorus. This helps me to move on and cover the syllabus." (Subject Teacher 2, Mpwapwa District).

It was further revealed that students are usually assessed through Ward examinations, District, Regional, and national examinations, especially for standards IV and VII;

"Our pupils are assessed at the school level through tests at the end of the term or year. Standard IV and VII are further assessed through Ward examinations, District, and Regional examinations commonly known as Mock Examinations. At the end of the program, standards IV and VII are assessed by the National Examinations Council of Tanzania (NECTA)." (School head 2, Mpwapwa District).

Teachers insisted that such examinations were used to prepare and develop pupils' experiences and confidence towards final examinations.

The Role of Universities in the Implementation of CBE

This objective aims at assessing the situation in Tanzanian Universities as far as CBE is concerned. The study applied a documentary review to obtain information about implementation of CBE in universities, results shows that, universities follow the Tanzania Commission for Universities (TCU) Guidelines which insist a change in terms of objective statements and intended learning outcomes. University teachers have to use competence based learning outcomes in the preparation of course programs/curriculum. For example, the TCU guidelines (2019) state that:

It is important that the Standards and Guidelines for university education in Tanzania assist universities in embracing a paradigm shift, in terms of the orientation of their academic programmes, from articulating the specific learning aims and objectives that students are expected to realize at the end of a given course module or programme, to focusing on learning outcomes that students are expected to achieve at the end of the course module or programme (TCU, 2019 pp75).

Effectively organizing educational objectives into competence based learning outcomes and applying competence based methods and strategies for teaching and learning so that universities can effectively implement CBE is another issue. This needs a shift from the traditional lecturing method, which was one-directional and teacher-centered, to more participatory methods. Again, it was found that, the guidelines reveal the methods to be employed by universities. For example, the statement quoted from the guidelines read that:

...this also requires universities to shift from the current pedagogical outlook, where education delivery modes focus more on what lecturers and professors believe graduates need to know, rather than on what students have to know and be able to do in varying and complex situations upon graduating. Thus, this paradigm shift would entail universities shifting from teacher-centered to student-centered pedagogical approaches." (TCU, 2019, pp75).

Most of the programs prepared by universities are competence-based and indicate learning outcomes as insisted by TCU standards (TCU, 2019). As far as Universities are concerned, although the guidelines have been provided by Tanzania Commission for Universities (TCU) and are typically used in developing programs and courses which support CBE, very few teachers have been trained on the CBE approach.

Literature shows that there are various approaches for developing CBE; generally, the development of Competence-based programs should involve a partnership between employers and educators in identifying the competencies required, especially in higher learning education. Skills such as communication, the ability to learn independently, ethics, responsibility, critical thinking, problem-solving, creativity, originality, strategizing, and others must be considered by universities when preparing programs (TCU, 2019; Ogebo *et al.*, 2020). Moreover, during course program development, teachers must consider the methodological and evaluation competence strategies that can be used. There are several ways of designing "active learning" including learning through play, technology-based learning, activity-based learning, group work, project method, project-based learning (PBL), Problem Solving Learning, Game Based Learning and Flipped Classroom. Besides, universities must apply competence-based assessments to students to assess if they have acquired the pre-planned competencies. A report from the EPICA project that was conducted at The Open University of Tanzania shows how Educational Psychology competencies can be evaluated using specific strategies and learning outcomes. the type of competence-based

assessment illustrated in table 2 is done after analysis of the objectives and methods of teaching to extract only competence-based ones. The method used is very crucial so as to get enough evidence on the quality and quantity of competences gained by the learner.

Table 2: Competence Based Evaluation in Educational Psychology

	COMPETENCES	EVALUATION STRATEGIES	JUSTIFICATION FOR EVALUATIONS
1	Ability to Identify Different Learning Styles and their Application In Classroom	Written. Assignment/tests	-Each criterion/ item will be evaluated separately - it is good for formative evaluation
2	Ability to Conduct, Interpret and Analyse Educational Research	-Written. Assignment, tests -Direct observation on the preparation and the teaching process in classroom -written report -presentations	Each criterion/ item will be evaluated separately -it is a good strategy for formative evaluation
3	Ability to demonstrate Skills of Measuring and Evaluating Teaching/Learning Processes	Written Assignment, tests Written report Direct observation, & presentations	Each criterion/ item will be evaluated separately -it is Good for formative & summative evaluation

Source: Kessy (2019)

Direct observation, simulations, questioning, presentations, and written reports are examples of instruments that can be used. Any selected tool must be able to compare pre-planned competences and outcomes achieved by learners. For each learning outcome the criteria for judging whether the learner has achieved the learning outcome must be established. A holistic approach to competence assessment may be used; this is the one which integrates a variety of competences whereby knowledge, skills and attitudes are all together evaluated. The instruments used for competence evaluation are also known as evaluation rubrics.

Conclusion

Given the above results the study concludes that, most teachers are aware of Competence-based curriculum, but they lack the necessary training to implement it. Teachers are also aware of the competences found in syllabuses obtained from the Ministry of education but they cannot prepare them.

Moreover, university teachers are instructed to prepare competence based learning outcomes as indicated in TCU guidelines; hence, all university programs which were prepared traditionally had to be reviewed to follow the CBE. Again, all new programs/ curriculum must indicate competence based learning outcomes; however, university teachers are not yet trained on CBE.

Recommendations

Tanzania Institute of Education as the institution responsible for curriculum planning and development should conduct training to teachers; the situation in all educational levels is almost the same, the study recommend that all primary and secondary school teachers should be trained for effective implementation of CBE.

Again, as revealed from the study, universities are supposed to change from traditional teaching and learning to competence-based curriculum, hence, training to all university teachers and stakeholders is inevitable for the implementation of the new approach.

It is also recommended that further studies should be done to assess the effectiveness of the competence based education to student's academic performance, skills obtained as well as employability.

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