

A Competency-Based Curriculum for Zambian Primary and Secondary Schools: Learning from Theory and some Countries around the World

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Abstract

This is a theoretical paper based on the curriculum designing approach of competency based education that the Zambian education has embraced as a way of providing quality education to its nationals. A competency-based curriculum is designed with a view to help learners acquire knowledge, skills, values and attitudes that are likely to equip them with competencies that they can effectively use to serve society. In this paper the authors have analysed the Zambian education system adoption of the competency-based curriculum whose review started in 2013 and then gradually implemented until 2017. Examples have been given of some countries that have in the past adopted and implemented a competency-based curriculum. An explanation of the historical and theoretical perspective of a competency-based curriculum has been given too. In the conclusion, a brief analysis of the implications of Zambia's adoption of the competency based curriculum has been done.

Keywords: Competency-based curriculum, content-based curriculum, outcome based education, competencies.

1. Introduction

Curriculum reform is not a new phenomenon in Africa and around the world. For most African countries the process of curriculum review started as soon as nations got political independence from the colonizers. Most African countries revised their curricula in order to africanize and decolonize the former curricula so as to meet the growing demands of their societies and to promote their local cultures. Incidentally, most of them adopted the content-based or knowledge based curriculum approach. However, by the 1990s most African countries began to make attempts to change and revise the curriculum from a content-based curriculum to a competency-based (CBC) or Outcome-based curriculum (OBE) in order to cope with the political, social and sometimes harsh economic realities (Taasisi ya Elimu, 2013). The rationale for this change was to make the curriculum more effective and responsive to societal needs by providing relevant knowledge, skills and real-life competencies for the learners. African governments became dissatisfied with the content-based curriculum because it produced learners who were only academic and had no skills, appropriate attitudes and applicable knowledge which could influence economic development. The rate of unemployment was ever increasing because the formal industry could only absorb a few graduates from schools, colleges and universities. This scenario was actually contradicting what a school curriculum should be viewed as the formal and informal processes by which learners gain

worthwhile knowledge and understanding, develop skills, and alter attitudes, appreciations, and values which should help them adapt and develop their environment (Doll, 1978).

The idea of the competency-based curriculum (CBC) can be traced as far back as 1957 in the United States of America (USA). The whole idea was provoked by the the Soviet Union which launched the first satellite—Sputnik I—into orbit around the Earth in 1957. This event brought about a realisation that the United States of America had fallen behind in the space race. The Soviet Union's action sent shock waves through out the American society. In response, the USA held its educational system accountable for this failure and challenge (Hodge, 2007). The ensuing debate about the relevance of the USA education system and research brought about the development of the competency-based curriculum and its implementation in schools and teacher education institutions. As a result, large sums of financial resources were directed into education and innovative federal interventions.

While the competence based curriculum was thought of many decades ago in countries such as the USA, in Zambia it was only in 2013 when the Zambian education system began to revise its curriculum from a knowledge-based one, which it had been using since its political independence from the British in 1964, to a competency-based one or outcome-based curriculum. However research studies and evaluations of the content-based curriculum began in 1999. For instance in 2005, the Upper Basic Education National Survey was conducted. Through this study information was collected from learners, parents, teachers, head teachers, education administrators, tertiary institutions, traditional leaders and various stakeholders in order to come up with a curriculum that was effective and relevant to the Zambian society. The Ministry of General Education commissioned five curriculum studies which were conducted by scholars and researchers from the University of Zambia. Based on the recommendations of these studies, the competency-based curriculum was adopted in order to respond to the calls of the Sustainable Development Goal number four (Quality Education) and the Vision 2030 which project Zambia being a prosperous middle-income country by that time (MoGE, 2013). It was also intended to meet the national educational goals whose aim is “ to achieve an all-round development of the learner through self – reliance of an individual” (MoGE, 2013:14).

2. The Comptency-based Curriuclum in Zambia

Like in other countries, the Zambian curriculum was reformed in a bid to prepare learners for future challenges in the rapidly changing world (MoGE, 2013). The aims of the 2013 revised Zambian curriculum are to produce self-motivated, life-long learners, confident and productive individuals, holistic, independent learners with the values, skills and knowledge to enable them to succeed in school and in life (Zulu, 2015). One would be right to conculude that the Ministries of General and Higher Education in Zambia had read the Zambian economy quite correctly because organisations such as the World Bank have observed that although youths in Zambia make up two thirds of the country's working-age population, youth unemployment is a big challenge in that one quarter of them are unemployed. This has been attributed to the lack of an appropriate kind of education, training and effective vocational guidance that is in line with industrial needs. Moreover, the World Bank (2017:16) explained that:

In SADC, Zambia is among the top five performers in business competitiveness, but it is one of the five worst performers on human development indicators, along with the Democratic Republic of Congo, Malawi, Mozambique and Zimbabwe. Despite the growth in GDP, poverty levels remain stubbornly high.

Thus, it is the vision of the Zambian education sector that through the competency based curriculum, learners will be expected to acquire three critical educational elements namely;

worthwhile skills, appropriate attitudes and applicable knowledge which make up competences. Competences are abilities critical to the performance of specific tasks. To become competent at anything, a learner needs to: know something about it, have the skills to apply the knowledge and have the right attitudes that ensure s/he will do it well. A competency-based curriculum seeks to develop higher order thinking which includes all the four higher levels of Blooms Taxonomy namely; application, analysis, synthesis and evaluation. Therefore, teachers are required to take a creative or innovative approach when teaching (MoGE, 2013).

Additionally, a “competency-based curriculum requires teachers to have clarity of focus, reflective designing, setting high expectations for all learners” (MoGE, 2013: 4). The competency-based curriculum emphasizes the various approaches adopted in learning such as active learning, field trips, role play, debates, demonstration, question and answer techniques and teacher exposition. This will enable the education system to produce learners who are holistic, creative, innovative, analytical and cooperative in their communities and in the nation (MoGE, 2013). Such a shift has pedagogical implications as Rutayuga (2010) noted that a competency-based curriculum requires a shift from assessing a set of learning content to assessing each learning outcomes. Similarly, Wood (2001) insisted that the move towards a competence-based rather than content-based curriculum necessitates learner-centred teaching and learning.

The development and implementation of the revised school curriculum in Zambia began in 2013 and January 2014 respectively, with Early Childhood Education (Pre-School), grades one, five, eight and 10. The other grades that followed in 2015 were grade two, six, nine and eleven and Adult Literacy. Grades three, seven and twelve curriculums were implemented in 2016 with grade four being the last in 2017. In order to implement the CBC 98,000 teachers were in-serviced across the country, using a cascade model, so that they could implement the curriculum effectively (MoGE, 2013). At the Early Childhood Education (ECE) level there was a new curriculum in the country for the first time which all public and private institutions were to adhere to such that the curriculum was standardised as all early childhood education centres were to use one curriculum which had been developed. The early childhood curriculum had also been linked to grade one in order to help learners enter into primary school easily. Local languages widely used in particular localities are to be used as a medium of teaching from ECE to grade four. At the primary school level, the Ministry of General Education gave directives that the medium of teaching from grade one to four was to be one of the local languages or language of play, while English was to be taught as a subject beginning at grade two. However, English was to be used as a medium of teaching from grade 5 upwards. The changes in the use of the local language were meant for both public and private schools while international and private primary schools catering for non-Zambians were to be exempted from this requirement with permission from the Ministry of General Education. The Ministry introduced literacy competence tests at grades one and four to ensure that learners breakthrough to literacy at the lower primary before they proceed to the upper primary school level (MoGE, 2013).

Under this curriculum, two career pathways namely; the academic and vocational were created. The academic pathway was meant for learners with a passion for academic subjects and a desire for careers in that direction. In accordance with the concerns that were expressed about mathematics and science, all senior technical secondary schools, national and regional were to offer an academic pathway with an emphasis on mathematics and sciences. The vocational path is for learners with interests in technical and other hands-on subjects (MoGE, 2013).

The revised curriculum provide practical skills to learners in secondary school starting at grade eight up to grade twelve. In order to enhance the provision of these skills, schools will have to closely collaborate with the Technical Vocational and Entrepreneurship Training Authority

(TEVETA). Learners studying the vocational curriculum are to obtain trade certificates as well as grade nine and grade twelve certificates. The trade certificates are to be awarded by TEVETA whereas the academic certificates for grade nine and twelve shall be awarded by the Examinations Council of Zambia (ECZ). In the first phase, the Ministry of General Education and TEVETA agreed to award trade certificates in bricklaying and plastering, carpentry and joinery, metal fabrication, electrical engineering, home management and food production. The vocational curriculum also include computer studies as a compulsory subject (MoGE, 2013).

The first secondary schools to implement the vocational curriculum were the existing technical schools. The Ministry of General Education also decided to make certain secondary schools specialist schools for Technology, Agriculture, Physical Education and Sports, Performing and Creative Arts, Home Economics and Hospitality. The 2013 revised curriculum incorporated several cross-cutting concerns, prominent among these being: Comprehensive Sexuality, Life Skills, Financial management, Anti-Corruption, Drug and Substance Abuse, Environmental and road safety education. The Ministry of General Education also reviewed the adult literacy curriculum. The curriculum was standardised as the only one national curriculum to be used by all the centres. Therefore, it is clear that the Zambian education system was serious about making a shift from a content-based curriculum to the competency-based curriculum in order to embrace all learners in society. Zambia is not the first country in the world to have made this shift. A survey around the globe reveals examples of countries that have done the same before. The next section provides examples of countries and the rationale for adopting the competency-based curriculum.

3. Countries that have adopted the Competency-Based Curriculum

In this section examples of some of the countries that have adopted the competency-based curriculum are listed and the rationale for choosing the competency-based curriculum explained. These countries include the United States of America (USA), the United Kingdom, Australia, Germany, South Africa, Tanzania, Rwanda and Kenya.

3.1. United States of America (USA)

The genesis of CBC in schools in the USA has a close link to the “behavioural objectives movement of the 1950s”; emanating from the thinking of educators such as Benjamin Bloom with a focus on intended outcomes of learning. Concern about low student achievement and poor quality of teacher training promoted a need to structure outcomes of learning in a manner to encourage teachers to express their teaching objectives in terms of observable student behaviours. It was considered that the approach would improve the “effectiveness of schools, teachers, and teacher educators; and serve to address society’s concern about unsatisfactory performance in the development of programmes in teacher education” (Burton, 1977:31). Chishimba (2001) pointed out that, the competency-based teacher education programme development ensures that the competences to be learned and demonstrated are specified in advance. In a competency-based curriculum, the designer looks at what the curriculum is supposed to achieve. Mulenga and Luangala (2015) argued that conducting a job analysis can help teacher educators to come up with skills and knowledge which teachers need to perform well. Consequently, the student will be able to perform well in their jobs in the future.

The implementation of CBC in the USA advocated for two models, but each had proponents and opponents. The first was competency-based teacher education (CBTE) which hinged on ‘competency’ underpinned by knowledge (assessing the cognitive understanding of the teacher), performance (assessing the teaching behaviour of the teacher), and product or consequence (assessing the teacher’s ability to teach by examining the achievements of pupils). The second was

performance-based teacher education (PBTE) with a focus on the performance and teaching behaviour of the teacher. It assessed “how the teacher performed his role, what behaviours were performed, and how successfully the teacher performed these competencies demanded of him” (Burton, 1977: 31). Thus, it was evident from the foregoing discussion that a teacher had to possess certain knowledge, skills, values, and attitudes in order to run a competency-based curriculum successfully.

3.2. United Kingdom

In the mid-1970s, many countries in Europe, the United Kingdom (UK) included, experienced an economic recession which led to rising inflation and increasing unemployment predominantly for young people. Criticisms were directed at the educational system arguing that standards of attainment in basic skills were too low, hence making many school-leavers ‘unemployable’ (Wiener, 1981). Debates dominating policy were on the notion that education was a key engine of economic regeneration and therefore strong functional links between education and the world of work were imperative.

During the 1980s and 1990s, the policy favoured was vocational education, supporting increased emphasis on greater vocational relevance (Mulder *et al.*, 2007; Brockmann *et al.*, 2008; Biemans *et al.*, 2009). This support led to the emergence of a competency-based vocational qualifications policy in the UK. Competency-based was favoured because of the perception that it would enable learners to mobilise resources (including knowledge) to master complex situations (Bates, 1997). Bates also noted that “Competency-based education and training (CBET) appeared to have first entered official thinking in the context of the problems posed by the development of the Youth Training Scheme, created in 1981 partly in response to escalating youth unemployment” (Bates, 2002: 5). The publication of *A New Training Initiative* (DOE, 1981), and various reports and official papers from the Manpower Services Commission on ‘outcomes’ and ‘competence’ during the 1980s influenced the launch of the CBT scheme with an emphasis on national standards for youth training provision (Bates, 1995). Thus competency-based education was introduced in order to reduce unemployment among the youths and provide them with skills. It can also be noted that education was seen as a tool for economic and global development.

3.3. Australia

In Australia, the CBC was introduced as a Government directive in 1990 (Smith, 1996). It resulted from observed weaknesses in the skills level of the Australian workforce following changes in the economy and the pace of technology. Weaknesses in skills supply were attributed to a number of deficiencies identified in the existing training systems. It was noted that entry-level training served by existing apprenticeships and traineeships was inadequate. There was also little portability of qualifications between the states and territories or from overseas to Australia. Industry representatives frequently expressed dissatisfaction with the training accessed from Vocational Education and Training (VET) providers. More generally “it was felt that there was an emphasis on fixed-length courses which providers chose to make available rather than on the development of skills which students and trainees needed” (Smith, 1996: 172).

Economic and technological changes necessitated a series of developments in workplace reform, award restructuring and concern. Australia’s training methods were re-examined for improved skill levels and international competitiveness; thus Competency Based Training (CBT) was introduced. Emergent trends within global economies, and constantly changing patterns of work, made CBT access vital for both initial vocational preparations for young people leaving school and continuing training for the existing adult workforce (Smith, 1996). Consequently, CBT was implemented in all

vocational education and training provisions in Australia. Hence, it is evident that a lack of skills in the workforce led to the educational reforms. This was also done to make learners competitive on the international market.

3.4. Germany

In Germany, the notion of CBE first appeared in the 1970s. It was characterised by the specialisation and a higher degree of abstract knowledge and skills (Weigel *et al.*, 2007). By 1996, the German system of competency-based education in vocational education and training (VET) started to follow an action competence approach. Competence was “expressed as ‘vocational action competence’ or the readiness and capacity of the individual to act thoughtfully, individually and in a socially responsible manner in professional, societal and private situations” (Weigel *et al.*, 2007: 57). The vocational action competence had three categories namely; domain/subject competence, personal competence, and social competence. This categorization formed the basis of the Germany VET. Thus, it can be seen that a competency-based curriculum requires the learner to acquire knowledge, personal competence and social competence. These competences are important in order for learners to acquire social values which are important in society and work professionally. The categorization of competences is relevant to understanding the focus of this paper as it provides information on the different types of competences which learners need to acquire in the teaching and learning process.

3.5. South Africa

In Africa, the competency-based curriculum was adopted for the first time in South Africa in 1998, following the acute shortage of professionals such as engineers, technicians and artisans. South Africa adopted the competency-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. In South Africa the scholars preferred to use the term outcome-based education (OBE). The term traces its origins in “the competency debates in Australia and New Zealand (Christie, 1995; quoted in Jansen, 1998: 322). The debates promulgated a CBET development dialogue “in the Congress of South African Trade Unions (COSATU)” during the education policy reforms in South African schools of 1994. It was later picked up by the National Training Board, and “subsequently, crystallised into the National Qualifications Framework (NQF)” (Jansen, 1998: 322). The South African Qualifications Authority (SAQA) Act of 1995 regarded OBE “as a means of addressing inequalities in learning across different racial groups” (Chisholm, 2007: 297). The debates within NQF formed part of a larger effort to address unemployment through regulating the labour market and process of skills acquisition through transforming the fiscal, institutional and legislative framework within which institutions operate.

The South African OBE inherited the American competency-based teacher education (CBTE) perspectives with its emphasis on learner performance and individualised teaching (Schwarz and Cavener, 1994). Despite stated benefits, the traditional OBE received criticism from various scholars (Capper and Jamison, 1993; Stewart and Hamlin, 1995; Biemans *et al.*, 2004) that it accentuated predictable and measurable learner performance confined to the classroom and school context, which learners may fail to demonstrate in real-life or work situations other than the streamlined “time-frame of schooling” (Capper and Jamison, 1993: 429). Thus it was evident that South Africa like other countries introduced the competency-based curriculum in order to address the problem of unemployment. It was also introduced to decrease the inequalities across the different racial groups through the acquisition of skills.

3.6. Tanzania

Taasisi ya Elimu (2013) indicated that the last curriculum review in Tanzania took place in 2005. It was guided by a new catchword, namely ‘competency-based curriculum’ (CBC), meaning that it aimed at strengthening learners’ skill acquisition. The ideals are said to have been largely drawn from the Tanzania Development Vision 2025 and the Education Development Sector Programme (Justin, 2013). By 2006, the competency-based curriculum became operational in both primary and secondary schools. Serious financial and human commitments were made to retrain and support teachers, head teachers and other education professionals to develop the necessary competence and confidence to effectively handle the competency-based education (Woods, 2008). The introduction of the competency-based curriculum was the second major pedagogical change in the country after the first change that took place in 1967 when education for self-reliance was introduced. Competency-based education involved some pedagogical changes in the curriculum and teaching approaches which incorporated outcome-based education. Hence, it is clear that the Tanzania education sector also introduced the competency-based curriculum in order to respond to the Tanzania Development Vision 2025 and the Education Development Sector Programme.

3.7. Rwanda

In Rwanda, the competency-based curriculum (CBC) was launched in April 2015. Its implementation kicked off with the opening of the school year in 2016. In July 2013, the department of curriculum and pedagogical materials embarked on a journey to revise the old education curriculum. The journey which lasted for two years, involved in-depth research and study of curricula in neighbouring East African states and in leading economies including the United States of America, United Kingdom, South Korea and Singapore. The study’s mission was to identify best practices that could be replicated in Rwanda to produce effective results in the quality of education offered to the Rwandese. Members of the Rwanda Education Board (REB) thought that looking at national policies such as the 7 year government programme, vision 2020, the education sector strategic planning, and the curriculum framework, there was a need to change the curriculum. It was imperative that school leavers were equipped with technical and vocational skills as much as those who were proceeding to university (REB, 2015). The new curriculum, therefore, necessitated for a less academic and called for more practical, more skills-based and more orientation to a working environment and daily life. There was a need to eliminate any barriers resulting from the old curriculum that would hinder graduates from working or furthering their studies in the region and the rest of the world (REB, 2015).

Teachers were trained and equipped with skills to work with the existing curriculum while applying methodologies and teaching aids in the new curriculum. Hence, the running of the CBC was not to be hampered as the students and teachers received new books outlined in the curriculum. The teachers received training on a cascade model whereby 100 national teacher trainers and 3,000 district master trainers; 300 teachers in each district were trained to reach schools in all districts. On top of that, 29,000 subject school leaders for new subjects introduced in the new curriculum from all schools were trained. Teachers were required to change their attitudes and demonstrate a change in mindset especially that learners were to look upon the teachers as role models in the values to be instilled in the new curriculum. The government urged teachers to embrace the new curriculum with an open mind as it was projected that it would yield great results and benefits for both teachers and students. In addition, the fact that it was aligned to national development goals, its implementation was to give birth to a generation of Rwandans whose mindset was geared towards being job creators as opposed to job seekers. This is evident that for a curriculum to be successful teachers need to embrace the new curriculum or innovation (RED, 2015).

3.8. Kenya

The Kenyan Institute of Curriculum Development (KICD) adopted a competency-based approach (CBA) in their curriculum reforms based on the findings of a needs assessment studies carried out in 2016. Educators in Kenya received a series of training on this approach from the UNESCO International Bureau of Education (IBE-UNESCO), among other experts. KICD conceptualized a competency as the ability to apply learning resources and outcomes (knowledge, skills, values, and attitudes) adequately in a defined context (education, work, personal, or professional development) (UNESCO, 2017). The curriculum reform was to be guided by the vision, “Nurturing every learners’ potential” to produce citizens equipped with relevant and quality knowledge with national values and social competencies (Kenya Constitution, 2010) and to equip them with the 21st century skills and competencies (Vision 2030), Kenya undertook a major reform of the national curriculum. Global trends in education and training were now shifting their focus towards programmes that encouraged optimal development of human capital. Proponents for this change argued that unless young people’s skills were developed for work, they will be ultimately excluded from active participation in their societies. In line with the global trends, Kenya needed to align itself with this paradigm shift in education. Various policy documents developed after the summative evaluation of 2009 had indicated gaps in the former curriculum which included the following:- the curriculum for basic education was not aligned to the requirements of the Constitution of Kenya and Kenya Vision 2030; the curricula for some education levels were not appropriate for the age of the learners; the former curriculum did not provide for essential pathways and thus impeded pursuance of individual interest and development of talents; the education structure framework is rigid and does not facilitate entry and re-entry at different levels. Kenya still lacked the adequately skilled manpower to spur it towards economic development as envisioned in the Kenya Vision-2030, hence the need to produce graduates who were globally competitive through a reform in education (UNESCO, 2017).

There seem to be a very common element among all the countries that adopted the competency based curriculum that the education system was not responding to the developmental needs of the countries since learners lacked appropriate skills and applicable knowledge. In the following section, the concept of the competency-based curriculum and the teaching and learning approaches of the CBC are explained.

4. A Competency-Based Curriculum

Mosha (2012) pointed out that a curriculum that is competency-based, contains the specific outcome of statements that show the competencies to be attained. Expected behaviours or tasks, conditions for their performance, and acceptable standards are shared with students. The purpose of CBE is to promote learners to achieve a presetting ability, each individual learner’s behaviour in the learning process is of concern; its evaluation is to emphasize criterion-referenced. Consequently, a competency-based curriculum capitalizes on competency-based learning which focuses on understanding the concepts, skills and attitudes which in turn calls for changes in teaching, learning and assessment approaches (Posner, 1995). While a content-based curriculum encourages rote memorization of factual knowledge. Wangeleja (2010:10) argued that “a knowledge-based curriculum (KBC) focuses on the grasp of knowledge and thus the curriculum is content-driven”. In the same vein, the Tanzania Institute of Education (2004:1) pointed out that “a knowledge-based curriculum emphasizes on the theoretical content and is rooted in traditional teaching and learning approaches”.

5. Teaching and Learning using Competency – Based Approaches

Luambano (2014) argued that constructivist approaches to teaching and learning are similar to the concept of the competency-based curriculum (CBC), which in reality are the same but expressed differently. This idea concurs with that of Kimaro (2011:38) who stated that;

CBC practice as opposed to the content based practice is a new curriculum practice that is intended to build knowledge, skills, attitudes and values that the learner can use to solve problems in daily life. It is all about what the learner can do practically but not the quantity of theoretical knowledge that the learners memorize.

Constructivism as a learning theory promotes learner's individual learning (Sadker and Sadker, 2005). This means that it is important for a teacher to let learners generate meaning of their own as individuals, from the topic or issue being discussed. According to Gordon (2008), constructivism is the philosophy that advocates that the learner should be treated as a human being and not a machine that waits to be fed with information. Therefore, it is clear that learners do not come as blank slates to be written on but have the ability to construct knowledge.

In contrasting constructivist teaching with traditional teaching practice in the classroom, Kim (2005) stated that traditionally learning has been thought to be nothing but a repetitive activity, a process that involves students imitating newly provided information in tests. The constructivist teaching practice, on the other hand, helps learners to internalize and transform new information. Mulder (2007) noted that the competence concept has been categorically expanded to encompass 'social' or 'emotional' competences, in which a social-constructive approach is advocated. It gives an opportunity for learners to develop the similarity between the competences needed for successful performance in society (such as learning competence, cooperation, problem-solving, information processing, coping with uncertainty, decision-making based on incomplete information, risk assessment) and collaborative competence development (as a synonym of social-constructive learning).

The constructivist approach requires that learners should be given chances to work, play with others, learn through observation, talk and work in groups (Stanley, 2007). Thus, any activity inside and outside the classroom should prepare the learner to become an active player in the life and in the community. Therefore teachers should be equipped with skills and values which can create a warm environment for learning. Brooks and Brooks (1993) constructed principles to guide classroom teaching and learning which included providing challenging issues of emerging relevance to students. Thus, learning is structured around primary concepts and the quest for essence.

On the other hand, in a traditional classroom, a curriculum is presented as part to the whole with emphasis on basic skills. Strict adherence to the fixed curriculum is highly valued. Curriculum activities rely on textbooks and workbooks. Learners are viewed as 'blank slates' onto which information is etched by the teacher. Teachers seek the correct answer to validate student's learning. An assessment of student's learning is viewed as separate from teaching and occurs almost entirely through testing. Student primarily works alone (Books & Brooks, 1993:17). However, constructivism is based on the belief that "Learners actively construct their knowledge, rather than simply absorbing ideas spoken to them by teachers" (Lunenburg 1998: 76). Zheng and Borg (2014) argued that teachers need to follow a guideline provided by the curriculum developers that suit the competency-based approaches. For the competency-based approaches to be successful, teachers should be knowledgeable enough to let their learners get involved in the learning process since teachers are major players in curriculum implementation (Botha and Reddy, 2011 & Wangeleja, 2010). Teachers also need to have expertise in their particular subjects in order for them to yield targeted products (Moodley, 2013). Thus for the approach to be successful, a teacher should

effectively be equipped with Pedagogical Content Knowledge (PCK), which is the knowledge that is developed by teachers to enable the learners learn (Botha and Reddy, 2011). From the subsequent discussion, it can be argued that the role of the learner and teacher cannot be overemphasized in competency-based approaches. Hence, for the competency-based curriculum to be successfully implemented the role of the learner and teachers should be clearly defined. The teacher should possess the relevant pedagogical knowledge and the learners should be willing to participate in the teaching and learning process.

Assessment strategies suggested for competency-based approaches include interviews, conferencing, assess products, fieldwork, experiments, research, tests and examinations. (Dreyer & Schoeman, 2003:94). Thus, one of the ways a teacher can assess learners is through interviews. The teacher can talk to learners one on one to find out if the learner has acquired the desired knowledge and skills required for that subject. The other assessment approach that a teacher can use is conferencing. When a teacher is conferencing with a learner or a small group of learners, they work on skills that need to be reinforced or skills that will provide enrichment. Conferencing helps the teacher to assess where the learners are and where they need to be. The teacher can also assess products given in projects, tasks, assignments, portfolios, written work. The teacher can assess oral work and give feedback on discussions, presentations, debates. The other way a teacher can assess learners is assessing performances in field work, experiments, research, map-work). Finally the teacher can assess learners through tests and examinations (Dreyer & Schoeman, 2003). Therefore diagnostic, formative and summative assessment all take place using OBE approaches (Mazabow, 2003).

Dreyer and Schoeman (2003) argued that an authentic assessment of learning outcomes is one which is described as realistic and relevant and involves learner performance in real-world situations or simulation thereof. From the discussion in the preceding sections, it can be noted that teachers need to plan carefully and create assessment items that can cater for all the needs of the learners in a fair and balanced manner in order for the CBE to be successfully implemented.

6. Implications and Conclusion

A Competency-based curriculum was introduced in Zambian schools in order to help learners in the country to focus not only on the acquisition of knowledge but also on skills, values and attitudes which will most likely help bridge the gap between the labour market and the school system. As explained in the previous sections of this paper, Zambia is not the first country in the world to walk this path of the competency based education approach. However, though this approach may have worked well for other countries where it has been implemented, Zambia has a different economic, social and political environment from all of them. For instance the National budgetary allocation to the education and skills sector in Zambia has been reducing since 2015 as follows; 2015 (20.2%), 2016 (17.2%), 2017 (16.5%) and 2018 (16.1%). This has been happening at the time when the education system introduced a competency based curriculum which require a higher financial support than the content based curriculum. Moreover, the decline in National budgetary allocation to education is made worse with the fact that about 81% of the total education budget is for salaries of teachers and other educational personnel (UNICEF, 2016). This is likely to negatively affect the effective implementation of the competency based education. The implementation of the competency based curriculum is more expensive than the content based one since it demands for specialized teaching and learning resources, equipments and infrastructure in the vocational and science based study areas especially. It has also been explained that teachers use learner centered approaches to implementing the competency based curriculum. This means that all serving teachers require in-serving so that they are upskilled in the appropriate teaching and learning of the competency based

education. Zambia has about 98 000 teachers but with such a falling budgetary allocation, in-servicing of teaching can be a big challenge. In-servicing of teachers is not the only thing that needs to be done about teacher education in Zambia. Equally important is the in-servicing of teacher educators about the competency based curriculum. Mulenga (2015) observed in his study that most of the lecturers who were preparing teachers in one public university in Zambia taught in secondary or primary schools many years ago and had a very scanty knowledge of what was taught there. Infact some of them had never taught in either primary or secondary school at all. Such teacher educators would need intensive in-servicing about the competency based curriculum. To the best knowledge of the authors of this paper, in-servicing of Zambian teacher educators has not been done. This is likely to have backwash effects on the implementation of the competency based curriculum since graduating teachers will not be well prepared for the curriculum that they will have to implement. The Ministry of General Education in Zambia depends heavily on the support from NGOs and stakeholders such as UNICEF, JICA, USAID, the British Council, World Bank and others. If these stakeholders have no agenda related to teacher education and provision of teaching and learning resouces, equipments and infrastructure for the competence based curriculum, then the implementation of the 2013 revised curriculum in Zambia is likely to remain a vision and nothing more.

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