

# Teachers' implementation of Competence Based Curriculum in Tanzanian public and private secondary schools: A scoping review

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## Abstract

Competency-based curriculum (CBC) is about learner's ability to apply knowledge, skills, values, and attitudes properly in definite contexts. The scoping review aimed to investigate the degree to which implementation of the CBC has been researched to address gaps in public and privately owned schools. Research findings revealed that, first, some teachers implemented the CBC effectively due to either in-service or off-the-job training. Second, number of challenges revealed include, shortage of text- books, large class size, lack of finance for offering seminars and workshops to teachers, curriculum overload, learners' English language barriers. Third, benefits linked to training included, reducing teachers' stress and turnover, improving teachers' effectiveness, improvement of teaching strategies, and reducing teachers' exhaustion. Strangely tutors understood CBC differently, some as an application-oriented curriculum, others as an activity-based curriculum. It was generally concluded that implementation of the CBC in schools is still daunting.

**Key words:** Competency-based curriculum, scoping review, in-service training, off-service-training, public and private secondary schools, challenges facing teachers, inclusion and exclusion criteria.

## INTRODUCTION

Generally, the main aim of doing the scoping review is to summarise and disseminate research findings (Arksey & O'Malley, 2005). Antman and colleagues assert that:

This kind of scoping study ... describe in more detail the findings and range of research in particular areas of study, thereby providing a mechanism for summarising and disseminating research findings to policy makers, practitioners and consumers who might otherwise lack time or resources to undertake such work themselves. (Antman et al, 1992).

This scoping review aims to investigate available evidence which will inform the education sector at large how and the degree to which adoption and scale-up of sustainable school-based professional learning communities (SBPLCs) has been researched to addressing gaps in the teaching methods involving competency-based curriculum.

Governments of the East African Community partner states comprise the Democratic Republic of the Congo, the Republic of Burundi, the Republic of Kenya, the Republic of Rwanda, the Federal Republic of Somalia, the Republic of South Sudan, the Republic of Uganda, and the United Republic of Tanzania. Most of these countries have dedicated to implementing the competency-based curriculum in their education systems. Competency-based curriculum (CBC) differs from the previous curriculum, which was considered more knowledge-based, content-driven, and teacher-centred. On the contrary, competency-based curriculum emphasizes what learners are expected to do rather than mainly focusing on what they are expected to know. Competency is viewed as the ability to apply knowledge, skills, values, and attitudes appropriately in specific contexts.

In Tanzanian historical education context, “during colonial era the curriculum was mainly competence/skills-based, as it emphasized the step-by-step learning of concepts, skills or tasks thoroughly first in the classroom before their practical application in the field” (Mosha, 2012). The Tanzanian Educational Curriculum was revised in 1967 and the situation became worse in 1974 following the introduction of Universal Primary Education (UPE), whereby, a number of revolutionary types of political strategies, instead of systematic, scientific and strategic planning strategies were used. Many of Grade C and Grade B teachers were trained in a rush manner and given license to teach. Thus, when Competency-based curriculum (CBC) was reinstated in 2005, majority of teachers lacked necessary competencies to implement the Competency-based curriculum (CBC). For example, teachers’ guides and basic textbooks were not developed, besides,

learning environment in almost all schools was terrible. Thus, overall implementation of the CBC was not effective. The new educational orientation requires competent and high-quality teachers equipped with the necessary knowledge, skills, values and attitudes to effectively implement the Competency-Based curriculum (CBC). Teachers are the main implementers of the curriculum and the main agents of change in the implementation of the competency-based curriculum. However, majority lack the necessary knowledge and skills to be effective. Also, the implementation of competency-based curriculum, particularly in schools within of Tanzania and other countries within the East African Community has been facing various challenges on how best to support teachers and other education stakeholders to facilitate it. The reviewed literature from several empirical studies indicate that teachers face many challenges ranging from lesson planning, teaching methods, managing learning, and assessment of implementation of the competency-based curriculum. There is also a lack of a coherent sustainable policy framework to support in-service teachers through continuing professional development. For example, Nyoni (2018) maintained that there are complications in the implementation of Competence Based Curriculum because teachers face a variety of challenges, including a lack of effective in-service training to teachers on Competence Based Curriculum, insufficient teaching and learning resources, overcrowded classrooms, and students' readiness to accept the learner-centred approach.

Furthermore, Momanyi and Rop (2019) found deficiency in preparation among teachers to facilitate the development of digital competences to students because teachers have not been sufficiently prepared to implement the curriculum. The different research carried out in Arumeru district in Arusha, Northern Tanzania by Mokoro (2020) found that only 34 percent of the teachers were trained while 66 percent had no training on implementing the Competence Based Curriculum (CBC).

The research done in Masai land, Monduli district, indicated that, teaching and learning process in one of the marginalized communities, the Maasai, is still dominated by teacher-centred type of learning. That is, Pesambili and Novelli (2021) did a study on the Maasai students' experiences with and perceptions of schooling of formal education in Monduli. Research findings revealed the predominance of teacher-centred and rote-learning approaches, also poor interactions between students and teachers in the classroom's settings. Another similar research to that of Pesambili and Novelli (2021) was conducted in Arusha district by Nkya, Huang and Mwakabungu (2021). The

researchers aimed find out teacher's perception on competence-based curriculum plus their competence to implement the Competence Based Curriculum (CBC). Research findings revealed that a good number of teachers, around 70 percent possessed less competence to implement competence-based curriculum due to not attending in-services training. Besides, more that 60 percent of teachers were not in a position to prepare teaching and learning activities basing on the competence-based curriculum requirements.

Thus, the present scoping review will shade much light about challenges facing teachers to implement the Competence Based Curriculum.

## **Research Questions**

The scoping review will be guided by the subsequent research questions:

- i. To what extent is the competence-based curriculum implemented in Tanzanian public and private secondary schools?
- ii. What benefits do teachers report to have gained from participating the in-service training on competence-based curriculum?
- iii. What benefits do teachers report to have gained from participating in the off-the-job training on competence-based curriculum?
- iv. What are the challenges facing teachers on implementation of the competence-based curriculum?

## **METHODS**

### **Steps for a scoping review**

The subsequent steps were followed in the preparing the scoping review: First, identifying the research question; second, identifying relevant studies; third, study selection; fourth, charting the data; fifth, collating; summarizing and reporting the results; and sixth, optional consultation exercise (Arksey & O'Malley, 2005) as given in Table 1.

Table 1: steps in the preparing the scoping review

Stage	Narration
1: Identifying the research question	Identifying the research question provides the roadmap for subsequent stages. Relevant aspects of the question must be clearly defined as they have ramifications for search strategies. Research questions are broad in nature as they seek to provide breadth of coverage.
2: Identifying relevant studies	This stage involves identifying the relevant studies and developing a decision plan for where to search, which terms to use, which sources are to be searched, time span, and language. Comprehensiveness and breadth are important in the search. Sources include electronic databases, reference lists, hand searching of key journals, and organizations and conferences. Breadth is important; however, practicalities of the search are as well. Time, budget and personnel resources are potential limiting factors and decisions need to be made upfront about how these will impact the search. It is also about developing and aligning the inclusion criteria with the objective/s and
3: Study selection	Study selection involves post-hoc inclusion and exclusion criteria. These criteria are based on the specifics of the research question and on new familiarity with the subject matter through reading the studies.
4: Charting the data [data extraction]	A data-charting form is developed and used to extract data from each study. A ‘narrative review’ or ‘descriptive analytical’ method is used to extract contextual or process-oriented information from each study. It is about incorporating a numerical summary and qualitative thematic analysis
5: Collating, summarizing, and reporting results -data analysis	-An analytic framework or thematic construction is used to provide an overview of the breadth of the literature but not a synthesis. A numerical analysis of the extent and nature of studies using tables and charts is presented. A thematic analysis is then presented. Clarity and consistency are required when reporting results. It is also identifying the implications of the study findings for policy, practice or research.
6: Consultation (optional)	Provides opportunities for consumer and stakeholder involvement to suggest additional references and provide insights beyond those in the literature. Consultation of information scientists, librarians, and/or experts (throughout)

Source: Levac, Colquhoun and O’Brien (2010)

### Data sources and search strategy

The named research questions assisted to search for the resources and the subsequent expressions were used for searching of resources: implementation of the competence-based curriculum in Tanzanian public and private secondary schools; on- the-job training to teachers in Tanzanian public and private secondary schools; challenges facing teachers in Tanzanian public and private secondary schools , benefits teachers get from participating in the off-the-job training in public

and privately owned secondary schools Tanzania; Competence based curriculum; The web search was done in Google Scholar; the Social Science Research Network (SSRN); Education Resources Information Center (ERIC); and East African Journal of Education and Social Sciences (AJESS). The second search came from some references which were earlier searched (the articles and grey literature) from the named searched engines. Also, the third search from references), was done from earlier obtained sources.

The priori decision was made to screen only the first **40 hits (published journals and grey literature/unpublished)** after considering the time required to submit the manuscript. Likewise, it was presumed that further screening was most unlikely to produce many more pertinent articles (Stevinson & Lawlor, 2004). A different reason is that, the research was done manually because the author did not possess a software named EndNote to assist importation and removal of duplicates (Ouzzani et al., 2016). Likewise, a snowball technique was used whereby citations within articles were searched if they appeared relevant to the review (Hepplestone et al., 2011; Jaskiewicz and Tulenko, 2012). Looking at Table 2, for the primary search **51 published journals** and grey literature were found. For the secondary **search (from references) eight (8) published** articles and gray literature was obtained. On the third search (from references), **three (3)** articles/sources were obtained. The total results were 62 sources on Competence Based Curriculum (CBC). The number of published sources was 41 articles and unpublished sources were/grey literature was 21 (see Table 5).

Table 1. data sources

Search strategy	# of articles & grey literature found	Percent
The first step is an initial limited search of at least two appropriate online databases relevant to the topic.	51	82.26
Second search, the reference list of identified reports and articles should be searched for additional studies. This third stage may examine the reference lists of all identified studies or examine solely the reference lists of the studies that have been selected from full-text and/or included in the review	8	12.9
Third search from Google scholar	3	4.84

### Extraction/data chart of the results

Table 3 shows important information that was extracted from the searched articles or grey literature.

Table 2. charting of data

Data	Data description
Title	Title of the research
Author(s)	Main Authors and co-author the research
Year of publication	The year when the research was published or conducted
Key words	Key/important words leading the entire research. These are important terminologies used
Country of origin	The place where the research was done
Aim/purpose of the research	Aim the research
Study population and sample size	The population and actual sample of the research
Methodology / methods used	Methodology used, importantly research design, research approach and tools were used to gather data
Key findings	Main findings were obtained in the research
Publication type (article/grey literature)	Punished or unpublished research

Source: Peters et al., (2015)

## Eligibility criteria: The PCC model (Inclusion and exclusion criteria)

The PCC (Population or participants/Concept/Context) framework was used to identify the main concepts in the present scoping research and its fundamental main question (see Table 4). The PCC framework also informed the search strategy. According to Pallock and colleagues, "the PCC framework is recommended as a guide to constructing clear and meaningful objectives and eligibility criteria for a scoping review" (Pollock et al., 2023)

Table 3. PCC Model

PCC elements	Inclusion criteria	Exclusion criteria
<b>Population</b>	Teachers in secondary schools both public and privately owned	Teachers in primary schools, tertiary institutions & other Higher learning institutions.
<b>Concept</b>	The concept of Competence Based Curriculum (CBC)  The concept about teaching methods entailing competency-based curriculum  The concept of scoping review	The concept other than scoping review for instance systematic review, rigorous, replicable, and transparent review.
<b>Context</b>	All research carried out in Tanzania (both published and unpublished/grey (gray) literature) in Tanzanian public and private secondary schools  Articles written in English.  Grey/gray literature written in English.  All primary research (quantitative studies and qualitative studies, articles published from 2010 to 2025.  Grey/gray literature written from 2010 to 2025.  Both stand-alone projects and all projects undertaken as part of larger research projects.	Research carried outside of Tanzania both published and unpublished/grey (gray) literature.  Articles published in languages other than English.  All articles published before 2010.  Grey/gray literature written before 2010.  Theoretical/conceptual papers on structural change.  Conference abstracts  All systematic reviews and meta-analyses.  editorials/commentaries, letters, conference abstracts, guidelines, websites, and blogs.

## RESULTS

### Search and selection of scoping reviews

Findings are given in Figure 1. In the initial stage, articles were identified from four (4) main sources, namely, Google Scholar with 546; the Social Science Research Network (SSRN) with 257; Education Resources Information Center (ERIC) with 109; and East African Journal of Education and Social Sciences (AJESS) with 99. After the initial identification, a number of records were deleted before entering the screening stage. The number of duplicate records deleted totaled 108, while the records deleted for other reasons reached 97. Therefore, as many as 806 recordings were ready for the next screening stage. From the results of the screening 302 recordings were eliminated because they did not meet the inclusion criteria that had been set. Furthermore, a total of 442 reports were selected for further collection and assessment process. The assessment of these reports involves evaluating the title, abstract, and full text. The ones which did not meet the inclusion criteria, thus were excluded were. Finally, a total of 16 studies (articles and grey literature) which met all inclusion criteria were included in this scope review.

The flow of articles and grey literature through identification to final inclusion is represented in Figure 1.

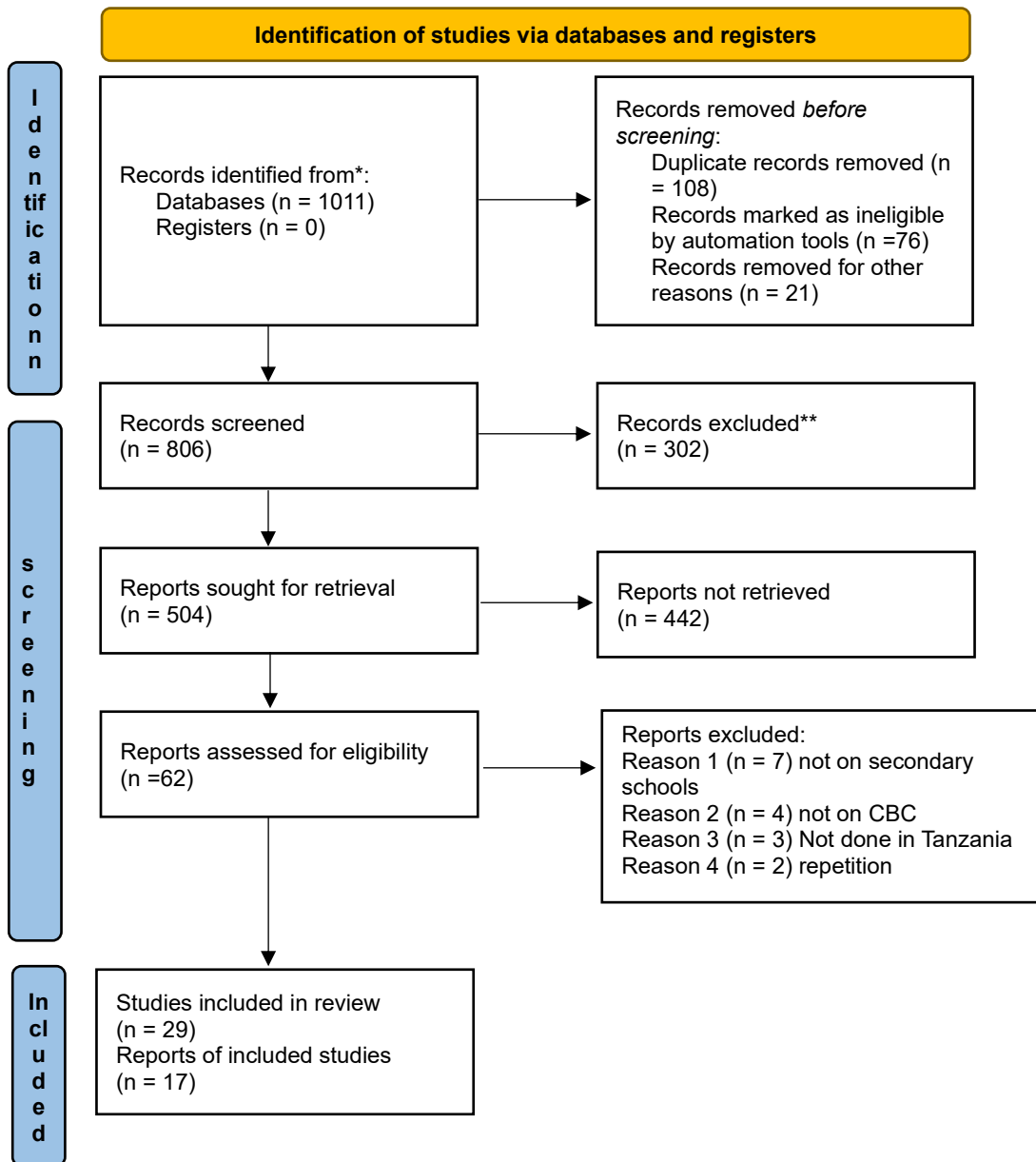


Figure 1: Identification of studies via databases and registers

Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).

\*\*If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372: n71. doi: 10.1136/bmj. n71

## General characteristics of included scoping reviews

The general characteristics of scoping reviews included in this study are reported in Table 5, they include: Publication year, Publication type, Scoping terminology, and Scoping definition. Research findings revealed that majority of included reviews (articles and grey literature) were for year 2022, while zero (0) reviews were found in 2010 and 2011. Likewise, research findings revealed that majority of publication type were journal articles, which was 66.13 percent (n=41), while the grey literature constituted 33.87 percent (n= 21). In terms of scoping terminology, majority of sources were for the on - the-job training (in-service) teachers in Tanzanian secondary schools, which accounted for 22.58 percent (n = 14), and the least was on benefits teachers get from participating in the off-the-job training, which accounted for 11.29 percent (n= 7). The reported in articles constituted 66.12 percent (n = 41) and reported in grey literature (not provides/ cited another source/grey literature) constituted 33.87 percent (n = 21). The reasons for included and excluded journal articles are given in Table 4.

Table 4: General characteristics of included scoping reviews (n= 61)

<b>Characteristic</b>	<b>Number (n= 62)</b>	<b>Percent</b>
<b>Publication year</b>		
2010	0	0
2011	0	0
2012	2	3.23
2013	3	4.84
2014	4	6.45
2015	5	8.06
2016	3	4.84
2017	2	3.23
2018	3	4.84
2019	1	1.61
2020	3	4.84
2021	7	11.29
2022	11	17.74
2023	8	12.90
2024	8	12.90
2025	2	3.23
<b>Publication type</b>		
Article	41	66.13
Grey/gray literature	21	33.87
<b>Sector</b>		
Education	62	100
<b>Scoping terminology</b>		
implementation of the competence-based curriculum in Tanzanian secondary schools	12	19.35
On - the-job training (in-service) teachers in Tanzanian secondary schools	14	22.58
challenges facing teachers in Tanzanian secondary schools	8	12.90
Benefits teachers get from participating in the off-the-job training Tanzanian secondary schools	7	11.29
<b>Scoping definition</b>		
Reported in article	41	66.12
Not provides (cited another source/grey literature)	21	33.87

## **Methodological characteristics of included scoping review**

The methodological characteristics of included scoping reviews are reported in Table 6. The characteristics include: general methodology, search strategy, study selection, data charting, and data analysis. Research findings revealed, majority of used work was published articles, whereby 46.77 percent (n = 29) were published articles, while the grey literature was 27.42 percent (n = 17). Sources which were not used due to not meeting inclusion criteria was 25.81 percent (n = 16). As regards to search strategy, internet search engines/ specific websites namely Google Scholar; the Social Science Research Network (SSRN); Education Resources Information Center (ERIC); and East African Journal of Education and Social Sciences (AJESS) were mostly used, whereby 87.10 percent (n = 54) sources came from the internet and those searched from reference list of relevant articles was 12.90 percent (n = 8). In terms methods of data analysis, research findings revealed that majority of sources used descriptive statistics analysis, which was 40.32 percent (n = 25) followed by formal qualitative analysis, whereby 30.65 percent (n = 19) were analysed by formal qualitative analysis. The least method of analysis was Meta-analysis, whereby 1.62 (n = 1), that is just one source was analysed using meta-analysis method.

Table 5: Methodological characteristics

<b>Methodological characteristics</b>	<b>Number (n= 62)</b>	<b>Percent</b>
<b>General methodology</b>		
Used a published framework	29	46.77
Used grey literature	17	27.42
Not used (published & grey literature)	16	25.81
<b>Search strategy</b>		
Searched electronic data base(s)	4	6.45
Searched reference list of relevant articles	11	17.74
Search in Internet search engines or specific websites	54	87.10
Manual searching of selected journals	62	100
Consulted experts	0	0
<b>Study selection</b>		
Used defined inclusion/exclusion criteria	62	100
Limited to journal articles (peer and non-peer-reviewed)	41	66.13
Limited to grey literature	21	33.87
<b>Data charting</b>		
Data extraction by one reviewer	62	100
<b>Data Analysis</b>		
Number of articles included (min, max)	29	46.77
Number of grey literatures included (min, max)	17	27.87
Descriptive narrative summary	2	3.22
Descriptive statistics analysis	25	40.32
Formal qualitative analysis	19	30.65
Meta-analysis	1	1.62
Not included	16	25.81

## **Main topics researched**

The main research topics researched in Tanzanian public and private owned secondary schools include: implementation of the competence-based curriculum; in-service teachers' training; challenges facing teachers; and benefits teachers get from participating in the off-the-job training. The research findings revealed are explained in details under their respective subheading.

### **Implementation of the competence-based curriculum**

Ndomondo (2024) conducted research on teachers' understanding and use of assessment in promoting history subject skills in Tanzania secondary schools. The research adopted a phenomenological hermeneutic design and employed qualitative approach. A total of 11 teachers teaching History subject participated in the research. Data was gathered by using interviews, classroom observations and document reviews. Research findings revealed that teachers had a little understanding of the assessment methods which are currently emphasized in the history subject.

The research findings imply that, teachers had a little knowledge on the requirements of the competence-based curriculum, particularly on how to assess learners.

The different research on implementation of the competence-based curriculum was carried out by Patrobas, Machumu and Mtawa (2023). The research investigated use of digital skills in enhancing learning among teachers and students in Tanzania secondary schools. The research had 85 participants, who included school leaders, students and teachers. It adopted a sequential exploratory design and used semi-structured interviews and questioners on data collection. Research findings revealed that teachers' and students' digital possession of skills such as basic computer skills, internet skills, technical skills and collaborative skills influenced teaching and learning process. Also, research findings revealed that availability of digital infrastructure, internet, professional development, electricity, technical support, readiness, socio-economic conditions were factors central to enabling and/or impeding effective use of digital skills.

Furthermore, another research on implementation of the competence-based curriculum aimed to investigate the fundamental issues affecting teachers' education. This research was conducted by Mgaiwa (2018), whereby 12 participants namely classroom teachers, college tutors, and academicians were interviewed in-depth. Also, documentary review was conducted. Research findings revealed five major issues affecting teacher education, namely, lack of specific policies for teacher education, lack of continuing professional development, lack of an autonomous teacher regulatory body, inadequate ICT and poor quality of candidates joining teachers' education. These research findings just imply that majority of teachers had a little knowledge and competence on implementation of all types of curricula, be content based or learner centred curriculum.

Implementation of competence-based curriculum in the context of colonial education system in Tanzania was research done by Thabita and Sotco (2021). Specifically, the research aimed at assessing the influence of the historical background of education systems on stakeholders' perspectives to adopt and practice teaching, learning, and assessment of the competence-based curriculum. 150 secondary education leavers, 60 agricultural sciences, biology and civics subject teachers participated in this research. The tools for data collection included semi-structured interview and focused group discussions. Research findings revealed that elements of the colonial rule education system still influenced classroom teaching, learning, and assessment practices in

Tanzanian secondary schools. Therefore, this finding reflects that content-based curriculum is still dominant and practiced in Tanzanian classrooms.

One more research on implementation of the competence-based curriculum was done by Nguvava and Meremo (2021). The research aimed at investigating the implementation of the Differentiated Instructional (DI) approach among the public secondary schools in Mwanza District, Tanzania. DI refers to teaching by using a number of teaching techniques. One (1) District Quality Assurance Officer, four (4) head of schools, 20 teachers and 73 students from 25 public secondary schools were involved in the research. Mixed research approach with the convergent parallel design were employed in the research. Research findings revealed that teachers were familiar with the DI although they were not implementing it effectively to meet the diverse needs of the learners due to several work-related limitations. Thus, the present research vividly indicates some of limiting factor on implementing the competence-based curriculum in schools and one of the major hindrances is pressure on covering the syllabus. The similar research findings to those by Nguvava and Meremo (2021) were found by Issa, Zamda, Mwakapina, Job & Nyinondi, Onesmo (2024), whereby, external pressures faced by English teachers often driven by political and educational authorities, hindered effective implementation of the competence-based curriculum (CBC), consequently led to rushing on covering the syllabus.

Bilakwate, Mollel and Lyimo (2023) similarly carried out research which was about assessing the perceptions of teachers on the availability of instructional resources for quality education among Public Secondary Schools in Karatu District. 237 teachers were involved in the research, whereby questionnaires, interview schedules and documents were used on data collection. Research findings revealed that schools had shortage reference books and specific subjects did not have adequate number of textbooks. The schools also schools lacked modern facilities like computers and projectors for use during the teaching and learning process. These research findings describe some hindering factors facing schools on implementation of the competence-based curriculum. The pertinent question is, how could the teachers practice learner-centred approach if books were not there?

Assessing the effects of Competency- Based Curriculum (CBC) on students' education achievement in secondary Schools in Arusha City Council Tanzania, is one of the studies done on the implementation of the competence-based curriculum. This research was carried out by Kimario

and Otieno (2022) and 30 teachers, 90 students, 10 head of schools, 10 School Quality Assurance Officers (SQA), one (1) Ward Education Officer and one (1) District Education Officer were involved in the study. The research adopted a convergent mixed methods design. The research tools used in the research include questionnaires and interview guides. Research findings revealed that different teaching and learning methodologies such as learner centred approach, discussions, exhibitions and practical activities were little encouraged. Thus, this research implies that the competence-based curriculum was ineffectively adopted in those schools and by the teachers in those schools.

Interesting findings on implementation of competence-based curriculum were found in the research done by Komba and Mwandanji (2015), whereby, 86 percent of the interviewed teachers did not have the proper understanding of the objectives of competence-based curriculum. Also, 78 percent of the reviewed lesson plans did not reflect the qualities of a competence-based lesson plan. Furthermore, involvement of students in classroom activities was generally low. Given such a situation in schools, implementation of competence-based curriculum is poorly done. Similarly, the research carried out by Kasuga (2016) found that teachers had low understanding on how to practice the competence-based curriculum, that is, lecture approach dominated in the classroom teaching while those teaching techniques employing learner-centred such as group discussion, plenary discussion, role plays, problem solving and experimentation were infrequently used. It was also revealed that challenges in the use of learner-centred emanated from absence of in-service training for the teachers, shortage of biology teachers, lack of biology books, lack of laboratories and the overloaded curriculum. However, in the research carried out Qambaday and Mwila (2022) different findings were found from those of Komba and Mwandanji (2015) and Kasuga (2016). In this research teachers acknowledged to understand the learner centred approach. That is, teachers understood that learner centred approach contributed to quality learning through student's involvement in complex learning situations in the classroom. Likewise, teachers understood that active learning practiced in the classroom attracts learner's interest henceforth improves good academic performance.

### **In-service teachers training**

In-service training refers to ongoing professional development for workers while they are actively working. It aims to enhance their skills, knowledge, and competencies to keep them updated with

industry standards, new technologies, or regulatory changes. This training can take various forms, namely workshops, online courses, and on-the-job training. In-service education and training have been one of the traditional functions of human resource development which helps to improve workers' performance and achievement (Sutrisno, 2011). According to Doe (2024), generally, in-service training programs are important to enhance skills and professional development of teachers in schools. In-service training equips teachers with new teaching methods, update them on curriculum changes, and improves their effectiveness in the classroom settings.

Moh'd, Uwamahoro and Orodho (2022) did research which investigated how the mathematics teachers' PCK (pedagogical content knowledge) impacted their competences on designing effective lesson plans. Twelve (12) in-services mathematics teachers from Unguja-Island (Zanzibar), Tanzania were involved in the research. The research methodology used was about reviewing of the teachers' mathematics lesson plan documents and teachers' interview. Research results indicated that PCK competences of mathematics teachers are not good enough to impact their DLP (designed lesson Plan). Thus, the results imply that teachers need in-service training for updating knowledge on various pedagogies including effective implementation of the Competence Based Curriculum.

Assessing the contribution of in-service training on teaching and learning performance by teachers in public secondary schools in Tanzania was also done by one researcher. The research was carried out by Ngwaya (2022) and used 20 participants. Data were collected using interview and documentary review. Research findings revealed that through attending different in-service training, teachers mastered the subject matter content through consolidating the relationship with another subject master(s) from other schools. Also, research findings indicated that in in-service training, teachers gained new tactics and knowledge on the taught subject matter and on improving the teaching methodology as well as masterly of the subject matter content.

The different research done by Ally and Mabagala (2022) focused at investigating the effectiveness of mentoring processes in developing Secondary school teachers' competencies in Mbeya Region, Tanzania. Research participants were 10 novice and experienced teachers. Questionnaire and interview schedule were used to gather data. This was cross sectional research design. Research findings revealed that mentoring process resulted into developing teaching competencies among novice teachers. The benefits of offering mentorship to beginning teachers are explicitly indicated

in similar research done by Ngole and Mkulu (2021). Head of schools were key instructional supervisors in schools, also their effective supervision was found to be one of the key factors for the academic performance in schools. Thus, the findings concur to the findings by Ally and Mabagala (2022), who indicated effectiveness of mentoring processes in developing teachers' competencies. It should be known that school heads need to be and can be good mentors to beginning teachers towards quality teaching hence improving the quality of education.

The similar research to that of Ally and Mabagala (2022) on mentorship was done by John, Ishengoma and Kafanabo (2023). The research aimed to explore trends in the mentoring of beginning teachers to enhance pedagogical skills in selected government secondary schools in the Rukwa Region. 15 beginning teachers, 28 experienced teachers, 11 Heads of Departments, and two (2) District Secondary Education Officers were participants in this research. This was a single case study design and semi-structured interviews and questionnaires were used for data collection. Research findings revealed that the effectiveness and achievement of mentorship practices in secondary schools depended on personal passion and commitment of both beginning teachers and experienced teachers. Research findings vividly highlight the benefits connected to one's attitude and commitment on matters to do with success in mentorship's exercise.

One more research examined challenges on implementation of in-service training programmes in public secondary schools and was carried out by Lukwaro, Mwachombela, and Kasumba (2022). Eight (8) heads of schools and 88 secondary school teachers were involved in the research. The research employed the mixed approach and it adopted the concurrent research design. Questionnaire and interviews were the tools used for data collection. Research findings revealed impediments connected to in-service training including: unaccommodated and inflexible arrangements of training, non-existence of enough resources, deprived organisation of programme, lack of support and guidance, poor commitment from school administration and biasness during practicing in-service training. The research findings offer a gloomy picture as regards to in-service training of teachers in particular and on the implementation of competence-based curriculum in schools in general.

Jakoba, B"uchel, Steffenb and Brunettia (2025) have recently carried a research on teachers' in-service training. Specifically, the research wanted to find out the impact of the in-service teacher training. Research participants included 440 teachers from 220 schools in Tanzania. This was a

field experiment using standardized student examinations to assess the impact of a pedagogy-centered intervention. Research findings revealed that, first, a five-day in-service teacher training on participatory and practice-based methods improved students' test scores 18 months later by  $0.15\sigma$ . Second, additional provision of laptops with a learning software allowing a random subset of teachers to refresh their content knowledge did not yield further learning gains for students, that is, there was no evidence of spillover effects on teachers and their students. The research finding suggests that in-service training has a positive effect on teachers' effectiveness and efficiency. Lack of spill over effect due to provision of laptops could have several reasons, one of the reasons could be, teachers did not possess computer knowledge on how to use them during the teaching and learning process.

The Voices of teachers on the role of instructional supervision in improving teaching and learning in Tanzania is one of many research which have been done in Tanzania as regards to implementation of the competence-based curriculum. This research was carried out by Daud and Ndiujye (2022), and adopted a qualitative approach. The tools used for data collection were interviews and focus group discussions. Research results revealed that in general teachers perceived instructional supervision as an administrative tool with minimal impact on their professional development. That is, majority argued that school Principal and internal quality assurance added heavy workload to their already congested timetable, then contributing to ineffectiveness on the process to attain its targets. They further argued that, the process was characterized by challenges like incompetent supervisors and unprofessional conducts, and facilities shortages. These research findings highlight some weakness connected to in-service training, particularly incompetent supervisors, poor professional conducts of trainers, shortage of facilities and heavy workload teachers bear, consequently, teachers find themselves disliking in-service training.

Furthermore, different research on in-serve training was earlier carried out by Rugambwa and Joseph (2014). The research aimed to find out experiences obtained from the ongoing in-service Training (INSET) program in Northern Tanzania. This was a School-Based In-service Training (INSET) program. The descriptive narrative research design was adopted. Participants in the research included 600 teachers, 40 heads and 10,000 students. Research findings revealed a number of challenges to School-Based Training (SBT) including: First, several teachers and heads

of school were pessimistic towards the significance of learner-centered pedagogy (LCP) on student learning as well on the significance of School-Based Training Program (SBT) to teachers' professional development. Second, teachers expected stipend in almost everything they do outside their normal school routines. For instance, one or two teachers in almost every project school asked why the program did not pay sitting allowances to teachers during school-based workshops (SBWs). Third, other associated challenges included remoteness and poverty of schools; very busy school timetables and calendars that left little room for School-Based Training Program (SBT); and shortage of teaching and learning resources needed for facilitation of learner centred training (LCT). Findings of the research substantiates some challenges in conducting in-service training, particularly those related to resistance to change and those related to strongly built incentive system culture within the Tanzania education sector. The culture which sometimes is so hardly meet.

Another research was done by Msongole (2017) in Morogoro Municipality. It was on investing challenges facing in-service teachers accessing education through open and distance learning by using information communication technology (ICT). The research involved two (2) administrators from Open University at Morogoro centre and 22 in-service teachers. It was a descriptive research design, whereby, questionnaires, interviews and documentary reviews were used during data gathering. Research findings revealed that majority of in-service teachers had experience in using ICT to learn, however, the major challenges facing in-service teachers to access education through ICT included electricity fluctuation, lack of internet network and lack of resources to buy ICTs gadgets like computers. This research explicitly exposes the challenges facing in-service teachers on the use of ICT contrary that of Mgaiwa (2018) who did not mention explicitly teachers' setbacks as connected to use of ICT. Similarly, the challenges facing schools to use technology on implementing the competence-based curriculum were also found in research by Mkude, Mwila and Ndomba (2023), whereby research results revealed that despite the fact that modern technology is normally used in secondary schools' teaching and learning, scarcity of teachers, funding, and inadequate infrastructure deterred the adoption of modern technology. As regards to use of ICT, Kalinga (2024), similarly, found that majority teachers recognised the benefit of ICT in implementing a competence-based curriculum. The research involved 139 participants including teachers, academic teachers and head teachers. Interviews and focus group discussions were tool which were used in data gathering.

Collaborative practices as a teacher professional development pathway is one of the studies carried out in some Secondary Schools in Tanzania on the benefit of participating in in-service training for teachers in Tanzania. This research was done by Mugisha, Lilo and Magosho (2023). The research in particular wanted to investigate how collaborative practices (CPs) among secondary school teachers could enhance teachers' professional development (PD). The research had 30 participants including heads of departments and heads of secondary school. Interviews and focus group discussions were used to collect data. Thematic analysis was used to analyse the qualitative data. Research findings revealed that teachers supported the use of collaborative practices (CPs) through coaching, teaming, and mentoring to address educational setbacks and improve their teaching knowledge and skills.

Another research on in-service training done in Tanzania examined the relationship between in-serviced and non-in-serviced teachers on their effectiveness on teaching in public secondary schools in Arusha City Council. The research was done by Otieno and Mrema (2023). In this research, the correlation survey and Sequential Explanatory Designs were adopted. Purposively sampling, stratified and simple random sampling questionnaires were used to obtain a sample of 116 participants who included eight (8) school heads, 54 in-serviced teachers (IST) and 54 non-in-serviced teachers (NIT). The researchers found that for first hypothesis, there was insignificant relationship between performance of in-serviced teachers and non-in-serviced teachers. For hypothesis two, there was insignificant relationship between subject competency of in-serviced teachers and non-in-serviced teachers. Thus, in-serviced teachers (IST) needed training in knowledge and skills in management of human, material, time and financial resources.

The need for in-service training was also found in the research by Ishemo (2022). In this research participant observations and semi structured interviews were used on data, and it was an ethnographic study to teachers. Specifically, research findings revealed teachers to be unable to practice learner centred method, then improvement was needed in several aspects such as in-service training, school-based training, teachers' welfare, teaching materials, employing additional science teachers, and often testing students.

The last but not least research on in-service training was done in Babati district, Tanzania. It was done by Kwaslema and Onyango (2021). 185 respondents from 5 schools and included one (1) District Education Officer, four (4) Ward Education Officers, five (5) school heads, eighty (8) teachers,

and 95 students. It employed mixed research approach and convergent parallel design was used. Data were collected by using interview guides and questionnaires. Research results indicated that there was effectiveness in the development of the strategic plan, that is, teachers and school heads were able to develop strategic plans collaboratively. Finding implies the benefits of training each other between school leadership and teachers. However, research findings, did not substantiate if competence-based curriculum was as well effectively implemented, this is because ability in developing strategic development plan does not substantiate the ability to implement the competence-based curriculum in those schools.

### **Challenges facing teachers to implement competence-based curriculum**

One research on challenges facing teachers in Tanzanian public and private secondary schools was found by Sanga, Mwahombela, and Msigallah (2024). They investigated factors influencing teachers' turnover from government secondary schools in Makete District, Tanzania. This research employed descriptive design and interviews were used to collect data. The research included 16 participants, who were, five (5) heads of schools, 10 teachers and one (1) District Education Officer. Research findings revealed several reasons for teachers' turnover from secondary schools namely, low salary, lack of teachers' houses, misunderstanding at work place, heavy workload, lack of support from school administration and delayed promotion. The fact is that, the research by Mwahombela, and Msigallah revealed some challenges facing teachers on the implementation of competence-based curriculum in Tanzanian secondary schools.

Another research was done earlier by Makunja (2015). It investigated the adoption of competence-based curriculum to improve quality of secondary education in Tanzania. 162 respondents came from six public secondary schools namely, six (6) heads of secondary schools, six (6) academic masters/mistresses, 102 teachers and 48 students. The research employed descriptive survey design, and the mixed research approach was employed. Questionnaire, interviews and observations schedules were tools used on data collection. Research findings revealed that majority of teachers required necessary knowledge for implementing competence-based curriculum during the teaching and learning process. These research findings vividly depict setbacks facing teachers to implement the competence base curriculum, whereby, inadequate skills and knowledge limited effective implementation of the curriculum, consequently endangered provision of quality of education.

The research focusing Tanzanian public and private secondary schools as regards to education was also carried out by Senga, Dede and Gillo (2024). It aimed at assessing unique challenges facing girls from pastoral societies and their access to schooling. 210 girls from Dirma, Chief Gejaru, and Mwahu secondary schools participated in the research. This was a cross-sectional research design. Interviews, focus group discussions, and documentary reviews were tools used to collect data. Research findings revealed the subsequent challenges: shortage of girls' facilities and services in schools, families' low socio-economic status, harmful gender norms, and bad traditions. Other challenges included early pregnancies and early marriage, parents' desire for wealth, nomadic lifestyle, large family size, and long distance from home to school. These research findings are plainly indicating the challenges facing girls in Tanzanian public and private secondary. These challenges automatically impact negatively schools found in marginalised communities to implement competence-based curriculum because the rate of absenteeism could be high.

Perceptions and experiences of secondary school Geography teachers on practicing learner centered teaching method was researched by Mtitu (2014). The nine (9) purposively selected Geography teachers within two (2) publicly and one privately owned secondary schools were the participants in the research. This was an interpretive and constructivist qualitative case study. Semi-structured interviews, classroom observations and detailed reviews of teachers' own teaching portfolios were the research tools used to obtain data. Research findings revealed that putting into practice the learner centered approach is limited, this is was due to language barrier, class sizes; curriculum design; teacher shortage, and shortage of instructional resources. Likewise, absence of both in-service training for Learner-Centred Teaching (LCT) and cultural-context hindered implementation of competence-based curriculum. Therefore, research findings proved available challenges in schools on implementation of the competence-based curriculum in Tanzanian schools.

Use of technology can facilitate implementation of competence-based curriculum. One research assessed teachers' reflection on technology, teaching, learning, and professional development in schools. The research was done by Koomar, Hennessy, Zubairi, Kindoli and Kreimeia (2022), and it assessed 774 government school teachers. This was a survey, which used the T4 Teachers and Technology Global Survey and EdTech Hub's Tanzania electronic data collection platform-Mobenzi. Research results revealed that: first, 40 percent of teachers reported that their school

lacked access to any form of technological device, with almost a half of teachers saying they had never used digital technologies for teaching and learning purposes. Second, nearly half of the teachers alleged that in the learning process, girls suffered greater learning losses more than boys. Similarly, more than 60 percent of teachers believed that learners from the financially poorest households suffered the greatest learning losses. Third, research findings indicated that minority of teachers were engaged a little in teachers' professional development (TPD), hence, required more support. These research findings explicitly depict various challenges facing implementation of the competence-based curriculum in schools, particularly, the deprived use of computer technology in the teaching and learning process.

Furthermore, various challenges have been identified in research on implementation of competence-based curriculum. Earlier, Saga (2014) did the research which wanted to find out accessibility and challenges related to quality which were facing community secondary schools in Kilolo district Iringa, Tanzania. Eight (8) heads of secondary schools, 32 teachers and 64 students were involved in the research. Data collection used structured questionnaires. Research findings revealed the main setbacks that limited access to quality education were shortage of teachers, inadequate teaching and learning materials as well as school infrastructures. The research findings are similar to those found by Mtitu (2014) and Sanga and Mwahombela, and Msigallah (2024). Moreover, the alike challenges were found by Muneja's (2015) research, The research by Muneja (2015) had just 8 participants and face-to-face interviews, non-participant observation and documentary reviews were used to collect data. In particular, the challenges found included, limited understanding of the curriculum, deficiency of participation in curriculum design and implementation, shortage of quality text books and lack of motivation to implement the competency- based curriculum.

Additionally, one research investigated trained English language teachers' interpretation and implementation of Competence-Based Curriculum (CBC) during teaching and learning process in Tanzania's secondary schools' classrooms setting. This was interpretivism paradigm case study design carried out by Mpayo and Bulayi (2022). The research included eight (8) trained secondaries school English language teachers who were implementing Competence-Based Curriculum (CBC). Interviews, documentary review and observation methods were the methods used in data collection. The research findings revealed that the trained English language teachers'

interpretation and implementation of CBC was hindered by their insufficiency knowledge of Competence-Based Curriculum (CBC). These research findings substantiate the need for in-service and off-service training of teachers on competence-based curriculum. Language laboratory facilities were not adequate too in those schools; hence it was concluded that, the competence-based curriculum was not effectively implemented in the studied schools.

Some challenges on implementing competence-based curriculum (CBC) originated in colleges and universities where teachers are prepared. In some aspects, tutors understand competence-based curriculum (CBC) in relatively different ways and thus give it different meanings: competence-based curriculum (CBC) as an application-oriented curriculum and competence-based curriculum (CBC) as an activity-based curriculum. These are some of the findings obtained in the research carried out by Nzima (2016). In this research, 12 methodology tutors were involved in the research. Semi-structured interviews, classroom observations, and document review methods were used during data collection. These were some strange research findings, how can tutors teach their students when the concept of competence-based curriculum competence-based curriculum (CBC) is understood differently? Therefore, these research findings necessitate the clear clarification of the competence-based curriculum (CBC) concept and the methodology from the curriculum developer so that to ensure what is taught benefits the education students in colleges and universities, and future teachers and students in schools.

### **Benefits teachers get from participating in the off-the-job training**

Off-the-job training refers to training away from the field of the job and the working place (Abu & Constantinovits, 2021). According to Anwar and Abdullah (2021), off-the-job training denotes education method whereby members of staff learn more about their job or the latest advancements in their field at a location away from their workplace. It is a type of training which is done away from the working place, a special kind of advancing skills and knowledge which seeks to guide workers in the right way and in the appropriate place (Bhatia, et al, 2018). Off-the-job training involves various methods like lectures, workshops, seminars, online courses, or even apprenticeships. Off -the -job training has a number of advantages namely, increases employee skills and knowledge; increasing employee motivation, reducing anxiety; meet set target(s) and attaining of varied goals; training offers a pathway to enhanced emotional regulation and equips individuals with precious skills for building resilience (Abu & Constantinovits, 2021, Okikiola &

Oluwayimika, 2022, Agufana, 2022, Kikiola & Oluwayimika, 2022, Rodriguez & Walters, 2017, Forest, 2024).

Evaluation on the effectiveness of teachers training programmes in preparing teachers towards implementing competency-based curriculum is one of the studies carried out in Tanzania to find out the benefits teachers get from participating in the off-the-job training in Tanzania. The research was done by Nombo (2018), and adopted both quantitative and qualitative approaches. Research participants were 64 who included, College Principals, school inspectors, tutors, student teachers from teachers training colleges. Research findings revealed that governmental, institutional, and individual initiatives towards competence-based curriculum implementation significantly existed due to off-job training opportunities offered to teachers. Thus, finding implies that since creativities towards competence-based curriculum implementation existed due to the effectiveness of teachers training programmes, teachers benefited from participating in the off-the-job training.

Absence of seminars and workshops, as well as teachers' fear of failing to complete the syllabus was found as hindrances to implement effectively the competence-based curriculum in the research done by Mathias, Mwamakula and Mhagama (2023). The research used mixed research approach, adopting the convergent parallel design. In this research 100 participants including, District Secondary Education Officer, some District Officials, public secondary school teachers, ward education coordinators, heads of schools and students were involved. The research findings revealed that teachers did not benefit from participating in the off-the-job training offered in form of seminars or workshops because they were not sent to off-the-job training from their schools.

The research done by Njiku, Mutarutinya and Maniraho (2021) likewise aimed to investigate the benefits of off-the-job training. It was on training and development of mathematics teachers' technological pedagogical content knowledge (TPACK) through collaborative lesson design activities. 125 secondary school mathematics teachers from the Dar es Salaam region in Tanzania were involved in the research. Multistage sampling, that is, purposive and cluster random sampling were used and paired sample t-test was used in data analysis. The design of intervention was: the participants collaborated in visiting online resources, particularly, You-Tube mathematics videos and mobile apps. Also, participants discussed ways of integrating these resources into their lesson plans. Despite the fact that through using paired sample t-test, all groups appeared improved their TPACK significantly, but the effect size was large for group 1 and group 2 only. When the

comparison between groups and across the two points of time for data collection was done using the split-plot analysis of variance, it was revealed that group 1 improved the most in TPACK. Therefore, these finding favoured the use of collaborative lesson designs in school-based teacher design teams, likewise, it revealed the benefits of participating in the off-the-job training together with online-means.

The research carried out by Kilipamwambu (2021) found that teachers did not benefit from training, also, were not involved in curriculum development as result teachers were merely implementers of the curriculum in use. The exercise consequently, limited teachers' commitment to effectively implementation of the competence-based curriculum. The research had 15 classrooms teachers from five (5) secondary schools both co-education and single sex schools as participants and data were collected by using face- to face interview, documentary reviews and non-participant observation.

The effects of secondary school teachers' training and development programmes on students' performance is one of the studies carried out in Tanzania by Paul (2013). This is similar research to that carried out by Njiku, Mutarutinya and Maniraho (2021). Participants in this research were 35 from government and 35 from private schools. They included teachers and school owners. Research tools used for data collection were questionnaires and interview guides. Findings revealed that the teachers training and development policies were not implemented almost in all schools involved in the research. This can be simply interpreted that the importance of either off- or on-the- job training was missing to teachers in particular and various schools visited for research in general.

The different research carried by Willaim (2015) examined the use of non- financial incentives as a strategy to improve teachers' performances in Ilala Municipality community secondary schools. The non-financial incentives sought include: offering teachers frequent workshop opportunities, offering training opportunities, appreciation, offering certificates and medal awards, ensuring good working conditions, offering of gifts, teachers being respected, and participation in celebrations, providing promotion at appropriate time, and offering study-tours. The sample of 80 teachers, including eight (8) heads of school and 72 teachers were involved in the study. Data collection tools used were questionnaire, interview and documentary reviews. Similar to the results by Paul (2013) and Kilipamwambu (2021), majority of teachers said that they were not offered non-

financial motivation in carrying out their work including workshop opportunities, training opportunities and seminar opportunities.

Furthermore, the research was carried out to investigate the influence of teacher's professional development practices on their job performance in Nyamagana district, Mwanza region. This research was done by Mduma and Mkulu (2021), and adopted the mixed method approach. It adopted a convergent parallel design, and tools for data collection were questionnaires and interview guides. Research findings revealed that training of teachers in general had positive impact on different dimensions like; reducing teachers' stress and turnover, improving teachers' effectiveness, improvement of teaching strategies, and reducing teachers' burnout.

Moreover, Nzowa (2020) did research which is similar to that of Willaim (2015). Precisely, the research investigated the effect of teachers' non-monetary motivational factors on job satisfaction among public secondary schools in Arusha District, Tanzania. This research employed a quantitative research approach. 175 research participants came from six (6) public secondary schools available in Arusha. Questionnaires was the tool used for gathering data. Research findings revealed the subsequent non-monetary motivational factors: recognition, promotion, career and professional growth as well as good working condition. Therefore, professional growth, which is to do with training and development was one of the motivating factors. This identifies benefits realized by teachers from participating in either in the off-the-job training or on-the-job training.

Another research on the benefits attached to off-the-job training was done by Ndume, Kisanga and Selemani (2021). The research was done in Dar es Salaam and was about integrating ICT in Tanzania secondary schools. The purpose of the research was to explore key achievement indicators towards ICT integration in Tanzania secondary schools. The study used self-administered questionnaires for gathering data. The research design adopted was a repeated cross-sectional survey and data were collected from 297 teachers from different secondary schools in Tanzania. The teachers were the ones who participated in ICT skills training from three years consecutively, that is, in 2017, 2018 and 2019. Research findings revealed that notwithstanding existing setbacks such as ICT infrastructure, high student-to-computer ratio, limited ICT knowledge and skills to teachers in learning and teaching, several schools had built and conferred well with the process of ICT education. Additionally, several teachers had acquired skills in using computer and internet, particularly, in lessons preparation. Furthermore, findings indicated that at

each school there was at least one teacher who was proficient on using ICT devices, the skills gained from training.

Contrary to research findings by Ndume, Kisanga & Selemani (2021), earlier research conducted in Tanzania on competence possessed by teachers in secondary schools on use of ICT showed different picture. For example, Ngeze (2017) did research on use Information and Communication Technologies (ICTs) in teaching and learning. Data were collected from 202 teachers who were selected from 32 Secondary Schools from all Educational Zones in Tanzania. Research findings revealed that majority of the secondary school teachers, approximately 77 percent possessed either a laptop or a smartphone or both, nevertheless lacked skills and knowledge on how to use them for teaching. Similarly, Banele (2019) did research on factors for Teachers' Low Use of ICT in secondary schools in Tanzania. The research was done in Kibaha District, Pwani region. 50 teachers, 12 heads of schools and 12 secondary schools were involved in the research. Research findings revealed despite teachers being trained to use ICTs in classroom activities, strangely, they did not possess intrinsic motives to use it routinely, as mostly claimed on need of motivation. That is, they had conflicting mindset to either continue with traditional pedagogies or the competence-based curriculum (CBC) model.

## **DISCUSSION**

The scoping review on teachers' implementation of competence-based curriculum (CBC) in Tanzanian public and private secondary schools looked at main four issues: first, implementation of the competence-based curriculum. Second, in-service teachers training, third, challenges facing teachers in Tanzania, and fourth, benefits teachers get from participating in the off-the-job training. Various research findings were revealed concerning in-service training of secondary school teachers to be able to implement the competence-based curriculum (CBC) properly. Some research findings revealed that through attending different in-service training, teachers mastered the subject matter content through learning from other subject teachers who came from neighbouring schools. Similarly, research findings indicated that through in-service training, teachers gained new tactics and knowledge on the taught subject matter as well as improving the methodology of teaching likewise masterly of the subject matter content. A number of hindering factors were identified on in-service training to secondary school teachers namely: unaccommodated and inflexible arrangements of training, absence of resources particularly finance, deprived organisation of program, lack of support and guidance, poor commitment from school administration and biasness

during practicing in-service training. Moreover, research findings revealed that mentoring process resulted into developing teaching competencies among novice teachers.

The role of ICT on facilitating in-service training was also investigated. Research findings indicated that majority of in-service teachers had experience in using ICT to learn, but, the major challenges faced in-service teachers to access education through ICT included electricity fluctuations, lack internet network and lack of resources to buy ICTs gadgets like computers.

Numerous challenges were also found which made difficulty on implementing the competence-based curriculum (CBC). Challenges revealed include: adopting learner centered approach was limited by learners' language barrier; class sizes; type of curriculum design; teacher shortages, and shortage of instructional resources. Likewise, absence of both in-service training for Learner-Centred Teaching (LCT) and cultural-context hindered implementation of competence-based curriculum. Another challenge identified in various studies was that many teachers had never used digital technologies for teaching and learning purposes. Also, few teachers engaged in teachers' professional development (TPD), thus required further support through training. Very strangely, in Colleges and Universities where teachers are prepared, tutors understood competence-based curriculum (CBC) in relatively different ways, that is, different meanings were attached to competence-based curriculum (CBC). For instance, competence-based curriculum (CBC) was understood as an application-oriented curriculum, while other tutors understood competence-based curriculum (CBC) as an activity-based curriculum. The challenges identified in various studies still substantiates the difficulties associated with the implementation of the competence-based curriculum (CBC) in Tanzanian schools.

The benefits attached to off-the-job training were revealed in various studies carried out on implementation of the competence-based curriculum (CBC) in Tanzanian schools. To start with, one empirical research substantiated that governmental, institutional, and individual initiatives towards competence-based curriculum implementation significantly existed due to off-job training opportunities offered to teachers. It could be presumed that teachers increased their knowledge and skills on how to implement the competence-based curriculum (CBC) in their schools. Likewise, research findings revealed that teacher too benefited from online training, for instance, the technological pedagogical content knowledge (TPACK) online training, which was organised to improve the ability of teachers, whereby teachers learnt collaboratively and training was virtual. Lastly, research findings revealed that off-the-job training made positive contribution to teachers,

particularly reducing teachers' stress and turnover, improving teachers' effectiveness, improvement of teaching strategies, and reducing teachers' exhaustion. However, some research findings revealed that teachers did not benefit from participating in the off-the-job training offered in form of seminars or workshops because were not given such opportunities due to lack of funding.

### **Challenges and limitations during searching**

Various limitations are leveled in research thus applies to this scoping review as well. Firstly, according to Gentles et al. (2010), in comparison to systematic reviews, it is impracticable to retrieve and screen all the relevant literature in a scoping review due to its wider focus. Secondly, in a scoping review all relevant studies could not be identified because the scoping reviews are not envisioned to be as exhaustive and/ or comprehensive (Cameron et al., 2008; Levac et al., 2009; Boydell et al., 2012). Thirdly, the balance between the depth and breadth of analysis was also a challenge, that is, according to Brien et al. (2010) and Cronin de Chavez et al. (2005), it is not practicable to carry out a comprehensive synthesis of the literature given the large volume of articles and grey literature identified in the review process. Fourthly, depth of analysis is also limited by the time available to conduct the scoping review (Freeman et al., 2000; Gulliford et al., 2001; Templeton et al., 2006; Cahill et al., 2008; Bostock et al., 2009; Brodie et al., 2009).

### **CONCLUSIONS AND RECOMMENDATION**

Research findings revealed mixed of findings on implementation of the Competence Based Curriculum (CBC) in Tanzanian schools, both public and privately owned schools. Research findings indicated that some teachers implemented the competence -based curriculum (CBC) effectively because they were exposed to either in-service or off-the-job training. However, some teachers had never attended any sort of training as regards to competence -based curriculum (CBC). Research findings also revealed a number of challenges which to large extent effective implementation of the competence -based curriculum (CBC) in Tanzanian schools including, inadequacy of text- books, large class size, lack of finance for offering seminars and workshops to teachers, curriculum overload, lack of ICT facilities, fluctuation of electricity, learners' language barriers. Benefits related to training enumerated in the reviewed research include, reducing teachers' stress and turnover, improving teachers' effectiveness, improvement of teaching strategies, and reducing teachers' exhaustion. Strangely competence-based curriculum (CBC) was

understood differently in colleges and universities by tutors. Some understood as an application-oriented curriculum, while other tutors understood competence-based curriculum (CBC) as an activity-based curriculum. It can be generally concluded that implementation of the competence-based curriculum (CBC) in public and privately owned schools in Tanzania is still daunting.

### **Implications for research**

The reviewed studies shade much light on the extent to which competence -based curriculum (CBC) is implemented in public and privately owned secondary schools in Tanzania. However, further empirical research is still needed so as to investigate at length what is really missing on actual implementation of the competence -based curriculum (CBC), particularly on involvement of teachers from privately owned schools in formulation of the competence -based curriculum (CBC).

### **Implications for practice**

The reviewed research and the underlined findings offer valuable knowledge towards implementation of the competence-based curriculum (CBC). The research findings highlight key aspects to policy makers, education stakeholders and teachers on opportunities and setbacks on putting into practice the competence -based curriculum (CBC). This scoping review document would therefore be of use to prepare learners in Tanzania who are inquisitive, critical thinkers, problem solvers, and with creative mind and attitude. The setbacks revealed can also test all interested education stakeholders to think on what should be done to ensure effective implementation of the competence -based curriculum (CBC) in the country.

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