Competencebased Learning Environment Support for Pupils' Learning in Mpwapwa District Primary Schools

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Author's contribution

The sole author designed, analyzed, interpreted and prepared the manuscript.

Original Research Article

ABSTRACT

This study investigated on competence-based learning environment support for pupils' learning. Preparation and use of competence-based instructional materials, selection and use of competence-based teaching-learning techniques, and classroom situation for pupils' effective learning were the objectives of the study. The study was conducted in Mpwapwa District primary schools. Qualitative approach was employed to capture participants' views. Interviews and observations methods were used for data collection. 15 participants from 5 primary schools were involved in this study. 10 participants were classroom teachers, and 5 were head-teachers. 10 classroom teachers were selected on purpose, and 5 head-teachers were involved in this study by virtual of their administrative positions. Data were analysed by thematic and content techniques.
The study revealed that government, teachers, pupils, and schools involved in the preparation of instructional materials. The findings also showed that simple questions and answers, lectures, and group discussions were the predominant methods used by teachers to teach pupils in spite of the teachers knowing other teaching methods. Further the study found that classroom situation was an

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obstacle for the teachers and pupils in teaching and learning process. The point was evidenced by shortage of pupils' text books, computers, desks, tables and chairs, and crowded classes. The study concluded that there was little support of competence-based learning environment for pupils' effective in Mpwapwa District Council. The study recommends that for pupils' effective learning and better performance, competence-based learning environment aspects are to be taken into consideration by education stake-holders particularly government.

1. INTRODUCTION

This study investigated on competence-based learning environment support for pupils' learning. Literature contends that competence-based learning environment is vital for pupils' learning [1]. According to literature [2] competence-based learning environment constitutes several aspects among others competence-based instructional materials, competence-based teaching and learning methods/techniques, and competence-based classroom situation which encompasses a defined size of a class, classroom facilities, finest relationships between teachers and students to name a few. It is argued that availability of competence-based instructional materials such as syllabus, students text books, and teachers' guide books, classroom facilities including pupils' desks, teachers' tables and chairs, classroom ventilation and light, and toilets support positively on pupils' learning, and better performance [3] (Lovin, 2015). It is further claimed that competence-based teaching and learning methods/techniques as another competence-based learning environment aspect has positive effect for pupils' learning hence enable pupils develop the intended competences. However, the question was whether Mpwapwa District council had considered such competence-based learning environment for pupils' effective learning, and better performance. The study mainly focused on availability and use of competence-based instructional materials, teachers' competences in the selections and use of competence-based teaching-learning techniques, and competence-based classroom situation as vital aspects of competence-based learning environment for pupils' learning.

1.1 Competence-Based Instructional Materials

Literature argues that competence-based instructional materials are those materials which create opportunity for pupils/students to interact with them, and develop students' critical thinking,

curiosity, and interest to learn at their own pace (Kessy, 2016). The materials include competence-based texts such as books, journals, and articles. There are also competence-based non-textual instructional materials including pictures, drawings, charts, technology gadgets such as radios, CDs, DVDs, computer television to name a few (Kessy, 2016). It is asserted that the availability of these instructional materials is pre-requisite for pupils' effective learning, and better performance. The materials enable pupils not only to acquire and develop the intended competences but also assist pupils to search more knowledge and skills at their own pace (Edwards, 2018). However, Mayer (2020) noted two challenges; shortage of the materials that leads teachers to embark on the use of traditional instructional materials mainly text books, and teachers' incompetence in the use of technological devices such as computers. Further, Diffang [4] exemplifies unavailability of competence-based based text books as major challenge faced by teachers in teaching and learning through competence-based approach.

1.2 Teachers' Competences versus Competence-Based Teaching Methods

It is contended that teachers' competence plays significant role for pupils' learning. Competent teachers are able to select and employ appropriate competence-based teaching methods/techniques for pupils' learning [5]. However, not all teaching and learning methods/techniques are competence-based (Martin, 2019). Competence-based teaching and learning methods/techniques are those which allow and promote interaction between teacher and students, students and teaching and learning materials, and between or among students themselves (Martin, 2019). The methods include jig-saw, role-play, dramatization, think-pair-share, group discussions, brainstorming, think-pair-share etc. Literature portrays that competent teachers find such competence-based teaching

methods/techniques useful for pupils' learning since the methods enable students develop critical thinking, creativity, collaborative and communicative competences [6]. However, the question was whether primary school teachers in Mpwapwa District Council were competent to select, organize, and use competence-based teaching-learning methods/techniques for effective pupils' learning. The researcher's doubt as teacher and teacher educator was due to the fact that Mpwapwa is a peripheral district. Teachers in the district were not used to be exposed to on job trainings. Again, Education Report showed that a number of pupils perform unpleasantly in final examinations; standard IV and VII (Mpwapwa District Education Report 2016-2021).

Literature points out that if teachers are not up-to-date they tend to go back to their traditional methods/techniques mainly lecture methods consequently pupils become underperform [7].

1.3 Competence-Based Classroom Situation

Classroom situation is an essential aspect of competence-based learning environment for pupils' effective learning and better performance [8]. Literature remarks competence-based classroom situation constitutes several aspects among others well defined size of the class [1]. However, the size of the class is perceived differently in different contexts. Significantly, size of a class is characterized by teacher pupils/students ratio [1]. In Tanzania context for example, size of a class in primary school education is determined by the ratio of one teacher to forty five pupils (1:45). A primary school class in Tanzania context that exceeds the ratio of one teacher to forty five (45) pupils is considered large [9,10]. Such a class is claimed to limit teachers to effectively exploit their competences in selection and use of competence-based teaching methods/techniques [10]. The reason is that in a large class for example, a class of more than forty five pupils it is difficult for a teacher to meet competence-based teaching methods requirements. Competence-based teaching and learning methods/techniques require an individual pupil/learner to be involved not only in acquisition and development of the intended competence but also in applying it [8]. In a class of more than forty five pupils it is hard for a teacher to involve or facilitate every individual pupil in developing the intended competence.

Other aspects constituted in classroom situation include classroom facilities for teachers and students, classroom light and air ventilation [8]. Literature (Newell, 2018) argues that teachers and students find difficult to achieve teaching and learning goals in a situation where competence-based situation is not realized. For example, in a classroom situation where there is shortage/lack of essential classroom facilities such as text books, desks/chairs and tables for both teachers and students, and students' overcrowded Newell (2018; Fan, 2019).

However, it was doubtful if the discussed classroom situation aspects are maintained in in Mpwapwa District Council primary school education delivery based on current pupils' enrolment report (BEST, 2016-2021).

This study therefore, was planned to investigate on how competence-based learning environment supports pupils' effective learning. The study mainly focused on availability and use of competence-based instructional materials, teachers' competences in the use of competence-based teaching and learning methods/techniques, and classroom situations and its contribution for pupils' effective learning.

1.4 Statement of the Problem

There is a growing body of evidence indicating that competence-based learning environment has great support for pupils' effective learning and better performance [2,11]. As it has been discussed above, competence-based learning environment constitutes several aspects including competence-based instructional materials both textual and non textual, teachers' competences, well defined classrooms in terms of size, facilities, lighting, and air ventilation [12,2] (Ryan, 2016).

Ryan (2016) for example, asserts that a pupil learning in appropriate environment becomes more knowledgeable, skilled, creative, critical thinking, and self regulated. Despite the described usefulness of competence-based learning environment for pupils' learning, the question remains that do primary schools in Tanzania context particularly in Mpwapwa District Council experience competence-based learning environment that supports pupils' effective learning? The study by Kanon (2020) for example, revealed that most primary school teachers have limited instructional competences in teaching of social studies subject. Further, Kasumba (2014) found that although the

University of Dar-es-Salaam adopted competence-based curriculum in 2000, most lecturers continued using traditional teaching-learning methods, specifically lectures. Furthermore, the study by Adrian (2012) showed that most primary school classes are overcrowded; consisting more than 80 pupils. The study was conducted in Muheza Distrcit Tanga Region. Likewise, the study by Mosha [13] indicated that most primary schools in Kilimanjaro Region particularly Moshi Urban and Rural Districts faced shortage of pupils' competence-based text books. In respect to these studies, and the recent report about pupils enrolment (BEST, 2016-2020), the researcher considered it necessary to investigate on the support of competence-based learning environment for pupils' learning in Mpwapwa District primary schools focused on whether competence-based instructional materials were available and used by teachers to teach pupils, teachers' competences in selecting and use of competence-based teaching method/techniques, and contribution of competence-based classroom situation for pupils' learning.

1.5 Purpose of the Study

The purpose of this study was to investigate on competence-based learning environment support for primary school pupils' learning in Mpwapwa District Council.

1.6 Specific Objectives of the Study

Specifically, this study intended to

1. Examine the availability and use of competence-based instructional materials for pupils' effective learning.
2. Determine teachers' competences in selecting and use of competence-based teaching methods/techniques.
3. Assess the support of competence-based classroom situation for pupils' learning.

2. LITERATURE REVIEW

This part provides theoretical and empirical review related to the study. The theoretical review is guided by constructivists' theory of teaching and learning. The part also highlights empirical literature review related to this study.

2.1 Theoretical Review of the Study

This study is guided by Constructivism Theory for Teaching and Learning (CTTL). The theory was developed by a Russian Psychologist, Vygotsky in 1960s.Generally, the theory explains that people actively construct their knowledge in a meaningful learning environment. Constructivism theory for teaching and learning underpins a variety of learner-centered teaching and learning methods which contrast with traditional methods in which knowledge is passively transmitted by teachers to students. Constructivists' teaching and learning methods include those which promote interaction between a teacher and students, between students themselves, and between students and instructional materials. From this perspective, a teacher plays a role as a facilitator rather than an instructor (Oliver, 2000). Constructivists focus more on relationship between teachers and students, and supportive learning environment; sharing of authority, and pupils' assessment without grading them. They believe that if environment including appropriate teaching and learning methods, availability of instructional materials, and assessments which are in favor of children, then learning can take place effectively [14].

2.2 Empirical Literature Review

There have been many studies about learning environment for students/pupils' learning.

Haney [15] for example, found pupils' home environment including parents' education, and family income as factors that signify effects on pupil's learning. Unlike Haney, Rogers (2021) discloses teachers' awareness of competence based teaching methods, competence based instructional material, and classroom situation cannot be separated from the effective learning environment for students' learning, and better performance.

2.3 Competence-Based Instructional Materials

Competence based instructional materials are among the determinants to be observed if at all we want to achieve goals of pupils' learning, and better academic performance (Kessy, 2016. Both textual and non-textual competence based instructional materials have significant role towards students' learning. Literature portrays that for schools which have adequate competence based instructional materials both printed and non printed materials experience better students' academic performance [16]. However, it is argued that most teachers use traditional instructional materials specifically, text books to teach pupils rather than modern or technological materials [17]. The study was silent

about why teachers prefer using traditional instructional materials to modern or technological materials. Hovenga [18] for example, discloses that using video-conferencing as one of the modern or technological instructional materials of teaching and learning helps to facilitate a number of classrooms or students at ago.

2.4 Teachers' Competences on Competence-Based Pedagogy Practice

Teachers' understanding of competence based teaching methods is of paramount important aspects for pupils' better learning and performance. Competence based pedagogy is learner-centered in which a learner involved in learning through various interactive teaching-learning methods/techniques including questions and answers, brainstorming, group discussion, jig-saw, demonstrations, role play, dramatization, and gallery walk [19]. Despite the advantages of competence based teaching methods, Mosha (2010) found that some primary school teachers in Tanzania are still using traditional teaching methods such as lecture methods. Furthermore, Kafyulilo [20] assessed the implementation of competence based teaching approaches in Teacher Colleges in Tanzania. The study found that both college tutors and student-teachers were unable to clearly explain about competence based teaching-learning methods. The danger of this situation according to Kafyulilo [20] was that those student-teachers after completing their course of study would be employed and posted to primary schools in Tanzania with little understanding of competence-based teaching and learning methods. However, the study has not discussed about why college tutors and student-teachers were unable to explain bout competence-based teaching-learning methods. Simir (2016) determined teachers' awareness of shifting from teacher-centered to learner-centered as a new paradigm of competence based curriculum on students' learning. The study found that teachers who were aware of student-centered pedagogy spent less time talking, giving much time to students doing various learning activities. In turn, teachers who had little understanding about student-centered pedagogy used more time talking and doing activities than their students.

2.5 Classroom Situation and Its Support on Students' Learning

A large amount of a child's time is spent sitting in a school classroom. This place is where children develop various knowledge and skills deemed necessary and proper for them to achieve success in the global society [21]. The classroom is where students develop what they want their future to look like, as well as knowledge and skills needed to reach that goal. With the classroom being such an important place in the growth of a child it is important to understand the ways in which to positively affect this environment in order to receive maximum effectiveness for pupils' learning [21].

Cheong (2015) for example, investigated the effectiveness of learning environment on students' learning. The study found that modern school classrooms are able to meet students' needs of learning since they incorporate the latest innovative technology including computers.

Ryan [11] asserts that a student learning in appropriate environment becomes more knowledgeable and skilled. According to Ryan [11] environment has an impact on student learning. Therefore, any improvement effort to the learning environment would definitely help enhance student achievement.

Usman [22] contends that good learning environment consists of four main factors: visual, acoustical, aesthetic and thermal environments. The visual environment refers to appropriate lighting system in the classroom to facilitate students in focusing their tasks. The acoustical environment means a well designed environment free from external noise disturbance. The aesthetic environment focuses on an appropriate use of instructional materials; textual and non textual materials to accommodate students' learning activities. The thermal environment includes adequate air conditioning, heating and air ventilation in the classrooms to ensure physical comfort. Thus, these aspects are significant to be taken into account if at all we want our children achieve their learning goals [23].

Burnette [2] studied the impact of school classroom environment on the word learning of students' performance. The study results indicated that school learning environment has direct and indirect impacts on students' performance. According to Burnette [2] direct impact is associated with size of the classrooms, and learning facilities, appropriate lighting, controlled acoustics and proper air ventilation. A good learning environment frees students from physical distress, makes it easy for students to concentrate on school work and induces

students in logical thinking. Students in good learning environment undoubtedly attain higher performance.

On the other hand, students in poor learning environment are under many physical constraints. It is believed that only very few students with great determination and self-discipline can overcome all the difficulties created by such hazardous learning environments. Indirect impacts are responses shown by students through positive and negative attitudes.

With a positive attitude towards their learning environment, students learn with high motivation and undoubtedly are able to demonstrate better performance. On the other hand, students' dissatisfaction with poor learning environments may lead to lowering their interest and enthusiasm in learning. Consequently, poor students' performance is no surprise [2].

3. METHODOLOGY

The study employed an interpretive qualitative case study research to understand the participants' views on the learning environment support in the implementation of competence-based curriculum. The interpretive maintains that there are multiple, socially constructed realities in which the researcher's judgments are considered in interpretation of data (McMillan, 2010). Purposive sampling method was used to select classroom teachers.

The study was carried out in Mpwapwa District primary schools, Dodoma Region Tanzania. Semi-structured interviews were used to collect data of this study. The reason for choosing this method was its flexibility in allowing the discovery and elaboration of participants' in-depth information. Furthermore, the method provides the researcher with a chance of engaging follow-up questions that expand participants' original information, thoughts and views (Cohen, Manion& Morrison, 2007).

The study also employed participant observation method for data collection. The method allows the researcher to observe the situation at the source rather than relying on second-hand information. Participant observation method also relies on researchers seeing and hearing things from the original setting (Frankael & Wallen, 2001). Interview guide questions and observation check list were prepared and used by the

researcher to obtain information from participants. 15 participants from 5 primary schools in Mpwapwa District Council were involved in this study. 10 participants out of 15 were classroom teachers, and 5 were head-teachers. 10 classroom teachers were selected on purpose; only classroom teachers with the experience of five years or more were deemed to fit for this qualitative study. 5 head-teachers were involved in this study by virtual of their administrative positions. The data set obtained from interviews was analysed using thematic data analysis method. The process began by familiarizing with the data through transcribing audio-data to textual-data, reading transcripts several times. This followed by coding, finally naming the themes. Data from observations were analysed through content data analysis methods. The participant observations focused on addressing specific questions included the classroom situations, instructional methods, teaching and learning materials used by classroom teachers to teach pupils

3.1 Profile of the Participants

Table 1 shows the participants' profile involved in this study. The participants' profile included participants' teaching experiences and gender; female and male.

Table 1. Categories of participants according to experiences and gender

Years	Female	Male	Total
5-10	2	3	5
11-15	2	2	4
16-20	2	1	3
21-25	1	1	2
26-30	-	1	1
Total	**7**	**8**	**15**

Source: Field Data 2021

4. RESULTS AND DISCUSSION

The purpose of this study was to investigate on competence-base learning environment support for primary school pupils' learning. Specifically, the study focused on availability and use of competence-based instructional materials for effective pupils learning, teachers' competences on selection and use of competence-based teaching and learning methods/techniques, and backing of competence-based classroom situation for pupils' learning, and better performance.

4.1 Availability and Use of Competence-Based Instructional Materials

The study under this theme intended to examine the availability and use of competence-based instructional materials for pupils learning. To obtain information about this theme both interviews and classroom observations were used.

4.2 Availability of Competence-Based Instructional Materials

Through observations the findings revealed that most primary schools in Mpwapwa District Council run a shortage of competence-based textual and non-textual instructional materials included pupils' text books and technology gadgets like computers. The extent was one text book shared by more than six pupils.

This situation caused difficulties for not only teachers' exploitation of their competences in teaching but also for pupils' effective learning and better performance. Teachers were observed struggling especially for those teachers teaching reading lessons due to the shortage of pupils' text books. It was even observed that some teachers reading story themselves loudly from the text books for pupils [24,25]. Through researcher's experience as teacher and teacher educator this technique used by the teachers to read texts books for the pupils contradicts literature since it does not help pupils develop competences on their own selves [6].

Through interviews the researcher wanted to know who was responsible for preparation of competence-based instructional materials. The findings showed four scenarios involved in competence-based instructional materials preparation included government, teachers themselves, pupils, and schools.

It was explained that government used to prepare and distribute some competence-based instructional materials included subjects' syllabus, pupils' text books and teacher' guide books as one Head-teacher said:

> "*The government of Tanzania prepares some instructional materials included pupils' text books, syllabus, and teachers' guide books, and they distribute the materials to our schools.*"

Further, the findings showed that simple competence-based instructional materials commonly known as Teaching Aids were prepared by classroom teachers themselves. The teachers explained that they used school and home environment to prepare teaching and learning materials commonly known as teaching Aids through improvisation as one classroom teacher confessed:

> "*We use our home and school surroundings to improvise simple competence-based T/Aids such as charts, cards with word/sentences, abacus etc.*"

Moreover, the findings showed that some pupils were involved in preparation of competence-based teaching-learning materials/facilities. As one classroom teacher said:

> "*Some pupils are requested to help teachers to prepare simple T/Aids especially, those needed to be molded, weaved, carved, and even to collect things such as flowers, stones, plastic bottles from home or school environment.*"

The last scenario showed that schools were buying ready-made competence-based teaching-learning facilities. The teachers said that the advancement of science and technology has simplified the task to prepare some instructional materials since they are sold in shops and markers. One classroom teacher asserted:

> "*You know! This advancement of science and technology has simplified the work of preparing Teaching-Aids hence they are sold in shops and markets. The teacher himself/herself or the school buys the materials such as toys, models, abacus etc from shops or markets.*"

However, the researcher wanted to know from the teachers why pupils were involved in the preparation of Teaching Aids. The teachers responded that involving pupils in the preparation of teaching aids is advantaged since it helps the pupils to expose their talents. One classroom teacher clarified the advantage of pupils involvement in teaching aids preparation. She portrayed:

> "*Incorporating pupils to prepare simple teaching Aids especially, those needed to be molded, drawn, weaved and carved exposes, develops, and promotes pupils' talents.*"

The findings aligned with Kumar (2017) who asserts that it is good thing for teachers to

involve pupils in preparing simple teaching aids because it not only develops pupils' talents but also creates good relationships between teachers and pupils. However, the researcher's perception was that it could be much better for teachers to involve all pupils in the preparation of teaching aids but, not some so as to develop talents and good relationships to all pupils.

4.3 Use of Competence-Based Instructional Materials

Under this sub theme, the findings showed that primary school teachers were mostly using textual materials such as books, charts, cards with words, sentences or pictures in their teaching and learning process. However, during interviews classroom teachers claimed that although they were frequently using text books for teaching pupils, they faced a challenge of shortage of teaching and learning materials specifically pupils' competence-based text books.

The teachers explained that most schools experience inadequate pupils' competence based text books to the extent that one text book is shared by five to six pupils. To combat such a situation, the findings revealed that teachers used to divided pupils into groups of eight to ten members, and provide them with one book to read. One classroom teacher disclosed that:

> *"I use both textual and non-textual materials such as books, charts, cards with words, sentences or pictures in my teaching process depending on the nature of the lesson. However, I face the shortage of pupils' competence-based text books. So, in developing reading or writing skills for example, I divide pupils in groups of eight to ten members, and display the books to be shared by the group members."*

This finding implies that the government of Tanzania through the Ministry of Education, Science, and Technology has not provided primary schools with adequate competence based teaching-learning materials specifically, pupils' text books. The shortage of pupils' text books affects negatively the process of pupils' learning. World literature contends that the availability of competence-based instructional materials specifically, pupils' text books not only simplify teaching process but also promote pupils' learning at their own pace (Janovsky, 2018).

On the other hand, the findings showed that none of the primary schools in Mpwapwa District Council had technological devices such as computers connected to internet. This situation is challenging especially, in this era of advancement of science and technology where much knowledge is obtained through online learning. When the researcher asked teachers particularly, Head-teachers why their schools lacked technological devices included computers. The Head-teachers responded that the government had not provided their schools with such materials. One Head-teacher declared that:

> *"Despite the fact that technological devices such as computers expose pupils to the world of science and technology, our schools lack these devices. The government has not provided our schools with such important technological devices."*

The importance of technological devices including computers for pupils' better learning has been discussed by various world literatures. Okafor (2016) for example, points out that those schools with adequate modern or technological instructional materials such visual and audio-visual materials contribute positively to both teachers and students' knowledge and skills enhanced the process of teaching and learning. However, the researcher perceives the shortage of pupils' competence based teaching-learning materials specifically, text books in Tanzania primary schools as the chronic phenomenon. This is because the study by Mosha [13] found that most primary schools in Tanzania faced shortage of pupils' competence based text books. Mosha investigated competence-based teaching-learning materials used to teach primary school pupils; standard IV and VII. Based on the findings, it can said that for long time primary schools in Tanzania have been experiencing shortage of teaching and learning materials/facilities despite their significance for pupils' better learning. This situation might have leading to pupils' underperformance in areas of their studies.

4.4 Teachers' Competences in Selecting and Use of Competence-Based Teaching Methods

The objective under this theme sought to determine teachers' competences in selecting and use of competence-based teaching and learning methods/techniques for pupils' effective learning.

To obtain information about the theme, observations and interviews were employed by the researcher. Through classroom observations, the findings showed that most primary school teachers selected and employed simple Questions and Answers, Lectures, and demonstration methods for teaching pupils. Rarely, Group discussion method was used by teachers in the process of teaching and learning.

In the process of teaching and learning, the study found that teachers used to prepare two to three questions from which pupils were asked orally at the beginning and at the end of the lesson. However, most of the questions were not really competence based because they did not develop and promote pupils' critical thinking rather, they were used to revise (memorization) previous lessons. For example, one classroom teacher teaching class VI asked pupils:

What did we learn yesterday?

However, through interviews most teachers were found mentioning several competence-based teaching and learning methods. For example, one classroom teacher mentioned brainstorming, think-pair-share, role-play, jig-saw, Garalley-walk, and peer teaching as competence-based teaching and learning methods. When the researcher wanted to know why classroom teachers were mostly using simple questions and answers, lectures, and demonstration, and rarely group discussions methods to teach pupils while they knew a number of competence-based teaching and learning method. The majority classroom teachers pointed out that overcrowded classes, shortage of pupils' text books were the factors limited them to use other methods rather than simple questions and answers, lectures, and demonstration. For example, one classroom teacher who was teaching standard IV said that:

"……questions and answers, demonstration, and lecture methods simplify teaching process especially, in the overcrowded class like this one. This class has 120 pupils therefore, it is difficult to use other competence based methods such as jig-saw etc."

Further, another classroom teacher said the following about the selection and use of the methods to teach pupils:

"I mainly opt and use Questions and Answers to teach my pupils. Sometimes, I use group discussions with the expectations that group discussions develop pupils' collaborative and communicative competences."

Furthermore, another teacher who was teaching standard IV explained the following pertaining competence based methods she used to teach pupils:

"….the selection and use of which competence-based teaching-learning methods/techniques is dependent on the number of pupils in the class that I teach. I n class IV for example, where there about 120 pupil I use simple Questions and Answers, Lecture methods or demonstration methods. These methods help me to simply teaching and learning in such a class."

The findings contradict the literature which contends that for effective pupils' learning especially under competence-based curriculum, competence-based teaching and learning methods including peer teaching, jig-saw, role play etc are highly recommended (Simir, 2016) [6].

However, the implication of the findings is that most primary school teachers understand competence-based curriculum but the classroom situation limit them to use such methods. On the other side, UNESCO [1] remind that for effective use of competence based teaching methods for pupils' effective learning, the question of teacher pupils' ratio is inevitable. In Tanzania primary school context for example, the teacher pupils' ratio is one teacher to forty five pupils [9,10].

4.5 Competence-Based Classroom Situations

Under this theme, the study sought to assess whether classroom situations as one of the aspects of competence-based learning environment support pupils' learning or not. The focus was on teacher pupils' ratio, teachers and pupils' classroom facilities included desks, tables and chairs, and classroom teaching-learning aids.

Through classroom observations, the study findings revealed that most primary school classrooms in Mpwapwa District Council were overcrowded. For example, it was observed that in most classrooms especially class IV and VI had more than 80 pupils. The following Fig. 1 reveals the overcrowded classroom.

Fig. 1. An overcrowded classroom
Source: Field Data, 2021

This is against competence-based classroom situation thus, it does not support pupils' effective learning [1].

When the researcher wanted to know from participants why most classrooms were overcrowded. The participants responded that the situation was strongly realized after the government of Tanzania had announced free education. One Head-teacher for example, claimed that:

> *"After the government of Tanzania has announced free education, our primary schools experience this challenge of overcrowded classes. Every parent ensures that his/her child goes to school. This situation leads primary schools to receive many children even beyond the capacity of the school."*

It is good thing for the government of Tanzania to provide their citizens with free education. This is because free education enables at least all Tanzania children to acquire basic/primary education. However, the government would have created conducive competence-based learning environment through extending classrooms, and maintaining teacher pupils' ratio (Tanzania Educational Policy of 1995 and 2014) for pupils' effective learning, and better performance.

In line with the findings, literature argues that the overcrowded class or the class which exceeds the defined teacher pupils' ratio pupils affects pupils' pupils' learning [1]. In support of UNESCO [1], Fisher [23] contends that higher teacher pupils' ratio has negative impact on pupils learning apparently leads to pupils' underperformance.

Fisher [23] also asserts that it is difficult for a teacher to facilitate and assess an individual learner based on every learned competence in the situation where teacher students' ratio is not considered.

Furthermore, the study found that most classrooms in Mpwapwa District Council primary schools faced shortage of pupils' desks. The extent was one desk shared by four to five pupils. The Fig. 2 below shows how the situation was in most primary schools in Mpwapwa District Council.

When the researcher asked participants specifically, Head-teachers why primary schools in the District faced shortage of pupils' desks to the extent that one desk is shared by four to five pupils. The majority participants responded that it was the responsibility of the government through District councils to provide their schools with pupils' desks. One Head-teacher for example, said the following about shortage of pupils' desks.

> *"Some years ago, schools had good arrangement of obtaining pupils' desks. The schools through their School Committees used to ask pupils' parents to provide contributions which partly was used to cover issues concerning desks, stationeries etc. But now days, provision of desks and stationeries is left to the government through*

District councils. What we do as school leaders is to request our District council officers to provide funds to cover such issues."

This situation is unhealthy and not providing pupils with comfort in learning. The Four or five pupils sitting on one desk may reduce pupils' efficacy in demonstrating writing competences. In support of the findings, literature contends that classroom facilities including students/pupils' desks are significant for comfort and appropriate students/pupils' learning, and better performance (Anbalagan, 2017).

Further, the study through classroom observations found that some pupils particularly in class IV were sitting on the classroom floor while others were sitting on the desks. The situation was as indicated in the Fig. 3.

This situation is not convincing particularly, when considering competence-based learning environment as an aspect for pupils' effective learning and better performance. Literature views competence-based learning environment if appropriately observed has great contribution for pupils' learning, and better performance [4].

The situation in which, large number of pupils sit on the floor while learning does not favor pupils' effective learning. Consequently, this situation might have resulted into pupils' poor academic performance. Notably, it is suggested that pupils' desks, tables or chairs enable pupils to properly take note, and develop good handwritings (Chan, 2012).

It was also found in this study that most classrooms in Mpwapwa District Council primary schools lacked teaching-learning Aids on the walls despite their importance. Literature contends that for pupils' effective learning especially, for lower classes including standard IV, availability of teaching-learning Aids is a vital thing. The availability of teaching aids especially, those materials which are displayed on the classroom walls enable pupils develop knowledge and skills, and revise what has already been learned at their own pace [26]. The Fig. 4 revealed the situation.

When the researcher wanted to know why classroom walls lacked teaching Aids. The majority classroom teachers claimed that they used to put teaching Aids included pictures, posters, cards with word/sentences on the classroom walls but, the teaching Aids were often destroyed because some classrooms had no door and window-shutters. One classroom teacher for example, lamented that:

"*We try to prepare several teaching Aids; drawings, pictures and even real objects, and put them in our respective classrooms. Unknown people destroy the materials, I think this is because the classrooms doors and windows lack shutters."*

However, the researcher perceived that in order to avoid the destruction of the materials, classroom teachers would put the teaching Aids during the classroom sessions, and go out with them after lessons had been over. This might have reduced the destruction of the materials.

Moreover, the study findings portrayed that most classrooms lacked essential teachers' facilities such as chairs and tables. The majority teachers explained that they are unhappy with the lack of tables and chairs. One classroom teacher teaching standard IV said the following:

"*It is believed that a teacher does not need a chair while she/he is in classroom. I think this is wrong perception. The fact is that despite most time we stand up, we need chairs and tables especially, when we correct pupils' work/exercises."*

The situation signifies that classroom teachers feel uncomfortable when they do not find their essential facilities included classroom tables and chairs. The implication of this situation for teachers is not only difficulty in correcting pupils' work/exercises but also to spend some minutes looking for a place to put their teaching-learning material particularly teacher's lesson plans, guide books, and teaching Aids. In class "Y" for example, one classroom teacher was found holding instructional materials from the beginning of the lesson up to the end. Fig. 5 shows the situation.

However, literature has been silent about this issue of teachers lacking chairs and tables in their respective classrooms. The fact is that this situation reduces teachers' comfort, and efficacy in teaching-learning process, which might have resulted into ineffective teaching.

Significantly, the following Table 2 exemplifies important points resulted from observations and interviews.

Fig. 2. One desk shared by four to five pupils
Source: Field Data, 2021

Fig. 3. Pupils sitting on the floor while others sitting on desks
Source: Field Data, 2021

Fig. 4. A classroom lacking T/aids on the wall
Source: Field Data, 2021

Fig. 5. A classroom lacking teacher's table and chair
Source: Field Data, 2021

Table 2. Results from observations and interviews

Theme	Important points from Observation	Important Points from Interview
Availability of CB-Instructional materials	Unavailability of technology gadgets (computers)	Government is responsible to provide technology gadgets (computers)
Use of CB-Instructional materials	Frequently use of simple questions & answers, demonstration, and lecture methods	Classroom situation is the determinant for the selection & use CB-T/L methods
Teachers' competences in selecting and using T/L methods	Teachers' inadequate competences	Teachers'competences are affected by classroom situations
CB-classroom situation	Crowded classrooms	Crowded classes caused by free education

Source: Field Data 2021

5. CONCLUSIONS AND RECOMMENDA-TIONS

5.1 Conclusion

The study was guided by three objectives: examining availability and use of competence-based instructional materials for pupils' effective learning, assessing teachers' competences in selecting and use of competence-based teaching and learning methods/techniques, and determining the influence of competence-based classroom situation for pupils' learning.

In line with the study findings and the ensuing discussions the following conclusions can be made:

Most primary schools in Mpwapwa District Council run a shortage of competence-based textual and non-textual instructional materials included pupils' text books and technology gadgets like computers. The extent was one text book shared by more than six pupils resulting into difficulties for teachers' exploiting their competences, and for pupils' effective learning and better performance [27,28].

Selection and use of competence-based teaching and learning methods is dependent on classroom situation. In the classrooms where pupils are overcrowded, most teachers select and use simple questions and answers, teacher demonstrations, and lecture methods in teaching and learning process. Rarely, teachers select and use group discussions to teach pupils [29-31]. The predominant use of these methods contributes inadequately to pupils' effective learning and better performance.

Most classrooms in Mpwapwa District Council lack competence-based classroom situations due to the fact that the classes have shortage of pupils' desks. The situation is that some pupils sit on desks while others sit on the classroom floors. Further, most classrooms lack teachers' tables and chairs. This leads to teachers spend much time looking for a place to put their teaching materials/documents included lesson plans or to hold the materials/documents from the beginning to the end of the lesson [32,33,34].

Most classrooms lack teaching and learning materials/teaching-Aids (talking classrooms) such as drawings, posters, pictures, charts, cards with words/sentences etc on the classroom walls as essential aspects of competence-based classroom situations for pupils effective learning and better performance.

Generally, it can be said that primary schools in Mpwapwa District Council lacks supportive competence-based learning environment for pupils' effective learning and better performance.

5.2 Recommendations

Given that most primary schools in Mpwapwa run a shortage of competence-based instructional materials, the government of Tanzania should provide schools with adequate competence-based instructional materials both textual and non-textual materials such as text books and computers for not only simplifying teaching and pupils' effective learning but also raise pupils' learning interest.

Knowing the importance of teaching-Aids for pupils' effective learning and better performance, it is recommended that primary school teachers should use home and school surroundings to improvise simple teaching materials (teaching aids), and display them on classroom walls for pupils' learning at their own pace.

Given that teachers teach in large classes (overcrowded classes) using incompetence-based teaching and learning methods/techniques, the government of Tanzania should provide the teachers with trainings to equip them knowledge, skills and attitudes (competence) to cope with the situation. It is important for the government of Tanzania to develop or extend primary schools' infrastructure including pupils' desks, teachers' tables and chairs, and classrooms to avoid pupils overcrowded in one classroom that results into ineffective use of competence based teaching methods.

CONSENT AND ETHICAL APPROVAL

Further, consent was made between the researcher and participants especially to record and take photos showing classroom situations. Ethical issues were taken into account because they are important in protecting the researcher and participants from potential harm (Punch, 2005). Thus, before going to the field for data collection, permission was asked from Mpwapwa District Council Officials.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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