



Effects of Visual Aids in Enhancing Teaching and Learning Process in Public Secondary Schools in Ilemela Municipality, Tanzania

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Abstract: *The aim of this study was to investigate the effects of visual aids in enhancing teaching and learning process in public secondary schools in Ilemela Municipality, Tanzania. Specifically, the study sought to describe visual aids used by teachers during the teaching and learning process and to find out the views of teachers and students about the effects of using visual aids in the teaching and learning process. The study was guided by Skinner's instructional theory (1974). A mixed research approach was employed, under which the convergent parallel research design was used. A sample size of 111 participants was selected, including students, teachers, school academic masters, heads of schools, and school quality assurance officers were involved in order to provide the required information. Data was collected through questionnaires and interview guides. The quantitative data was analysed using SPSS version 20 and presented on tables in frequencies and percentages, while the qualitative data was coded and analysed thematically. The findings showed that teachers had the tendency to ignore the use of visual aids in the teaching and learning process. This study concluded that the use of visual aids in the teaching and learning process is very important because it simplifies the concepts taught. It is recommended that MoEST provides enough materials, seminars and training to teachers for the preparation and usage of visual aids.*

Keyword: *Visual aids, effect, enhancing, teaching and learning process, students, teachers, public secondary schools.*

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1. Introduction

With the passage of time, new approaches and techniques have infiltrated the field of education, and teachers now use a variety of aids to help students learn more effectively. Visual tools pique students' interest and make it easier for teachers to convey concepts. Fish, Mun, and A'Jontue, (2016) have defined visual aids as those devices which are used in classrooms to encourage students learning process and make it easier and interesting; they

are those sensory objects or images which initiate or stimulate and support learning. For example, visual aids such as animation videos, pictures, maps, charts and models as motivation tools increase interest on reading literary text, which in turn smoothens the learning to students. Raiyn (2016) has further argued that visual aids bring the real thing closer to the students where the learning process becomes more natural and realistic as well as easy for students to form mental images of abstract ideas.

According to Shabiralyani et al., (2015), visual aids are important in education as they encourage students in the learning process, make the lesson to be understandable, arose interest to the subject presented, leads to permanent retention of materials learnt, students increase vocabulary as well as providing direct experience to the students. Gould and Roffey-Barentsen (2018) contend that 83 percent of our learning is achieved through the sense of sight, 11 percent came from the sense of hearing, 3.5 percent through the sense of smell, 1.5 percent through the sense of touch and another 1 percent through the sense of taste. This implies visual aids are important in the teaching and learning process because 83 percent of learning is through the sense of sight. Similarly, Mwila, (2018) argues that effective classroom teaching and learning is only possible when all improvisation elements are taken care of; the use of ICT and teaching aids appear to be appropriate for adapting to the issue of basic education and innovative proficiency, particularly in the poorest populace segments. He contends that ICT integration and the use of teaching aids into the teaching and learning process makes the educative process more proficient and additionally fascinating to students in this way enhancing the quality of education. Mwila and Meremo, (2019) also highlights that learning materials, conceived within the context of quality education; are crucial elements propelling any progressive teaching and learning or academic effectiveness and efficiency. It is therefore necessary to think of visual aids as important factors in the teaching and learning process.

In sub-Saharan Africa, the presence of modern technologies such as computer and interactive whiteboards help teachers to increase possibilities and enhance teaching and learning process. For example, in senior secondary schools Nigeria, teaching English language became more attractive and understandable to students when visual aids were used in teaching and learning process (Agwu and Ogochi, 2019). Agwu and Ogochi study showed that students taught with visual aids performed better than those taught with the traditional method. Also, Adebayo and Adigun (2018), have shown how the physics teachers in Federal Capital Territory (FCT) secondary schools in Nigeria were using instructional aids during teaching and learning process. As a result, there was significant difference in academic performance of students learning by using visual aids as they performed better than those who did not use visual aids during teaching and learning process.

Similarly, the use of instructional media in schools in Kenya, is viewed as the instrument of motivating, stimulating interest, lesson verbalism and acquisition of the result of learning permanent. As opined by Musau (2018), the country realised that students who interact with instructional media learnt more effectively than the ones who were provided with verbal information only. It was also evident that the use of instructional media, in teaching Kiswahili language enabled the learners to interact with

words, images and ideas, which develop the abilities in reading, listening, viewing, thinking, speaking, writing and using media and technology (Musau, 2018: 23).

In Tanzania, Kaswa (2015) had shown how visual learning aids such as pictures, drawings or dynamic videos were designed to facilitate learning which had an impact in the teaching and learning process. The sense of sight helped learners to learn effectively. Thus, visual aids were important tools in teaching and learning process, since students were observing physically and practically on the visual aid related to the topic. Failure to prepare and use visual learning aids leads to poor academic performance in secondary schools. Thus, the Tanzania curriculum put considerable effort in teaching and learning process where the educational materials to facilitate teaching and learning process are provided in order to achieve the educational goals (MoEVT, 2007). The government understands that for curriculum to be successful, preparation and production of teaching and learning aids should be handled with greatest care in order to enhance teaching and learning process.

MoEST has been encouraging teachers to use teaching aids, especially visual aids, in order to smoothen teaching and learning process. As posited by Nikky (2010), MoEST understands that visual aids encourage students learning process and make it easier and interesting; it helps to make the lesson clearer or easier to understand, and thus make teaching effective and lead to dissemination of knowledge. Despite this understanding, available scholarly writings in the country like (Feleshi, 2014; Ngonyani, 2018; Kaswa, 2015) had only shown the relationship between the use of visual aids and students' academic performance, thus leaving a knowledge gap on the effects of visual aids on enhancing teaching and learning process.

In Ilemela Municipality, teachers have a tendency to ignore the use of visual aids during teaching and learning process. Teachers in public secondary schools in Ilemela tend to ignore the use of visual aids in classroom. Due to this negligence, teaching and learning process has been reported to be ineffective, especially for difficult topics. This has constantly attributed to the poor performance of students in national examination due to lack of innovations in teaching and learning process. The use of desirable teaching aids raised an alarm among educational stakeholders. Some researchers (Feleshi, 2014; Kaswa, 2015) in the municipality have been questioning the effect of visual aids on the teaching and learning process. Thus, there was a need for a study to investigate how visual aids enhance teaching and learning process.

2. Literature Review

Visual aids as used by teachers in teaching and learning process attract more students in learning process. Sweller (1994) in the Cognitive Load Theory indicates that, each subsystem of working memory had a limited capacity. So,

teachers were encouraged to avoid to overloading students with words alone while teaching but might use pictures and words to elaborate difficult concepts. Thus, students would be able to remember what they learn.

A study by Patesan et al., (2018) found out that the use of visual aids in English-language helped students to build vocabulary; students were able to speak, to listen and improve the writing skills as well as to be creative in thinking. Additionally, Feleshi, (2014) also reported that well-prepared slides motivate and grab the attention of students because they clarified more about the presented information. Similarly, Jiriko et al., (2015) revealed that teachers use different visual aids in teaching and learning process of agricultural science to facilitate students' learning. The study argued that most of visual aids used are chalkboard, charts, exhibits, specimens, pictures, field tools, rock samples and apparatus to ensure effective teaching and learning of agricultural science. Jiriko et al., (2015) reported that the use of instructional materials led to effective teaching and learning process.

The use of instructional materials in teaching and learning process has also been reported to motivate and increase students' interest in learning. According to Tuimur and Chemwei (2015), teachers use visual aids of different types which enhance teaching and learning process. Such visual aids are pupils' textbooks, teachers' references, chalkboard, newspapers and teacher made notes. When these visual aids were used in teaching process, they led to effectiveness of students in learning. Thus, students were able to understand the lesson easily. Kaswa (2015) also found out that schools which used learning aids had better results compared to schools which did not use learning aids. This argument suggests that school administration must encourage teachers to prepare and use visual aids in order to increase students' performance.

As reported by Prathoshni et al., (2018), teachers and students prefer the use of visual aids during teaching and learning process, which leads students to acquire knowledge easily. The study reported that students have positive response towards the use of visual aids in teaching and learning process because they help them to understand the concept presented easily; when teachers use visual aids in teaching and learning process, they facilitate students' learning easily. The study also reported that students prefer teachers who use visual aids in delivering content in classroom as they lead to success in subjects. Additionally, Cardillo (2017) in Ngonyani (2018) elaborates that using different visual aids is important and increases the interest and engagement of students in learning. Thus, teachers must use visual aids in teaching and learning process which could improve students' academic performance.

Atieno (2014), further asserts that the views of teachers on appropriate use of instructional aids increases learners' interest and improves academic performance. The study

also revealed that reference books are very important resources in teaching and learning process because they help to clarify the content and provide a wide scope to teachers and students to access reliable information for a particular subject. Teachers' guides give direction on how to introduce and deliver content in various subject areas. Students' views on the effect of visual aids provide opportunities to learn from one another, especially when there is group discussion in classroom so that textbooks, set books and models are used to ensure that students do their private reading and complete assignments on time which improves their academic performance. Additionally, Ngonyani (2018) posited that teachers view the use of real objects as an important tool in teaching and learning process; views on the use of visual aids indicate that, there are some concepts which are difficult to understand when teachers use only chalkboards.

Factors influencing the use of instructional aids in teaching and learning process is said to include personal attitudes. The study conducted Agwu & Ogochi, (2019) at senior secondary schools in Nigeria showed how attitudes of teachers and students about the use of visual aids during teaching and learning process is an important factor. It was reported that students' positive attitude towards the use of visual aids greatly influenced the use of visual aids in the teaching and learning process. Accordingly, Shabiralyani et al., (2015) argues that attitudes of teachers and students concerning on the use of visual aids during teaching and learning process in Pakistan indicate that the use of visual aids saves time in preparing of lessons and clarification of content which leads to performance of students. Students are able to increase the vocabulary, to avoid the dullness and increase direct experience to observe things which leads to retention of content delivered during teaching and learning process.

Studies conducted in Tanzania reveal similar findings. Tety (2016) asserts that teachers believe that the use of instructional materials is very important in teaching and learning process to students which enhances their performance in subjects. Instructional materials used by teachers motivate students in the learning process whereby they are able to understand the lesson easily. Moreover, students point that the instructional materials used in teaching and learning process help them to pass examinations as well as knowledge and skills increased as a result of visual aids enhancing performance in different subjects they are taught. However, the study conducted by Ngonyani (2018) shows the attitudes of teachers and students concerning the use of visual aids during teaching and learning process is moderate. Some of the teachers do not prefer to use visual aids because they think that can complicate the lesson especially for Mathematic subject and confuse the students to understand Mathematics. The study also reported that experienced teachers do not use visual aids because they think that they have long

experience on what they have been teaching for many years.

As indicated by the reviewed literature, visual aids are important element in the teaching and learning process. They are well-known as one of the most important teaching tools that are required throughout instructions. They make the topic easier to learn, teach, and expound on it. Visual aids may allow students to learn visually, are more effective and simple to use. When using models and visual aids to teach, students attempt to identify it or recognize its functions and attempt to interpret it in order to comprehend its application. They compare it to their preconceived notions, reacting to the new sensation for its comprehension. As a result, it is virtuous to elicit in the teaching and learning process by stimulating or keeping students active.

Majority of teachers in Ilemela Municipality are reported not to be employing adequate visual aids in their classrooms. This scenario may compromise the teaching and learning process. Thus, this study was aimed at bridging this gap in knowledge by investigating the effects of visual aids on enhancing teaching and learning process in public secondary schools in Ilemela Municipality, Tanzania.

Research Objectives

The study was guided by the following research objectives:

- i) To identify visual aids used by teachers during teaching and learning process in public secondary schools.
- ii) To describe the views of teachers and students about the effects of using visual aids in teaching and learning process in public secondary schools.
- iii) To describe the attitudes of teachers towards the use of visual aids in teaching and learning process in public secondary schools.

3. Methodology

The study used a mixed approach and a convergent parallel research design as guided by (Creswell, 2014). The design was appropriate for this study since it requires the researcher to collect the quantitative and qualitative data in the same phase of the research process, and weighing the methods equally and analysing the two forms independently, and interprets the results together (Demir and Pismek, 2018). The target population were 34792 respondents from where a sample of 111 respondents including school quality assurance officer, heads of schools, school academic masters, classroom teachers and students were selected. The study used both probability and non-probability sampling techniques to select the respondents for the study. Data were collected through questionnaires as well as interview guide. Pilot study was done to test the validity and reliability of instruments used in the study. Quantitative data was analysed through descriptive statistics such as frequencies and percentages with the aid of SPSS version 20 and presented in tables while qualitative data was analysed thematically and presented in narration and direct quotations.

indicates that visual aids used during teaching and learning process by teachers were of different kinds which can be purchased or locally made from the environment.

4. Results and Discussion

The findings of the study are presented thematically, that is, according to the research objectives guiding this study.

Visual Aids Used by Teachers during Teaching and Learning Process

Students were asked to indicate the kinds of visual aids used by teachers in teaching and learning process. Table 1

Table 1: Students' Responses on the Kind of Visual Aids used During Teaching and Learning Process

<i>Category</i>	<i>Kind</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Students	Charts	15	25.0
	Maps	12	20.0
	Models	7	11.7
	Globes	4	6.7
	Pictures	11	18.3
	Blackboard	6	10.0
	Reference books	3	5.0
	Lesson notes	2	3.3
Total		60	100.0

Source: Field data (2021)

The results from 15 students (25 percent) showed that most teachers used charts in teaching and learning process, 12 students (20 percent) said that teachers used maps and pictures, whereby 11 students (18.3 percent) agreed on use of pictures. Hence, it seems that teachers used mostly charts, maps and pictures in teaching and learning process,

and students were able to learn a particular lesson easily. There is need to diversify the use of teaching aids for more comprehension and practical learning process.

Table 2 shows the responses of teachers on the kind of visual aids used in the teaching and learning process.

Table 2: Teachers Response on Kind of Visual Aids Used During Teaching and Learning Process

<i>Category</i>	<i>Kind</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Teachers	Charts	12	30.8
	Pictures	7	17.9
	Models	5	12.8
	Maps	5	12.8
	Globes	2	5.1
	Blackboard	4	10.3
	Reference books	4	10.3
Total		39	100.0

Source: Field data (2021)

The results indicated in table 2 showed that 12 teachers (30.8 percent) said that they use charts in teaching and learning process, pictures 7 teachers counted to 17.9 percent, models 5 teachers (12.8 percent) and maps 5 teachers (12.8 percent). Teachers revealed that they use charts, pictures, models and maps in most of the time while they are teaching. Therefore, teachers must use visual aids in teaching and learning process in order to

simplify the difficult concepts. Through an interview the school academic master at school A commented that:

Teachers in our school use different visual aids during teaching and learning process, among the visual aids used most of the time were charts, pictures and apparatus for science subjects. Slides were used too due to presence of electric power whereby lap tops and projectors are used to display different pictures concerning the

subject. Displaying slides helped students to remember and understand what they saw which led to smooth learning activities (Interview, 02/09/2021).

However, the school academic master at school C explained that:

Teachers use charts and diagrams in elaborating concepts in different subjects which helps students to understand the lesson better (Interview, 02/09/2021).

The interview with heads of schools revealed that:

Teachers use visual aids of different types during teaching and learning process which are ready made materials such as apparatus for science subjects and branches of trees of types of words for English and Swahili subjects which are locally made. Charts, skeletons and globes when used during teaching and learning process, they lead to effective presentation of a particular lesson (Interview at school A and B, 02/09/2021 and at school D, 06/09/2021).

Fish et al., (2016) states that visual aids such as photographs, diagrams and animations enhanced teaching and learning and more understanding of the lesson. In order for learners to understand, teachers were encouraged to supplement information with visual aids which helped

students to understand the meaning of the vocabulary and arose their interest in learning English language.

In agreement with the Cognitive Load Theory by Sweller (1994), the findings indicated that teachers were encouraged to use visual aids in the process of teaching and learning by avoiding to overload students with words alone while teaching but should use pictures and words to elaborate difficult concepts. Through the use of different visual aids students would be able to remember what they learnt and helped them to increase understanding of the lesson. This implies that the kind of visual aids selected, prepared, and used by teachers in teaching and learning help students to understand the lesson.

The findings indicated that most of the visual aids used by teachers in teaching and learning process were charts, maps, pictures and apparatus for science subjects which simplifies the whole process of teaching and learning and leads students to understand the concepts presented.

Views of Teachers and Students on the Effects of Using Visual Aids in Teaching and Learning Process

Teachers and students indicated their views about the effects of using visual aids in enhancing teaching and learning process in public secondary schools. Students and teachers were asked questions in order to achieve this objective of the study. The responses were summarised in the respective tables.

Table 3: Students' Views on Effects of Visual Aids in Teaching and Learning Process

<i>Views</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Motivation to students in teaching and learning process	20	33.3
Lead to active participation in the teaching and learning process	12	20.0
Help to understand the lesson easily	28	46.7
Total	60	100

Source: Field data (2021)

The results presented in table 3 show that majority of students indicated that when teachers use visual aids in teaching and learning process 28 students (46.7 percent) said that they understand the lesson easily; whereby 20 students (33.3 percent) said that visual aids motivate them, 12 students (20 percent) accepted that there was active participation when used in teaching and learning process. Majority of students revealed that the use of visual aids in teaching and learning process, helped them to understand the lesson easily, motivated them and increased students' participation. Teachers were encouraged to make and use visual aids in the process of teaching and learning. These results are in agreement with the similar studies, for

example Prathoshni et al., (2018) who revealed that, the use of visual aids during teaching and learning process enable students to understand the concepts presented and thus acquire desired knowledge easily. Agwu, & Ogochi, (2019) had also reported that motivation in learning process, is enhanced when using visual aids besides active participation during lesson presentations.

According to the Cognitive Load Theory of Sweller (1994) students are able to understand the subjects taught by teachers due to interactions between information, structures and cognitive construction which lead to students' understanding about a particular subject.

Therefore, it implies that teachers should present the lesson verbally and visually to help students think critically about the lesson presented during teaching and learning process, hence increase understanding of the subject matter.

Table 4 indicates the views of teachers about the use of visual aids in teaching and learning process. Teachers mentioned different views as follows:

Table 4: Views of Teachers on the Effects of Visual Aids in Teaching and Learning Process

<i>Views</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Simplify teaching and learning process	16	41.0
Arise interest of students in learning a particular subject	5	12.8
Motivate students in teaching and learning process	11	28.2
Effective teaching and learning process	4	10.3
Students are able to understand the lesson during presentation	3	7.7
Total	39	100.0

Source: Field data (2021)

The results indicate that majority of teachers mentioned that visual aids simplify the task of teaching and learning whereby 16 teachers (41.0 percent) agreed with this statement and 11 teachers (28.2 percent) stated that visual aids motivated students in teaching and learning process. Additionally, during the interview, the school academic masters at schools B and E, said:

It is better to use visual aids because students can see a real object and retain in the memory easily. Due to the use of sense of organs students were able to observe, recall and learn easily as well as understanding the lesson. Through demonstration students remember and capture the content presented. Also, leads to effective teaching and learning (Interview at school B, 02/09/2021; and school E, 06/09/2021).

Halwani (2017) stated that students improve reading and writing when teachers use visual aids in teaching and learning process. The use of visual aids help students to absorb the content and become interactive in the classroom without fear of giving wrong answers or being shy of participating in learning activities. Teachers are encouraged to provide enough support to students which leads to more interaction with the lesson presented. Also, the use of visual aids improves student’s self-confidence in answering questions, understanding the lesson easily and concentrating in the lesson presentation whereby creating cooperation and interaction among students as well as teachers.

Furthermore, heads of schools B, C, D and E echoed:

It is good to use visual aids during teaching and learning process because they simplify teaching and learning, leading to effectiveness on lesson presentation, to create permanent memory to students. When visual aids are used during teaching and learning process, teachers are able to organize the lesson, students understand the lesson easily and teachers become more practical than theoretical in presenting the lesson (Interview at school B and C, 02/09/2021; and at school D and E, 06/09/2021).

On the same vein, through the interview the school quality assurance officer explained that:

Teachers should be creative enough to use natural environment to prepare visual aids which had all characteristics such as being readable and big enough to be seen by all students. Teachers should involve students in preparing visual aids, which should engage more than one sense of organs in case there are students with impairments. During teaching and learning process, good plans should be made on when and how visual aids could be used in teaching and learning process. The school management and employers should support teachers on ensuring provision and preparation of visual aids which need money (Interview, 31/08/2021).

The study conducted by Atieno (2014) asserted that when teachers properly use visual aids they increase learners’ interest in learning and improve academic performance. Reference books are very important resources in teaching and learning process because they help to clarify the

content and provide a wide scope to teachers and students to access reliable information for a particular subject. Furthermore, the interaction among students provide opportunities to learn from each other especially when there was group discussion in classrooms whereby textbooks, set books and models are used to ensure that students can do their private reading, and complete assignments in time which improve their academic performance.

Skinner (1974) indicated that in teaching and learning process, Instructional Theory describe on how to organize information, coordinate learners with the content presented, introduce visual learning materials to the students and govern teachers on how to use visual aids which help students to learn easily and understand the concepts. This implies that, teachers must prepare and recognise when and how to improvise and use visual aids during teaching and learning process helping students to be active during lesson presentation as well as understanding the lesson well.

The findings indicate that, when teachers improvise visual aids in teaching and learning process they simplify the task of learning to students, motivate students in learning a certain lesson, help students to capture the concept easily and students become active during lesson presentation. Hence, teachers should improvise visual aids in the process of teaching by cooperating with students which enhances their understanding. This is in line with the Instructional Theory of Skinner (1974) which directs teachers on how to facilitate learning to students as well as

helping teachers to account on the importance of using visual aids in teaching and learning process hence encouraging understanding to students. The theory suggests that teachers could ask students to help them improvise visual aids and display objects during teaching and learning process which helps students to remember the lesson presented by teachers. Thus, students are prepared to meet difficult challenges to understand concerning a particular subject.

Moreover, the findings show that, majority of teachers strongly agreed that using visual aids simplifies the teaching and learning process while few teachers agreed that teachers are encouraged to use visual aids in teaching and learning process. On the other hand, majority of teachers agreed that it not easy to prepare visual aids while others strongly agreed that it was important to make and use visual aids. Teachers failed to prepare visual aids due to scarcity of materials and lack of creativity in preparing them, but all in all, teachers should improvise even from natural environment, cooperating with students to prepare and use visual aids.

Attitudes of Teachers Regarding the Use of Visual Aids in Teaching and Learning Process

Teachers were asked to indicate the attitudes to which they agree or disagree with the statements provided in a Likert scale format. The responses of teachers are summarized and presented in Table 5. The scale is rated from the highest to lowest degree of agreement in the following order: 1=Strongly Agree (SA), 2= Agree (A), 3= Undecided (U), 4= Disagree (D), 5= Strongly Disagree (SD).

Table 5: Attitudes of Teachers Regarding Use of Visual Aids in Teaching and Learning Process

<i>STATEMENT</i>	<i>SA</i>	<i>A</i>	<i>U</i>	<i>D</i>	<i>SD</i>
Using visual aids in teaching and learning process simply the teaching	30(76.9)	9(23.1)			
It is not easy to prepare and use visual aids	5(12.8)	21(53.8)	2(5.1)	8(20.5)	3(7.7)
I do not use visual aids in every period	6(15.4)	17(43.6)	6(15.4)	5(12.8)	5(12.8)
I find that using visual aids do not motivate students in teaching and learning process				20(51.3)	19(48.7)
I will encourage other teachers to use visual aids in teaching and learning process	21(53.8)	18(46.2)			
I use visual aids from locally made	6(15.4)	18(46.2)	15(38.5)		
I used to purchase materials for preparing visual aids	2(5.1)	14(35.9)	11(28.2)	9(23.1)	3(7.7)

Source: Field data (2021)

Table 5 indicates that using visual aids in teaching and learning process simply the teaching. Thus, 30 teachers with 76.9 percent strongly agreed that using visual aids in teaching and learning process simplify the teaching while 9 teachers marked to 23.1 percent agreed with this statement. Majority of teachers strongly agreed that to improvise visual aids simplify the process of teaching so

that teachers were encouraged to use visual aids during lesson presentation.

Table 5 further indicates that, it is not easy to prepare and use visual aids; and the results were 21 teachers counted to 53.8 percent agreed that it is not easy to prepare and use visual aids, 5 teachers marked to 12.8 percent strongly agreed, 2 teachers with 5.1 percent undecided with this statement, 8 teachers equivalent to 20.5 percent disagreed

as well as 3 teachers with 7.7 percent strongly disagreed with this statement. Absolute majority of teachers showed that in order to use visual aids in teaching and learning process needs a lot time to prepare a keen visual aid which could be presented verbally and visually to grab student's attention and understanding of the subject matter.

Table 5 further shows that, teachers do not use visual aids in every period; the results were 17 teachers with 43.6 percent agreed that they did not use visual aids in every period, 6 teachers with 15.4 percent strongly agreed with this statement similarly to undecided while 5 teachers counted to 12.8 percent disagreed with this statement the same as strongly disagreed too, so that majority of teachers do not use visual aids in every period because other topic did not need visual aids or teachers ignore to prepare and use visual aids by saying that it needs money and enough time to prepare visual aids or teachers lack creativity to prepare visual aids that is why teachers did not use visual aids in every period. The emphasis from school administration could help teachers to prepare and use visual aids for topics which needed visual aids.

Table 5 also indicates that using visual aids do not motivate students in teaching and learning process. Thus, 20 teachers marked to 51.3 percent disagreed that teachers find that using visual aids did not motivate students in teaching and learning process while 19 teachers counted to 48.7 percent strongly disagreed with this statement. It found that majority of teachers disagreed with this statement because when teachers use visual aids in teaching and learning process motivate students to learn a certain subject. Table 5 also shows teachers will encourage other teachers to use visual aids in teaching and learning process were 21 teachers equivalent to 53.8 percent strongly agreed that to encourage other teachers to use visual aids in teaching and learning process while 18 teachers marked to 46.2 percent agreed with this statement. Majority of teachers seem to make sure that to encourage other teachers to use visual aids in the process of teaching and learning which lead to active participation of students in learning a lesson.

Additionally, it was also revealed that, teachers use visual aids from locally made. Table 5 shows that 18 teachers with 46.2 percent agreed that they use visual aids from locally made, 6 teachers counted to 15.4 percent strongly agreed while 15 teachers equivalent to 38.5 percent undecided with this statement. It means that majority use local method to prepare visual aids by preparing from natural environment so that teachers should use their creativity in preparing visual aids which smoothen the process of teaching and learning.

In Table 5, it was also reported that teachers used to purchase materials for preparing visual aids and the results were 2 teachers with 5.1 percent strongly agreed that they purchase materials for preparing visual aids, 14 teachers counted to 35.9 percent agreed, 11 teachers marked to 18.2 percent undecided, 9 teachers counted to 23.1 percent disagreed while 3 teachers with 7.7 percent strongly

disagreed with this statement. Majority of teachers used to buy materials for preparing visual aids such as manila shit, marker pen or pencils by supporting with school administration which helped to have visual aids which simplify the task of teaching and learning as well as elaborating difficult concepts.

Through interview guide with school academic masters in school A, B, C, D and E commented the following:

Interview with school academic master in school A commented that;

Teachers should play their part in preparing visual aids which simplify the process of teaching and learning even though it is difficult to prepare visual aids and needs enough time to prepare them. The government should provide enough support in providing visual aids and should supply electricity power in all schools which could help teachers to use visual aids which need power supply to bring more understanding to students. For example, teachers can prepare slides or animation pictures to display in classroom during lesson presentation (Interview, 02/09/2021).

In the interview, school academic master at school C and D said that;

Visual aids help in teaching and learning process so that teachers should be active in preparing and using them. Hence, cooperation between teachers and students in preparing visual aids must be encouraged which increases creativity and interest in learning a particular lesson. Teachers were encouraged to use natural environment in preparing visual aids as well as the government should provide enough fund in schools in order to buy visual aids which need money to have them (Interview at school C, 02/09/2021; Interview at school D, 06/09/2021).

Interview guide with school academic master in school B and E said that;

Visual aids must be emphasized to use in order to improve teaching and learning process. Availability of visual aids help teachers to simplify teaching and learning process so that the administration school must buy visual aids which arose interest in learning a lesson. Thus, the government should provide enough visual aids to facilitate teaching and learning process. By doing that student arose interest in certain lesson and help to understand the lesson which leads to perform well in their subjects (Interview at school B, 02/09/2021; Interview at school E, 06/09/2021).

Through interview guide with head of school A, B, C, D and E described the following about their thinking on the use of visual aids in teaching and learning process;

In interview with, the head of school A and C said that;

Teachers were encouraged to use visual aids in the process of teaching and learning which leads to students to understand the lesson and help students to have active participation during teaching and learning process. Again, visual aids when used by teachers simplify teaching and learning process as well as build confidence to teachers in presenting the lesson (Interview, 02/09/2021).

In interview with head of school B said that;

Visual aids are vital for teachers to use because helped students to recall the message easier and leads to good performance and arose students' interest in learning a lesson. The government should provide enough fund to purchase visual aids instead of teachers to prepare. Also, teachers should use natural environment to prepare visual aids especially for Biology teachers (Interview, 02/09/2021).

Addition to that, interview with head of school E said that;

Visual aids were assistance tools in teaching and learning process so that improvement in preparing visual aids should be adhered as simplify the process of teaching and learning. The government should provide enough fund to buy sufficient visual aids such as computer and projector which helped to display slides and animation pictures where students were able to capture the content easily (Interview, 06/09/2021).

Interview with head of school D said that;

In using visual aids in teaching and learning process led to successful in the process of teaching and learning and the lesson presentation became more effective, for example science students learn by doing which was not easy to forget the content. Teachers should use visual aids to increase academic performance as well as motivation should be encouraged to teachers in using visual aids. Additionally, teachers must receive seminars on how to prepare and use visual aids in teaching and learning process (Interview, 06/09/2021).

The interview with school quality assurance officer said that;

The use of visual aids was very important for teachers and students as helped teachers to express the concept and reduce time to explain

about the matter of the content and teachers being more practical rather than theoretical which helped students to understand easily the subject matter, make the lesson interested to learners and learners having permanent learning because they did not forget what they saw during lesson presentation (Interview, 31/08/2021).

The findings concur with Agwu and Ogochi (2019) who indicated that teachers use visual aids during teaching and learning process. In this study, teachers described that they had confidence in teaching and learning process whenever visual aids were used to present the lesson. This implies that the practice of using visual aids during teaching and learning process simplifies the lesson presentation and thus enables students to achieve the stated learning objectives. It is therefore necessary for teachers to consider improvisation- such as the use of visual aids, as an important aspect in the teaching and learning process. As posited by Yunus et al., (2013). Visual aids are important in teaching and learning as they help students to develop creative and critical thinking skills- apart from creating an enjoyable classroom activity.

5. Conclusion and Recommendations

5.1 Conclusion

On the basis of the findings of this study, the following conclusions are made:

First, visual aids which are used in teaching and learning process such as: charts, maps, models, globes, pictures, blackboard, reference books and lesson notes simplify the teaching and learning process so that students are able to understand the lesson easily. But most teachers ignore using visual aids hence, they are encouraged to involve students to prepare and use visual aids either from natural environment or purchasing them through the support of school administration to have enough visual aids for elaborating the content.

Secondly, the use of visual aids in teaching and learning process is said to lead to active participation of students in the teaching and learning process which in turn influences their academic achievement. Visual aids are important and effective in the process of teaching and learning, thus encouraging every teacher to improvise and use visual aids during lesson presentation. Visual aids used in the process of teaching and learning must have all characteristics of a good visual aid such as: being big enough to be seen by all students, readable ones and which expresses a particular topic.

Generally, it can be concluded that the use of visual aids in teaching and learning process is very important because it facilitates learning for students and rises their performance in subjects as well as simplifying the concepts taught; thus teachers are encouraged to employ different means like natural environment to improvise,

prepare and use visual aids in the process of teaching and learning.

5.2 Recommendations

On the basis of the findings and conclusions of this study, the following recommendations are made:

1. Teachers should ensure the improvisation, preparation and use of visual aids in the process of teaching and learning. By doing these, teachers are able to simplify the whole task of teaching and learning as well as involve students in preparing visual aids which may create a good relationship between teachers and students. Students should feel free to interact with their

- teachers for more explanation about the visual aids used in presenting the content.
2. The Ministry of Education, Science and Technology, should provide enough visual aids and materials for preparing visual aids in each public secondary school according to their needs.
3. Furthermore, there should be on-going of seminars and training to teachers in each school either once or twice a year on how to improvise, prepare and use visual aids to enhance teaching and learning process. The employer should create schedules on provision of seminars and training, to help teachers put more concerns on the use of visual aids in teaching and learning process.

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