

**FACTORS INFLUENCING TEACHERS' EFFECTIVE USE OF
VISUAL AIDS IN ENHANCING THE TEACHING AND
LEARNING PROCESS IN PUBLIC PRIMARY SCHOOLS,
BARKIN-LADI, PLATEAU STATE, NIGERIA**

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ABSTRACT

Purpose of the Study: The purpose of the study was to investigate factors influencing teachers' effective use of visual aids in enhancing the teaching and learning process in public primary schools, Barkin-Ladi, Plateau State, Nigeria.

Statement of the Problem: There has been a great concern about factors affecting teachers' use of visual aids in the public primary schools Barkin-Ladi as reported by supervisors in 2017. Therefore, it was necessary to investigate on the factors. Lack of visual aids, large number of pupils per class among others may cause poor academic performance of the pupils in all subjects offered in public primary schools such as: Mathematics, English language, Social studies, Primary science, and Health education among others.

Research Methodology: The researchers employed convergent parallel mixed method design to collect quantitative and qualitative data. As such, survey and phenomenology methods with their respective data collection tools: questionnaire and interview guide were used. The study targeted public primary school teachers, head teachers, pupils, heads of sections, and supervisors. The researchers used stratified random sampling technique, and non-probability purposive random sampling method. The sample size of the study was: 254 teachers, 90 head teachers, 391 pupils, 3 heads of sections and 13 supervisors. Frequencies and percentages were used to summarize the quantitative and thematic analysis for qualitative data, respectively.

Result: The findings of this study revealed there were many factors influencing the teachers' effective use of visual aids such as: Lack of visual aids in schools, lack of skills/knowledge for teachers to draw visual aids, unwillingness of teachers to look for visual aids, lack of proper time management, lack of motivation by the government, lack of funds for the purchase of visual, lack of supervision to ensure that teachers use visual aids as expected, lack of training and lack.

Conclusion: The study concluded that government could manage the factors by: sponsoring teachers for further studies; employing teachers to teach according to their disciplines; reduce pupils to manageable sizes per class; allocating money for the purchase of visual aids; pay teachers promptly; head teachers should also help to organize in-house seminars for teachers on how to use visual aids; punish any teacher who refuses to use visual aids in class and teachers should try and improvise visual aids where necessary.

Recommendation: The study recommended that stakeholders should deal with factors influencing teachers' effective use of visual aids, government to provide enough funds to public primary schools to enable them purchase visual aids to use during the teaching and learning process.

Keywords: *Factors, influencing the use of visual aids, enhancing teaching and learning process, pupils.*

1.1 BACKGROUND OF THE STUDY

Factors influencing teachers' effective use of visual aids in the public primary schools today are numerous that can influence effective usage of visual aids during the teaching and learning process. These factors are lack of allocation money by the government to purchase visual aids, time management by teachers, and large number of pupils per class, among others. For instance Mupa and Chinooneka (2015) in their study on the factors contributing to ineffective teaching and learning in primary schools with a focus on why the schools are in decadence in Masvigo, Zimbabwe found out that lacked of extra time at work, time management skills to cover the curriculum and low level of training are factors that can influence the teaching and learning process. In fact, when visual aids are not available in public primary schools for teachers to use during the teaching and learning process, teaching and learning becomes abstract because learners may not assimilate or understand what they are being taught orally in class.

Thus, visual aids serve as tools that helps the learners to immediately understand and recall what they have learnt in the class. Also, teachers cannot teach well when there are no visual aids to use during the teaching and learning process. The use of visual aids during the teaching and learning process is very important because visual aids facilitate learning, stimulate the sense particularly that of sight, foster motivation because it makes the lesson clearer, interesting and understandable. Shabiralyani *et al*, (2015) conducted a study on the impact of visual aids in enhancing the learning process District Dera Ghnzi Khan said that, visual aids are devices that help the teacher to clarify, establish, and correlate and co-ordinate precise conceptions, understandings and appreciations and support him to make learning more actual, active, motivating, encouraging, significant and glowing.

This is obvious because learners can study well when they are inspired properly through different visual aids because visual aids grow the accurate image when the students see and hear properly.

That is why managing these factors by government would help teachers to teach effectively so as to achieve the goal and aim of quality education.

In the same way Patrick and Etukudo, (2014) in their study revealed that, factors affecting teaching and learning in the public primary schools can be problematic in all nations of the world (Nigeria inclusive). Therefore, managing the factors would give education a solid foundation because visual aids are key to during the teaching and learning process. The essence of teaching and learning is that the teachers and the learners should be able to interact, communicate with themselves and then understand each other in class during the teaching and learning process. The place of communication in the human society is very obvious, it has also been found out that effective communication with limited experiences of most people often make it difficult to convey ideas and information effectively without resources beyond words (Jeleelah, *et al*, 2016). The need for teachers of public primary schools to enrich their teaching process with the use of visual aids becomes pertinent, therefore, using visual aids in teaching all subjects offered in public primary schools being the foundation of education is important.

Jain and Billaiya (2017), on the impact of visual teaching aids on students in Dikshabhumi campus, Madhya Pradesh in India. Their report pointed out that visual aids allow learners to comprehend better because they are able to see what is exactly happening in the classroom. That is why, the education children receives today with the help of visual aids will help shape their understanding and dreams in life and this in turn will allow them become better people tomorrow because children learn to do and advance on their quality of the activities, this can achieved through interacting with the use of visual aids teachers used during the teaching and learning.

Furthermore, combating the factors affecting teachers' effective use of visual aids is paramount because Nigeria as an independent nation recognizes that "education is a national activity which involves an orderly, deliberate and sustained effort to transmit or develop knowledge, concept skills and attitude or habits hence her determination to provide lifelong education for her citizens" (Jeleelah *et al*, 2016, p.1). Igwe (1997) as cited by (Jeleelah, *et al*, 2016), the national policy on education (1981) section 1 page 7 aim at making an individual a useful person to both himself and his society knowledge and skill in all subjects offered in public primary schools which are needed for citizenship will not be learned by most individual unless they are systematically and effectively taught in school (Jeleelah, Oluwayemisi & Theresa, 2016).

This means that these factors can hinder pupils participation and understanding of the lesson, therefore, it is necessary for the government to see how these factors can be managed because visual aids are very vital during the teaching and learning process. Also, the need to involve the learner through the use of various instructional materials cannot be neglected as it bring about understanding of the lesson. It is important for the government to know that visual aids are very strong arms in the hand of teachers in terms of driving home his/her point when teaching, "visual aids or instructional materials are essential and significant tool needed for teaching and learning of all school subjects to promote teachers efficiency and improve pupils' performance" (Jeleelah, Oluwayemisi & Theresa, 2016, p. 1). They make learning more interesting, practical, realistic and appealing. They also enable both the teachers and pupils to participate actively and effectively in lesson.

1.2 STATEMENT OF THE PROBLEM

There has been a great concern about factors affecting teachers' use of visual aids in the public primary schools Barkin-Ladi as reported by supervisors in 2017. Therefore, it was necessary to investigate on the factors. Lack of visual aids, large number of pupils per class among others may cause poor academic performance of the pupils in Mathematics and English language. Apanpa (2016) found out that lack of the use of instructional materials during the teaching and learning process such as visual aids like real objects, diagrams, charts, flashcards, and maps caused poor academic performance.

Also, no study has been done on factors influencing teachers' effective use of visual aids in enhancing the teaching and learning process in public primary schools Barkin-Ladi in Plateau state, Nigeria. For this reason, the researchers deemed it necessary to investigate factors influencing teachers' effective use of visual aids in the public schools to fill the knowledge gap.

1.3 RESEARCH QUESTION

What factors influence teachers' effective use of visual aids in enhancing the teaching and learning process in public primary schools, Barkin-Ladi, Plateau State, Nigeria?

1.4 THEORETICAL FRAMEWORK

In this study the researchers used motivational model design theory. Motivational model design theory, by Keller's (2010), is an approach to problem solving designing the motivational elements of learning environments to promote and maintain the desire of students to learn and teachers teach well. The theory explains what happens during the learning process if the learning is to be genuine and meaningful. It consists of two main components: (i) relevance which means ensuring that the teacher's presented material has perceived significance for the learners; (ii) importance of material, implying that significance of the material comes from the process of connecting the learner's goals to the instruction information. It involves tapping into learner learning styles and interest and creating a connection between what the learners already know and what they are about to learn (Keller, 2010).

The theory also emphasizes a motivational aspect of learning environments and the visual aids to use during the teaching and learning process. This aspect is very important in stimulating and sustaining learners learning ability especially using visual aids during the teaching and learning process. When the right visual aids are used, learning becomes interesting. This theory was chosen because motivation is very vital when it comes to learning, whenever learners are been motivated in class by the use of visual aids, it makes them have interest in the lesson, pay more attention to the teaching and then participate fully and actively in class. Therefore, dealing with these factors such as lack of charts, maps, diagrams, drawing and posters would help during the teaching and learning process. The use of visual aids during teaching and learning process would make teaching and learning more interesting, practical, realistic and appealing. They also enable both the teachers and pupils to participate actively and effectively in lesson (Jeleelah, Oluwayemisi and Theresa, 2016).

1.5 CONCEPTUAL FRAMEWORK

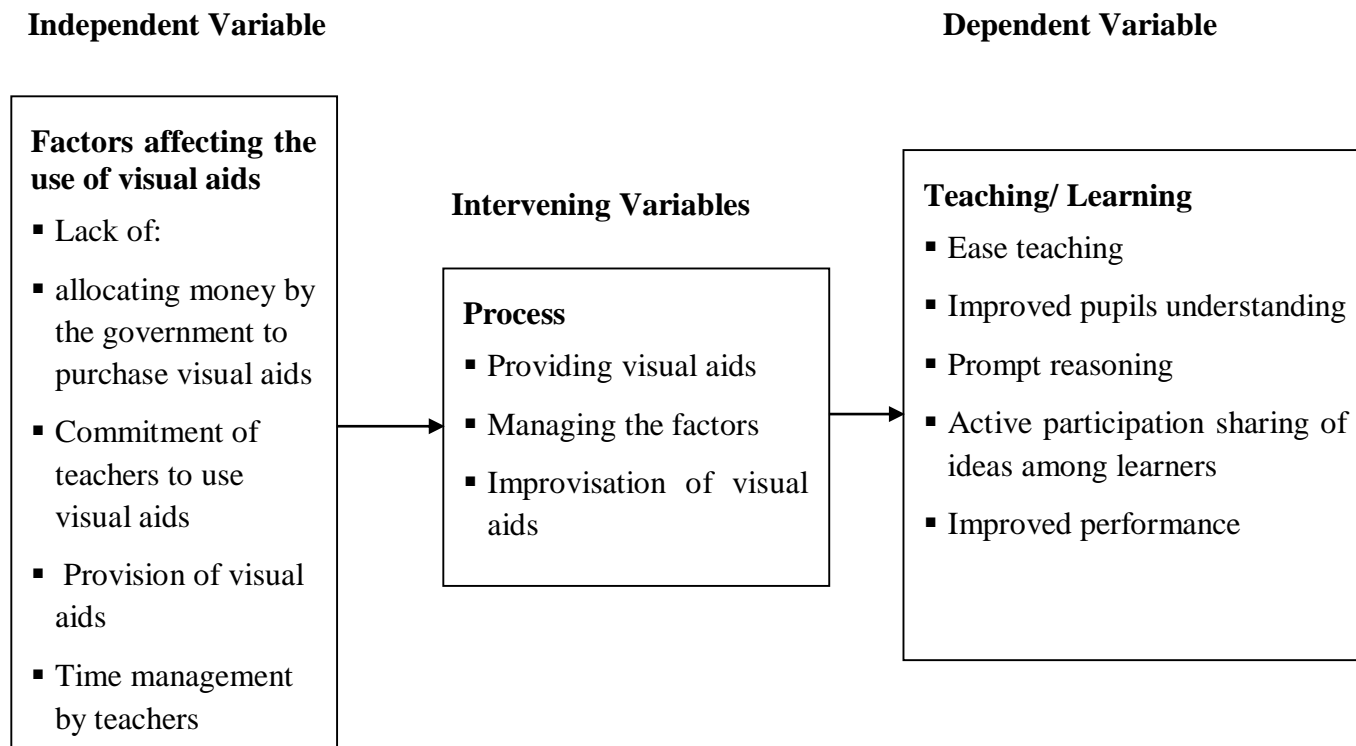


Figure 1: Conceptual Framework

Source: Researchers (2020).

2.0 LITERATURE REVIEW

2.1 Empirical Review

Factors influencing teachers' use of visual aids are numerous and can bring setbacks in the teaching and learning process. Several studies have been done globally with respect to the factors affecting the use of visual aids during the teaching and learning process. Ismail (2014) carried out a study on the factors affecting the implementation of information literacy education (ILE) in Malaysian primary schools. The findings of the study showed that the development and progress of ILE implementation was slower than might be expected. Hence, a range of factors hindering and facilitating ILE implementation had been identified. Most interviewees had positive attitudes toward ILE, and they believed that ILE was important and had the potential to making teaching and learning activities more engaging and fun. In addition, the results pointed out those factors affecting the use of visual aids. These included teachers' lack of knowledge and confidence to implement information literacy education in the classroom. Others reported that there was no in-service for teachers to help them understand different methods of teaching. Another was lack of training courses to improve teachers' knowledge and skills so that teachers could familiarize themselves with theoretical and practical sides in information literacy education.

Regionally, there are some factors affecting teachers' effective use of visual aids in enhancing the teaching and learning process. Mupa and Chinooneka (2015) carried out a study on the factors

contributing to ineffective teaching and learning in primary schools with a focus on why the schools are in decadence in Masvigo, Zimbabwe. The findings of the study demonstrated that some of the many factors included lack of parental support which had negative effects on the learning process and that some schools lack textbooks. Most of the teachers seemed not to employ varied teaching methods even in cases where the teacher found out those children did not understand the concept.

The gap that unfolds in Mupa and Chinooneka study is that there was lack of supervision for teachers by supervisors and head teachers to ensure teachers used visual aids during the teaching and learning process. Also, learners were combined in regular classes and if the teacher did not know how to handle the mixed class, then no effective teaching took place. This is linked to visual aids because if teachers do not have experience or are untrained on how to use visual aids on various forms of disabilities such as visual impairment, mental retardant, and physically challenged, it could be difficult for the teachers to use visual aids. The gap was addressed in the current study by encouraging supervisors and the education officers to put more effort in supervising the public primary school teachers in Barkin-Ladi local government education to ensure teachers use visual aids during the teaching and learning process.

In the same vein, Mege (2014) researched on the influence of school environmental factors on the teaching-learning process in public primary schools in lower Nyokal division, Homa-bay district, in Kenya. The findings revealed that the selected schools had inadequate physical facilities, with some being totally unavailable. In general, training materials were inadequate to ensure that maps and sanitary systems were in poor condition. All head teachers noticed that science kits were not available in all schools in the lower division of Nyokal, and schools had large classes that significantly affected the teaching and learning process. This is because they did not give the pupils individual attention because they were managing large classes.

The head teachers and the teachers tended to manage small classes, respectively. The results indicated that sufficiency was usually very small in terms of instructional materials. The difference in Mege's analysis is that most of the teaching materials and facilities were inadequate, with most schools missing resources. Lack of instructional materials had contributed to child dropout and repetition had also been a concern. The current research tackled this void by inquiring from the teachers about the reasons why they did not use visual aids during the teaching and learning process.

A study by Ayoti, Ongeti, and Poipoi (2013) investigated factors influencing preparation and utilization instructional media in teaching Kiswahili in selected public secondary schools in Sabatia district, Kenya. The findings of the study revealed that 79.8% agreed that availability of funds determined the preparation and use of media resources. Some teachers said that they improvised instructional materials that could not be bought. While some said they were not able to get enough funds to enable them to buy the instructional materials. Nevertheless, there were factors that were affecting the use of instructional materials such as lack of time to identify places where they could get the resources, inadequate instructional materials, and lack of funds to purchase them.

The gap deduced in Ayoti, Ongeti, and Poipoi study was that instructional materials were not availability, which led teachers to go on borrowing from friends. Secondly, the teachers also hired instructional materials from other institutions and that took a lot of time. Availability of visual aids in all public primary schools is very essential knowing how important visual aids are to the

teaching and learning process. Similarly, at Ogbomosho High Schools, Oyo State, in Nigeria, Nkoyane and Motunrayo (2016) showed that teaching aids and the maintenance of teaching aids were inadequate: schools did not have well-equipped libraries with facilities such as chairs, tables, books, a suitable staff room or office, and teaching aids. The study suggested skill development, regular retraining through seminars, workshops, symposia, and conferences as a way to inspire and encourage them to achieve better results.

This study created a gap in that there were factors that could affect teachers' use of visual aids, which are obvious, and this can hinder their uses by the teachers. For example, the schools' principals did not allocate adequate and enough time to the subject in the school timetable. The teachers complained that the time allocated was not enough for them to use visual aids during the teaching and learning process. However, this is not supposed to be a problem because if the teacher plans his or her lesson well, they are able use visual aids within the provided time.

In Uganda, Gada and Altine (2018) carried out a study on factors affecting the use of instructional materials in mathematics teaching in high schools in Mbale Municipality. The research design adopted was a cross-sectional survey design, which primarily used the quantitative data analysis method. The population of the study comprised of 956 teachers in twenty senior secondary schools in Mbale municipality, Uganda. The sample size of the study was 96. The research used questionnaires for data collection. The findings indicated a major impact on the availability of instructional materials for teaching mathematics at senior secondary schools. It showed that the appropriateness of instructional materials had a major impact in teaching mathematics at Mbale Municipality's senior secondary schools.

This also indicates a strong connection between the teachers' competency in mathematics and the use of instructional materials. The gap that can be figured out in Gada and Altine study was that the methodology was not captured in the abstract and the policymakers are not working hard to renovate teachers' resource centres at district level to help teachers get ideas and acquire more skills in order to use instructional materials well. The authors failed to understand that the educational planners should always evaluate and monitor teachers' competence in using instructional materials in teaching and learning process. The current study would address the gap by helping teachers to realize that the use of visual aids during teaching and learning process simplifies content and brings distant events into classroom situations for easy understanding. Once more, the findings of the study would help the government to provide visual aids in schools to enable teachers use them during the teaching and learning process

A study by Saidu (2016) was done on availability and use of visual teaching and learning materials in teaching geography in Minibar education zone Kano, Nigeria. The study aimed at finding out if there are adequate visual teaching and learning materials for teaching geography in Minjibir education zone, Kano. The overall findings revealed that visual teaching and learning materials were inadequate for teaching geography in Minjibir education zone. This was so because out of the 35 essential visual materials for teaching geography that were listed on the questionnaire only 48% were available, 52% were totally not available in all the schools. Similarly, few visual materials were not equally available in all the schools. The result showed that few available visual aids or materials had not been effectively and judiciously utilized by the teachers to teach geography. Only the textbooks had 100% usage by the teachers. Visual aids such as a pie chart, climate and vegetation map, chart of weather symbols, and population map, were hardly used but only occasionally to teach geography in the schools where they were available.

Similarly, Owan (2012) did a study on some causes of poor performance of pupils in primary school Mathematics in Akamkpa local government area of Cross River State, Nigeria, University of Calabar. The findings revealed that the factors that led to pupils' poor performance were inadequate instructional materials for teaching of mathematics in the primary and teachers were not ready to improvise. The gap deduced in Owan study was that mathematics teachers do not use instructional materials adequately and that in turn affects the students' performance in the schools. The study done only on mathematics in Cross River State. The current study recommends that public primary school teachers use of visual aids in all subjects offered in public primary schools.

3.0 RESEARCH DESIGN AND METHODOLOGY

This study used a mixed-methods research approach, specifically a Convergent Parallel Mixed-Method Design was adopted for the study. A mixed method involves using both qualitative and quantitative research methods in the same research study. Qualitative data tends to be open-ended without set responses; quantitative data usually includes closed-ended answers (Creswell, 2014). According to Creswell, (2014) a convergent parallel mixed method is a form of mixed methods design in which the researcher mixes or merges both qualitative and quantitative data in order to generate a comprehensive analysis of the research issues.

In this study, the researcher used both designs to provide a detailed description of the research issue during data collection and data analysis. While the qualitative design helped to understand the characteristics of the phenomena, the quantitative design helped to gain an in-depth understanding of the same. For qualitative instruments, interview guide, the researcher used phenomenological design whose purpose was to describe situations, experiences, or phenomenon, as they exist. It was aimed at capturing the interpretation heads of sections and supervisors about their environment. The purpose or reason of choosing these designs was because it is suitable to the current study; it would enable the researcher to gather quantitative and in-depth qualitative data about the public primary schools in Barkin-Ladi local government education authority in Plateau State in Nigeria.

The target population was drawn in Barkin-Ladi local government. The population therefore comprised of 116 head teachers, 698 teachers, 16,662 pupils, 13 supervisors and 3 heads of sections. A sample is used because it may not be easy for a researcher to deal with the whole accessible population (Kimalu & Marimba, 2014). McMillan and Schumacher (2001) suggest that in determining sample size, the researcher needs to obtain enough to provide credible results. They suggest that, in quantitative studies, a sample of 20% of the total population is representative enough. The researcher used purposive and stratified random sampling techniques for head teachers, teachers, and pupils.

The researcher sampled 23 schools, which were, at least, 20% of the 116 schools in the four districts in Barkin-Ladi local government education authority. To determine the sample size of teachers, head teachers and pupils, Yamane (1967)'s formula was used. For a sample size to be representative of the target population, the sample size must be calculated taking into account the population confidence level (usually 95% but the higher the level the larger the sample size) and the margin of error (5 is a good margin). (Yamane (1967).

The researcher used probability sampling and particularly stratified random sampling technique in order to obtain a teachers' sample particularly, following the formula designed by Yamane (1967) for calculating sample sizes for finite proportions (Kasiulevicius, Sapoka & Filipaviciute, 2006). Yamane's technique was used for proportionate sampling. The formula was given as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where N= Population size

e= level of significant or limit of tolerable error

1= unit -a constant

n = sample size

Proportionate sampling is a variation of stratified random sampling used when subgroups in a population vary dramatically in size. Proportionate sampling strategies begin with stratification of the population into appropriate subgroups, and then random sampling within each subgroup (Wadsworth, 2005). This method was ideal for the analysis since the sample size should not be equal but proportionate to each stratum. The number of participants from each subgroup was not equal to their proportion. Therefore, the proposed sample size of teacher was 254, 391 for pupils, and 90 for head teachers, 3 head of sections and 13 supervisors.

The instruments used in collecting data from head teachers, teachers and pupils were questionnaires and interview guides for heads of sections and supervisors. This method can be used through personal interview and if possible, through telephone interview (Kothari & Garg, 2014). The instruments were pilot tested on a small sample of 4 teachers, 4 pupils and 2 head teachers in Loh-kajoro public primary school and Rakung primary school in Ropp district which are not part of the respondents of the main study. This is in line with the recommendations by Mcmillan and Schumacher (2001) who noted that a small number as ten participants for pilot testing is adequate. The researcher conducted a reliability test using statistical package of social sciences (SPSS) version 23 to obtain Cronbach Alpha which gave result of .777, the overall instrument had acceptable reliability alpha = .77 (Taber, 2017).

The reliability of the questionnaire was ascertained by the pilot study that was conducted had of the data collection stage. A reliable coefficient should fall between 0.7 and 0.9 (Brukner & Khan, 2019). The study used Cronbach alpha coefficient to obtain the reliability index. The test obtained a Cronbach Alpha of .816. Cronbach's alpha is considered adequate if it falls between 0.7-0.9 (Brukner & Khan, 2019). The results showed that the instrument had a mean reliability coefficient of 0.7-0.9; an indication that the questionnaire was reliable.

To ensure the credibility of the findings, Creswell (2009) recommends the use of multiple strategies and these should enhance the researcher's ability to assess the accuracy of the findings as well as convince readers of that accuracy. Among the proposed strategies is enough time for the research, clarification of bias, etc. Qualitative data involved the use of peer and external readers. The researcher interviewed supervisors for two weeks and heads of sections for one day based on the convenience and scheduled date, time, and the place of the interview. This was also to ensure quality control in the research, this is important because dependability refers to the stability of findings overtime (Anney, 2014).

After the collection of data, quantitative data were coded and organized for analysis using SPSS version 23. These statistics results were used to describe the characteristics of the participants and their views on the different aspects sought in the study. Data analysis involves categorizing, tabulating, and summarizing of data for generating answers to the research questions (Karlinger & Lee, 2000).

Ethical considerations play a fundamental role in all research studies. The study developed a participant informed consent form, which the participants would sign as recommended by Creswell (2014) to engage in the research. The researcher also carefully considered the ethical implication in relation to safety, privacy, and benefits of the participants, as well as the observation of the research integrity. For the pupils who were still under 14 years old, and who constituted part of respondents, consent was obtained through the head teachers who verified the questions and then asked them to feel free to fill the questionnaires; assuring them that their privacy would be protected.

For privacy, the participants were assured that their identities would not be disclosed, and their responses would only be used for the research purposes. During the interview process, the researcher read to the hearing of each interviewee what they said for them to make corrections in case what they said was not well captured during the interview.

4.0 DISCUSSION OF FINDINGS

The purpose of this study was to investigate factors influencing teachers' effective use of visual aids in enhancing the teaching and learning process in public primary schools in Barkin-Ladi. This study was guided by the study question on factors influencing teachers' effective use of visual aids and the teaching and learning process.

The study targeted 254 teachers, 90 head teachers, 391 pupils, 13 supervisors and 3 heads of sections in Barkin-Ladi local government education authority in Plateau State, Nigeria. Teachers, head teachers and pupils' participation were good. This was because teachers' and head teachers' questionnaires were administered and collected after the exercise. The pupils' questionnaires were administered under the supervision of the class teachers and collected later at the stipulated time. Head teachers, teachers, and pupils' participation return rate were excellent.

Table 1: Teachers' Responses on Factors (n =254)

Factors	SD F %	D F %	UD F %	A F %	SA F %
Lack of allocating money by the government to purchase visual aids	13 (5.1)	20 (7.9)	-	135 (53.5)	85 (33.5)
Lack of time management by teachers	29 (11.4)	22 (8.7)	-	128 (50.4)	75 (29.5)
Lack of visual aids in schools for teachers to use	28 (11.0)	17 (6.7)	2 (.8)	126 (49.6)	81 (31.9)
Unwillingness by teachers	24 (9.4)	19 (7.5)	-	127 (50.0)	84 (33.1)
Poor motivation of teachers by the government	35 (13.8)	21 (8.3)	-	127 (50.0)	71 (28.0)
Large number of pupils per class can affect the use of visual aids	52 (20.5)	37 (14.6)	1 (.4)	96 (37.8)	68(26.8)
Lack of skills/knowledge	31 (12.2)	(0)	-	122 (48.0)	101 (39.8)
Lack of supervision/monitoring	33 (13.0)	1 (.4)	-	128 (50.4)	92 (36.2)
Lack of training teachers toward the use of visual aids	16 (6.3)	12 (4.7)	-	118 (46.5)	108 (42.5)

Factors stated in Table 1 are lack of allocating money by the government to purchase visual aids, lack of time management by teachers and lack of visual aids in schools for teachers to use are barriers to teachers' effective use of visual aids for enhancing the teaching and learning process. Therefore, the study sought information from the public primary school teachers from the four districts to see whether there are factors that influence the use of visual aids during the teaching and learning process. The results also show that 53.5% of the public primary school teachers agreed, 33.5% strongly agreed that lack of allocating money by the government to purchase visual aids was a factor that is influencing teachers' effective use of visual aids in the class. In addition, 7.9% strongly disagreed, and 5.1% of the teachers disagreed with the statement. Therefore, majority of the teachers agreed that there was lack of allocation of money by the government for the purchase of visual aids can affect the use of visual aids, although teachers could make effort to go extra miles so as to improvise the visual aids were necessary.

The findings indicate 50.4% of the public primary school teachers agreed, 29.5% strongly agreed that lack of time management by teachers is a factor that can influence teachers' effective use of visual aids. However, 11.4% strongly disagreed and 8.7% disagreed that lack of time management by teachers is a factor that could influence teachers' effective use of visual aids during the teaching and learning process. On lack of interest by teachers as a factor that influence teachers' effective

use of visual aids, 49.6% agreed, and 31.9% strongly agreed with the statement. Still 50.0% agreed, and 33.1% strongly agreed that unwillingness by teachers to use visual aids during the teaching and learning was a factor that could influence teachers' effective use of visual aids.

The teachers agreed with the statement that lack of motivation of teachers by the government was a factor that influenced teachers' effective use of visual aids. Thus 50.0% agreed and 28.0% of the teachers strongly agreed. However, 13.8% of the teachers strongly disagreed and 8.3% disagreed that lack of motivation of teachers by the government was a factor that influenced teachers' effective use of visual aids. Based on the findings, lack of motivation is a factor that influence the use of visual aids. The head of quality assurance was probed on matters related to lack of visual aids in schools which were affecting the effective teachers' use of visual aids. He enumerated; "Lack of plan or budget for the purchase of visual aids to the public primary school's pupils, lack of proper supervision/monitoring by the head teachers, lack of teachers' interest to use visual aids during teaching and learning process" (25th September, 2018).

The personnel manager pointed out that the factors are: Lack of training, in terms of organizing seminars/workshops for teachers to tell them about the importance of visual aids. In addition, lack of managing time by teachers. This is necessary because it would help teachers to use enough materials. Related to this was lack of interest by teachers. If teachers did not have interest in the use of visual aids, they may not use visual aids even if they were available.

The head of primary education section added lack of motivation of teachers, lack of support from government such as giving small allowances to assist teachers to purchase maybe cardboard paper for drawing (25th September 2018). He also said it was important for both supervisors and head teachers to ensure teachers were using visual aids during the teaching and learning process. Furthermore, 37.8% of the teachers agreed and 26.8% strongly agreed that teaching large number of the pupils per class could influence teachers' effective use of visual aids. However, 20.5% strongly disagreed and 14.6% disagreed that teaching large number of the pupils per class could influence teachers' effective use of visual aids.

As for lack of skills/knowledge as a factor that influenced teachers' effective use of visual aids, 48.0% of the teachers agreed and 39.8% strongly agreed. But 12.2% strongly disagreed with the same statement. Again, 50.4% of the teachers agreed and 36.2% strongly agreed that lack of supervision/monitoring of teachers was a factor that influenced teachers' effective use of visual aids in the sampled schools. The finding also shows that 13.0% of the teachers strongly disagreed that lack of supervision/monitoring of teachers was a factor that could influence teachers' effective use of visual aids. Based on the findings lack of supervision/monitoring of teachers is a factor that can influence teachers' effective use of visual aids. This means that supervising and monitoring teachers ensure that they are using visual aids during the teaching and learning process as expected.

Concerning lack of training teachers toward the use of visual aids as a factor that could influence teachers' effective use of visual aids, 46.5% of the teachers agreed while 42.5% strongly agreed. From the findings lack of training teachers on how to use visual aids was a factor that affect the use of visual aids. The findings concur with Mupa and Chinooneka (2015) who found out that lack of time management and low level of training teachers had influenced effective teaching and learning process. Lack of organizing workshops/seminars/training for teachers was a serious issue, which the stakeholders had to look into it and make sure teachers are trained in order to enhance the teachers' use of visual aids in public primary schools.

The supervisors were asked during an interview whether the office had a plan and budget to assist in providing visual aids for the teachers in public primary schools to use during the teaching and learning process. All the supervisors gave the same responses and stated that the office had no plan or budget to assist teachers in public primary schools, the office did not give teachers, head teachers, and supervisors any allowances. The 1st supervisor added; “Since there is no plan or budget to assist teachers, I always encourage them to improvise and not to wait for the government to allocate money for purchase of visual aids before they would use visual aids in teaching”. The 2nd supervisor said; “Although there is no plan or budget to buy visual aids, I encourage teachers to look for visual aids since some visual aid are not expensive and not to wait for the government or office” (24th September, 2018).

From the findings, it was noticeable that visual aids were not adequate and available to be used by teachers. It is important therefore for the government to provide those teaching materials such as visual aids to be used by teachers. Availability of visual aids is core determinant in the success of the teaching and learning process because visual aids motivate learners to learn as they offer stimulus variation and assist in sustaining learners’ attention throughout the lesson (Mege, 2014). Consequently, it is important for the government to ensure that the instructional materials are available in all schools not only textbooks alone.

Pupils’ views on the influence teachers’ effective use of visual aids

To understand the teachers’ effective use of visual aids during the teaching and learning process in the public primary schools, pupils were asked to tick once the factors which they think can influence their teachers’ effective use of visual aids. The findings are shown in Table 2.

Table 2: Pupils’ Responses on the Factors

Factors	Frequency	Percent
If the government does not provide visual aids for teachers to use	105	26.9
If visual aids are not available	90	23.0
When teachers do not prepare visual aids	65	16.6
Lack of money to buy visual aids	55	14.1
Lack of interest by our teachers	76	19.4
Total	391	100.0

According to Table 2, 26.9% of the public primary school pupils from the four districts indicated that if the government does not provide visual aids for teachers to use can be a factor. Another 23.0% said if visual aids were not available teachers cannot teach well, this was in line with what Saidu (2016) in his study availability and use of visual teaching and learning materials in teaching geography in Minibar education zone Kano, Nigeria said that inadequate visual teaching and learning materials during the teaching and learning process can affect the teaching and learning process and that can make learners not to understand the lesson as expected.

Again 16.6% of the public primary school pupils stated that when teachers do not prepare visual aids to use in class during the teaching and learning process can be a problem in understanding

what they are teaching them. For instance, Owan (2012) did a study on some causes of poor performance of pupils in primary school Mathematics in Akamkpa local government area of Cross River State, Nigeria, revealed that the factors that led to pupils' poor performance were inadequate instructional materials for teaching of mathematics in the primary and teachers were not ready to improvise. Again, 14.1% mentioned lack of money for their teachers to buy visual aids to use and 19.4% stated lack of interest by their teachers to look for visual aids to use.

Based on these findings, all the listed factors could affect teachers' effective use of visual aids during the teaching and learning process in the public primary schools in the four districts in Barkin-Ladi and this can result to poor academic performance of the pupils. For example, Mege (2014) conducted a study on the influence of school environmental factors on the teaching-learning process in public primary schools in lower Nyokal division, Homa-bay district, in Kenya, the findings of the study revealed that lack of instructional materials and lack of teachers' improvisation had contributed to lack of understanding, child dropout and repetition had also been a concern. Making visual aids available for teachers to use during the teaching and learning process is important because that would help the learners to understand and assimilate the lesson well.

Suggestions on How Factors Affecting the Use of Visual Aids Can Be Managed

In order to manage the factors affecting the use of visual aids, teachers were asked give their suggestions which are summarized on Figure 2.

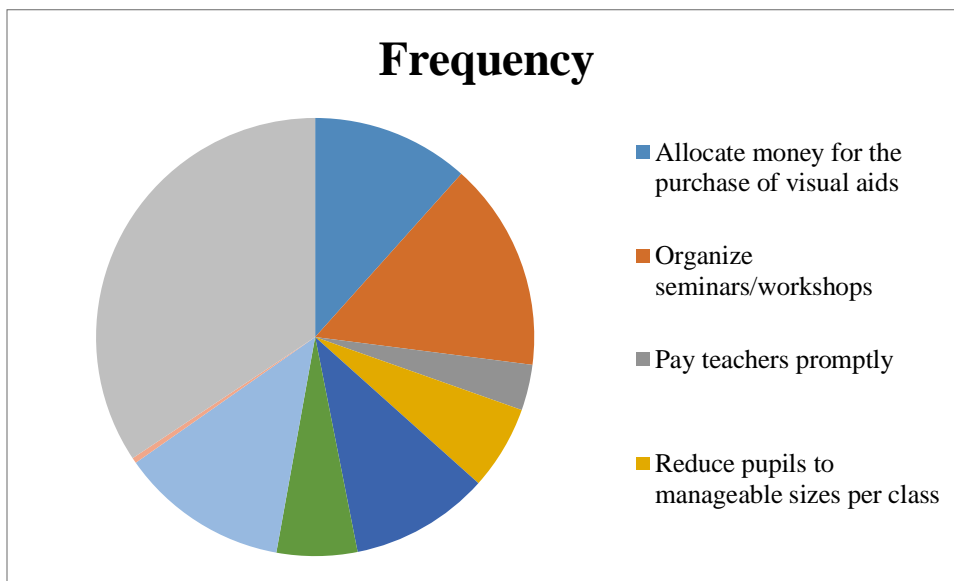


Figure 2: Teachers' Suggestions (n=254)

Figure 2 indicates that, 33.9% of the public primary school teachers suggested that in order to manage factors affecting the use of visual aids, the government should allocate money for teachers to purchase visual aids to use during the teaching and learning process. Another 44.9% suggested organizing seminars/workshops for teachers, 18.1% said paying teachers promptly while 9.8% indicated that government should ensure they reduce pupils to manageable size per class. The remaining 29.9% suggested that government makes sure that teachers were being trained on how to make use of visual aids in class.

An interview the head of quality assurance brought forth the following: Government should redirect more resources to provide visual aids to all subjects in public primary schools; employ qualified teachers to teach in public primary schools; and organize seminars/workshops/training to train teachers on the importance of visual aids. Others included intensive supervision for teachers in using visual aids in class; make visual aids available and adequate for teachers to use during the teaching and learning process; and the number of pupils in a class should not be more than 40 so as teachers can teach effectively. Lastly, the government should make a budget for the purchase of visual aids and the office should avail their vehicles in order to assist supervisors to do their supervision work (25th September 2018).

The findings also show 17.3% of the teachers suggested that government should ensure close supervision/monitoring was done, 36.2% said that head teachers should always organize in-house seminars, and 1.2% indicated that teaches should always manage the time well. This was similar to what the 9th supervisor suggested: government can manage the factors by proper supervision of the public primary school teachers to ensure that teachers are using visual aids during the teaching and learning process in the schools. In addition, the government should sponsor teachers for further studies and employ teachers to teach according to their disciplines since most of the teachers were complaining of taking all subjects assigned to them.

5.0 CONCLUSION

Numerous factors can affect teachers' effective use of visual aids. The study concluded that government could manage the factors by: sponsoring teachers for further studies; employing teachers to teach according to their disciplines; reduce pupils to manageable sizes per class; allocating money for the purchase of visual aids; pay teachers promptly; head teachers should also help to organize in-house seminars for teachers on how to use visual aids; punish any teacher who refuses to use visual aids in class and teachers should try and improvise visual aids where necessary.

6.0 RECOMMENDATIONS

1. In view of the findings of this study, the following recommendations were made with the aim to help the government and teachers to combat the factors affecting teachers' effective use of visual aids in enhancing the teaching and learning process in Barkin-Ladi local government education Plateau state, Nigeria: Plateau State Universal Basic Education Board and education secretary of Barkin-Ladi local government education authority should manage the factors that are affecting teachers' effective use of visual aids. Such factors are lack of provision of visual aids, lack of allocating money to purchase visual aids among others in public primary schools Barkin-Ladi to ensure quality education for pupils. Government should provide enough funds to public primary schools to enable them to purchase visual aids to use during the teaching and learning process.
2. Teachers should do their own quarter by the improvisation of visual aids where there is none in order to help the pupils.

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