

Assessment of Effectiveness of Audio-Visual Aids on Secondary School Students' Academic Performance on Iwo Local Government Area of Osun State, Nigeria

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Abstract: *The study examined the effectiveness of Audio-Visual Aids on students' academic performance in Iwo Local Government Area of Osun State, Nigeria. Three objectives and research questions were enumerated while two hypotheses were tested. Descriptive survey research design was employed. Simple random sampling technique was employed to select the sample of three-hundred (300) from five public schools in Iwo metropolis. The questionnaire was used as research instrument which was validated and undergone reliability test. Descriptive and inferential statistics were used for data analysis. The empirical outcomes indicated that audio-visual aids are effective in increasing the understanding of students in senior secondary schools. Students were observed to be more attentive when audio-visual aids were played. Majority of students agreed that the use of audio-visual aids increase their interest to learn as well as ability to learn and remember the contents. The study concluded that the application of audio-visual aids are useful in arousing the interest of the students during classroom interactions. Based on the findings of the study, the recommendations are suggested for concerned stakeholders of education such as government, teachers and students.*

Keywords: Audio, Visual, Audio-Visual Aid, Academic Performance

INTRODUCTION

Education is considered imperative for not only the progress of the individuals, but also for the development of community and nation at large. In order to bring about improvements in all aspects there could be need to utilize modern technique during teaching learning process at the secondary school level. As this would in turn bring about improvement in the academic performance of the students involved. In a formal academic setting, learning is seen as a process through which a learner experiences relative permanent change in behaviour and skills as a result of his/her exposure to either hidden or formal content of the school curriculum. This kind of learning may not be directly observed and measured unless learners are subjected to periodic assessment by the subject teachers and public examinations conducted by external bodies like the National Examinations Council (NECO), and West African Examinations Council (WAEC) among others. This would be used to ascertain the extent to which the students have internalised the learning experiences in the school subjects through a variable called an academic performance.

Therefore, academic performance could be described as the learning outcomes that manifest in the students which encompass an improvement in knowledge, skills as well as accumulation of ideas through courses of study both within and outside the classroom setting or learning environments. It is a means of ascertaining the extent to which stakeholders of education more importantly students, teachers and academic institutions have attained the highlighted educational objectives and goals which may vary across the students as well as academic institutions over a period of time. The prevailing fluctuation in the

academic performance of secondary school students at macro coverage in public examinations needs the attention of the stakeholders of education. This is because, the report from the West African Examinations Council (WAEC) revealed that twenty-seven point fifty three percentage age (27.53%) of the students who sat for the WASSCE in 2005 obtained five credits, English language and Mathematics inclusive. In 2006, the figure declined to fifteen point fifty six percentage ages (15.56%). Besides, twenty-five point fifty four percentage ages (25.54%) had five credits and above in 2007 which was less than the figure recorded in 2005, the worst performance of thirteen point seventy six percentage ages (13.76%) was observed in 2008. There was a slight improvement in 2009, when twenty-five point ninety nine percentage age (25.99%) passed the 26 examination, the trend reduced to twenty-point four percentage age (20.4%) in 2010 (Olorundare, 2011).

However, there was a slight improvement in performance of students in the aforementioned examination between 2014 and 2018 as compared with the previous years. It was revealed that in 2014 and 2015, the percentage age of candidates that obtained five credits and above including English Language and Mathematics in the WASSCE were thirty-one point twenty eight (31.28%) and thirty-eight point sixty eight percentage (38.68%) respectively. The figure improved to fifty-two point ninety seven percentage (52.97%), fifty-nine point twenty percentage (59.20%) and forty-nine point ninety percentage (49.90%) in the years 2016, 2017 and 2018 respectively. Besides, on the basis of state ranking nationwide in 2018, it was reported that none of the six states (Osun, Oyo, Ogun, Lagos, Ondo, and Ekiti) within South-West Zone of Nigeria was among the first top ten in the performance list (WAEC, 2018). The trend in the

performance may be attributed to factor like application of audio-visual aids in teaching and learning interaction.

Jadal, (2011) stated that these aids not only save the time but also support to create the curiosity, creativity and critical thinking. It emphasizes on the cognitive development of learner and works on developing sound foundation for higher studies. Medical students have different styles of learning which include visual, auditory, read/write and kinesthetic modes of learning. In the light of this, teachers have to choose different teaching methods to enhance learning and make learning more interesting and impact bearing. Saima, Qadir and Shazia (2011) acknowledged that Audio-Visual aids play important role in teaching-learning process by ensuring it's effective, provide in depth and detail knowledge about the subject matters, make class room environment attractive as well as motivates both learners and teachers.

Slavin (2000) argued that instructional or audio-visual materials such as text book, pictures diagram's, flashcards, posters television etc are materials or devices that help in the teaching learning process because they influence the senses of seeing and hearing, but its utilisation must depend on proper planning. This seem to confirm the view expressed by Onasanya and Adegbiya (2007) that a planned utilization of instructional materials help the students comprehend, retain and recall concepts, principals or theories and acquire professional skills. Idris (2015) revealed that the use of Audio-visual materials in the teaching and learning of speaking skills was significantly better than the use of conventional method in which no audio-visual materials was used. Karemera (2003) found that students performance is significantly correlated with students satisfaction with academic environment and the facilities there in such as library, computer labs etc. With regards to background variables, she found a positive effect of high school performance and school environment. She also found a significant statistical evidence between family income level as a measure of background home environment towards learners' access to audio-visual gadget and academic performance of students.

Shah and Khan (2015) highlighted that animation and information presented onscreen provided a different learning experience from printed text which was beneficial to development of critical thinking. Gilakjani (2012) also resonated with the use of effective learning materials including audio-visual aids in enhancing teaching and learning, and visual presentation helped differentiating primary and secondary information sources in approaching questions requiring higher thinking skill. Flipped classroom, being a blended learning mode incorporating online lectures, discussions and audio-visual materials, has been found to encourage reading and watching of visual learning materials among students (Jarosievitz, 2015). Students reflected that they were more engaged in such learning mode. Malik and Agarwal (2012) recognised multimedia as a constructivist learning realm, permitting students to explore and engage in their learning. Audio-visual aids have been applied in multiple teaching and

learning settings with encouraging results. Lee and Keckley (2006) revealed higher performance among learners taught via multimedia instruction in driving lessons. De Sousa and Van Eeden (2017) recommended the use of audio-visual materials in teaching history to enhance deep understanding and active learning. Similarly audio-visual aids were reported to be beneficial to the learning of Geography as they vividly presented trends, maps and activities Audio-Visual Aids in Rural Secondary School (Ekinci, Karakoc, Hut and Avci, 2009).

Ode and Omokaro (2007) revealed that learners retain most of what they hear, see and feel than what they merely hear. This concept bears credence to the old Chinese adage which says 'what I hear I forget what I see I remember and what I do I know. A visual instruction encourages the use of audio-visual resources to make abstract ideas more concrete to the learners. Therefore, the teacher's duty is to make learning live, not just something to remember but part of living experience. This can be done effectively by employing the use of audio-visual resources in teaching and learning as a mean. In addition, Audio visual aids are the effective communicative tools between the teachers and learners. This is because according Ghulam, Khuram, Naqvi and Nadeem (2015) submitted that people remember 10% of what they hear, 20% of what they read as well as 80% of what they see and do.

On the basis of students' gender, MeenuDev (2016) argued that the academic achievement of girls in elementary schools was higher than their boys counterparts which was attributed to factors like general mental ability, home environment and interest towards the application of audio-visual during teaching learning exercise. Cecilia and Anthony (2017) reported that majority of males had low and moderate academic achievement, while more females had higher academic achievement than males. In the same vein, using Mastery Learning Strategy and Conventional Methods for teaching Geography, Jacob and Linus (2017) submitted that the female students performed excellently than their male counterparts when Mastery Learning Strategy method was used to teach Geography. Also, male students had slightly higher academic achievement in Conventional Method than the academic achievement of their female counterparts. Godpower-Echie and Sopuruchi (2017) opined that gender quality of the learners was insignificant to academic achievement but would have great effect on the interest to be developed for a school subject.

Statement of the Problem

In the 21st century economy, students need a range of skills beyond traditional math, reading, and writing. As noted by Esther Wojcicki, an English teacher at Palo Alto High School, at a recent conference, an innovation-based economy requires an ability to be self-directed learners, work independently, apply technology effectively, create media products, be adaptable to change, and be good digital citizens, among other attributes (Wojcicki, 2013). Both teachers and students report positive impact on learning from audio-visual aids including digital technologies. For

example, in the Project Tomorrow survey, teachers see a number of positive benefits from their use of digital instructional tools. 52 percent say their students are more motivated to learn, 36 percent believe their students are developing creativity, 29 percent think the tools encourage problem solving and critical thinking, 7 percent say their students are applying knowledge to practical problems, and 26 percent report students are taking ownership of their own learning (Project Tomorrow Speak Up Survey, 2013). Students are quite positive about the ways they think the use of audio-visual aid such as mobile devices will transform their learning environment. According to a Project Tomorrow Speak Up Survey, (2013) using an audio-visual device in school helps school pupils increase their learning because 78 percent say it allows them to check grades, 69 percent credit it with helping them to take class notes, 64 percent enjoy its aid in accessing online textbooks, 56 percent say it helps them write papers and do homework, 56 percent use it for calendar updates, and 47 percent indicate it helps them learn about school activities. In spite of the essence of audio-visual aids as revealed in the literature, attention has not been fully tailored towards the impact of audio-visual aids on students' interest, school assignment, co-curriculum and examination in developing nations like Nigeria which is great lacuna to be filled by this research work.

Objectives of the Study

The broad objective of the study is to assess the influence of Audio visual aids on students' towards co-curriculum activities at senior secondary school level. While, specific objectives are to;

- i. examine the extent to which Audio-visual aids application influence students' interest towards co-curriculum activities at senior secondary school;
- ii. evaluate the impact of audio visual aids application on students' interest in class assignment at senior secondary school; and
- iii. determine the impact of audio visual aids application on students attitude towards preparation for the examination..

Research Question

Based on the background of the study, the following questions were answered.

- i. To what extent do Audio-visual aids application influence students' interest towards co-curriculum activities at senior secondary school?
- ii. To what extent do audio visual aids application impact students' interest in class assignment at senior secondary school?

- iii. What is the impact of audio visual aids application on students' attitude towards preparation for the examination?

Research Hypotheses

- i. To what extent do the application of Audio-Visual Aids influence students' academic performance in senior secondary school on the basis of their gender quality?
- ii. To what extent do the application of Audio-Visual Aids influence students' academic performance in senior secondary school on the basis of students' parental educational status?

METHODOLOGY

Research Design

The study employed the descriptive survey research design. This design is generally conceived as one in which a group of people or items is studied by collecting and analysing data from only a few people or items considered to be representative of the entire group (Nworgu, 2006). However, in some surveys the entire population is studied such surveys is called census as distinct from sample surveys in which a sample of the population is studied which was exploited in this study. Besides, the design is considered appropriate for this research work, because the research student used the obtained data to describe the situation that exist on the nexus between audio-visual aid and academic performance. It didn't involve manipulation of variables in the study. It is therefore, after the fact study. It neither adds to nor subtracts from the existing fact.

Population

Population in research is used in a more general sense to include all members or elements (be living things or non-living things) of a well-defined group. As a result of this, all public senior secondary school students in Iwo Local Government Area of Osun-state formed the target population for this study.

Sample and Sampling Technique

Simple random sampling technique was employed to select the sample of three-hundred (300) respondents from Grade 11 (Senior Secondary School II). This is because, simple random sampling technique afford each element of the population equal and independent chance of being included in the sample. However, this sample was selected from five senior secondary school in Iwo metropolis as shown in the figure below:

S/N	Name of the School	Sample
1.	Anwarul-ul Grammar	58
2.	Iwo High School	56
3.	Community High School, Iwo	60

4.	Muslim Community High School, Iwo	64
5.	Baptist High School, Iwo	62
Total		300

Instrumentation

The research instrument for this study was a structured questionnaire. The questionnaire was framed and designed to reflect the content of the research questions and divided into sections in line with variables planned for the study. The questionnaire was in two sections (A, and B). Section A comprised the demographic characteristics of the respondents, while Section B contained information on the variables selected for the study. The responses was planned on four Likert-scale rating range from Strongly Agree, (SA), Agree (A), Disagree (D) and strongly disagree (SD)=4 .This is because, Likert-scale rating is reliable and valid as it enables participants to indicate the extent of agreement or disagreement.

Validation of Research Instrument

Validity is the ability of a research instrument to measure what is designed to measure. The greater the degree of validity of the instrument, the higher the confidence of the researcher about the result obtained. A research can only be meaningful and dependable only when a valid instrument is properly structured and comprehensive items are constructed without leaving any room for ambiguity.

However, in order to effectively ensure the validity of the instruments used for this study, the instruments were subjected to content validity measurement which involves face validity and predictive validity. On face and content validity, the items are presented in simple language for easy understanding by the respondents and are also logically and systematically arranged in line with the research questions enumerated to answer in chapter one. The researchers ensured the validity of the instruments by making sure that the contents of the instruments are consistent with both the

objectives and research questions of the study. Also, a pilot study was carried out using a population of the same characteristics, which was not a part of the actual study. This was done to test the ambiguities in the instrument, so as to make interpretation more explicit during the actual findings from the respondents for the main study.

Reliability of the Instrument

The reliability of a research instrument concerns the extent to which the instrument yields the same results on repeated trials. Although, unreliability is always present to a certain extent, there will generally be a good deal of consistency in the results of a quality instrument gathered at different times. The tendency towards consistency found in repeated measurements is referred to as reliability. The instrument was trial-tested among forty (40) students selected from three public schools in Iwo Local Government Areas of Osun State which were not part of the respondents used for the study. The internal consistency reliability coefficient was obtained with the aid of Cronbach Alpha reliability technique. The justification for using Cronbach Alpha reliability technique was based on the fact that the items on research instrument, that is questionnaire have no right or wrong answer and it allowed respondents to rate the degree or extent to which they agree or disagree with a statement on a particular scale. However, the Cronbach Alpha reliability tests produced 0.81. The outcome revealed that the instrument is suitable, appropriate, adequate and reliable for the research work.

Method of Data Analysis

The data obtained (gathered) from the respondents for the study was coded, scored, and analyzed using both descriptive and inferential statistics.

RESULTS

Analysis Based on Research Questions

Research Question I: To what extent do the application of Audio-Visual Aids influence students' interest in the senior secondary school?

Table 1: Descriptive statistics showing the extent to which application of Audio-Visual Aids influence students' interest in the core curriculum activities at senior secondary school

Items	SA	A	D	SD
Facilitate interest to attend classes	150(50%)	100(33.3%)	26(8.7%)	24(8%)
Encourage high level of concentration	172(57.3%)	101(33.7%)	20(6.7%)	7(2.3%)
Ensure easy remembering all what is learnt	117(39%)	116(38.7%)	34(11.3%)	33(11%)
Stimulate students' interest as soon as it is applied	155(51.7%)	111(37%)	20(6.7%)	14(4.6%)

Table 1 indicated that 150(50%) and 100(33.3%) of the participants were of the view that the application of the audio-visual aids during teaching by the subjects teachers

would facilitate their interest to attend the classes, while the remaining 26(8.7%) and 24(8%) of them held the contrary opinion. It is revealed that majority of the students opined

that application of audio-visual aids encourage high level of concentration as having 273(91%) of the respondents supported the statement and the remaining 27(9%) were of the view that employment of Audio-visual aids will not encourage high level of concentration on the part of students during classroom interaction. 117(39%) strongly agreed that the application of audio-visual aids ensure easy

remembering and permanency in all what is learnt, 116(38.7%) agree, 34(11.3%) disagree while 33(11%) strongly disagree with the statement. Also, the majority of the participants supported that the application of audio-visual in the classroom will stimulate and sustain the students’ interest as soon as it is applied as having 266(88.7%) of the entire participants.

Research Question II: To what extent do the application of Audio-Visual Aids influence students’ ability towards school assignment?

Table 2: Descriptive statistics showing the extent to which application of Audio-Visual Aids influence students’ ability towards school assignment.

Items	SA	A	D	SD
Ability to complete the assignment	140(46.7%)	105(35%)	30(10%)	25(8.3%)
Facilitate critical thinking	182(60.7%)	100(33.3%)	10(3.3%)	8(2.7%)
Audio-Visual aids do not scare me	166(55.3%)	102(34%)	22(7.4%)	10(3.3%)
Audio-visual aids is enjoyable in solving assignment questions	130(43.3%)	135(45%)	18(6%)	17(5.7%)
Audio-visual aids make class presentation easier	110(36.7%)	125(41.7%)	35(11.7%)	30(10%)

Table 2 revealed that 140(46.7%) strongly agree, 105(35%) agree, 30(10%) disagree and 25(8.3%) to the statement that application of audio-visual aids enhance students’ ability to complete the school assignment to time. This indicated that majority of the participants were of the view that adoption of audio-visual aids is of paramount important to quick completion of subjects related assignment given by the subject teachers. 282(94%) of the respondents agree that the application of this gadget (that is audio-visual aids) facilitate critical thinking among learners while the remaining 18(6%) of them held contrary opinion towards the statement. It is discovered that the said gadget had

never in any way scare the students to participate in the lesson as 166(55.3%), 102(34%), 22(7.4%) and 10(3.3%) strongly agree, agree, disagree and strongly disagree to the statement respectively. It is also revealed that classroom presentations and academic assignments are easier with the aid of audio-visual gadgets as reiterated by the majority of the respondents engaged in the research. This is because, 265(88.3%) and 235(78.4%) of the participants were of the view that the audio-visual aids is enjoyable in solving assignment questions and at the same time make class presentation easier.

Research Question III: To what extent do the application of Audio-Visual Aids influence students’ ability towards school examination?

Table 3: Descriptive statistics showing the extent to which application of Audio-Visual Aids influence students’ ability towards school examination.

Items	SA	A	D	SD
Guarantee adequate prepare for the examination	140(46.7%)	105(35%)	30(10%)	25(8.3%)
Discourage examination malpractice	25(8.3%)	30(10%)	105(35%)	140(46.7%)
Using CBT is more preferable than hand writing	14(4.6%)	20(6.7%)	111(37%)	155(51.7%)
Encourage quick feedback	130(43.3%)	135(45%)	18(6%)	17(5.7%)
Boost self-confidence	166(55.3%)	102(34%)	22(7.4%)	10(3.3%)
Motivate students to perform better in examination	155(51.7%)	111(37%)	20(6.7%)	14(4.6%)

Source: Field Work (2019)

Table 3 indicated the extent to which the application of Audio-Visual Aids influence students’ ability towards

school examination. It revealed that 245(81.7%) which is majority were of the view that the application of audio-

visual aids is useful in guarantee students' adequate prepare for the examination. Meanwhile, this could not be a means of avoiding examination malpractices as 140(46.7%), 105(35%), 30(10%) and 25(8.3%) strongly disagree, disagree, agree and strongly agree respectively that its application discourage examination malpractices among the students. In addition, 14(4.6%) and 20(6.7%) of the participants strongly agree and agree that even if the audio-visual aid is applied in the classroom, the introducing

Analysis Based on Research Hypotheses

Research Hypothesis I: To what extent do the application of Audio-Visual Aids influence students' academic performance in senior secondary school on the basis of their gender quality?

Table 4: T-test outcomes on the extent to which the application of Audio-Visual Aids influence students' academic performance in senior secondary school on the basis of their gender quality

Gender	Number	Variables	Mean	S.D	T-Cal	D.F	T-Tab	Remark
Female	176	Interest	20.11	5.41	1.82	298	1.98	Insig.
Male	124		22.21	6.00				
Female	176	Assignment	21.63	3.04	2.97			Sig.
Male	124		19.78	3.01				
Female	176	Examination	17.20	4.68	0.03			Insig.
Male	124		17.23	3.44				

Source: Field Work (2019). Two-tailed Test at 5% Level of Significance

Table 4 revealed that there is no significant difference in the extent to the application of Audio-Visual Aids influence students' interest on the basis of gender. This is because, the calculated t-value is less than t-tabulated value (that is 1.82 < 1.98). Hence, the null hypothesis is upheld. On the assignment, it showed that there is significant difference in the role being played by the adoption of audio-visual aids in the classroom on the basis of gender. This indicated that female participants were not only satisfied with the prevailing audio-visual gadget apply for teaching but all

Computer Based Test would be more preferable than hand writing for the students, while 111(37%) and 155(51.7%) disagree and strongly disagree with the statement respectively. Also, its application would stimulate quick feedback, build self-confidence and motivate students to perform better in examination, as 265(88.3%), 268(89.3%) and 266(88.7%) of the respondents which is majority supported the statements respectively.

attracted with such in doing assignment than their male counterparts. In the light of this, null hypothesis is rejected as the calculated t-value is greater than t-tabulated value (that is 2.97 > 1.98). The findings revealed that there is no significant difference in the extent to which the application of Audio-Visual Aids influence students' ability towards examination on the basis of gender. This means that when gender of the students is considered, application of audio-visual aids would play an insignificant role during examination.

Research Hypothesis II: To what extent do the application of Audio-Visual Aids influence students' academic performance in senior secondary school on the basis of students' parental educational status?

Table 5: T-test outcomes on the extent to which the application of Audio-Visual Aids influence students' academic performance in senior secondary school on the basis of students' parental educational status?

Educational Status	Number	Variables	Mean	S.D	T-Cal	D.F	T-Tab	Remark
Literate	176	Interest	21.90	5.80	0.79	298	1.98	Insig.
Non-literate	124		20.94	6.00				
Literate	176	Assignment	20.36	3.03	0.21			Insig.
Non-literate	124		20.22	3.40				
Literate	176	Examination	17.56	3.82	1.12			Insig.
Non-literate	124		16.67	3.94				

Source: Field Work (2019). Two-tailed Test at 5% Level of Significance

Table 5 indicated that there is no significant different in the extent to which the educational status of the parents affect the students' interest in the utilisation of audio-visual aids during classroom interaction, their attitude towards academic assignment in the school subjects and performance in examination in general. This is supported with empirical outcomes in which the calculated values of

0.79, 0.21 and 1.12 were lesser than tabulated value of 1.98. Therefore, the hypothesis is upheld.

Discussion of Findings

The empirical findings indicated that the majority of the participants were of the view that the application of the audio-visual aids during teaching by the subjects teachers

facilitate their interest to attend the classes regularly. This means that interest of the students could be best determined by the kind of instructional materials adopted by the teachers in the course of teaching-learning in the schools. This is in consonance with submission made by Mohd *et al* (2013) in which creation of an excellent rapport with students in order to make classroom interaction attractive and enjoyable platform for learning would not only encourage the student to attend such a class but also bring about improvement in their respective performance. The findings indicated that audio-visual aids encourage high level of concentration, easy remembering and permanency in all what is learnt and sustenance of students' interest in the classroom discussion. Xiaojie and Xianmin (2016) supported the view by acknowledging that low interest always leads to lower learning concentration and vice-versa.

On the part of assignment, this results indicated that majority of the participants were of the view that adoption of audio-visual aids is of paramount important to quick completion of subjects related assignment given by the subject teachers. It is deduced that critical thinking could be facilitated by the application of the audio-visual gadget for the classroom discussion by the subject teachers. It is discovered that the said gadget had never in any way scare the students to participate in the lesson. Besides, it is inferred that audio-visual aids make class presentation easier and at the same time make class presentation easier.

It revealed that majority were of the view that the application of audio-visual aids is usefull in guarantee students' adequate prepare for the examination. Meanwhile, this could not be a means of avoinding examination malpractices as reiterated by the majority of the respondents that its application would not discourage examination malpractices among the students during either teacher-made or standardize test. The recent findings supported this, Onuka, and Durowoju, (2013) identify the causes of examination malpractices to include fear of failure, craze for certificate, desire of parents to have their children in choice professions and university, pressure on students to pursue courses which they have no aptitude, pressure on teachers who want to gain favour of student and overcrowded sitting arrangement. George and Ukpong (2013) links the increasing rate of examination malpractice to poor teaching, ineffective preparation by students, ill-equipped library facilities, and dubious admission policy. Akaranga and Ongong (2013) views the cause of examination malpractice to parental upbringing. They opined that because of social status and economic ability, most parents are easily persuaded to bribe their way through for the sole success of their children and self-gratification. It is inferred from the outcomes that application of the audio-visual gadget could be necessary but not a suufficient condition for the introduntion of the Computer Based Test (CBT), as majority of them would prefer writing test to CBT. Garas, and Hassan, (2018) corroborated this by acknowledging that the students' prior experience with computer positively affect their

performance on CBT mode. Also, its application would stimulate quick feedback, build self-confidence and motivate students to perform better in examination as supported by the majority of them. Ismail, Othman, Amiruddin, and Ariffin (2017) highlighted the ability of multimedia elements to enhance imagination and visualisation. This might have contributed to increased retention of information, hence learning of reproduction-themed lesson which was difficult to imagine without audio-visual elements (Akram, Sufiana, and Malik, 2012).). Audio-visual aids provide auditory and visual stimuli which facilitate registration of information in the short-term memory (Mayer, 2001). Consolidation of the verbal and pictorial models in the short-term memory with prior knowledge in the long-term memory (Mayer, 2001) might contribute to longer retention of contents taught as expressed by the survey respondents,

Conclusion

The study concludes that the application of audio-visual aids are useful in arousing the interest of the students during classroom interactions, enhance in doing assignment in school subjects as well as make student to recall facts and figure during examination. It is deduced that parental educational level had insignificant role to play towards the students' interest in audio-visual aids in schools.

Recommendations

Based on the findings of the study, the following recommendations are suggested.

- i. Curriculum planners should encourage the use of audio-visual materials by inculcating them in the educational syllabus of all levels of education.
- ii. Government should pave way for efficient funding for audio-visual resources in school. As this would encourage teachers' access to the useful audio-visual materials during classroom teaching.
- iii. Teachers should get involved in their various roles in the improvisation of audio-visual resources when necessary.
- iv. Students should get involved in their various roles in the utilisation of the improvised audio-visual resources when necessary.
- v. Concern stakeholders of education should ensure availability of the audio-visual aids prior to using them in lesson delivery and the aids should undergo review to ensure appropriateness.

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