

International Journal of YOUTH EMPOWERMENT AND ENTREPRENEURSHIP DEVELOPMENT (IJYEED)

Volume 3, Issue II, July-December 2021

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IMPACT OF AUDIOVISUAL MATERIALS AND INTERNET ON THE LEARNING OUTCOMES OF JUNIOR SECONDARY SCHOOL STUDENTS IN EDUCATION DISTRICT IV, LAGOS STATE: ASSESSMENT IMPLICATIONS

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Revised: October 17, 2021 Published: December 18, 2021

Abstract

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Audiovisual materials are important instructional aids in teaching and learning at all stages of education. They are considered as essential means of increasing the effectiveness in the teaching and learning process, they make learning more interesting thereby contributing to in-depth way of learning. The advance made in technology has provided for teachers to teach in a way that learners can retain knowledge better through visualizing what is been taught. It is in line with this that the study investigated the perceived impact of audiovisual materials and internet on the learning outcome of students in Education District IV, Lagos state. The research design was a descriptive survey, stratified random sampling technique was used for collection of two hundred (200) public secondary school students in Educational District IV of Lagos state. Three hypotheses were formulated and tested at 0.05 level of significance to guide the study. The instruments for the study was a self-constructed questionnaire titled Impact of Audiovisual Materials and Internet on the Learning Outcomes of Secondary School Students (IAMILOSSS) and a Civic Education Achievement Test (CEAT). Findings from the study revealed that there is no significant impact of the use of audiovisual materials on the learning outcome of secondary school students' and there is significant impact of internet usage on the learning outcome of secondary school students among others. Based on the findings, it was recommended among others that audiovisual materials and internet should be made easily accessible in secondary school schools as it aids academic achievement and the learning outcomes of students.

Keywords: Audiovisual material, Internet, Learning Outcome and Secondary School

Introduction

Globalization, technology, and demographic shifts have dramatically redefined economic development, business, and societies at large in the present world. Economies have been intertwined as never before. The United States, European Union nations, and other players have contributed to a complex web of economic interdependence, while countries like Brazil, Russia, India, and China have emerged as significant engines of

growth. In parallel, work-and-life changing technologies like the Internet, mobile devices and social networking platforms such as Facebook and Twitter have transformed the way we interact and communicate with each other, helping us traverse the boundaries of geography and time, and making us active participants of other people's destinies. In concert with the growth of social interconnectedness worldwide, education is undergoing an equivalent shift, as brick-and-mortar classrooms are opening up to rich media content, subject matter experts, and to one another.

Audiovisual materials are now permeating the educational system as a tool for effective teaching and learning. With audiovisual materials, the communication of information can be done in a more effective manner and it can be an effective instructional medium for delivering information. Audio-visual access to knowledge is one of the possibilities of information and communication technology that has tremendous impact on learning. The instructional media have emerged in a variety of resources, and equipment, which can be used to supplement or complement the teacher's efforts in ensuring effective learning by students. It is recognized that conventional media technologies can no longer meet the needs of our teaching and learning processes; as a result, they are being replaced by audio-visual technology. This technology provides a learning environment that is self-paced, learner-controlled and individualized. Audiovisual is defined as the combination of various digital media types such as text, images, sound and video, into an integrated multi-sensory interactive application or presentation to convey a message or information to an audience. In other words, audiovisual materials mean "an individual or a small group a computer to interact with information that is represented in several media, by repeatedly selecting what to see and hear next.

The power of audio-visual lies in the fact that it is multisensory, stimulating the many senses of the audience. It is also interactive, enabling the end users of the application to control the content and flow of information. This has introduced important changes in the educational system and impact the way teachers communicate information to the learners. Ogunbote and Adesoye (2012) expressed that audio visual technology adds new dimension to learning experiences because concepts were easier to present and comprehend when the words are complemented with images and animations. Stating further that it has been established that learners retain more when a variety of senses are engaged in impacting knowledge; and the intensity of the experience aids retention and recall by engaging social, emotional and intellectual senses. The evolution of audiovisual aids has made it very possible for learners to become more involved in learning activity. With audio-visual technologies, learners can create audio-visual applications as part of learning project requirements. This would make the learners active participant in the learning process, instead of just being passive learners of the educational content. Audio-visual involves processing, storage, generation, manipulation and retention of audio-visual system, and the resources could include text files, pictures, video, audio, databases, archives, library catalogs, course notes, relevant links to various websites and easy access to search engines available on the Internet. The Internet is a very large computer network that consists of small networks which interconnected and reach out to the whole world or the internet is often called the Interconnected Network. There are three forms of learning systems through the Internet that can be considered as a basis for the development of a learning system by utilizing Internet, namely: Web Course; Web Centric Course and Web Enhanced Course. According to Clark (2016), there are five function of media (Internet) learning. Clark argued that "the condition under media can be made to influence and impact learning are being optimally Explored from at least five perspectives. These are:

Media as Technology: Utilization or resource is done in order to make the learning resources as a source to obtain information in general is done. The use of the Internet media for learning purposes, in which all learning materials, discussion, consultation, assignments, exercises and exams delivered entirely over the Internet. Students are entirely separate, but relations or communications between learners can be done with the teacher at any time. Communication is mostly done on an ongoing basis. This course web form does not require any face-to-face activities, either for learning or evaluation and examination, because all the learning process is done entirely using internet facilities like e-mail, chat rooms, bulletin boards and online conferencing. Furthermore Spector (2012:5) defined technology is the application of knowledge for a practical purpose.

Media as Tutor/ Teacher: Use of learning resources such as the Internet is based on the premise that learning resources be used to provide additional resources, information and enrich the learning materials according to the science disciplines studied. Students can learn independently achieve material resources in order to enrich the learning process. The foundation for the use of media (internet) as a communication tutor education, namely, the deliberate and intentional act of communicating content to students with the assumption that they will learn something "from" these communications (Krendl, Ware, Reid, & Warren, 1996). For example, the animation is a form of media that can be delivered to students through a variety of technologies such as the World Wide Web. In web-based science, such as the movement of moon around the earth animation may be shown to the students through visualization and animation are supported with audio and text.

Media as Socializing Agent: With the utilization of instructional media is expected to influence the attitudes or behavior. Media can be used to change the behavior of the users (student). With the web students more interested to want to learn, be happy to learn and have a desire to learn.

Media as a Motivator for Learning: In this case the learning resources that can be utilized should be a motivator in self-learners to learn more and develop a sense of want to explore what is learned.

Media as Problem Solving: In this case the uses of media such as the internet or learning resources are expected to be used as a thinking tool to solve the problem. Internet usage is expected to affect the creativity of students who appear to facilitate the understanding especially subjects being studied. When we refer to the Clark opinion, the

use of the internet can be a path associated with the learning process and its learning objectives to be achieved.

Ubogu (2009) supported the view that audio-visual resources facilitate access to all human knowledge, anytime, and anywhere in a friendly, multi-modal, efficient and effective way, by overcoming barriers of distance, language and culture, and by using multiple Internet-connect devices. It is important to say that the use of audio-visual technology has great significance in colleges, universities and research institutions in the Western countries. In these countries, the technology is being seen as a key player to development in all ramifications and essential component of education. However, Babajide & Bolaji (2015) identified different types of audio-visual communication, some of which include computer science hardware, computer science software, public address systems, slides, overhead projectors, opaque projectors, videos, cassettes, audio tapes, cassette recorders, flip, time sequence, stream charts, Diorama still motion pictures

Audio-visual in Education has been extremely effective in teaching students a wide range of subjects. Audio-visual is changing the way we communicate with each other. The way people send and receive messages is more effectively done and better comprehended. While a lecture can be extremely informative, a lecture that integrates pictures or video images can help an individual learn and retain information much more effectively. Using interactive CD-ROMs can be extremely effective in teaching students a wide variety of disciplines, most notably languages and music. A multisensory experience can be created for the audience, which in turn, elicits positive attitudes towards its application. Audio-visual has also been shown to elicit the highest rate of information retention and result in shorter learning time. However, information technology application serves different purposes, such as knowledge sharing-portal, search engines, public administration, social service and business solution. Omagbemi, Akinola & Olayiwola (2017) supporting this view expressed that access to audio visual information could stimulate changes and creates conductive learning environment and make learning more meaningful and responsive to the localized and specific needs of

However, Hoffman (2018) suggested that successful implementation of ICTs need to address five interlocking frameworks for change namely the infrastructure, attitude, staff development, support (technical and administrative) sustainability and transferability. The many kinds of ICTs implemented at teaching and learning can be used in education for different purpose. For instance, some audiovisual aids help students with learning by improving the communication between the students and the instructors. Studies have shown that, there are some factors that determine academics' use and nonuse of new technologies for teaching and learning in the advanced countries and these include, the needs of the learner, the characteristics and experiences of academics, the technology available, the environment within which academics work and how valuable they perceive the use of technology to be for teaching their students and the disciplinary context of which the academic is part. However, research have demonstrated that there are disciplinary and subject differences in the way ICTs are being used and adopted in teaching and learning. There is an urgent need to improve the quality of education to

bridge the gap between developed and developing nations, and audio-visual instruction is considered as a necessary tool for this purpose. However, the presence of audio-visual alone will not stimulate significant changes in a school. Teachers are important ingredient in the implementation of audiovisual instruction in education. Without the involvement of teachers, most students may not take advantage of all the available potential benefits of audio-visual on their own.

Teachers need to actively participate in the use of audiovisual facilities. Teachers have to be trained in the use of audio-visual and in its integration in the classroom activities to enhance thinking and creativity among students. Teachers must also learn to facilitate and encourage students by making them responsible for learning. Many of the current graduates were found to be lacking in creativity, communications skills, analytical and critical thinking, and problem – solving skills. In this study, attempts are therefore made at examining such issues as are pertinent to audio-visual utilization for teaching in the secondary schools.

Advancement of technology has given new dimensions to teaching and learning. It expands teaching and learning beyond classrooms and the conventional chalk and talk method. The use of audio-visual aids in teaching and learning has a long history. Audio-visual aids are materials with both audio and visual presentation to support teaching and learning particularly in improving comprehension and retention. Prior to the age of radio and television, early audio-visual aids came in the forms of drawings and pictures with oral narrations. The emergence of radio and television transformed the way audio-visual aids were presented by enabling transmission of learning resources to reach audience in wider geographical regions. Audio-visual aids in the forms of radio broadcast and television programs broke through geographical constraints and, coupled with recording devices, enabled educational programs to be recorded, stored and replicated for trainings and educational uses. Educational cassettes and video tapes could be used repeatedly for a particular topic. However, audio-visual quality of magnetic tape recording deteriorates over time and upon repetitive replication. Sophistication in recording technology subsequently enables improved preservation of the quality of audio-visual recordings.

The early audio-visual aids were generally devoid of interactive capability. Invention of computer introduced animation to audio-visual aids which prior to this, depended on video recording of real-life scenes with narrations and program hosting. Animation enables objects at microscopic and particle levels such as bacteria, virus, atoms and molecules to be graphically presented. This revolutionizes teaching and learning by enabling abstract ideas and intangible objects to be vividly demonstrated to learners. Computer programs for educational purposes provide interactivity to enhance learning experience. This marks the era where audio-visual aids are connected to multimedia. Audio-visual aids assume more diverse presentations by combining pictures, animations, videos, words, sounds and interactions. The age of internet confers greater interactivity, connectivity and flexibility to the creation, dissemination and use of audio-visual aids. Now, people in any part of the world can create videos, animations and podcasts about any educational topics to be shared with anyone who is connected via the World Wide Web. Online platforms such as YouTube and Facebook facilitate sharing of the resources and interaction via comments and live chats. It is apparent at this juncture

that sophistication of teaching and learning aids is closely knitted with technology advancement. Video sharing platforms and social media, with computer technology, catalyze the emergence of audio-visual learning aids. It, now, becomes a common practice for teachers to use audio-visual aids in delivery of various subjects and many studies have been carried out to investigate the usefulness of audio-visual aids in teaching and learning particularly in the teaching of English as Second Language. A common problem that was pointed out in numerous studies is the selection of appropriate audio-visual aids in light of the multitude of audio-visual aids available. This is because there seems to be an overuse of audio-visual aids since they are readily available and not all audio-visual aids deliver the outcomes expected.

Education is necessary for everybody, when an individual is being deprived of education, it sometimes do not lead to a good life. Teaching and learning are the important element in education. The teacher uses different approaches and substantial to teach their students and their active learning. With the passage of time altered methods and techniques are entered in the field of education and teachers make use of different kind of aids to make effective learning possible. In some cases, directives, and exercises for students as well as for teachers are not given, while in few cases such exercises and instructional guides are not given at all, this quite often than not lead to the learning of just some specified concept in an integrated curriculum. Many teachers hold the notion that social studies are a simple subject that requires little if any, preparation. To them, teaching social studies involves merely talking to students about a given topic as may be taken from textbooks or a more look at some pictures. This is sometimes followed by some discussion and students may ask questions afterwards, about what they have learnt. They may draw pictures themselves of what has been discussed and that is all. Social studies teaching is more than this, that is why adequate teaching aids are needed in teaching the subject at any level of education. Moreover, the methods require in the teaching such as inquiry, discussion, role-playing simulation (both activity and historical) demand a lot of preparation on the part of teachers and students alike. In order to communicate effectively or elicit the desired responses, there is the need to employ different ways and means (audio-visual aids) which will appeal to most if not all the senses of the person receiving the message.

Consequently, it is stated that Audio-visual instructional materials have made qualitative and quantitative education more meaningful because they have produced desirable results. However, audio visual usage does not seem to be receiving serious attention from all concerned, namely; students, teachers, sponsors of education and educational administrators/managers to mention but a few. These materials have value for instruction and present in different variants and qualities today. The uses of audiovisual materials have been discovered to facilitate effective communication transfer of information, knowledge skills, attitudes and other useful capabilities. Teachers should know that the resources for learning that instructor and students will use can influence the effectiveness of instructional programme. Audio visual materials could be said to be the various method, or devices used to disseminate information in the teaching and learning process, which teachers need to use to enhance the students better understanding of cultural, means of transportation system and conflict situations in Nigeria. It is against

this background of study that researcher examined the impact of audio-visual material and internet on the learning outcome of students in Education District IV, Lagos state.

Statement of the Problem

There have been high number of dropouts, poor academic performance, low enrollment of student in school and mass failure due increase in the low learning outcome among student in school. However, as a result of advancement and development of modern technology varieties instructional materials can be used to make learning more vivid and effective. This means that students can perform better wherever they are taught with these instructional materials particularly audio-visual aids as their comprehension and demonstration and cooperation are expected to enhance tremendously in teachinglearning process. This study is motivated by students poor learning/academic performance and the fact that student do not retain for long or understand what they are taught without concrete audio visual aid. Based on this, the researcher was able to identify the research gap which this research work was based upon. Hence, the study was carried out to investigate the impact of audio-visual material and internet on the learning outcome of students in Education District IV, Lagos state.

Purpose of the Study

The aim of this study is to investigate the impact of audio-visual material and internet on the learning outcome of students in Education District IV, Lagos state. While the objectives are to:

examine the impact of audio-visual material on the learning achievement of 1.

junior secondary school students;

examine the impact of internet on the learning achievement of junior secondary 2. school students; and

determine the factors militating against effective implementation of audio-visual 3. technologies in teaching and learning in Nigeria.

Hypotheses

The following hypotheses were postulated to guide the conduct of this study.

There is no significant impact of audio-visual material on the learning achievement of junior secondary school students.

There is no significant impact of internet on the learning achievement of junior Ho2: secondary school students.

There is no significant impact on the factors militating against effective implementation of audio-visual technologies in teaching and learning in Nigeria. Ho3:

Materials and Methods

This study adopted a descriptive survey design. The population of the study comprised all public junior secondary school students in Educational District IV, Lagos state. Simple random sampling technique was used in selecting four (4) junior secondary schools within Education District IV and stratified random sampling technique was used to select fifty (50) JSII students were selected from each of the four (4) schools; thus,

making it a total of 200 respondents across the District. The instrument for the study was a researcher-designed questionnaire titled: titled Impact of Audiovisual Materials and Internet on the Learning Outcomes of Secondary School Students (IAMILOSSS) and a Civic Education Achievement Test (CEAT). The research instrument was given to experts in the field of measurement and evaluation, University of Lagos to ensure its validation of face and content validity. The instruments have high stability co-efficient of 0.82 and 0.79 when tested during the pilot study.

Results

Hypothesis 1: There is no significant impact of audio-visual material on the learning achievement of junior secondary school students.

Table 1: An "r" statistical table showing the impact of audio-visual material on the learning achievement of iunior secondary school students.

Variables	N	Mean		d.f	r-cal.	Sig. Value (p)	Decision
Use of Audiovisual Materials	200	16.38	3.95	Vicas in August		g. mile (p)	
C. I.				198	0.125	0.077	Accept H _o
Students' Learning Outcome in Civic Education	200	6.93	2.34				

Table 1 reveals that the average (mean) use of audiovisual materials (16.38) was above the expected mean value of 14.00); however, the average (mean) of students' learning outcome in Civic Education (6.93) was below the expected mean value of 7.50 Using Pearson Product Moment Correlation (PPMC) techniques to compute, the r-calculated value of 0.125 emerged. This implies that a small positive as well as direct relationship was observed between the use of audiovisual materials and students' learning outcome in Civic Education, The calculated "r" (r-cal. = 0.125) was with 198 degrees of freedom given that the obtained level of significance (p-value) is 0.077>0.05 (statistical benchmark). By implication, the null hypothesis is therefore accepted; hence, there is no significant impact (a measure of relationship) of the use of audiovisual materials on the learning outcome of secondary school students within Education District IV, Lagos

Hypothesis 2: There is no significant impact of internet on the learning achievement of junior secondary school students.

Table 2: An "r" statistical table showing the impact of internet on the learning achievement of junior secondary school students

Variables	N	Mean	SD	d.f	r-cal.	Sig. Value (p)	Decision
Internet Usage	200	19.48	3.19	198	0.221*	0.002	Reject H _o
Students' Learning Outcome in Civic Education	200	6.93	2.34				

Table 2 reveals that the average (mean) internet usage (19.48) was above the expected mean value of 14.00; however, the average (mean) of students' learning outcome in Civic Education (6.93) was below the expected mean value of 7.50. Using Pearson Product Moment Correlation (PPMC) technique to compute the relationship between internet usage and students' learning outcome in Civic Education, r-calculated value of 0.221* emerged. This implies that a small positive as well as direct relationship was observed between internet usage and students' learning outcome in Civic Education, The calculated "r" (r-cal. = 0.221*) was with 198 degrees of freedom given that the obtained level of significance (p-value) is 0.002 <0.05 (statistical benchmark). By implication, the null hypothesis is therefore rejected; hence, there is significant impact (a measure of relationship) of internet usage on the learning outcome of secondary school students within Education District IV, Lagos State.

Hypothesis 3: There is no significant impact on the factors militating against effective implementation of audio-visual technologies in teaching and learning in Nigeria

Table 3: Multiple Regression Model of Factors militating against the Effective Implementation of Audiovisual Material sand Students' Learning Outcome in Civic Education

Model	R	R Square	Adjusted R Square	Std.	Error	of	the
				Estimate			
1	0.216	0.047	0.012	2.32			term transaction

Analysis of Variance

Source of variation	Sum of Squares	df	Mean Square	F	Sig.
Regression	50.677	7	7.240	1.343	0.232
Residual	1035.198	192	5.392		
Total	1085.875	199			

Table 3 indicates that coefficient of determination (Adjusted R^2) = 0.047, which gives proportion of variance/difference (Adjusted $R^2 \times 100$) = 4.7%. This implies that the independent variables - factors militating against the effective implementation of audiovisual materials (lack of parental support, teachers' non-use of audiovisuals, poor power supply, lack of basic knowledge on use of technological gadgets, poor maintenance of audiovisual resources, learning difficulties with the use of audiovisuals, difficulties in using different audiovisuals at that same time) accounted for 4.7% of the variance/difference in the dependent variable (learning outcome of secondary school students). Hence, the joint effect of the factors militating against the effective implementation of audiovisual materials is not significant on the learning outcome of secondary school students within Education District IV, Lagos State (F=1.343; df= (7; 192); significant value p = 0.232 > 0.05).

Table 4: Relative Contribution of the Independent Variables (Factors militating against the Effective Implementation of Audiovisual Materials)on the Dependent Variable (Students' Learning Outcome in Civic Education)

Coefficients

Model	Unstandardized Coefficients		Standardized t- value Coefficients		s Sig. (p) values	
	В	Std. Error	Beta	_		
(Constant)	4.922	0.828		5.946	0.000	
Lack of parental support	0.28	0.152	0.013	0.183	0.855	
2. Teachers' non-use of audio-visuals	-0.066	0.169	-0.030	-0.392	0.695	
3. Poor power supply	0.263	0.171	0.128	1.534	0.127	
4. Lack of basic knowledge on use of technological gadgets	0.097	0.189	0.041	0.513	0.608	
5. Poor maintenance of audio-visual resources	0.167	0.195	0.077	0.856	0.393	
6. Learning difficulties with the use of audiovisuals	0.192	0.163	0.084	1.179	0.240	
7. Difficulties in using different audio-visuals at that same time	0.137	0.171	0.059	0.804	0.422	

Table 4 shows the individual contribution of the independent variables - factors militating against the effective implementation of audiovisual materials Observing the obtained result in table 4, it can be said that none of the factors militating against the

effective implementation of audiovisual materials contributed significantly to the dependent variable (*learning outcome of secondary school students*). This assertion can be observed from the *t-values* and the *significant* (*p*) values of each of the factors militating against the effective implementation of audiovisual materials, since none of the values was statistically significant.

Discussion

Finding 1 revealed that there is no significant impact (a measure of relationship) of the use of audio-visual materials on the learning outcome of secondary school students within Education District IV, Lagos State. This implies that the use of audio-visual materials is not yet making the needed amount of impact on learning outcome of secondary school students. Probably, it's impact is not yet one of the important factors to be considered in the discuss of improving students' learning outcome. However, the present findings was opposed by Olayiwola (2017) pointed that access to audio-visual information could stimulate changes and creates conductive learning environment and make learning more meaningful and responsive to the localized and specific needs of learners. In the same vein of support, Ismail, Othman, Amiruddin and Ariffin (2017) used animated video in the delivery of Engineering Drawing among students in a Vocational College of Malaysia and found significant potential of the aids to enhance visualization of students, hence the quality of learning. Haque and Talukder (2017) having investigated the use of audio-visual aids among undergraduate medical courses in Bangladesh, revealed preference of PowerPoint slides presentation over overhead projector and the importance of good quality audio-visual aids for effective learning. More opposition to the present finding was that of Jarosievitz (2015) whose research survey on flipped classroom, submitted that 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. Ogunbote and Adesoye (2012) noted that audio visual technology adds new dimension to learning experiences because concepts were easier to present and comprehend when the words are complemented with images and animations, thereby implying that students' learning outcome is enhanced.

Finding 2 revealed that there is significant impactof internet usage on the learning outcome of secondary school students within Education District IV, Lagos State. This implies that the internet usage making the needed amount of impact on learning outcome and important factors to be considered in the process of improving students' learning outcome. This present research findings were supported by Ogedebe (2012) who discovered that 79% of the respondents in his research survey accepted that their academic performance actually improved by using the internet. Moreso, Emeka and Nyeche (2016) in their research survey submitted that internet is one of the beneficial tools in this era of Information technology not only for business but for academic point of view and enhances the skill and capability of students which assist them in studies and professional life. In the same vein of support, Ogungbeni (2016) found out that majority of his respondents (57.7%) agreed that most journal articles they access are from the internet, 67.0% of the respondents read dictionaries on the internet, only 41.2% agreed

that they download electronic books from the internet, all of these point out to the fact that undergraduate students in Nigeria use the internet for their academic development. Moreso, a five-year study of on-campus Internet use of undergraduate biomedical students by Judd & Kennedy (2010) revealed that the usage of different digital resourtes for seeking information was rapidly increased by the students during their study period; their research also indicated that most of the students depend on different information tools for seeking information, mostly Google and Wikipedia were used by students to support their learning activities. In opposition to the present research findings, Udende and Azeez (2010) submitted that 311 (80.8%) of students of the University of Ilorin admitted that they mostly use the internet for academic purpose, while 54 (14%) used it mostly for mails, 19 (4.9%) used it most for fun, none for others. 100 (26%) of the respondents agreed that they used the internet daily, 178(46.2%) used the internet on weekly basis, while 107(27.8) used the facility ones in a while. The study also revealed that 38 (9.9%) respondents were of the opinion that the internet does not contribute towards their academic excellence, whereas as many as 347 (90.1%) held a contrary view that the internet help them in solving their academic problems.

Finding 3 revealed the joint effect of the factors militating against the effective implementation of Audio-Visual technologies is not significant on the learning outcome of secondary school students within Education District IV, Lagos State (F=1.343; df= (7; 192); significant value p = 0.232 > 0.05). The factors militating against the effective implementation of audio-visual technologies include: lack of parental support, teachers' non-use of audio-visuals, poor power supply, lack of basic knowledge on use of technological gadgets, poor maintenance of audio-visual resources, learning difficulties with the use of audio-visuals, difficulties in using different audio-visuals at that same time, which accounted for 4.7% of the variance/difference on learning outcome of secondary school students. Supportively, Mishra, Yadav and Bisht (2005) seems to give an extension of similar factors that could have been considered in this present research, their submission was that school students (i.e. undergraduate students to be precise) are faced with the problem of slow functioning of internet connection which could have also be a contributory factor to students' learning outcome. Ibegwam (2004) discovered in his study that many students were not using the internet in the College of Medicine at the University of Lagos, confirming the facts that students in the sub-Saharan Africa are not maximizing the use of internet. In the same vein, while Cisse (2004) pointed that the reason for such low internet usage could be due to inability to access the equipment, difficulty encountered in using the machine and such believe that erroneous information may be posted to the internet; Chifwepa (2003) identified lack of guidance, inability of use, inadequate internet facilities as some of the reasons for low use. Nwokedi (2007) posited that lack of searching skills is still an obstacle to use of internet.

Conclusions

Based on the research findings, it could be inferred that there was no significant impact of the use of audio-visual materials and a significant impact of internet on the learning outcome of secondary school students within Education District IV, Lagos State .The joint effect of the factors militating against the effective implementation of AudioVisual technologies (lack of parental support, teachers' non-use of audio-visuals, poor power supply, lack of basic knowledge on use of technological gadgets, poor maintenance of audio-visual resources, learning difficulties with the use of audio-visuals, difficulties in using different audio-visuals at that same time) is not significant on the learning outcome of secondary school students within Education District IV, Lagos State

Recommendations

Based on the findings and conclusion in this study, it would be appropriate to recommend that:

- School owners and major stakeholders (i.e. the Nigerian Government) in the education sector should take critical consideration on mass education (mass sensitization) of the parents and their wards (school children) on the importance of audio-visual technologies and internet usage and on how these will impact students' learning outcome.
- Students should cultivate the habit of exploring depths of knowledge on how best internet usage can transform their learning maximally beyond the limit of what their school teachers can reveal to them.
- 3. School owners and major stakeholders (i.e. the Nigerian Government) should do everything within their reach to provide electricity which enables the use of these audio-visual and internet technologies within the working space of the school.
- 4. The Nigerian Government/Ministry of Education should organize technology-related trainings and workshops for these secondary school students which will further help to connect them to the needed future life skills relating to the content of the knowledge they are being taught in schools.
- 5. Parents should make every worthwhile effort to give their children get laptops/phones for their children so that they can have easy access to these internet technologies at home.
- Curriculum Planners should replicate this research in order to authenticate the
 findings obtained from this present research, and thus help to provide reliable
 information for those that needs to implement the research findings for the benefits
 of the people in the society.

Assessment Implications

Based on the findings and conclusion of the present research, the following were the assessment implications of the study.

- The use of audio-visual and internet technologies towards attaining good learning outcome of secondary school students across all school subjects (not only in Civic Education) needs to be given both longitudinal and cross-sectional reviews and be encourage in our schools.
- 2. Mass education of students, teachers, and parents on the right use of audio-visuals and internet technologies is tantamount to the much expected and needed improvement in the learning outcome of students.
- 3. The culture of safe usage of internet boosts students' learning outcome.

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