Accessibility of Electronic Media for Learning Geography in a College of Education in Bauchi State, Nigeria

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ABSTRACT

This study investigated the accessibility of electronic media for learning Geography in Aminu Saleh College of Education Azare, Bauchi State. Two Research questions and one hypotheses were formulated to guide the investigation. The researchers employed the descriptive survey research design with a sample of 118 from a population of 596 Nigeria Certificate in Education (NCE) students of Geography Department, Aminu Saleh College of Education Azare. Check list and structured questionnaires were used as instrument of data collection. 1 check list and 118 questionnaires were distributed to the students; 118 questionnaires were returned. Data collected were analyzed with the use of descriptive statistics (mean score and standard deviation), ANOVA and T-test. Findings showed that electronic media devices such as internet satellite television, interactive white board, fax machine and computer are of small quantity which poise as a challenge for learners of geography while other electronic media devices such as Radio, Television and Multimedia projector are of high quantity for learning Geography in the study area. Base on this finding the study made the following recommendations; the State Government should make adequate procurement and provision of electronic media to the Institution, in addition the state government should liaise with donor agencies on the enhancement of the Educational system, so as to make electronic media sufficient in our Institutions of learning.

Keywords: Electronic Media, and Learning Geography

INTRODUCTION

In view of previous studies, the use of electronic media to enhance teaching and learning process has great significance or importance to students learning outcome, it has been discovered that the use of instructional electronic devices varies from subject to subject as well as the content. One of the important roles of the faculties of education is to make sure that the prospective teacher candidates can use the field-specific technologies effectively in their classrooms and they are qualified enough to transfer this technology effortlessly whenever they need to practice in their daily lives (Gomez et al.,2008). Multiple electronic devices are often needed to sustain the student interest, make learning interesting and enhance maximum understanding. The factors that influence change of electronic devices ranges from nature of the course content, students' responses and interest of the students.

Mangal and Mangal (2014) state that the products are the outcome of the processes, and processes depend heavily on the type of strategies, tact's and mean chosen and employed. Teaching process, for its success, demand effective strategies, means and materials. Electronic media is defined as any electronic device through which one can share information for the audiences viewing and the information are broadcasted electronically for wider communication (Carl Xie-Connell, 2015). This is in contrast to the static media (mainly print media), which today are produced electronically, but do not require electronics for the information to be accessed by the end user in the printed form. Primarily, electronic media includes fax, radio, television, computer, multimedia projectors and smart boards. Traditionally, the radio and television are familiar to the general public and have been commonly used in education. (Mangal & Mangal 2014). The advancement in technology brought about the development and use of modern technology like the computer, multimedia projector and the smart board into the teaching and learning process. These forms of media contain and transmit information in different forms. The information on radio (audio media) they are the instructional materials for learning that appeal to the sense of hearing (Omorodion 2016). Learner listing to and hear sounds but they can't see the presenter. The television comes in audio and visual format (audio visual aids). Audio literarily means hearing and visual is found in seeing. Hence, such aids which endeavor to make the knowledge clear to us through our sense are called "audio and visual aids." This learning materials make the learning situations as real as possible and gives us first-hand knowledge through the organs of hearing and sight (Ajayi 2018). On the other hand, the information on the computer, multimedia projector and the smart boards combines the audio and visual content of radio and television in addition to text and animation. All these developments have brought about the ease in the acquisition and dissemination of information. Electronic media plays a vital role in society and particularly in education. For instance, electronic media allows information and ideas to travel instantly from its source to the public through the radio, television and internet technologies. This has given billions of people access to information that they previously would not have had access to. The radio and television and the internet are useful tools for learning Geography. For example, the climatic conditions and relief features of different regions across the world, which are far and remote to the learners of Geography in Nigeria and particularly in Aminu Saleh College of Education Azare, Bauchi state, can be viewed through the television and the internet. The learning of Geography involves undertaking field trips. However, because of limited resources, distance and time factors, it is impossible for learners to embark on such trips where they could have first-hand information on the different geographical locations of the world. As such the radio, television and the internet have become useful tools for accessing such vital information. The fact that electronic media is useful and important in the learning of Geography is not sufficient. It is important to ascertain whether such media are

available to the learners of Geography. In a study conducted by Warschauer (2010) found that three students to use a computer in U.S. public schools as at 2008. In most developing nation like Nigeria this is far from reality. Over the last few years, there has been a rapid growth in the range and sophistication of new Electronic media in learning Geography within the developing countries. In particular, computer technology has been used to improve the quality of Geography education in schools because of its robust nature in displaying graphics and simulations. Positive outcomes of using computer technology in education have led many governments to initiate programs for the integration of Computer technology into schools. The situation in ASCOE Azare Bauchi State is yet to be established. The Nigerian educational system like any other contemporary system is becoming more and more complex. The complexity is attributable to many factors especially the declining quality of learning Geography. Other factors include increase in enrolment and falling standards, failure in secondary school certificate examination. Many potential geniuses are bored with ill-equipped classrooms saddled with untrained teachers and finally the lack of Electronic devices for learning. The issue of the deteriorating state of learning Geography can never be over-emphasized, as it is evident that the educational system is faced with challenges, which need to be addressed. Most of Geography learning processes that takes place in schools lacks the learners access to electronic media, as this has created a wide gap between modern Geography and the learners, as learners may need to see, feel, touch and smell if necessary during lesson delivery. In the same vein, electronic media devices meant for learning are not readily access as most schools are saddled with the non-accessibility of the electronic media (Enyi, 2012; Oyetunde, 1991). In the light of the foregoing, it is evident that for any educational system in need of quality or enhancement, the state of affairs of the present situation is not supportive of the drive. What then is responsible for the non-accessibility of electronic media for learning geography is the concern of this study.

Purpose of the Study

The purpose of this research is to investigate the accessibility of Electronic Media for learning Geography in Aminu Saleh College of Education Azare. Specifically, the study will;

1. Determine the accessibility of Electronic Media for learning Geography in Aminu Saleh College of Education Azare.

2. To ascertain the challenges of accessibility of electronic media for learning Geography among students in Aminu Saleh College of Education Azare.

Research Questions

The following research questions are raised to guide their search:

1. To what extent are Electronic Media availability for learning Geography in Aminu Saleh College of Education Azare?
2. To what extent are Electronic Media accessibility for learning Geography in Aminu Saleh College of Education Azare?
3. What are the challenges facing the accessibility of electronic media for learning Geography among students in Aminu Saleh College of Education Azare?

Hypothesis:

1. There is no significant difference in the mean scores between the availability of electronic media in College of Education, Azare and accessibility of Electronic Media for learning Geography in College of Education, Azare.

2. There is no significant difference in the mean scores of students in NCE1, NCE2 and NCE3 for using Electronic media for learning Geography.

This study adopted the descriptive survey research design. This design is suitable for the study because data was collected from the NCE undergraduate students in Aminu Saleh College of Education Azare, Bauchi state of Nigeria through the use of a questionnaire. It is suitable for use where samples are large and it allows for the use of inferential statistics in comparing subgroups within the sample (Cohen, Manion & Morrison, 2011). The population for the study comprised all the NCE Geography students of the College with population estimate of 596 in the admission office of the college 2016/2017 session. 118 NCE Geography students of the college was dawn randomly from the target population of 596 as the sample of the study. The instruments for data collection in this study was a check list and a structured questionnaire their names are;

1. Check List on the Availability of Electronic Media for Learning Geography (CLAEMLG).

2. Accessibility of Electronic Media questionnaire (AEMQ).

CLAEMLG is a 10 items while AEMQ is18 items questionnaire developed by the researcher. The CLAEMLG is made up of two sections with 10 Items. The sections are tagged section A and B. Section A is on the name of the institution where the research work is going to be conducted. While section B is made up of a table listing down the names of the Electronic Media Devices the researcher is interested in checking how available they are and their quantity in Aminu Saleh College of Education Azare while the other instrument is name AEMQ and is made up of five sections with 18 items. The sections are tagged section A, B, and C. Section A is on personal data of the respondents. It seeks the background information about the respondents. The information is on level. The respondents were required to tick the needed information in the spaces provided. Section B seeks to find out the extent of accessibility of electronic media for learning Geography in Aminu Saleh College of Education Azare. It consists of 9 items and the responses were based on the four-point Likert type rating scale of Much Accessible=MA (4); Accessible= A (3); Few Accessible=FA (2); Not Accessible=NA (1). Section C sought to determine the challenges facing the accessibility of electronic media for learning Geography in Aminu Saleh College of Education Azare. The section has 9 items and the responses were based on the following four point Likert type rating scale of Strongly Agreed=SA (4); Agreed=A (3); Disagreed=D (2) and Strongly Disagreed=SD (1) were provided in the instrument for the respondents to select the best option that represent their opinion. The draft copy of the instruments was given to three lecturers from the department of Geography of the college for face validation. The face validation of the instrument was done by the experts after whom the instrument was administered to the respondents. The researchers instrument (CLAEMLG & AEMQ) was administered to the respondents with the help of three research assistants who helped in the administration and retrieval of the instrument from the respondents. Out of the 118 questionnaire distributed to the respondents, 118 copies of the instrument were retired representing 100% return rate. In order to analyses the data and make inferences for the study,

the researchers used descriptive statistics (Mean), T- test and ANOVA. These statistical methods were used to test the hypotheses to see the level of relationship and influence among the variables. Mean and standard deviation were used to answer the research questions. The data collected was analyzed using Statistical Package for Social Sciences. Statistical Package for Social sciences is computer software used in the analyses of social sciences research. The software was used to establish the psychometric properties of the questionnaire. It also analyses simple percentage and frequencies for the variables. The software tested the hypotheses postulated in the study. The level of significant is 0.05 alpha level.

RESULTS

The finding from the study were obtained from the analysis of the data collected and presented as follows;

Research Question 1: To what extent are Electronic Media available for learning Geography in Aminu Saleh College of Education, Azare?

Table 1: Check list table showing the availability of electronic media in College of Education, Azare.

S/NO	ITEAMS	QUANTITY
1	Radio	**4**
2	Television	**6**
3	Computer	**147**
4	Fax	**2**
5	Multimedia projector	**8**
6	Interactive white board	**2**
7	DVD player	**8**
8	Internet connectivity	**147**
9	Satellite television	**0**

Source: Researcher's field work.

Result of the analysis in table 1 shows electronic media and their quantity available in the college, from the figures obtain above one can see that computer and internet connection are of high quantity which indicate that computer and internet connection are not a challenge to availability of electronic media in the institution while other electronic devices like radio, television, fax machine, multimedia projector, interactive white board DVD player satellite television are of low quantity which poise as a challenge to learning geography at the study area.

Research Question Two:

To what extent do students have access to Electronic media for learning Geography in College of Education, Azare?

Table 2: Mean and standard deviation result on students' access to electronic media for learning geography.

S/N	ITEMS	MEAN	CRITERION MEAN SD
1	Students access information for learning Geography through radio.	2.37	1.077

2	Students access Geography features through television.	2.89	.994
3	Students access content for learning Geography through the computer.	2.53	1.182
4	Fax machine is not accessible to students for learning Geography.	2.78	1.118
5	Student access Geography lectures through multimedia projector.	2.42	1.073
6	Lectures are delivered through interactive white board.	2.40	1.163
7	DVD player are accessible to students for learning Geography.	234	1.088
8	Geographical knowledge is not accessed through internet connectivity.	2.65	1.201
9	Geography lesson are not accessed through satellite television.	2.64	1.173

Source: Researcher's field work

The result of the analysis in table 2 shows the responses of respondents towards access of Electronic media towards learning of Geography. From the responses, it is evidence that the level of Geography students' access to Electronic media for learning Geography in College of Education, Azare is high. This could be deducing from the mean and standard deviation of respondents which is above the assume mean of 2.50 on the average.

Research Question three:

What are the challenges facing the accessibility of Electronic media for learning Geography among students in College of Education, Azare?

Table 3: Mean and Standard Deviation Result on the Challenges Facing Accessibility of Electronic Media for Learning Geography among Students of College of Education, Azare.

S/N	ITEMS	MEAN	CRITERION MEAN SD
1	Students are not allowed to access radio for learning Geography.	2.46	1.035
2	Poor power supply hinders students' accessibility to television for learning Geography.	2.83	.963
3	Lack of computer skills hinders students' accessibility to computer for learning Geography.	2.92	.930
4	Lack of network hinders students' access to fax machine.	2.69	.949
5	Poor power supply prevents students' accessibility to multimedia projector.	2.73	.931
6	Lack of skills prevents students' access to interactive whiteboard.	2.57	1.017
7	Poor electricity supply hinders students'	2.74	1041

	accessibility to DVD player.		
8	Poor network hinders students' access to internet.	2.83	1.032
9	Students do not access satellite television due to poor signal.	2.67	1.079

Source: Researcher's field work

Table 3 shows responses of respondents toward challenges facing the accessibility of Electronic media for learning of Geography, from the response the mean and standard deviation of the items above the assume mean of 2.50 Hence the challenges facing the accessibility of Electronic media needs to be addressed so as to improve the learning of Geography for better performance in College of Education, Azare.

Hypothesis One

There is no significant difference in the mean scores between the availability of electronic media in College of Education, Azare and accessibility of Electronic Media for learning Geography in College of Education, Azare.

Table 4: T-test result analysis on the availability of electronic media in College of Education, Azare to accessibility of electronic media for learning geography.

Gender	N	Mean	SD	df	T	P value
Male	52	22.71	3.927	116	-.043	.966
Female	66	22.74	3.904			

P >0.05

The result of the t-test analysis shows that the calculated t-test value of 0.043 is less than the p-value of 0.966. This means that there is no significant difference in the mean scores between the availability and accessibility of electronic media in College of Education, Azare for learning of Geography. This therefore means that null alternative fame to be retained while the alternative hypothesis is retained.

Hypothesis Two

There is no significant difference in the mean scores of students in NCE1, NCE2 and NCE3 for using Electronic media for learning Geography.

Table 5: ANOVA result on the difference in the mean scores of students in NCE1, NCE 2 and NCE 3 for using Electronic media for learning Geography in College of Education, Azare.

	Sum of squares	Df	Mean square	F	P value
Between group	438.914	2	219.457	1.833	.165
Within group	13766.238	115	119.706		
Total	14205.153	117			

The result of the analysis in table 9 shows responses of respondents toward the use of Electronic media ANOVA was used to test this hypothesis from the table, the calculated F-value is 1.833 while the p-value is 1.65 this therefore means that there is no significant difference in the performance mean scores between NCE 1, NCE 2 and NCE 3 therefore the null hypothesis is retain while the alternative is rejected meaning whatever Electronic media that is used, it does not affect students achievement based on students level.

DISCUSSION OF FINDINGS

The purpose of the study was to determine the Accessibility of Electronic Media for learning Geography in Aminu Saleh College of Education, Azare, Bauchi state of Nigeria. Finding from a check list that was establish by the researchers to ascertain the quantity of electronic media devices that are available in the institution reveals that computer and internet connection are of high quantity while other devices like radio, television, fax machine, multimedia projector, interactive white board DVD player satellite television are of low quantity according to the researcher expectation base on the figures on the check list which went contrary to the response of the despondence.

Findings from research question one reveals that some Electronic media are available for learning of Geography while some are not available for learning of Geography. This is also in agreement with the opinion of wakili (2015) who found that Electronic media are lacking in some colleges for the teaching of ICT.

Again findings on research question two, shows that the level of access of students towards Electronic media is low. This could be deduced from the mean and standard deviation of the result. This is also in agreement with the views of Oriogu, Ogbuiyi & Ogbuiyi (2014) who found thus most of the ICT facilities in the university library are not available and accessible except scanner, CD-ROM and projector that are used. Furthermore, result from research question three shows that there are challenges in accessing of Electronic media for learning of Geography. This could be ascertaining from the responses of the respondents. This also confirmed the opinion of Amuchie (2015) who state that the challenges of Electronic media ranges from availability of electricity, shortage of Electronic media and qualified man power to handle the Electronic media in schools. Similarly, findings also show that there is the need to address the challenges facing accessibility of Electronic media so as to improve the performance of students in Geography in the study area.

Furthermore, findings from research hypothesis one reveals that there was a significant difference in the mean scores of the male and female students towards accessing Electronic media for learning of Geography. Although the direction of the differences between male and female was not neglected.

Again findings from research hypothesis two reveals that there is no significant difference in the performance mean scores between NCE 1, NCE 2 and NCE 3. This shows students' performance based on level is not significant when Electronic media is used in learning Geography in the study area.

RECOMMENDATIONS

In light of the findings of the study the researcher recommends that:

1. There is the need for the college to diversify its source of electricity supply in other for projected Electronic media to be utilize for learning and to move with changing technology.

2. There is a great need for the state government to give attention to education as a means of bringing enlightened and brighter future generation. This could be done by adequate funding of the system.
3. The state government should make adequate procurement and provisions of Electronic media to all the higher institutions in the state.
4. In addition, the state government should liaise with donor agencies on the enhancement of the educational system; agencies such as the World Bank, UNESCO and many others for donation of Electronic media to schools.

CONCLUSION

The findings of the Accessibility of electronic media for learning of geography in Aminu Saleh College of Education, Azare revealed that Electronic media are reliable tools in the learning

REFERENCES

Ajayi, D. T. (2018). Education Technology: Teaching, Learning and Communication. Abuja:yaByangs.

Apagu, V. V. & Wakili, B. A. (2015). Availability and Utilization of ICT Facilities for Teaching and Learning of Vocational and Technical Education Yobe State Technical Colleges, Nigeria. American journal of engineering research; 4(2):113-118.

Amuchie, A. A. (2015). Availability and Utilization of ICT Resources in Teaching and Learning in Secondary schools in Ardo-kola and Jalingo, Taraba State: Journal of Poverty, Investment and Development. An International Peer-reviewed Journal, 8, 94-100.Retrived from www.iist.orgon 3 September 2016, at 3:29am.

Carl, X.C. (2015). What is electronic media?Retrieved from htt://www.skillmaker.edu.au/…/carlxie….

Colen, L. L., Manion, & Morrison, K. (2012). Research Methods in Education. Journal of professional development in education; 38(3): 507-509.

Egomo, J. E., Enyi, B. I., & Tah, M. M. (2012). Availability and Utilization of ICT tools for Effective Instructional Delivery in Tertiary Institutions in Cross River States, Nigeria.Global Advance Research Journal of Educational Research and Review, 1, 190-195.

Gomez, L., Sherin, M., Griesdorn, J., & Finn, L. E. (2008). Creating social relationship, the role of technology in preservice teacher preparation. Journal of Teacher Education, 59(2), 117-131.

mangal,S.K. & Mangal,U. (2014).Essentials of Educational Technology. Delhi: PHI Learning

Private Limited.

Omorodion, A. (2016). Evaluation of Instrument Usage and Management by Basic Science Teachers in Jos North Local Government Area of Plateau State. Unpublished M.Ed. Thesis, Faculty of Education University of Jos.

Warschauer, M. (2010) Invited Commentary: New tools for teaching writing, Language learning & technology, 14 (2010) 3-8.