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Impact of Computer Literacy on Students' Academic Performance in Art Education



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ABSTRACT

This study assesses the impact of computer literacy on students' academic performance in Art Education, College of Education, Oju. A descriptive survey research design was adopted for this study. The sample for this study is made of 150 respondents which were selected using a stratified sampling technique from one thousand six hundred and ten (1610) students from the school of Art, College of Education, Oju. The instrument used for data collection was the impact of computer literacy on the academic performance questionnaire (ICLAPQ) that consists of 15 items statements relating to general knowledge of computers, influence on academic performance, and problems encountered during usage. The data collected were analyzed using simple percentages. The finding of the study indicates that the computer literacy level among the Art students in College of Education, Oju is appreciable and that computer literacy significantly enhances students' academic performance and that irregular power supply/failure and lack of information literacy and sponsorship to computers/IT training program are the major challenges encountered. The study recommends among others that Government, host communities, and Parent Teacher's Associations should provide the teachers with computers and ICT centers for effective job delivery.

INTRODUCTION

The increased use of a computer by students and academics alike is an important measure of technological development in an academic environment. Thus, the computer is an electronic device that accepts data, processes data, stores data, and disseminates data as meaningful output. The use of computers is now dominant in all areas of human endeavors, especially in academic institutions. Therefore, there is a need for the acquisition of computer skills for students to operate the computer effectively (Ogbuiyi, 2015).

Computer literacy is the knowledge and ability to use computers and technology efficiently. Computer literacy can also be referred to the comfort level someone has by using computer programs and other applications that are related to computers (Aitokhuehi, et al 2014).

According to Hindi, et al (2002) the perspective of computer literacy involves conceptual knowledge related to basic terminology (including social, ethical, legal, and global issues) and skills necessary to perform tasks in word processing databases, spreadsheets, presentation, graphics, and basic operating system functions. Tharanganie, et al (2011) asserts that a student is considered “computer literate” if he/ she possess all the following six skills:

- i. Skills in basic hardware and basic operating system functions-identifying computer parts, powering up and shutting down the computer, opening/saving files, and recognizing different file types.**
- ii. Skills in word processing-Create, save, print document, insert tables/charts/labels/symbols, format page layout (margins, page number, and page borders).**
- iii. spreadsheet skills- create/save/print spreadsheets, insert tables/ charts, insert function and formula.**
- iv. Skills in presentation graphic create/save/print slide shows, insert new slide/layout/tables/charts and create animations.**
- v. Skills in databases-Design basic databases with queries and reports/forms.**
- vi. Skills in internet and e-mail-surfing the Internet and sending email messages.**

Although the importance of computer literacy in today's rapidly changing environment cannot be denied, there are still challenges that hinder the effective development of computer literacy in academic institutions. According to Koschman (1995), some of the constraints include deficiency of funds, scarcity of space, and absence of faculty who believe that a computer course is important in the education of students.

Due to advancements in technology, the term computer literacy has changed to what is commonly referred to as "information literacy". According to Devi et al. (2018), information literacy is the ability to ascertain when information is needed as well as being able to effectively locate, assess and use the needed information. This includes being proficient at utilizing different ICTs and different types of online information retrieval systems. These abilities are key to achieving success in today's business and academic environment, where information has become one of the most valuable intangible assets (Devi et al. 2018). As computers are increasingly being utilized, figuring out how to utilize them to oversee the learning process has become a core competency at tertiary institutions.

Acquisition of computer literacy skills ought to be initiated during the underlying or initial stages of the undergraduate educational modules (Ranasinghe et al. 2012). A study conducted on medical students by (Osman and Muir 1994), revealed that students who have not obtained fundamental computer literacy skills by the third year of undergraduate training are probably not going to do as such in the final years. The same sentiments were echoed by Odusanya and Bamgbala (2002) who noted that the poor skills of undergraduate students in the use of the internet will affect negatively their chances of getting the most out of information technology. A study of the Kingdom of Bahrain by Al-Ammary (2012), also affirmed that educational technology serves as a motivating factor for students to learn. Chen (2011) also maintained the knowledge and use of ICT, especially software plays an important role in determining students' achievement.

Statement of the Problem

Computer literacy has been one of the problems of the education sector in Nigeria, especially in Benue State considering the current trend of technology. The level of computer literacy in schools across the country is alarming as most schools do not teach computers at all. Schools that

try to teach are more into theory than practical; there are no computers to match theory with practice; schools that have computers have it in limited numbers. Similarly, another problem tied to the low level of computer literacy among schools is the absence of competent teachers. Some teachers who teach computer science especially in the rural areas are unskilled. They are just good at the basics of computers, and knowledge of this alone cannot give them the avenue to fully educate the students on computer literacy. These are some of the problems of this study. The researcher, therefore, seeks to find out the impact of computer literacy on students' academic performance.

Objectives of the Study

This work is aimed at examining the impact of computer literacy on students' academic performance in art education in the College of Education, Oju. Specifically, the study sorts to:

1. Determine the computer literacy level of students in art education.
2. Ascertain how computer literacy influence students' academic performance in art education.
3. Identify the problems encountered by students in the use of computers in art education.

Research questions

The following research questions were raised and answered to guide the study:

1. What is the level of computer literacy of students in art education?
2. Does computer literacy influence the academic performance of students in art education?
3. Do students encounter problems in the use of computers in art education?

Significance of the Study

This research study aims to contribute both theoretically to the literature, and practically to the education sector of Nigeria, it shall seek to provide ordinary insight on the area concerned with computer literacy and explore the possibility of improving the level of computer literacy among the student in Colleges of Education as a whole. In addition, this research study offers recommendations that will improve the level of computer literacy in Nigeria.

The study has the potential of encouraging the government and management of Colleges of Education to see the need for providing schools with computer facilities to improve the level of computer literacy in the country. It will encourage even non-governmental organizations to contribute towards providing secondary schools with computers, computer textbooks, and even internet services.

Finally, this study is also expected to serve as an input to the body of knowledge. It would also be useful to students of tertiary institutions writing their final year projects, as well as lecturers.

Scope of the Study

This study was carried out to cover students in the school of Art, College of Education, Oju, Benue State. Specifically, the study is conducted within the limits of identifying the impact of computer literacy on students' academic performance.

Research Design

The research design used in this study was the descriptive method. This is the research method commonly and popularly used in educational research (Akem, 2004). The selection of the descriptive method is not just because of its popularity, but because it is the most appropriate for the topic under investigation. The descriptive method investigates, describes, and interprets what happens currently, hence is suitable to investigate, describe and interpret the impact of computer literacy on students' academic performance in Art Education, College of Education, Oju.

The population of the Study

The population for the study is made of one thousand six hundred and ten (1610) students from the school of Art, College of Education, Oju.

Sample and Sampling Techniques

The sample of the study is made of 150 respondents which were selected using a stratified sampling technique.

The instrument for Data Collection

The research instrument used for data collection was the impact of computer literacy on academic performance questionnaire (ICLAPQ) that consists of 15 items statements on a likert scale (SA = Strongly agreed, A= Agreed, SD = Strongly disagreed, D= Disagreed) relating to general knowledge of computer, influence on academic performance and problems encountered during usage.

Method of Data Analysis

The data collected for this study were subjected to statistical analysis. A simple percentage was used to answer the research questions.

RESULT AND DISCUSSIONS

Research Question 1: What is the level of computer literacy of students in art education?

Table. no 1: General knowledge of Computer Usage by the respondents

S/No	Statements	SA	A	SD	D
1	I can boot and explore computers efficiently	93	27	3	27
2	I have access to a computer and use it at all times	71	44	20	15
3	My knowledge and skill in computer enables me use the Internet	59	60	21	10
4	My efficiency in the use of the keyboard to execute command in the computer is high	76	38	30	6
5	My level of computer literacy skill is good	66	69	13	2
6.	I can effectively use the mouse to execute command in the computer	90	45	11	4
7.	I have good general knowledge of computer packages Such as ms word, PowerPoint, etc.	85	48	4	13

Table 1 shows that 120(80%) of the respondents can **boot and explore computers efficiently**; 115(77%) indicated that they have access to a computer and use it at all times; 119(79%) indicated that their knowledge and skill in computer enable them to use the Internet; 114(76%) are fair in the use of the keyboard to execute a command in the computer; 135(90%) indicated that their level of computer literacy skill is good; 135(90%) are also fair on the effective use of the mouse to execute a command in the computer and 133(88%) indicated that they have good general knowledge of computer such as MS Word, Powerpoint, etc.

Research Question 2: Does computer literacy influence the academic performance of students in art education?

Table no 2: Influence of computer literacy on academic performance of respondents

S/No	Statements	SA	A	SD	D
1	I use computer to do my assignments	99	42	6	3
2	the use of computer enhances my academic performance	80	55	10	5
3	I get information easily in short time with computer from internet	90	21	24	15

Table 2 shows that 141(94%) of the respondents can **use a computer to do their assignments**; 135(90%) indicated that the use of a computer enhances their academic performance and 111(74%) can get information easily in a short time with computer from the internet.

Research Question 3: Do students encounter problems in the use of computers in art education?

Table no3: Problems encountered on the use of computers by the respondents

S/No	Statements	SA	A	SD	D
1	non access to computer systems	9	2	96	43
2	Frequent breakdown of system	10	15	100	25
3	Lack of information literacy and sponsorship to computers/IT training program	71	44	20	15
4	Electric power failure	120	21	5	4
5	Lack of time	30	6	76	38

Table 3 shows that 139(92.6%) of the respondents have **access to computer systems**; 125(83%) indicated that computer systems do not break down frequently; 115(76.6%) indicated that they are faced with a lack of information literacy and sponsorship to computers/IT training program and 141(94%) electric power failure is their major obstacle to computer operation.

Discussion of Findings:

The findings from the research show that the majority of the students indicate that the computer system is accessible to them and that they can **boot and explore computers efficiently** and that their level of computer literacy skill is fair and they can use Microsoft word, mouse, keyboard efficiently. It was revealed that majority of the students can use the computer system to do their assignments and can get information easily in short time with a computer system from internet and that the use of computer system enhances their academic performance. While educational institutions are challenged to provide up-to-date equipment and software packages, educators must also recognize the need to keep abreast of pertinent instructional techniques and trends. The findings revealed that irregular power supply/failure and lack of information literacy and sponsorship to computers/IT training programs are the major challenges encountered.

CONCLUSION

The finding of the study indicates that the computer literacy level among the Art students in College of Education, Oju is high and that computer literacy significantly enhances students'

academic performance and that irregular power supply/failure and lack of information literacy and sponsorship to computers/IT training program are the major challenges encountered.

Recommendation

Based on the findings of this study, the following recommendations were made:

- Teachers should use the knowledge of computers in the teaching and learning process instead of personal use only.
- In-service training, seminars, workshops, and conference should be organized by the government and professional bodies like the Teachers Registration Council of Nigeria (TRCN), Nigeria Union of Teachers (NUT), computer institutes, etc. on computer literacy programs.
- Government, host communities, and Parent Teacher's Associations should provide the teachers with computers and ICT centers for effective job delivery.
- Incentives should be given to teachers to enhance their knowledge in the use of computers in education through a soft loan.

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