

## **ROLE OF COMPUTER LITERACY IN THE PROMOTION OF LEARNING AMONG STUDENTS IN NIGERIAN SCHOOLS**

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### **Abstract**

This paper discusses the role of computer literacy in promoting learning among students in Nigerian schools. The paper was informed by the need to stimulate learning in Nigerian schools against the backdrop of the fact that the world is becoming more technologically sophisticated and as such the learning process also needs to adapt to the demands of the computer age. The paper is both qualitative and quantitative and involved the use of primary and secondary sources of data. It employed the survey method of research as well as the analysis of extant literature. A structured four-point rating scale questionnaire was developed and used to collect the primary data for the paper. A sample size of 200 respondents was used and the data obtained were presented in tables and column charts and analysed using mean and standard deviation. The findings reveal that computer literacy plays a significant role in the promotion of learning among students in Nigerian schools. The paper also shows that computer literacy exposes students to a wide range of learning materials that cannot be obtained from physical libraries. It also observes that many students in Nigerian schools lack access to practical lessons on computer appreciation hence, there is the need for the provision of computer sets in all schools to enhance computer knowledge among students in Nigerian schools.

**Keywords: Computer Literacy, Learning, Nigerian Schools**

### **Introduction**

Learning constitutes an important process towards individual and societal development as it leads to the acquisition of past and present knowledge and skills. Indeed, the human learning process has continued to evolve to a stage where institutions of learning have become formalized. Verbal and oral teaching methods which were used to combine with observation also developed to include writing as soon as the art of writing evolved. The invention of the computer has also introduced another dimension to the learning process such that computer literacy is revolutionizing the process of education at all levels. The speed at which this is happening means those who are left behind find it difficult to cope with life in the next few decades.

According to Oladimeji et al, (2018). Computer education is of paramount importance to national development and it is on this premise that the Federal government of Nigeria sought to introduce computer studies in the education system from primary through to secondary schools. Education systems around the world face formidable challenges that are taxing conventional strategies. Fresh approaches are needed to address persistent problems of the past and provide students with an education appropriate to the needs of a modern, information based global economy. Nigeria as a developing country also lacks some of the infrastructure needed for effective learning to take place. For instance, there are still some communities within the country where learning takes place under tree shades. In such communities, it is difficult to explain to them that computers are becoming a

key tool in the educational process, more so as many have not even seen a computer. While this unfortunate situation exists in several societies, it is important to explain that many ICT experts have pointed out the importance and efficacy of the integration of ICT into teaching and learning. According to Considine and Kulik (2008), online learning technologies can transform and extend students' learning experiences through a significant improvement in student/student, student/lecturers, and student/material interactions. It has also been observed that advancements in the use of ICT in schools exhibit a growing range of ways in which curriculum developers approach the implementation of computer-based learning.

A computer can be considered as an electronic device which accepts information in its raw form as input, stores, processes, analysis and displays the processed data as output. According to Usen and Etokebe (2006), therefore, computer literacy refers to knowledge about computer or a form of education that focuses on computer system. It is the acquisition of knowledge and skills that relate to the use of a computer. The acquisition of computer literacy enables one to have the know-how and ingenuity on handling, operating, and using a computer system. This means that without computer literacy, one cannot understand the workings of a computer or how to operate it. The importance of computer literacy especially in modern times is underscored by the fact almost every aspect of human endeavour has come to terms with the use of computers. From the fields of engineering to medicine, manufacturing and teaching the use of computer has become deeply embedded in human activities. Since learning too is a critical component of the human development process, the aim of this paper is therefore, to determine the importance of computer literacy in the promotion of learning among students in Nigerian schools with emphasis on those in secondary schools.

### **Literature Review**

Education which is derived from learning makes it possible to acquire knowledge and skill needed for development of human personality and society. It is a continual process that commences from the home and continues with other social institutions mainly the school. Education is very vital in national development because it is a resource for transmitting and transforming ideas and ways of life of people for the wellbeing of the people. Computer literacy makes it possible to use the computer system in acquisition of knowledge. Computer system has been viewed as a vital electronic resource for intellectual enhancement (Nwosu, 2006). Intellectual enhancement enables one to possess knowledge and skill for effective and efficient performances. The home, as the first institution for socialization, plays a great role in provision of education to the child. A child's education is expected to start early enough. The computer system can serve as a vital tool in enhancing the intellect of a child. Early use of a computer can bring about scientific consciousness in the child since computer is a scientific device. Hanson (2012) also points out that computer based programmes are aiding in child learning at a very age and this is important for the modern age where a new form of illiteracy is emerging due to the inability of even those who are educated to operate computers.

The acquisition of scientific knowledge aids technological advancement which, in turn, promotes national development. The use of computer system can promote the learning process. The nature of technology determines the level of productivity and improved technology increase productivity (Nwachukwu, 1998). Teachers require access to information and communication technology infrastructure for a number of reasons. These include their need to live as citizens in a world undergoing rapid and major transformations as a result of increased use of information communication technology, their need to embed information communication technology use in their teaching and administrative duties and, increasingly, their need to use information communication technology in their professional studies (Oladimeji et al, 2018). It is an axiom that technology has greatly influenced human society and computer technology is widely used in almost every aspect of human endeavours. Among the packages (softwares) that can be in the computer

are education packages. Examples of education packages are Computer Assisted Instruction (CAI), Computer Aided Learning (CAL). Utilization of the education packages enables one to obtain knowledge and relearn any portion of subject matter with ease and at a convenient pace for better understanding. As explained by Ukwungwu and Olinya (2004), computer instructional package like Computer Assisted Instruction (CAI) or Computer Managed Instruction (CMI) is used to present drills, practice exercises and tutorial sequences to the students, and, perhaps, to engage the students in dialogue about the substance of instruction.

Computers can serve educational purposes through the watching films on disk slotted into the Computer system. It is axiomatic that film (drama) can be educative and informative. The watching of film makes computer acts as a theatre. Performances from a theatre go a long way in human development. Akintola (2006) noted that in this digital age, dissemination and acquisition of knowledge can be through Information and Communication Technology (ICT). The author also submits that a useful fruit of ICT is the Internet. Internet means International Network. It is a connection of computers in a huge web of network all over the world such that the networked computers can be located and communicated from every part of the globe irrespective of the geographical distance (Nwosu, 2006). Internet services greatly promote education such that people that are computer literate can browse in the Internet and can get information for knowledge concerning issues, concepts, ideas and technologies.

Internet brings about electronic learning (E-learning). Ability to use computer literacy for E-learning is a great asset to the family. E-learning enhances distance education. Distance education is a form of planned learning that happens in a location different from the place of teaching. E-learning helps in distance education because information for knowledge is made available to people irrespective of distance (Olayiwola and Akintola, 2006). In fact, E-learning is a form of Information Technology that can make information available to members of the family (learners, teachers, researchers etc) irrespective of the distance and it takes over a greater part of teachers' roles more efficiently, leading to cost reduction in instruction delivery.

Nwosu and Chukwuebuka-Nwosu (2007) pointed out that communication, as a socio-psychological process, deals with the activity and behaviour of people in a group, organization or society and its main concern is sending and obtaining of information. Communication can be through sound or text. Computer literacy enables the use of computer for typing and printing some texts. Students can interact with people and organizations for vital information using typed and printed texts done with computer. Computer texts are likely to be neat and accurate. The emergence of computer technology has brought about development of Information Technology (IT). Information Technology has great impact on the globe because it is a means for sending and receiving information. One of the prominent products of Information Technology is the Internet. Computer literacy is needed for effective use of the Internet. (Inyiama, 2004; Nwosu and Chukwuebuka-Nwosu, 2007). There exists electronic mail (E-mail) in the Internet. With the use of E-mail, students can send and obtain information (messages) necessary for productivity from various people and organizations. E-There are other features like Zoom, Google Classroom which can aid learning. Some of the uses of the Internet, as outlined by Inyiama (2004), are its applications in E-mail, facsimile, electronic bulletin boards, data bases, file transfer.

### **Statement of the Problem**

The acquisition of knowledge is an important determinant of development as knowledge provides solutions to specific human challenges. Learning as a process of knowledge acquisition, transmission or transfer ensures the perpetuation and improvement of knowledge. There is also no doubt that reading facilitates learning in the sense that it enables the transfer of ideas and knowledge from one person, group or generation to the other. In spite of this importance, the learning process in Nigerian schools leaves so much to be desired as it is replete with challenges.

Teachers are poorly paid and this creates room for frequent strikes, insecurity is pervasive and the learning environment sometimes lacks basic infrastructure. The reading culture in the country is not encouraging enough to promote learning. There is therefore the need to explore a more effective way of learning to ensure the perpetuation of knowledge and development in Nigeria.

### **Purpose of the Study**

The purpose of this study was to explore the role of computer literacy in promoting learning among students in Nigerian schools with an emphasis on the advantages of computer literacy in the learning process.

### **Methodology**

This paper is quantitative, and it employs the survey method to achieve its objectives through primary sources of data collection using a close-ended questionnaire in order to acquire opinions pertaining to the role of computer literacy in the promotion of learning among students in Nigerian schools. The survey method remains a major breakthrough in the field of social science research and it has continued to remain a hallmark of the behavioral revolution. Specifically, the study adopted a descriptive survey design. The stratified, purposive and simple random sampling techniques were used to select the sample of 200 respondents. The sample was made up of 50 teachers, 50 lecturers, 50 parents and 50 secondary school students from different places across the country.

A structured four - point rating scale questionnaire was developed and used to collect data for the paper. The instrument was a rating scale of Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1. A total of 200 copies of the questionnaire were given out to the sampled respondents and the data obtained were presented in tables and column charts and analysed using mean and standard deviation to answer the research questions. The interpretation of the mean scores was based on a cut-off point of 2.50. The cut-off point of 2.50 was arrived at by adding  $4+3+2+1 = 10/4 = 2.50$ . Any mean score that was 2.50 and above was considered positive while a mean score that was below 2.50 was considered negative.

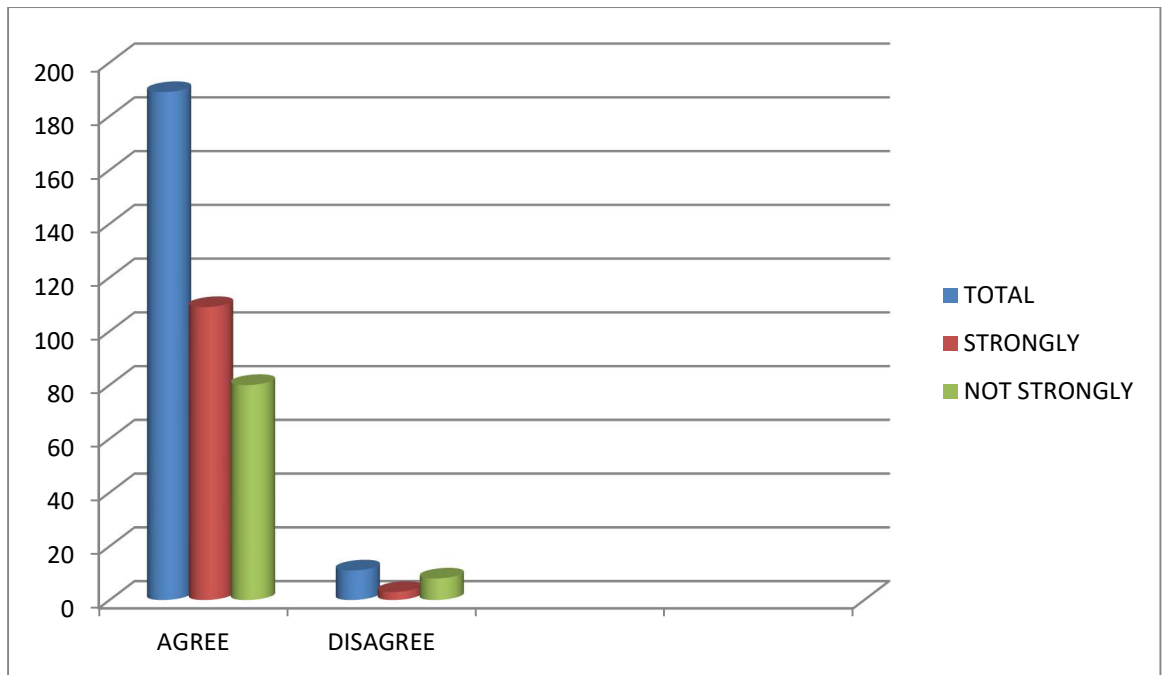
### **Data Presentation and Analysis**

**Table 1**

Is computer literacy important in the promotion of learning among students in Nigerian schools?

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Mean</b>
Strongly Agree	109	54.5	
Agree	80	40.0	
Strongly Disagree	03	1.5	
Disagree	08	4.0	
<b>Total</b>	<b>200</b>	<b>100</b>	<b>3.45</b>

The calculated mean of 3.45 in the table above is above 2.5 and this indicates that computer literacy is important in the promotion of learning among students in Nigerian schools. This data is represented on the column graph below:

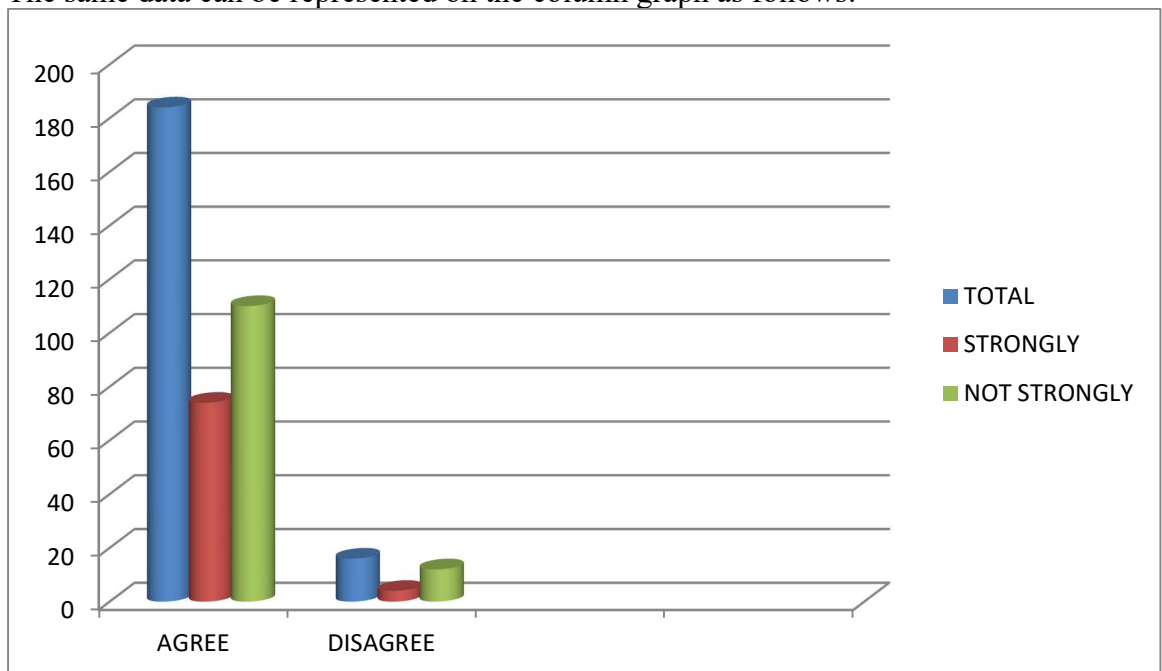


**Table 2**

Should computer literacy be emphasized to promote learning among students in Nigerian schools?

Responses	Frequency	Percentage	Mean
Strongly Agree	74	37.0	
Agree	110	55.0	
Strongly Disagree	04	2.0	
Disagree	12	6.0	
<b>Total</b>	<b>200</b>	<b>100</b>	<b>3.23</b>

The calculated mean of 3.23 in the table above is above 2.5 and this indicates that computer literacy should be emphasized to promote learning among students in Nigerian schools. The same data can be represented on the column graph as follows:



## **Discussion of Findings**

The findings of this study demonstrate that computer literacy is important in the promotion of learning among students in Nigerian schools. This collaborates the submission by Nwosu (2006) and Oladimeji A I. et al (2018) that computer knowledge is important for the development of human learning more so as education makes it possible to acquire knowledge and the skills needed for development of human personality and society. The findings also reveal that computer literacy should be emphasized to promote learning among students in Nigerian schools. This is because the computer system is a vital electronic resource for intellectual enhancement (Nwosu, 2006). Since education and learning play a vital role in the molding of individuals, the notion that computer literacy should be emphasized is also important especially as learning is becoming more complex. The computer system can serve as a vital tool in enhancing the intellect of a child. In fact early use of computer can bring about scientific consciousness in the child, since the computer is a scientific invention.

The study shows that learning can no longer be rigid especially as there are many problems associated with the use of printed materials which must be acquired physically. Books are quite costly to produce and as such the use of computers can make the same material available to different people from even different parts of the world to assess otherwise distant content at the same time. Computer literacy also enables individuals to be more flexible and offers freedom such that learners can learn from anywhere and whenever they chose in addition to the interaction that is possible from computer based learning. Virtual classes as well as online courses can be accessible for students in Nigerian schools computer literacy. Computer based learning also has the advantage of easy record storage and retrieval as well as better data organization.

Innovations in computer technology have profound impact on education such that computers are used to aid the learning process of students. Teacher in some urban schools in Nigeria make use of audio-visual techniques to prepare lesson plans for children. For this, they use Microsoft PowerPoint to prepare electronic presentations about their lectures. These electronic presentations can be shown on multimedia and sound projectors in classrooms. It is an interesting and simple method to learn for students. Multimedia (Sight and sound) presentations are easy to deliver for teachers also as these presentations spare a great deal of time and effort. Computers are also used for online education and research. With the help of the internet, students can find useful information about their projects, assignments and also can take useful help from other researchers as they access and organize their research materials on computers. Computer literacy can prepare student for Computer Based Tests (CBT), trainings and the modern work set up. For instance, various projects and educational programs are prepared or set up with the assistance of expert educators and audio-visual media help. These educational programs are generally set up in the shape of lectures on a specific subject/ topic and can be delivered on display screens from flash drives and Compact Discs.

## **Conclusion**

This paper has demonstrated that computer literacy is an essential process that can enhance learning among students in Nigerian schools. The packages, applications and facilities on the computer system make the computer a useful device or tool for learning. However, the benefits of the computer can only be effectively utilized if one is computer literate. This means that computer literacy is a great resource which Nigerian students can utilize to achieve the productivity needed for individual and societal development. Since the paper has revealed that computer literacy plays a significant role in the promotion of learning among students in Nigerian schools, there is a need to promote computer literacy in the country. This is more so as computer literacy exposes students to a wide range of learning materials that cannot be obtained from physical libraries. Also, since many students in Nigerian schools lack access to practical lessons on computer appreciation, there is a need for the provision of computer sets in all schools to enhance computer knowledge among

students in Nigerian schools. Government and other agencies should also prioritize the employment of people who are computer literate in order to motivate Nigerian students to embrace computer literacy.

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