

An Assessment of Computer Literacy among Undergraduate Students of Delta State University, Abraka

Odede Israel

Department of Library and Information Science
Delta State University
Abraka, Nigeria
odedeisrael@gmail.com

Abstract

The importance of computer literacy in today's information based society cannot be over emphasized as undergraduate students are expected to possess adequate knowledge and skills in using information and communication technology especially the computer to access wide range of electronic information. This study presents the computer literacy skills of undergraduate students at the Delta State University, Abraka. The study revealed that some of the computer applications were not fully utilized by the students. Hence, the study suggested the need to improve the students' computer literacy skills through the introduction of a more practical computer related courses into the curriculum. This should be made compulsory for students irrespective of discipline to enable them acquire computer literacy skills which is vital especially in this technological age where the use of computers have become a necessity for students' academic success. The study employed a survey research design and a well structured questionnaire was distributed for collection of data. Data collected were analysed using statistical tools such as simple percentage and were presented in table, pie chart and bar chart. The stratified random sampling strategy was applied and the population was divided into four strata. The simple random sampling technique was used to select 50 respondents each from the faculties of Education, Arts, Sciences, and Social Sciences.

INTRODUCTION

The pervasive implementation of computer and other information technologies witnessed in the educational sector especially in this 21st century has brought about various components of information literacy which include computer literacy. The development of these technologies has changed the environment in which students must develop computer literacy skills to enable them make judicious use of these technologies. The computer technology holds the promise of increased academic success for students; however students are yet to utilize this opportunities due to limited abilities to effectively make use of computers. In fact, effective use of computers depends on individual's computer literacy and it has been widely recognized as a vital skill (Liao and Pope 2008). Bidgoli (2004) defines computer literacy quite simply as the basic knowledge needed for understanding and using computers for day-to-day tasks. Similarly, Mehlenbacher

(2010) defines computer literacy as the ability of learners to work with particular operating and programming environments, applications, and software configurations. The importance of computer literacy cannot be over emphasized as computers have become an essential part of students' academic life. This is because there is a tremendous change in the world of information characterized by the shift from printed information resources to electronic information resources (Ukachi, 2013:17). Computer literacy in today's information based society is essential as the computer is the most important medium to access electronic information resources. Computer literacy is crucial for improving the academic competencies of students, and thus for their success. It is a precondition on the development of the information literacy which is an essential component of a successful academic career for students (Oakleaf and Owen, 2010). Another valuable component of computer literacy involves the knowledge of how computers work and operate (Wikipedia 2008). Ogbuiyi *et al.* (2014) noted that the increase use of computer and the level of online searching by students and academics alike is an important measure of technological development in an academic environment. Computer and information skills are seen as essential components of the wider concept of information literacy. Both information and computer literacy constructs assume that information is received, processed and transmitted. Computer and information literacy constructs have converged in the form of Information and Communications Technology (ICT) literacy (ETS 2002; MCEETYA 2005) and Digital Literacy (Lemke 2003). The key difference between explicit information literacy constructs (that still rely on and assume some computer proficiency) and computer literacy constructs appears to be that computer literacy constructs allocate less importance to the nature and constituent parts of the information processing that happens between reception and transmission. Computer literacy focuses on a more direct path between reception and transmission than information literacy which emphasises the processing steps as information is evaluated and transformed along the way (Boekhorst 2003; Catts and Lau 2008). Educational institutions have recognised the importance in equipping students with computer literacy skills to access information especially in an electronic environment. Therefore, educators must ensure a level of computer literacy in all students. Requirements for computer literacy vary, but may include an understanding of the basics of hardware, computer systems and ethics as necessary skills (Csapo, 2002). The ability of operating computer systems to perform information search tasks such as using the web browsers

and searching the internet to retrieve information and communicating with others by sending and receiving email is essential part of students' computer literacy skills. Therefore, to access the skill levels of users, a computer literate person should be able to perform the following: turn a personal computer (PC) on; use Microsoft Paint to create a designated picture; move objects using folders, shortcuts, cut-and-paste, drag and drop, copy and delete texts; move from one web page to another and back; send and receive e-mail through a PC that is pre-configured to do so.

Computer literacy constructs in education typically have not focused on the logical reasoning of programming (nor the syntax of programming languages) but rather declarative and procedural knowledge about computer use, familiarity with computers (including their uses) and, in some cases, attitudes towards computers (Richter, Naumann *et al.* 2001; Wilkinson 2006). It is however, not a prerequisite for a computer literate person to be a good programmer or an expert in computer communications and networking, nor does one need a college degree in computer field to be computer literate (McKay, 2006). More importantly, a computer literate person should be able to use the computer technology to perform his job more effectively and efficiently. Computer usage primarily assists students in the quest to learn. Therefore, university should provide an enabling environment that will aid students' computer literacy competence which is a necessity for students in this technological age.

OBJECTIVES

The main objective of the study is to assess computer literacy skills among undergraduate students of Delta State University, Abraka to gain a clear insight into their practical utilization of computer applications.

METHODOLOGY

This study employed a survey research design to investigate undergraduate students' computer literacy skills at the Delta State University, Abraka. A well structured questionnaire was distributed for collection of data. The questionnaire had an advantage of enabling respondents to give their opinions independently (Sarantakos, 2003). Data collected were analysed using statistical tools such as simple percentage and were presented in table, pie chart and bar chart.

The stratified random sampling strategy was applied and the population was divided into four strata. The simple random sampling technique was used to select respondents from the faculties of Education, Arts, Sciences, and Social Sciences. Fifty students were selected from each faculty; hence the sample population is two hundred undergraduate students.

RESULT AND DISCUSSION OF FINDINGS

Figure 1: Gender of respondents

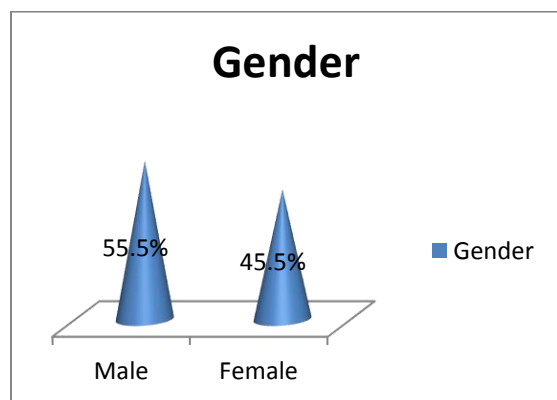


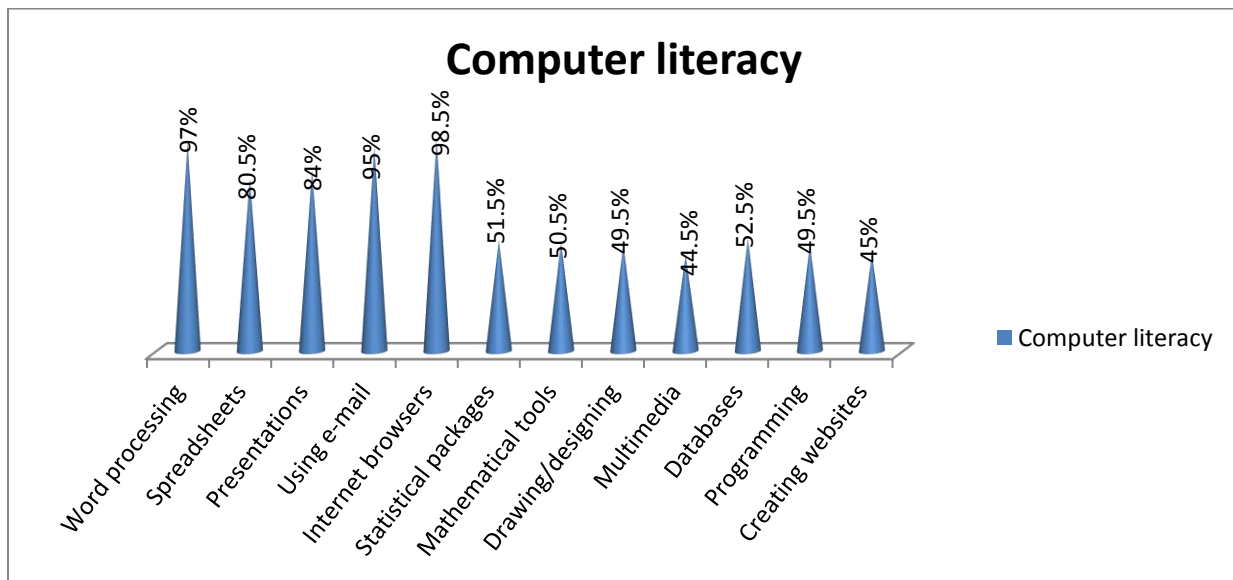
Figure 1 above shows that majority 111(55.5%) of the participants are male, while 89(44.5%) are female. This contradicts a study by Ogbuiyiet *al.* (2014) indicating more female undergraduate students than male students in Nigerian Universities.

Table 1: Methods of acquiring computer literacy

Methods	Number	Percentage
Formal computer/ IT programs	149	74.5
Courses offered by universities	121	60.5
Guidance from colleagues and friends	189	94.5
Practical self-teaching	182	91.0
Through Trial and Error	161	80.5

Table 1 above shows that computer literacy could be acquired through various methods. Majority 189(94.5%) of the participants acquired computer literacy skills through guidance from colleagues and friends. Similarly, 182(91.0%) of the participants agreed that they acquired computer literacy skills through practical self-teaching. Also, 161(80.5%) of the participants indicated that they acquired computer literacy skills through trial and error methods. This finding corroborates a study by Bhatti and Qureshi (2016) on computer literacy and attitudes to utilization of e-resources among dental students of University College of dentistry, University of Lahore. The study revealed that Majority of the respondents reported learning computer literacy skills through guidance from colleagues and friends and also through trial and error. The current study also revealed that formal computer/IT programs were useful in acquiring computer literacy skills. The least method as indicated by the participants is through courses offered by the university with 121(60.5%) affirmative responses.

Figure 2:Computer literacy skills



Computer literacy usually refers to the ability to use a number of computer applications. The researcher seeks to assess computer literacy skills of participants. Figure 2 revealed that majority 197(98.5%) of the participants had the ability to use internet browsers. Similarly, 194(97%) and 190(95%) are skilled in word processing and using e-mails respectively. Results from the study also revealed that 168(84%) of the participants are skilled in using computer presentations. The finding of this study is consistent with a study by Kozina *et al.* (2012) on computer literacy

among Croatian students as support in planning the higher education development. The study revealed that the highest average grades were given to skills in using internet browsers and e-mail. The study further revealed that there were relatively high average grades for word processing skills and creating presentations. The lowest rate of computer literacy skills in this current study was in the area of multimedia with only 89(44.5%) affirmative responses, 90(45%) also affirmed their ability in creating websites, while 99(49.5%) affirmed their ability in using programming and drawing/designing respectively.

CONCLUSION AND RECOMMENDATIONS

Computer literacy is having a basic understanding of what a computer is and how it can be used as a resource. The knowledge and understanding of computer is critical for the overall academic success of students. Students usually apply basic understanding of computer hardware and software applications to academic exercise. However, the current study revealed that some of the applications were not fully utilized as indicated in figure 2. Therefore, there is the need to improve the students' computer literacy skills. This will enable the students make adequate use of computer application thereby enhancing their academic performances. Result also indicated that majority of the students acquired computer literacy skills through guidance from colleagues and friends as well as through practical self-teaching. The least method as indicated by the students is through courses offered by university. Therefore, there is the need for the university to introduce a more practical computer related courses into the curriculum. This should be made compulsory for students irrespective of discipline to enable them acquire computer literacy skills which is vital especially in this technological age where the use of computers have become a necessity for students' academic success.

References

1. Bhatti, U. and Qureshi, S. (2016). Computer literacy and attitudes to utilization of e-resources among dental students of University College of dentistry, the University of Lahore. *Pakistan Oral & Dental Journal*, 36(4):599-601
2. Bidgoli, H. (2004). *Computer Literacy*. The Internet Encyclopedia / Bidgoli, H. (Ed.). Hoboken: John Wiley & Sons, Inc., 1(1):229-241.

3. Boekhorst, A. K. (2003). Becoming information literate in the Netherlands. *Library Review*, 52(7), 298–309.
4. Catts, R., and Lau, J. (2008). *Towards information literacy indicators*. Paris, France: UNESCO.
5. Csapo, N. (2002). Certification of computer literacy. *T H E Journal*, 30, 41 – 49.
6. ETS (Educational Testing Service). (2002). *Digital Transformation: A Framework for ICT Literacy. A Report of the International ICT Literacy Panel, Educational Testing Service*. Princeton, NJ. Akses pada
7. Kozina, G., Dukić, G. and Dukić, D. (2012). A study of computer literacy among Croatian students as support in planning the higher education development. *Tehnički vjesnik*, 19(4): 735-742
8. Lemke, C. (2003), “Standards for a modern world”, *Learning and Leading with Technology*, 31(1): 6-9, 20-1.
9. Liao, L. and Pope, J. W. (2008). “Computer literacy for everyone”, *JCSC*, 23(6):231-238.
10. Wikipedia (2008). “Computer Literacy”. Available at: http://en.wikipedia.org/wiki/Computer_literacy.
11. Mehlenbacher, B. (2010). *Instruction and Technology: Designs for Everyday Learning*. Cambridge: MIT Press.
12. McKay, S. L. (2006). *Researching second language classrooms*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
13. Ministerial Council on Education, Employment, Training, and Youth Affairs (MCEETYA). (2005). National assessment program: ICT literacy Years 6 and 10 report. Carlton South, VIC, Australia: Curriculum Corporation. Available online at http://www.nap.edu.au/verve/_resources/2005_ICTL_Public_Report.pdf
14. Naumann, J., Richter, T., and Groeben, N. (2001). Validierung des INCOBI anhand eines vergleichs von anwendungsexperten und anwendungsnovizen. *Zeitschrift für Pädagogische Psychologie*, 3(4), 219–232.
15. Oakleaf, M and Owen, P. L. (2010). Closing the 12-13 gap together: school and college librarians supporting 21st century learners. *Teacher Librarian*, 37(4), 52–59.
16. Ogbuiyi, D., Ogbuiyi, S. and Oriogu, C. (2014). Influence of computer literacy skill and online searching on undergraduates’ use of academic materials in Babcock university library. *Journal of humanities and social science (IOSR-JHSS)*, 19(7):49-53. Available in www.iosrjournals.org www.iosrjournals.org
17. Sarantakos, S. (2002). *Social Research*. Palgrave: New York.
18. Ukachi, B. (2013). *Accessibility and students variables as correlates of the use of electronic information resources in university libraries in south-west, Nigeria*. PhD Thesis, University of Nigeria
19. Wilkinson, K. (2006). Students Computer Literacy: Perception versus Reality. *Delta Pi Epsilon Journal*, 48(2):108-120.