

NIGERIA JOURNAL OF COMPUTER LITERACY (NJCL)



VOLUME 12, NO 1, 2017

**NIGERIA JOURNAL OF COMPUTER LITERACY
VOLUME 12, NUMBER 1, 2017**

Nigeria Journal of Computer Literacy

First published June, 1996

ISSN: 1118-0056

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Published by the Department of Science and Technology Education
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ATTITUDE OF STUDENTS TOWARDS THE USE OF COMPUTER IN EDUCATION

Dr Felix O. Ibode

Institute of Education, University of Ibadan, Ibadan, Nigeria

+2348052528828 felixibode@yahoo.com

Abstract

The use of computer in education has increasingly become prominent in most part of the world. Therefore the study examined the attitude of students of St. Augustine College of Education, Akoka, Lagos. Simple random sampling technique was used to select 175 respondents. The instrument used for data gathering was a questionnaire with a reliability coefficient of 0.73. Descriptive statistics and T-test was used to analyze the data. The study revealed that students have positive attitude towards the use of computer. Also, the study revealed that there is no significant relationship between the male and female perception of students attitude to computer use in education. Therefore, the study recommends that computer studies should be inculcated and made compulsory at all levels of education. Government should make adequate provision of computers to the schools at all levels. The teachers should be advised to encourage the female students to improve on their attitudes toward the use of computer in education to be at par with their male counterparts. Students should be motivated to incorporate ICT into the source of learning tools as personal assessment of their computer competence improved. Lastly, the schools should give proper maintenance culture to the students to handle the computer properly.

Keywords: Attitude of students, computer Education, student ICT use.

Background to the Study

This study looks at the attitude of students towards the use of computer in education. Attitude is related to performance and seems to have great impact on utilization of computer and technology-based performance (Jegade, Dibu-Ojerinde & Ilori, 2007). Attitude is defined by Ajzen (2005) as “a disposition to respond favorably or unfavorably to an object, person, institution, or event”. In his theory of planned behavior, Ajzen (2005) linked attitude and behavior through the description of three types of belief systems that guide human behavior; namely, behavioral beliefs, normative beliefs and control beliefs.

Attitudes have been shown to be an important predictor of usage and implementation of technology (Rodgers and Chen, 2002). Attitude to computer in education can be defined as a person's general evaluation or feelings of favour or difference towards computer technologies and specific computer related activities (Smith, Caputi & Rawstorne, 2000). Students with positive attitudes toward use of computer in education have been found to perform better than those with negative attitudes toward the subject (Nayashi, Chen, Ryan & Wu, 2004). In a study conducted by Garland and Noyes (2005), it was found that confidence correlates positively with computer attitude. Gao (2005) has also found that perceived usefulness of computer positively correlated with students' attitudes toward it. The study

discovered that the learners who perceived computer education to be irrelevant were not positively predisposed toward the subject. Similarly, Zhang (2011) stated that students' attitudes towards the computer assisted language learning can be considered as a key predictor in terms of successful application of computer to language learning.

According to Teo (2006), attitudes toward technology play a crucial role in the adoption of instructional technology and students' learning in the classroom. Attitude is also considered as one of the affective variables in the success of implementing technology in the second or foreign language learning process. In support of this idea, Ayres (2002) carried out a study on students' attitudes toward Computer Assisted Learning and claimed that 80% of the students believed that Computer Assisted Learning is relevant to their needs, 77% of the students agreed that Computer Assisted Learning gives useful information, and 66% of the students thought that more Computer Assisted Learning should be used in their learning.

The study of students' attitude towards compute use has become more imperative more than ever before. For instance, the use of computer in education is increasing as educators recognize its ability to create robust learning environment in which students learn easily. In Nigeria, as in many other countries of the world, the use of computer in teaching and learning has become a revolution. Many scholars stressed that the incorporation of the use of computer in education has some benefits to learners and teachers for effective teaching and learning process (Maki 2008, Udin 2003, Uchechukwu, 2009). Also, Maki (2008) revealed in his study that the use of computer plays an important role for efficient instructional delivery and development of learners' potentials. In higher education, computers have been used widely for many purposes. For example, it is a discipline of study, a device to use as teaching aid during instructional delivery, a research tool through which online information are assessed (Newby and Fisher, 2000; Newby, 2002).

Computer is applied to different phase of human endeavours. Manali (2011) maintained that the basic concept behind the use of computer devices and the know-how of some of the elementary computer applications constitute computer education. With the prevalence of its uses and popularity, computer has become the need of the day in all areas of human endeavors. Thus, it is no longer seen as a device to be used specially by trained people. Rather, it has become a great facilitator of human existence. Therefore, computer has become a powerful instrument of socio-mobilization, economic development and a potent instrument for academic activities. The development in computer studies over the past decade seems to accord many students with utmost opportunities to excel in formal and informal education.

On the contrary, Emadoye (2002) argued that the focus of the first initiative of computer studies in education was on print and electronic media without major policy to guide its full implementation in a school setting. Ubogu and Ossaai (2007) on their part asserted that, the introduction of computer has initiated new age in teaching methodologies, thus changing the traditional method of instructional delivery and patterns of offering contemporary learning experiences to both the teachers and learners. In order to achieve a successful implementation of computer education in schools, the National Policy on Information Technology (NPIT) was formulated between 1987 and 2000. The vision of this policy was to make Nigeria an IT compliant nation in Africa and a key player in the generation and dissemination of information through Information and Communication Technology (ICT) to engineer sustainable development for global competitiveness (Federal

Ministry of Science and Technology, 2001).

The United Nations (UN, 2005) reports, that the introduction of computer education in school system across many nations of the world has changed classrooms teaching and learning dynamics. Although, computer may has mixed classroom effects on the learners. According to United Nations Millennium Development Goals Report (2005), some learners are interested in learning computer studies in the classroom while others do not have such interest. Despite the mixed classroom effect of computer studies, the Federal Government of Nigeria through the Federal Ministry of Education has identified the role of computer studies in attaining its national goals, the Millennium Development Goals (MDGs) and Education for All (EFA) and thus included the subject as part of the subjects curriculum all Nigeria learners must be exposed to at the basic level of education.

According to Uddin (2003), the use of computer assisted learning led to improvement in Nigerian students' achievement. Uddin further stated that the introduction of computer as a teaching and learning tool in Nigeria educational system is of paramount importance to national development. This is because computer programme produces individuals who acquired knowledge, skills and competence for national economic growth. In the same vein, Uchechukwu (2009) affirms that the information technology in the 21st century has brought about meaningful progress in Information Processing Methodology (IPM) for effective educational development. He further stated that ICT has brought about transformation in terms of teaching methods, learning strategies and positive academic achievement, and revolutions in other industries around the world.

It has been observed that computer studies in education facilitate the general human development and economic competitiveness across the world. It addresses challenges encountered by teachers and learners in a traditional method of teaching and learning process (Culp, Honey & Mandinach, 2003). Although, computer is seen as the agent of change in a society but this change may not be easily realizable without the provision of adequate human and material resources in our institutions of learning. To achieve the vision, the Federal Government of Nigeria, during the 32 ministerial national council meeting on Education in 1987, promulgated a decree leading to introduction of computer education in the school system. The decision led to inauguration of the National Committee on Computer Education (NCCE) in the same year. The general objective of the policy on computer education was to achieve a literate society in Nigeria, enable school children to advance in the use of computer in various aspects of life for their future employments (**Jegede & Owolabi, 2003**). Also, the Federal Government of Nigeria stipulates that computer studies should be incorporated into the nation's curriculum content starting from the basic level of education (primary level) to meet up with the developed nations of the world (FRN, 2004).

According to European Commission report (2013), the importance of computer studies in school does not only have the ability to create greater access to information and communication in an underserved population, but rather many countries in the world today have established different ways of promoting use of computers, through computer education in school system in order to take hold of the increasing demand of technological advancement in developing nations. Nigeria, like many other developing countries around the world, has over the years, sought to improve its education system by introducing reforms and making plans based on the educational needs of the country.

Gender is the range of physical, biological, mental and behaviour characteristics pertaining to differentiating between masculinity and femininity (Haig 2004). According to

Derbyshire (2003), gender gap exists in education in most of the Africa countries and among out-of-school children, more of whom are girls, are deprived of many opportunities to gain computer related knowledge and skills in school. Study by (Bebetso & Antoniou, 2008) shows that female students have more negative attitude towards computer than male students, thus they are often less computer literate than males (Kadel, 2005; Schaumburg, 2001). Sefyrin (2005) study showed that competence in Information Communication Technology could be seen as a question of interest in ICT, where men are more interested in ICT than women. The study thus confirmed the view of gender and competence as actively constructed in a social process of understanding individuals and their behaviour.

The use of computer in education is essential to educational advancement, it adds values to research and contribute to the success of students in their academic endeavours. The importance of the use of computer in education cannot be underrated especially when its roles are considered in science and technology. The various studies discussed thus far portray that evidence of gender disparities in students and attitudes toward computer use in education has not been conclusive. Thus, the students' attitude and the gender factors contribute to influence this study.

Statement of the Problem

Numerous studies conducted in Nigeria with respect to computer studies in schools show clearly that little is known about students' attitudes toward computer use in education. This is in view of the increase use of computer in our daily lives including education. But from other claims, it is known that learners' attitude to computer use in education varies. Therefore, there is need to empirically identify the present crops of students' attitude towards the use of computer especially in education. Also, gender seems to be germane to measures of attitude that relates to approach to task performance. Gender, may be a factor that can hinder the efforts of some students to fully involve themselves in the use of computer in their course work.

This study therefore examined the attitude and gender of students of St. Augustine College of Education, Akoka, Lagos towards computer use in education.

Research Questions

1. What is the perception of St. Augustine College of Education students on the use of computer in education?
2. What is the difference between male and female students' attitude towards the use of computer in education?

Methodology

The study is an ex post facto research design of survey research method. The population of the study is made up of computer science students of St. Augustine College of Education, Lagos state. Simple random sampling technique was used to select one hundred and seventy five respondents. One research instrument, a questionnaire was used to gather information from the respondent which is Students Attitude towards Computer Use in Education (SACUE). The reliability coefficient of the instrument was established to be 0.73. Results from the findings were analysed using descriptive statistics of frequency count, percentage, mean and standard deviation and T-test analysis.

Research Question1

What is the perception of St. Augustine College of Education students on the use of computer in education?

Table 1 showing the descriptive statistics of the perception of students to the use of computer in education

S/N	ITEMS	SA	A	D	SD	Mean	Std.D
1	I like the use of computer in my education	120 (68.6%)	53 (30.3%)	2 (1.1%)	-	3.67	0.494
2	Computer use is educative	112 (64.0%)	61 (34.9%)	2 (1.1%)	-	3.63	0.508
3	Using computer is difficult	23 (13.1%)	85 (48.6%)	55 (31.4%)	12 (6.9%)	2.68	0.788
4	I cherish my computer teacher	64 (36.6%)	96 (54.9%)	14 (8.0%)	1 (0.0%)	3.27	0.629
5	Computer use helps my education	121 (69.1%)	51 (29.1%)	2 (1.1%)	1 (0.6%)	3.67	0.529
6	The use of computer is essential to educational advancement	117 (66.9%)	52 (29.7%)	6 (3.4%)	-	3.63	0.550
7	I can succeed in my education without computers	32 (18.3%)	72 (41.1%)	48 (27.4%)	23 (13.1%)	2.65	0.929
8	I enjoy using computers	74 (42.3%)	89 (50.9%)	11 (6.3%)	1 (0.6%)	3.35	0.624
9	I like computer lessons	61 (34.9%)	100 (57.1%)	13 (7.4%)	1 (0.6%)	3.26	0.615
10	Computer add values to research	118 (67.4%)	44 (25.1%)	10 (5.7%)	3 (1.7%)	3.58	0.680
11	I can do without computer	28 (16.0%)	57 (32.6%)	58 (33.1%)	32 (18.3%)	2.46	0.969
12	Computer use should be a must in education	76 (43.4%)	69 (39.4%)	22 (12.6%)	8 (4.6%)	3.22	0.836
13	I feel at home whenever I use computer	43 (24.6%)	91 (52.0%)	33 (18.9%)	8 (4.6%)	2.97	0.787
14	I am bored each time I work with computer	66 (37.7%)	71 (40.6%)	17 (9.7%)	21 (12.0%)	3.04	0.979
15	Computer slows down my education	17 (9.7%)	15 (8.6%)	52 (29.7%)	91 (52.0%)	1.76	0.971
16	I appreciate the contribution of computer use in my education	106 (60.6%)	58 (33.1%)	7 (4.0%)	4 (2.3%)	3.52	0.685

Table 1 indicates that 68.6% of the respondents strongly agree that they like the use of computer in their education while only 2% of the respondents disagree on the use of computer in education. Also, majority (98%) of the respondents agree that computer education is educative. On the other hand, 48.6% of the students agree that the use of computer is difficult while 31.4% of the students disagree that using computer is difficult. In the same vein, most (91.5%) of the respondents agree that they cherish their computer teachers while 8.5% of the respondents did not cherish their computer teachers. In addition, majority (85.2%) of the respondents agree that computer use help their education while 1.7% of the respondents do not agree that computer help their education. In an attempt to find out if the use of computer is

essential to educational advancement, majority (96.6%) of the respondents also agree that computer is essential to educational advancement but 3.4% of the respondents disagree and claimed that computer is not essential to educational advancement. Findings also indicate that 59.4% of the respondents agree that they can succeed in their education without computer while 40.6% of the respondents said that they cannot succeed in their education without computer. Also, most of the respondents (93.2%) agree that they enjoy using computers however 6.8% of the respondents disagree that they enjoy using computers. Furthermore, 92% of the respondents agree that they like computer lesson while the remaining 8% of the respondents do not like computer lessons. Moreover, in order to know the perception of the students to the use of computer in education, majority (92.5%) of the respondents agree that computer add values to research while 7.5% of the respondents was of the opinion that computer do not add values to research.

From the findings also, it was revealed that 48.6% agree that they can do without computer while 51.4% of the respondents disagree that they can do without computer. This connotes that most of the students cannot do without using computers in their education. The result also shows that 82.8% of the respondents agree that computer use should be a must in education while the remaining 17.2% of the respondents disagree that computer should be a must in education. On the other hand, 79.6% of the respondents agree that they feel at home whenever they use computer but 20.4% disagree that they feel at home whenever they use computer. On the other hand, 79.6% of the respondents agree that they are bored each time they work with computer while 9.7% disagree that they are bore each time they work with computer. Majority of the respondents (52.0%), strongly disagree that computer slows down their education while 97% strongly agree that computer slows down their education. This means that computer aid in speeding the works of the respondents in their education. In an effort to know the importance of the contribution of computer use in education, 60.6% of the respondents strongly agree that they appreciate the contribution of computer use in their education.

Research Question 2

What is the difference between male and female students' attitude towards the use of computer in education?

Table2

Variables	N	Mean	Std. D	Standard Error Mean	t-test for equality of means.			
					t	df	Sig. (tailed)	Mean diff
Male	37	50.6486	3.513	.778	.461	173	.645	0.358
Female	138	50.2899	4.365	.686	.522	173	.603	0.358

Table 2 table above revealed that there is no significant relationship between the male ($\bar{X}=50.64$, $S.D= 3.35$) and female perception of students attitude to computer use in education ($\bar{X}=50.28$, $S.D = 24.36$). It can be concluded that attitude of St. Augustine College of Education students towards the use of computer in education does not vary significantly ($P>0.05$).

Discussion of findings

The findings from this study reveal that students have positive attitude towards the use of computer in education. The findings of the study support the findings of Jana and Pavol (2008), in a study carried out in schools in Slovakia which reveals that students' attitudes towards the use of computers had a major effect on behavioral dimensions of attitude towards ICT. Also, all students take advantage of learning opportunities technology offers within the instruction (Grabe, et. al. 2001). In addition, Cretchley and Galbraith, 2002 likewise reached a similar conclusion that there is a weak relationship between attitude towards computer and the correlation of students' attitude towards the use of technology in learning is stronger with the attitude towards computer. Similarly, the findings of Mudasiru and Modupe (2011) revealed that majority of the student-teachers have positive attitude towards the use of Information and Communication Technology and they are competent in the use of few basic ICT tools. The findings from this study negate the study of Cázares (2010) who found no relationship between proficiency and attitude towards data analysis and information technologies and concluded proficiency level in computer was not predicted by attitudes.

The finding from this study portray male students as having positive attitude towards the use of computer in education than female students. This could be as a result of the fact that girls are less confident than boys in their computer skills and tend to be less interested in computer and use them less often in their spare time. Results of studies on gender difference in attitudes toward computer use in education have been mixed. Some studies have established gender differences in students' attitudes toward computer use in education, others have not found significant differences between gender. Various studies have shown that male students' attitudes toward computer use in education were generally more positive than those of female (Clariana & Schultz, 1993, Sutton, 1991). Findings from studies carried out by (Houtz & Gupta, 2001, Shashaani & Khalili, 2001, Margolis & Fisher, 2002; Broos, 2005) show significant differences favouring male students in terms of attitudes toward new communication technology, extent of computer use in education and self-perceived computer experience which is in support of this study. The study disclosed that the male students had positive perception of computers and the web technologies than the female students (Liaw, 2002). On his part, Kaino (2008) used both qualitative and quantitative techniques to analyze gender differences in attitudes toward computer education in Botswana Junior Secondary Schools. The study disclosed that although most of the students are found using computer useful, but male students were found to enjoy learning using computers with less or no anxiety than female students.

This study negates the findings of Adenuga, Owoyele and Adenuga (2011) whose study did not find significant differences in the gender groups' attitudes toward Information Communication Technology education. Their study revealed generally that both male and female students showed negative attitude towards ICT education. Also, Wong and Hanafi (2007) did not find any significant difference in the attitudes of the male and female students toward Information Communication Technology education. The study found that both gender groups had the same kind of attitude towards Information Communication Technology education. Contrary to the findings from this study is the results of Egbo et al (2011) who concluded in their research that there is the tendency that female students would accept ICT use more than their male counterparts

Conclusion and recommendation

The study has shed light on attitude of students towards the use of computer in education. The attitude of students to computer as discovered in this study revealed that students believe that computer can facilitate education. The idea that the computer always assists comes from a generalization of the fact that the computer entered our lives to enable us do so many things such as using cash machines, automated devices such as microwaves, video recorders, cars, etc. Computer actually facilitates education, making it much easier for the learners to learn, because it facilitates teaching and learning. The study reveals that male students demonstrate more positive attitudes toward the use of computer in education than their female counterparts. Therefore, the study recommends that computer studies should be inculcated and made compulsory at all levels of education. Government should endeavour to make adequate provision of computers to schools at all levels. Teachers should be advised to encourage female students to improve on their attitudes toward the use of computer in education to be at par with their male counterparts. Teachers and students should be motivated to incorporate ICT into the source of learning tools as their computer competence improved. Lastly, government should encourage the improved use of computers in the teaching and learning process at all levels of education.

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