

INTERNATIONAL JOURNAL OF SOCIAL SCIENCE

VOL. 1, NO. 2, 2009

PAN-AFRICAN BOOK COMPANY

INTERNATIONAL JOURNAL OF SOCIAL SCIENCE

Volume 1, Number 2, 2009

Published by Pan-African Book Company in association with Minkah-Premo Co., No. 3, Emmause, 2nd Close, Labone, P. O. Box 1495, Accra, Ghana

First Published 2009

Copyright© Pan-African Book Company 2009

All right reserved. No part of this Journal may be produced or transmitted in any form or by any means without the written permission of Pan-African Book Company

International Journal of Social Science is a quarterly Journal Published by the Pan-African Journal Series. Papers for publication should be sent to our *E-mail* centrejournal@yahoo.com. *If you have additional question, please feel free to contact the Managing Editor at the addresses below: The Managing Editor, Centre Journal, Minkah-Premo Co. No. 3 Emmause, 2nd Close, Labone, P. O. Box 1495, Accra, Ghana.*
E-mail: centrejournal@yahoo.com

INTERNATIONAL JOURNAL OF SOCIAL SCIENCES

Volume 1, Number 2, 2009

S/No.	Contents	Author(s)	Pages
1.	The Management Model of Bullying in Military: The Sandf as an Example	Makatipe, Charles Kgosana	1-14
2.	Rural Energy Exploitation and Utilization: Implications on Sustainable Development in Enugu State, Nigeria	Nnaji, Chibueze E., Nnaji Moses and Oparaku, O. U.	15-24
3.	Oil Shock and Debt Sustainability in Nigeria	Oloni, Elizabeth Funlayo and Omoniyi, Bejamin Badeji	25-32
4.	From Three to Fifty: Some Comments on the Paradox of Increasing Number and Diminishing Relevance of Policial Parties under Obasanjo's Administration, 1999-2007	Victor Egwemi	33-40
5.	Youth and Climate Change: Time for Action	Seidu, O. Mohammed, Ojonigu, F. Ati and Maryam, H. Ati	41-46
6.	Education and Unemployment: Toward Self-Reliant Education	Stephen, A. Okodudu, Godspower, J. Irikana and Chinenye, G. Awujo	47-52
7.	Millennium Development Goals, Mangrove Resource Utilization and Coastal Niger Delta Women Economic Livelihood	Stephen Okodudu and Godspower Jackson Irikana	54-58
8.	Rights of Persons with Disabilities in Zimbabwe	Edmos Mtetwa	59-64
9.	Rapid Population Growth and its Implications for Sustainable Development in the Third World: The Niger-Delta Experience in Nigeria	Ugbomeh, B. A.	65-72
10.	"With Pen and Tongue": Olive Schreiner in South African Imperial Discourse, 1887-1902	Estella Musiiwa	73-81
11.	An Appraisal of the Public Sector Management in a Privatized Nigerian Economy	Yakubu, Shehu Abdullahi	82-86
12.	Globalization Challenges of Women in Developing Countries: A Nigerian Emphasis	Justie, Ody Nnabuko	87-94
13.	Shortage of Food Supply as an Impediment to Manpower Development in Africa: The Nigeria Experience	Abdullahi Mohammed	95-100
14.	Managing the Niger Delta Crisis: The Yar'adua's Experience	Francis Ikenga and Malachy Iwuagwu	101-104
15.	Paralyses of Traditional Rulers in Vcgrases Root Administration: The Adolitionist Theory	Amb (P) Katuka Yaki	105-109
16.	The Deepening Crisis: The Case of HIV/AIDS Knowledge in some Rural Areas of Zimbabwe	T. D. Mushoriwa	110-117
17.	Computer Experiences, Self-Efficacy and Attitude Towards Computer Use: A Study Among Distance Teaching Students, University of Ibadan, Nigeria	Samson, O. Akande	118-124
18.	Demobilisation and Reintegration of Ex-Combatants into Civilian Life: Breaking the Cycle of Conflict in Africa	Thamsanqa, J. Dhladhla	125-135

COMPUTER EXPERIENCES, SELF-EFFICACY AND ATTITUDE TOWARDS COMPUTER USE:
A STUDY AMONG DISTANCE TEACHING STUDENTS, UNIVERSITY OF IBADAN, NIGERIA.

Samson O. Akande
Kenneth Dike Library,
University of Ibadan, Oyo State, Nigeria.

ABSTRACT

This study investigated computer experience, computer self-efficacy, and attitude of Distance Learning students toward computer use in University of Ibadan, Nigeria. 250 part-time students in the Department of Library, Archival and Information Studies (LARIS), Faculty of Education, were randomly sampled to take part in the study. Questionnaire was used to elicit information on the three research variables. The findings revealed that the computer experience of the undergraduates correlate positively with their attitude towards the use of computer ($r=0.35; p<0.01$). It was also revealed that a positive relationship exists between computer self-efficacy and attitude of students toward the use of computer ($r=0.39; p<0.01$). The two computer – related variables were also found to have significant composite effect on attitude of the part-time students toward the use of computer ($R=0.509; p<0.01$). The study recommends the integration of computer courses into the curriculum at all levels of education (primary, secondary and tertiary). It also recommends provision of computer laboratories equipped with internet facilities in the library and the faculties for students' use.

Key words: *Computer experiences, Attitude, Distance learning students, Nigeria*

INTRODUCTION

The ever increasing role of computers in every sphere of human endeavour has been well recognized in the literature. Computers play an important role in modern agriculture (Johnson, Ferguson & Lester, 2000); in education (Sam et al, 2005); in libraries (Kumaravel, 2005) and in business (Kim & Keith, 1994). Monk et al (1996) assertion that students should be sufficiently comfortable with computer and information technologies so they can develop new computer skills throughout their careers is more relevant and widely acceptable today. Considering the level of technological growth and development, Karsten and Roth (1998) expect students to become more computer literate, as well as more inclined to seek opportunities to use computers to solve problems in the future. The Pew Internet and American Life Project (2002) report of recent studies confirmed that student usage patterns are shifting and student preference for using online resources is becoming predominant on college campuses. This implies students' increasing awareness of the significant role electronic resources could play in their academic achievement. The benefits derived from computer usage are not limited to campus environment as proficiency in computer usage has now become a major request of employers of labour. Little wonder that educators who advocate technology integration in the learning process believe it will improve learning and better prepare students to effectively participate in the 21st century workplace (Butzin, 2000; Hopson, Simms & Knezek, 2002; Reiser, 2001). If proficiency in the use of computers is so emphasized, how skilled are the distance learning students in University of Ibadan, and to what extent does their experience influence their attitudes towards the use of computer. Studies have shown that computer experiences influence perceived efficacy with computer technologies. According to Yates and Chandler (1994), if students enter a program with a wide range of prior knowledge and experience, it will help them to quickly learn, adopt, and develop confidence in the new skills they are learning as prior experience with computers creates a more positive attitude toward computing (Lloyd and Gressard, 1984). Johnson et al (1999) noted a substantial positive correlation between computer self-efficacy and computer knowledge. In the same vein, Harrison and Ranier (1992) asserted that individuals with prior computer experience are more likely to evidence higher levels of computer self-efficacy than individuals, without such experience. The relationship among computer experience, self-efficacy and computer attitude have also been investigated. According to Busch (1995), in integrating computers in higher education, researchers have proposed that positive attitudes toward computers and high computer self-efficacy and lower computer anxiety levels could be important factors in helping people learn computer skills and use computers. This fact has directly established a strong connection between computer experience (skills) and attitudes toward the use of computers. Woodrow (1991) claimed that students' attitudes toward computers

Computer Experiences, Self-Efficacy and Attitude towards Computer Use: A Study among Distance Teaching Students, University of Ibadan, Nigeria.

were critical issues in computer courses and computer-based curricula which is an indication that a relationship exists between computer knowledge and attitudes towards the use of computer. Sam et al. (2005) studied computer self-efficacy, computer anxiety and attitudes toward the Internet among Undergraduates in Unimas. They reported that the undergraduates had moderate computer anxiousness, medium attitudes toward the Internet, and high computer self-efficacy and used the Internet extensively for educational purposes. Recognizing the importance that educational institutions and employers of labours place on computer literacy and skills, it is very necessary to investigate how computer experience and self-efficacy determine the attitude of distance learning students toward the use of computers in University of Ibadan, Nigeria.

OBJECTIVES

This study was conducted to investigate the computer experience, self-efficacy and attitudes of distance learning students toward the use of computers. Specific objectives were to:

1. Determine if there is significant relationship between computer experience of distance learning students and their attitude towards the use of computer.
2. Investigate the relationship between the students' computer self-efficacy and their attitude towards the use of computers.
3. Ascertain the composite effect of distance learning students' computer experience and computer self-efficacy on attitude towards the use of computer.
4. Find out the relative effect of distance learning students' computer experience and self-efficacy on attitudes.

Research Hypotheses

The following research hypotheses were raised for the study at 0.05 level of significance.

1. There is no significant relationship between computer experience and attitude of distance learning students towards computer use.
2. There is no significant relationship between distance learning students' computer self-efficacy and their attitude towards the use of computer.
3. There is no significant composite effect of distance learning students' computer experience and computer self-efficacy on attitude towards the use of computer.
4. There are no significant relative effects of distance learning students' computer self-efficacy and computer experience on attitude towards computer use.

METHODOLOGY

This study employed descriptive research design of *expost facto* type. It has an advantage of observing and carefully recording information as it naturally occurred at the time the study was conducted. A simple random sampling technique was used to select 250 undergraduates from the population of 300 among the distance learning students in the department of Library, Archival and Information Studies (LARIS) of University of Ibadan, Nigeria. Out of the 250 students selected for the study among the distance learners in 2006/2007 academic session, 200 respondents filled their questionnaire used to collect data properly, of which 85(42.5%) were males and 11(5.7%) were females. Majority of the subjects were in the 21-30 age groups. The educational qualifications ranged from West African School Certificate (WASC) to Ordinary National Diploma (OND) and National Certificate in Education (NCE).

Research Instrument

Data for the study was collected by using a questionnaire tagged COMPESEA (Computer experience, Self-Efficacy and Attitude) scale which was divided into four sections. The first section elicited information on the demographic characteristics such as age, gender, educational qualification. The second section of the questionnaire was devoted to the Computer Self-Efficacy Rating Scale (COSERS). The scale which is a 10-item inventory was self constructed to measure the computer self-efficacy of the subjects. The respondents responded on a four-point Likert type scale (1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree). Total scores ranged from 10, indicating a low level of confidence in the subjects' ability to use computers, to 40, which would indicate a high degree of confidence. The third section was the Computer Attitude Scale (CAS) constructed by the researcher with 10-items designed to measure the attitude of the respondents towards the use of computer. The inventory was rated on a four-point Likert type scale (1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree). Total scores on CAS ranged from 10 to

40, with 10 implying extremely negative attitude towards the use of computer and 40 indicating extremely positive attitude towards computer. The fourth section of the questionnaire collected data on the computer experience of the respondents in computer. The items in this section required the respondents to report on computer issues like trainings, computer examinations, packages used, computer schools attended, and purpose for using computer.

Data Collection and Data Analysis Procedures

The questionnaire was distributed to the respondents at the beginning of year 2006/2007 academic session in the lecture rooms. Out of the 250 copies of the questionnaire administered, 200 copies were returned useable which indicated return rate of 80%. Data gathered was analysed using descriptive and inferential statistics. Statistical Packages for Social Sciences was used to run the frequencies, percentages, Pearson's correlations, and multiple regressions in reporting the findings.

RESULTS AND DISCUSSION

In this section, the data collected are described, with a view to accepting or rejecting the hypotheses formulated in the study. The order of presentation follows the order of the research hypotheses.

Hypotheses 1:

There is no significant relationship between computer experience and attitude of distance learning students toward computer use.

Table 1: Summary of Test of Significant Relationship between Computer experience and Attitude of Respondents toward Computer Use

Variable	n	X	SD	r	P	Remark
Computer experience	200	15.46	2.82	0.35	0.000	Sig.
Attitude towards Computer Use	200	25.87	3.70			

Correlation is significant at 0.01 level (2-tailed).

Table 1 show that the mean score of the computer experience of the students is 15.46 with standard deviation of 2.82, while the mean score of their attitude towards computer use is 25.87 with standard deviation of 3.70. From table 1, student computer experience has a moderate, positive and significant relationship with student attitude towards computer use ($r = 0.35$; $P < 0.01$). This shows that as student computer experience improves, their attitude towards the use of computer also improves. The hypothesis was therefore rejected.

Hypothesis 2:

There is no significant relationship between distance learning students' computer self-efficacy and their attitude towards the use of computers. Table 2 presents the correlations between the students' computer self-efficacy and their attitude towards computer use.

Table 2: Pearson Correlations of Students' Computer Self-Efficacy with Attitude towards Computer Use

Variable	n	X	SD	r	P	Remark
Computer Self-Efficacy	200	28.21	3.76	0.39	0.000	Sig.
Computer Attitude	200	25.87	3.70			

Correlation is significant at 0.01 level (2-tailed).

From table 2, computer self-efficacy of students has a moderate, positive and significant relationship with their attitude towards computer use ($r = 0.39$; $P < 0.01$). This implies that as students' self-efficacy in computer improves, their attitude towards the use of computer also improves. Therefore, the null hypothesis was rejected.

Hypothesis 3:

There is no significant composite effect of distance learning students' computer experience and computer self-efficacy on attitude towards computer use. Tables 3 and 4 give the data concerning hypothesis 3 using multiple regression analysis.

Computer Experiences, Self-Efficacy and Attitude towards Computer Use: A Study among Distance Teaching Students, University of Ibadan, Nigeria.

Table 3: Summary of Regression Analysis of Students' Computer Self-Efficacy and their Computer Knowledge on Attitude towards Computer Use

R	R Square	Adjusted R Square	Standard Error of the Estimate
0.509	0.259	0.251	3.2055

Table 3 shows that the students computer experience and computer self-efficacy taken together, correlate positively with the students attitude towards the use of computer (R = 0.509).

Based on this finding, the two variables are relevant in determining students' attitude towards computer use. Also, the R-square value of 0.259 shows that 26% of the total variance in the dependent variables is due to the students computer experience and computer self-efficacy. The remaining 74% is due to other factors.

Table 4 tests the significance of the adjusted R value.

Table 4: Analysis of Variance of Regression of Students Computer Self-Efficacy and Computer experience on Attitude towards Computer Use

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Regression	706.444	2	353.222	34.377	.000
Residual	2024.176	197	10.275		
Total	2730.620	199			

Significant at P<0.01

From table 4, the ANOVA of regression analysis shows that the adjusted R value of 0.509 is significant (F = 34.377; P<0.01). Therefore, the adjusted R value is not as due to chance. From the results presented, it is hereby concluded that the composite effect of students' computer experience and computer self-efficacy on attitude towards computer use is significant. Therefore, the hypothesis is rejected.

Hypothesis 4:

There are no significant relative effects of computer experience and computer self-efficacy on attitude towards computer use. Table 5 presents the relative contributions of the two students' computer – related variables.

Table 5: Relative Contributions of Students' Computer-Related Variables to Attitude towards Computer Use

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	8.857	2.075		4.268	.000
Computer experience	0.431	0.081	0.328	5.335	.000
Computer Self-Efficacy	0.367	0.061	0.372	6.057	.000

Significant at P<0.01

From table 5, computer self-efficacy made a greater contribution to the determination of students' attitude towards computer use ($\beta = 0.372$; $t = 6.057$; $P < 0.01$), than computer experience ($\beta = 0.328$; $t = 5.335$; $P < 0.01$). Both the students' computer self-efficacy and computer experience made significant contributions to attitude towards computer use. Hence, the two independent variables have significant relative effects on students' attitude towards computer use. The hypothesis is therefore rejected.

DISCUSSION OF FINDINGS

The first finding of this study is that computer experience correlate positively with attitude towards the use of computer. This is because according to Pearson Correlation Coefficient, positive coefficient (r) indicates that any increase in independent variable result in improvement in the dependent variable. This finding is in line with that of Loyd and Gressard (1984) cited in Tella and Ayeni (2006) who asserted that prior knowledge and experience with computers create a more positive attitude toward computing. The implication of this is that computer technology should be integrated into the school curriculum at all levels of education starting from the elementary school to introduce the students to the use of computers. This will

help them to gain computer experience which could make them to develop positive attitude towards computing later in life as they advance in their education. Another finding from this study is that students' computer self-efficacy have a significant relationship with their attitude towards the use of computer. This means that when the students perceive themselves as being capable of performing tasks with computers, they will have positive feelings towards using it. This will make them to be inclined to seeking opportunities to use computers to solve problems. The finding is in agreement with Zhang & Espinoza (1998) cited by Sam; Othman & Nordon (2005) who found in their study that computer self-efficacy was associated with attitudes toward computer technologies. The works of Umoren (2009) and Jegede (2007) also established that a strong relationship exist between self-efficacy and attitude towards the use of computer and Internet facilities. The study also shows that computer experience and computer self-efficacy have significant multiple correlation with students attitude towards the use of computer. This shows that when the two variables are examined together, the finding is remarkable. This means that when a student has good prior knowledge and experience in performing operations with computer and when the computer self-efficacy is high, the composite effect of this will be a significant contribution to the student positive attitude towards computer use. The finding also indicates that the two computer related variables accounted for 26.0% of the total variance in students' attitude toward the use of computer. This point out the importance of personal development in computing to acquire knowledge and experience which could enhance self confidence and capability of working with computers(self-efficacy) which the study has revealed as factors that could predispose positive attitude towards the use of computer. The finding is corroborated by Johnson et al. (1999) who noted a substantial positive correlation between computer self-efficacy and computer knowledge (experience). It is very safe to therefore conclude that students who are sufficiently comfortable with computer and information technologies as a result of their experience, knowledge and self-efficacy would easily develop new computer skills throughout their careers, consequently improving positive attitude towards computing.

CONCLUSIONS

This study has revealed that a linear combination of computer experience and computer self-efficacy will produce a significant influence on the attitude of students towards the use of computer. The effect of the interaction of these computer-related factors implies that there is need to integrate computer use into the curriculum at all levels of learning (primary, secondary and tertiary). Early exposure of students to computing in their course of study by giving them tasks to carry out with computer will help them to build confidence in their ability to use common computer applications without fear when their instructors integrate computer use into their courses in the universities. This is in line with the suggestion by Shaw and Giacqinta (2000) that faculty should in addition to integrating computer use in their courses, make regularly available a wide range of short-format, hands-on workshops and demonstrations in which undergraduates can be given individual attention. Computer laboratories equipped with internet facilities should be provided in the university libraries and the faculties for students to use.

RECOMMENDATIONS

The following recommendations are made to improve the Computer experiences, Self-efficacy and attitude of the students.

1. Computer use should be integrated into the curriculum at all levels of learning (primary, secondary and tertiary).
2. Computer literacy should be made a compulsory admission requirement for the entering students.
3. Lecturers should encourage the students to develop Computer self-efficacy and positive attitude towards computer by ensuring that teaching and learning processes require the use of computers.
4. Computer and Internet facilities should be made accessible to the students at no charges or at affordable charges.
5. Training programmes should be regularly organized for the students for the acquisition of computing skills.
6. Computer laboratory with Internet connectivity should be provided for the students to enhance their hand-on-experience and for practical purposes.

REFERENCES

- Busch, T. (1995). Gender differences in self-efficacy and attitudes toward computers. *Journal of Educational Computing Research*, 12: 147-158.
- Butzin, S.M. (2000). Using instructional technology in transformed learning environments: An evaluation of project child. *Journal of Research in Educational Computing Education*, 33(4): 367-384.
- Harrison, A.W. & Rainer, R.K. (1992). The influence of individual differences on skill in and-user computing. *Journal of Management Information Systems*, 9(1): 93-111.
- Hopson, M.H.; Simms, R.L. & Knezek, G.A. (2002). Using a technologically enriched environment to improve higher-order thinking skills. *Journal of Research on Technology in Education*, 34(2): 109-119.
- Jegede, P.O. (2007). Computer attitude as correlates of computer self-efficacy among South Western Nigerian higher education teachers. A paper presented at the Sixth International Internet Education Conference and Exhibition, September 2-4, Ramses Hilton, Cairo, Egypt.
- Johnson, D.M.; Ferguson, J.A. & Lester, M.L. (1999). Computer experiences, self-efficacy and knowledge of students enrolled in introductory university agriculture courses. *Journal of Agricultural Education*, 40(2): 28-37.
- Johnson, D.M.; Ferguson, J.A. and Lester, M. (2001). Computer experiences, self-efficacy and knowledge of freshman and Senior agriculture students. Retrieved from <http://pubs.aged.tamu.edu/conferences/SRAER C2001/pdf> on 6/5/2008.
- Karsten, R. & Roth, R.M. (1998). Computer self-efficacy: A practical indicator of student computer competency in Introductory IS courses. *Information Science*, 1(3): 61-68.
- Kim, C.S. and Keith, N.K. (1994). Computer literacy topics: A comparison of views within a business school. *Journals of Information Systems Education*, Summer, 6(2): 55-57.
- Kumaravel, J.P.S. 2005. University librarians' changing role. Retrieved from <http://www.sla.org/documents> on 9/2/2008.
- Loyd, B.H. & Gressard, C. (1984). The effect of sex, age and computer experience on computer attitudes. *AEDS Journal*, 18(2): 67-77.
- Monk, D.; Davis, P.; Peasley, D.; Hillman, P. & Yarbrough, P. (1996). Meeting the needs of CALS students for computing capabilities: Final report of the ad Hoc committee on College of Agriculture and Life Sciences student computing competencies. Ithaca, N.Y: College of Agriculture and Life Sciences, Cornell University.
- Sam, H.K.; Othman, A.E.A. and Nordin, Z.S. (2005). Computer self-efficacy, computer anxiety, and attitudes toward the Internet: A study among undergraduates in Unimas. *Educational Technology & Society*, 8(4): 205-219.
- Shaw, F.S. & Giacquinta, J.B. (2000). A survey of graduate students as end users of computer technology: New roles for the faculty. *Information Technology, Learning and Performance Journal*, 18(1): 21-39.
- Tella, A. & Ayeni, C.O. (2006). The impact of self-efficacy and prior computer experience on the creativity of new librarians in selected Universities Libraries in Southwest Nigeria. Retrieved from <http://www.webpages.uidaho.edu/~mbolin/tella.htm> on 13/3/2009.

- Umoren, G. (2009). Computer self-efficacy, computer anxiety and attitudes towards the Internet. A study among undergraduates in University of Calabar. Retrieved from <http://t.08.cypublisher.com/prposals/198> on 17/4/2009.
- Woodrow, J.J. (1991). A comparison of four computer attitudes scales. *Journal of Educational Computing Research*, 7: 165-187.
- Yates, G.C.R. & Chandler, (1994). The cognitive psychology of knowledge: Basic research findings and educational implications. *Australian Journal of Education*, 35: 131-153.
- Zhangs, Y. & Espinoza, S. (1998). Relationships among computer self-efficacy, attitudes toward computers and desirability of learning computing skills. *Journal of Research on Technology in Education*, 30(4): 420-436.