



Computer Phobia and Secondary School Students' Attitude towards Computer and Internet Usage in Cross River State, Nigeria

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Abstract

The study examined the effect of Computer phobia and secondary school students' attitude towards Computer and Internet usage in Cross River State. The fear students' associate with the use of computer and internet affect their skills and knowledge acquisition in any subject that require their usage. A correlation research was adopted for the study. A purposive sampling technique was used to select secondary schools, while stratified random sampling technique was used to select secondary schools from 3 different education zones. A total of 562 secondary schools are in the 3 zones, out of which 20 secondary schools were used. There are 6,087 senior secondary school one (SSS1) students in the sampled schools. The sample of 600 students was obtained using Taro-yemene's formula. The researcher's-made instrument on computer phobia and attitude towards computer and internet usage questionnaire (CPACTIQ) was used for the collection of data. Information on personal data as well as a four-point modified Likert-type scale with 45 items was adopted. The instrument was validated by experts in psychology as well as in test and measurement for face, content and construct validity. Reliability of the instrument was determined using Kuder-Richardson (K-R) 21 analysis method. Reliability coefficients obtained were 0.65, 0.81 and 0.83 for computer phobia, attitude towards internet and attitude towards computer usage respectively. Multiple Regression analysis was used to analyze the data. Results obtained shows that, computer phobia significantly relate to secondary school students' attitude towards computer and internet usage. With low level of computer phobia students' attitude towards computer and internet usage is slightly affected. As such it was recommended that, student's confidence should be built up in other to avoid any form of fear. Schools should have well equipped computer laboratories with internet connection. Skilled teachers should be available to help students. Apart from government, NGOs, school community and individuals should come to the aid of the school and help in providing computers for learning.

Keywords: Computer phobia, students' attitude, computer and internet.

Introduction

The education sector has it shear of benefit from this more recent technological innovation through some level of Information and Communication Technology (ICT) applications in secondary schools. ICT, according to Economic and Social Commission for Asia and the Pacific (ESCAP) (2000), is referred to as 'technologies people use to share, distribute, and gather information and to communication through computers and computer network'. Aginam (2006), in June 2003, at the African Summit in South Africa, the New Partnership for African (NEPAD) launched the e-school initiative, intended to equip all African high schools with ICT equipment, scanners, digital cameras, and copiers, among other things. Some of the countries involve are Nigeria, Algeria, Burkina Faso, Cameroon, Republic of



Congo, Egypt, Gabon, Lesotho, Mauritius, Mozambique, Rwanda, Senagal, South Africa and Uganda. The summit was meant to connect African students to the internet. The aim of the initiative was the impartation of ICT skills to young Africans in primary and secondary schools, and to harness ICT to improve, enrich and expand education in African countries. However now, the use of computer has touched every area of life, as communication is done faster, researches are carried out to benefit man in everyday life.

The computer is an electronic machine for carrying out complex calculations dealing with numerical data or with stored items of other information (Macmillan School Dictionary, 2004). The need for computer in secondary schools for students use cannot be over emphasized. As a result of technological advancement, students are trained in the use of computer to increase their knowledge of computer and internet usage. Thus, this calls for early acquisition of computer skills by students. Contrary to the above statement, Papastergiou and Solomonidou (2005) noted that not every student has the opportunities to computer access and usage. Students not having access to computer as stated by Papastergiou and Solomonidou is a cause for concern, as it is a problem in this era when new technology is very important and is widely spread. The internet also is largely instrumental too in shifting the emphasis in learning environments from teacher centre learner centre, where teacher now moves from sources of information and transmitters of knowledge to becoming guides for the students learning and so helping students to be actively involved in their own learning. The computer offers challenges to the student and arouses curiosity in them to explore and become more confident to tackle possible phobia problems. The study sets out to explore computer phobia and secondary school students' attitude towards computer and internet usage in Cross River State.

Passer and Smith (2001) explain that phobias are anxiety disorder characterized by an intense fear of specific objects or situations, which are strong and irrational. They maintained that, the individual may realize that the fear is irrational, but unable to control it; hence he or she thus avoids the feared object or situation. From the explanation given by Passer and Smith, students with phobia may feel helpless to deal with these fears; as a result, they will make strenuous efforts to avoid the phobic situation or object, thereby influencing their attitude. Cooper (2006), explain phobias as adverse anxiety reactions to the use of objects or situations, thus, fears make students helpless and they try to avoid the phobic situation. Phobias as defined by Saade & Kira (2006), are fears which often have unpleasant side effects and may include strong negative emotional state that arise during interaction with objects, in this case the computer and internet usage.

Computer phobias are fears associated with the use of computers that make some students run from its usage thereby hampering the acquisition of its skills, hence low performance in computer application as well as developing a negative attitude towards its usage. These fears make students worry constantly and can impair their ability to learn computer and internet usage successfully. Students who have phobia of computer and internet tend to have a negative attitude towards their usage. Phobia reinforces students negatively. When fear is excessive it might likely interfere with a student functioning properly since the feared object (computer and internet usage) will be avoided. Study on technophobia and its impact on adults learning to use computer by Longe and Uzoma (2007), shows that, learning to use computer that causes system malfunction does not cause phobia. Their result rather shows that gender plays an important role in the acceptance of technology and phobia does not cause any health risk to the respondents (the adults used). These led Longe and Uzoma to conclude that, it is important to reduce anxiety because it has negative effect on learning. This they suggest can only be done by creating a comfortable learning environment.

Allan (2008) explained that Freudian psychoanalytic theory of phobia is based largely on theories of repression and displacement and is believed that phobias are products of unresolved conflict between the impulses of the id, ego and superego. The Id is the part psyche that is unconscious, it is the most primal and instinctive part of the mind and it is the basis of such primal emotions as fear and anxiety. Superego is the selfless higher conscience, adding value judgments and the concept of guilt, while Ego is the rationale moderator between the id and the superego. The ego is used to control the id. Performance of students in learning to operate the computer and use the internet can be affected negatively when they develop phobia towards acquisition of study skills in the operation of the computer and the use of internet. Computer phobia, according to Tekinarslam (2008), is an important problem in many societies since many people carry negative attitude to the computer class and avoid using computer despite the big infusion of it in everyday life. Phobia has been perceived as a problem which has gradually reached its climax and threatens some secondary school students towards acquiring computer skills.

Attitude, according to Ormrod (2006) is a favorable or unfavorable evaluative reaction toward something or someone exhibited in one's belief or intended behavior. Ormrod further explained that attitude is a social orientation which is an underlying inclination to respond to something favorable or unfavorable. Components of attitudes as explained by Ormrod (2006) and Kandallrr (2012) are cognitive, affective and conative or behavior. In their explanation, cognitive component is frequently stereotype; helps people to structure the world to make sense. It involves thoughts, beliefs and ideas about something. Affective components helps people to cope with emotions or feelings that something, such as fears, sympathy and hatred, evokes. Conation or behavior component helps people achieve rewards and gain approval from others. Attitude, thus help define, identify, guides actions and influence how students are judged. As such, a student develops favorable attitude towards learning computer when he or she feels it is instrumental to the goal he or she has, like browsing the internet.

Attitude is a positive or negative evaluative reaction towards a stimulus such as towards a person, action, setback or concept (Khera, 2014). Khera emphasized how attitude determine how people (also students) looks at setbacks. Such that to a positive thinker, an attitude can be a stepping stone to success; to a negative thinker, it can be a stumbling block. Khera further explained that every problem comes with an equal and greater opportunity, and use foundation of success to explain attitude by stating that Calgary Tower, which stands at 190.8meter tall with a total weight of 10,880 tons, has 6,349 tons of the foundation below the ground, that is, approximately sixty percent of it. This explanation of Khera shows that some of the greatest buildings have the strongest foundations. As a great building stands on a strong foundation, so does success in internet usage will depend on a solid foundation in computer usage. Similarly, a study conducted by Al Mahmud (2011) showed that students have positive attitude towards using the internet as a learning tool, and have adequate basic knowledge of internet. Al Mahmud explained that students viewed internet as the fastest way to attain knowledge, and has potential to be an effective training tools.

Study carried out by Abedalaziz, el ta (2013) on measuring students' attitude towards computer and internet show that students have high level perception of the usefulness and control of computer and internet: no significant differences were found between students who participated and attitude towards computer and internet related with gender: and students' attitude toward computer is age related. They concluded by saying that computer and internet allows for establishment of comparability with many studies in different cultures and languages. In a descriptive design survey carried out by Bukaliya and Mubi



(2013) on students' perception on factors hindering the implementation of computer, came out with the result that there is no budget for computer procurement in majority of schools by the government; that most knowledgeable teachers were not willing to teach due to lack of equipment and unavailability of in-service computer training programs and that heads of schools and students had a positive attitude towards computer education. Bukaliya and Mubi recommended that schools should be levied through policy statement; Computers should be sourced from organizations; government should make computer usage compulsory. Teachers should be trained through in service programs and finally, communities should be made conscious of the importance of computer education and to inculcate in them a paradigm shift. For learning to actually take place students should be able to have access to computer and internet facilities in order to improve their attitude positively towards learning how to use them.

Irrespective of age in this era, people are attracted to the electronic media (like the computer and internet) as such in teaching computer skills in schools, the necessary facilities for teaching or impacting the knowledge have to be available for the students to learn with. Where computers are not available students develop negative attitude and at times phobia towards learning with the computer, thus affecting their attitude. Computer phobia will make students to shy away from computer usage and they will not be familiar with its operation and in another way it can motivate students to put in more effort in learning to out-perform their peers.

Purpose of the Study

The study was aimed at determining the extent to which computer phobia relate to secondary school students' attitude towards computer and internet usage in Calabar South, Calabar Municipality, Ikom and Obanliku Education Authorities in Cross River State.

Methodology

A correlation research was adopted for the study. The study area is Cross River State. From the three (3) Education Zones, four (4) local government education authorities were selected using stratified method. The government education authorities chosen were, Calabar South, Calabar Municipality, Ikom and Obanliku. Calabar South has 34 private and public secondary schools, Calabar Municipality has 47 schools, Ikom has 37 schools, while Obanliku has 18. Total population of SSS1 students in the four education authorities were 6,087 students made up of 2,849 males and 3,238 females. Population of the study comprises all senior secondary school one (SSS1) students in both private and public schools where computer science is taught and has computer and internet services for students to use. Public schools with computers were not enough for the study, hence the need to use private schools also. Six(600) hundred respondents were chosen from 20 secondary schools. Purposive sampling technique was used to select secondary schools that have computer for students. Proportional stratified sampling was used to select equal number of male and female students.

Instrumentation

A validated instrument used for the study was computer phobia and attitude towards computer and internet usage questionnaire (CPATCIQ) and made up of 45 items, of which 15 items each were used for measuring computer phobia, students' attitude towards computer usage and lastly students' attitude towards internet usage respectively. A reliability range of 0.65, 0.81 and 0.83 were obtained for computer phobia, attitude towards internet usage and attitude towards computer usage respectively. The reliability was



determined using Kuder – Richardson (K - R) 21, while the pilot test was conducted using a total of 30 respondents who were not part of the main study.

Analysis of Data

The data was analyzed using Multiple Regression test analysis

Result

The data was analyzed using Multiple Regression analysis. The hypothesis states that computer phobia is not significantly related to secondary school students' attitude towards computer and internet usage. The results are presented in the Table shown below.

Regression of students' computer phobia on their attitude towards computer and internet usage (N=600).

Source of variables	sum of square	df	mean square	F	Sig
Regression	1401.545	2	700.773	3.810*	0.000
Residual	109792.028	597	183.906		
Total	111193.573599				
Variables	B	Std. Error	Beta	t	Sig
(Constant)	24.237	5.774	-	4.198	0.000
Computer usage	0.72	0.74	0.41	0.967	0.240
Internet usage	0.569	0.207	0.117	2.755	0,020

* $p < 0.05$, Critical $F = 3.00$; $df = 2, 597$; $R = .112$; $R^2 = .013$; Adjusted $R^2 = .009$; Std Error = 13.561

The Regression Analysis presented in the Table shows a regression equation as follow; $Y' = 24.237 + 0.72(X_1) + 0.569(X_2)$. The results revealed that, the calculated F-ratio of 3.810 is greater than the critical F-ratio of 3.00 at 0.05 significant level with degrees of freedom of 2, 597. This means that, there is significant relationship between computer phobia and students' attitude towards computer and internet usage. Put in another way, computer phobia relate to students attitude towards computer and internet usage. Results also show the relative coefficients for each of the independent variables. The regression coefficient (B) for computer usage is not significant ($t = .967$, $p = .240$) but internet usage is significant ($t = 2.755$, $p = .020$)

The multiple correlation coefficient (R) is 0.112 and it is significant at 0.05 significance level. This implies that computer phobia is significantly related to computer and internet usage. The coefficient of determination (R^2) was 0.013. This shows that 1.3% of the variation in students' computer phobia is explained by the variation in their attitude towards computer and internet usage. This further implies that 98.7% (1-R) of the variations in students' computer phobia can be attributed to variations in extraneous variables not controlled in the study. Going by the finding, the null hypothesis was rejected, showing the

strength of influence of 0.72 and 0.569 as well as t-values of 0.967 and 2.755 on computer phobia by students' attitude towards computer usage and internet usage. The result implies that with low level of computer phobia students demonstrated a little positive attitude towards computer and internet usage.

Discussion of Finding

The results of the analysis in the Table show that the calculated F-ratio of 3.810 is greater than the critical F-ratio of 3.00 at 0.05 significant levels; also the t-values that were arrived at for computer usage and internet usage are 0.967 and 2.775 respectively. However internet usage recorded a higher response than computer usage probably as a result of students having access to smart phones than computer. From the evidence in the observed values, neither computer usage nor internet usage individually significantly relate to computer phobia. The t-values for both did not reach the significant t-value of 4.198. The finding revealed that computer phobia relate to students' attitude towards computer and internet usage. This shows that students' attitude towards computer and internet usage is moderate as computer phobia is low. Thereby showing that students' attitude towards computer and internet usage is slightly affected by phobia. This occurs as a result of fear associated with the use of computer and internet. Fears as it is normally interfere with studies and make students to avoid the phobic object, thus impairing students' ability to learn. In line with this study however, Tekinarslan (2008), explained that computer phobia is an important problem in many societies since many people carry negative feelings and attitude towards computer class and avoid using computer despite the big infusion of computers in every part of life. Computer phobia has been perceived as a problem which has gradually reached its climax and threatens some secondary school students towards acquiring computer skills. The existence of computer phobia demands urgent attention and action in order to stop its impact on secondary school students in the society in general. In a related study carried out by Kubiato et al (2011), on concrete computer enjoyment and computer anxiety, the final results they had shows that girls have more positive attitude towards computer usage than boys. Though, they commented that, other existing literature shows that boys have more positive attitude towards computer usage than girls. They concluded that perhaps a change is taking place. Change itself in the positive direction is important if learning is to take place and create a more positive attitude towards the usage of computer and internet among students.

Conclusion

The finding of this study shows low level of computer phobia as such a slightly affected attitude towards computer and internet usage among students. Positive attitude are necessary if a student is to achieve success in school and it makes learning experiences successful. The availability of computer and internet for learning help to create a favorable learning atmosphere in the classroom, thus making teaching and learning more quantitative and qualitative. Phobia which is a setback, needs to be tackled before it gets out of hand, that is students need instructional materials or computer and internet to enable them practice effectively, as well as building positive attitude towards the use of computer and internet.

Recommendations

1. Students confidence should be built up in the use of computer and internet.
2. They should be encouraged not to have fear of any sort in operating the computer and internet.



These can be achieved by making the computers and internet services available for students' use in schools. Government, NGOs, communities as well individuals can assist to provide computers. Teachers should undergo regular training, so as to be able to impart the appropriate knowledge and guidance expected.

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