COMPUTER SELF-EFFICACY AND STUDENTS' ATTITUDE TOWARDS COMPUTER AND INTERNET IN SELECTED PRIVATE SCHOOLS IN AKWA IBOM STATE, NIGERIA

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Abstract: The purpose of the study was to investigate if there was any relationship between students'' computer self efficacy and their attitude towards computers and internet in selected private secondary schools in Akwa Ibom State, Nigeria. To achieve these objectives, two research questions were raised and converted to hypotheses. A survey design was used in the study. The study population consisted of all SS2 students of private secondary schools in Akwa Ibom State. The sample of the study was six hundred students drawn using the stratified random sampling technique. Students' computer self-efficacy and attitude to computers and internet questionnaire (SEACIQ) was the instrument used to collect data. Data analysis was done using Pearson Product Moment Correlation (r). Findings revealed that there was a significant positive relationship between students' computer self-efficacy and attitude toward computer and internet. It was concluded that students' computer self-efficacy influenced students attitudes towards computer and internet. It was recommended among others that some of their test and examinations if not all should be computer and internet based to help them develop positive attitudes towards computer and internet for self efficacy in this age of technological advancement.

Keywords: Computer self-efficacy, computer attitude, internet attitude, private secondary schools.

1. INTRODUCTION

Learning is the development of new knowledge, skills or attitudes as an individual interacts with information and the environment with the aim of changing ones behaviour. The learning environment includes the physical facilities, the psychological atmosphere, instructional methods, media and technology. Thus, the learning process involves the selection, arrangement and delivery of information. The level of interaction depends on the learners' attitude to the learning process which brings about efficiency in learning.

Attitude to the computer and internet have been consistently found to be an important variable in educational computing (Leu and Bera, 2003) and plays a role in students success in computer related tasks. An attitude can be defined as a way of being "set" for or against something (Murphy, Coover & Owen, 1989).This definition includes motivational perspectives, example, a state of readiness to act or respond, and cognitive perspectives, example, the individual's beliefs and cognitions. An attitude is an internal state that influences behaviour. We can infer these internal states from an individual's action and words. We can say therefore, that a person who actively avoids computer has a negative attitude

toward it. Ogunkola (2008) undertook a study to investigate the effect of computer attitude on one hundred and twenty subjects (120) and found that subjects generally displayed favourable dispositions towards computers. He linked his result with Dusuk (1998) who states that attitude is an evaluative disposition related to past behaviour intentions. Yuen and Ma (2001) observed that students' attitudes towards computers are critical issues in computer course and computer based curricular. They stressed that monitoring the users attitudes towards computers should be a continuous process if the computer is to be used as a teaching and learning tool.

Attitudes are known to influence future behaviour and have implications for such things as the use of computer and computer self efficacy. Kay (1990) Observed that attitudes is highly dependent on past experience and how these past experiences influence the individual as he or she approaches new situations. Bohlin (1999) observed that learned cognitions have scored an individual's perceptions about computers and internet; a change in the individual's attitude towards and response to computers and internet will require a change in the individual's cognitions about them.

On the other hand, self-efficacy represents the perceived ability to accomplish a task rather than simple component skills (Compeau and Higgins, 1995). Computer self-efficacy represents a comprehensive judgement of one's ability to perform a task. It is not a static or stable trait, but rather a situation-specific, dynamic judgement that changes with acquired information, such as the change of environmental setting or the change of tasks conditions and feedback. Self-efficacy has been found to be a major determinant of computer attitude (smith-Jentsch, Jentsch, Payne and Sales, 1996) and relates to both the acquisition and transfer of skills and positively relates to learning (Compeau and Higgins, 1995).

Doyle, Stamonli and Huggard (2005) in their study of self efficacy and attitudes towards computers and internet observed a hypothesised relationship between self-efficacy and attitudes towards computer and internet. Liang and Tasi (2008) in their study recorded that higher self-efficacy resulted in higher positive attitudes towards computer and internet. They concluded that computer self-efficacy is the prerequisite condition for a positive attitude towards computer and internet. Abbitt and Klett (2006) on their study on the influence of self-efficacy beliefs towards technology integration among students found out that perceived positive attitudes to computers and internet was a significant predictor of self efficacy and attitudes towards technology integration.

Balogun and Olanrewaju(2016) in their finding concluded that undergraduates who had low level of computer self-efficacy had decreased positive attitude towards computers. They maintained that undergraduates with higher levels of computer self-efficacy were assertive and may often see computer-related activities such as Computer Based Test used by JAMB as a challenge to be tackled and not as a threat to be avoided or shy away from. Thus, the level of computer self-efficacy plays a significant role in the intention to use a particular system and the students' attitudes towards such technology.

The problem, however, is that although computer sets and internet facilities are handy in these schools, the level of competence by some students seems to be quite low. Another element to the problem is the level of effectiveness of the students in computer and internet use. The problem of this study was therefore to determine the influence of computer self-efficacy and attitudes of students to computers and internet in selected model secondary schools in Akwa Ibom State, Nigeria. This problem has raised the question, what is the influence of computer self-efficacy skills on students' attitude towards computers and internet?. The purpose of the study was to examine the influence of computer self-efficacy on the attitude of students to computer and internet in selected model schools in Akwa Ibom State.

Research questions

The following research questions were posed to guide the study.

i. To what extent does computer self-efficacy skills among students relate to their attitude towards computers?

ii. To what extent does computer self-efficacy among students relate to their attitude towards the internet.

Research hypotheses

The following hypotheses were tested in the study.

i. Students' computer self-efficacy skills do not significantly relate to their attitude towards computers.

ii. There is no significant relationship between students' Self-efficacy and their attitude towards the internet.

2. METHODS

The research design was a survey design. This means that there was no manipulation or control of the independent variables.

The population of the study comprised all senior secondary two (SS2) students in all selected private schools in Akwa Ibom State. Senior secondary two (SS2) students were used because of their expected reasonable experience due to their exposure to the computers right from their junior secondary level.

A total of fifteen (15) private secondary schools with computer and internet facilities were randomly selected. In each of the 15 schools, forty students were randomly selected. This consisted of 20 males and 20females

Thus the sample for the study was six hundred (600) students. A breakdown of the figure shows that 300 subjects were male while the other 300 were female. The selection of an equal number of male and female students was to ensure equal representation of the sexes in the study.

The instrument for the study was a questionnaire titled students self-efficacy and attitude towards computer and internet. The questionnaire was divided into four sections. The first section sought information on students' gender, section B, on students' level of computer self-efficacy, section c, was for information on internet attitude skills and section D for information on computer attitude scale.

In the study, face validity was established. The Cronbach reliability coefficients of the instrument were as follows:

Computer self-efficacy = .942, Internet attitude =.567,

Computer attitude = .510

3. RESULTS

Hypothesis 1

Students' computer self-efficacy skills does not significantly relate to their attitude towards computers. The hypothesis was tested using Pearson Product Moment Correlation statistics. The results are shown in Table 1. As shown in Table 1, the calculated r value is .380, indicating that there exists a positive relationship between students' computer self-efficacy and their attitude towards the computer. The observed positive relationship implies that as students' computer self-efficacy increases, their attitude towards computers also increases or becomes more positive.

This means that the observed positive relationship between students' computer self-efficacy and attitude towards computers is statistically significant at .05 level and 598 degrees of freedom. Therefore, the null hypothesis was rejected

Table 1: Pearson Product moment correlation analysis of the relationship and attitude towards the internet

Variables	N	X	S	$\sum x^2 \sum y^2$	$\sum^{xy}$	r	sig
Self-Efficacy	600	93.66	13.908	115858.64	21335.24	.380*	0
Computer Attitude	600	60.157	6.738	27193.173			

*p‹ .05   df=598

Hypothesis 2

There is no significant relationship between students' self-efficacy skills and their attitude towards the internet. Pearson Product Moment Correlation statistics was used in testing the hypothesis because the independent and dependent variables are continuous. The result is shown in Table 2. The result in Table 2 shows that the calculated r value is .460 which implies that there is a positive relationship between students' computer self-efficacy and attitude towards the internet. This means that students' attitude towards the internet increases with their computer self-efficacy.

The observed positive relationship between students computer self-efficacy and attitude towards the internet is however, statistically significant at .05 level and 598 degree of freedom. Therefore, the null hypothesis was rejected.

Table 2: Pearson product moment correlation analysis of the relationship between students' computer self-efficacy and attitude towards the internet. (N=600)

Variables	N	X	S	$\sum x^2 \sum y^2$	$\sum^{xy}$	r	sig
Self-Efficacy	600	93.66	13.908	115858.64	23185.96	.460*	0
Computer Attitude	600	60.157	6.144	24645.273			

*p‹ .05   df=598

4. DISCUSSION OF RESULTS

Computer self-efficacy and students' attitude towards the computers

The first hypothesis sought to find out whether students' computer self-efficacy skills significantly relate to their attitude towards computers. From the result of data analysis earlier presented, and the findings adduced, there existed a significant positive relationship between students' computer self-efficacy and their attitude towards computers.

This finding is in consonance with previous studies (Zhang & Espinoza, 1998; Pauli, Gilson, & May, 2007). They found out that intention to use the computer and attitude towards computers were mediated by the individual's computer self-efficacy. This study is also in support of the original model of social cognitive theory which argues that the effects of emotional arousal serve to change self-efficacy beliefs and that the primary determinant of behavior intention is self-efficacy beliefs. The effect of both self-efficacy and attitude towards the computer also provides support for the causal assumptions of the model.

Thus, the observed positive relationship in this study implies that as students' computer self-efficacy increases, their attitude towards the computer also increases or becomes more positive. This implication is supported by the studies of Doyle, Stamonli and Huggard (2005), Bronsnan and Lee (1998),   and Wilfong (2004) which confirm the existence of a significant positive relationship, demonstrating that as the level of computer self-efficacy increased, the attitude towards computer increased. The increase in computer self –efficacy may be as a result of training or regular use of computers. Team work and information flow can contribute to computer self-efficacy and a positive attitude to computers. This means that information flow has a positive and significant association with computer self-efficacy and attitude towards computers.

Computer self-efficacy and students' attitude towards the internet

The result of the second hypothesis showed that there existed a positive relationship between students' computer self-efficacy and their attitude towards the internet. This means that students' attitude towards the internet increased with computer self-efficacy. This finding has supports in the earlier work of Compeau and Higgins (1995), Smith-Jentsch, Jentsch, Payne and Sales, (1996), who noted that self-efficacy is a major determinant of attitude, acquisition and transfer of skills. Thus, the result of the study suggests that students' attitude towards the internet increased with their computer self-efficacy. This means that computer self-efficacy has a significant impact on an individual's attitude towards the internet. More so, the positive relationship that existed between students' computer self-efficacy and their attitude towards the internet may also be explained in terms of global sensitization of the use of ICT in schools. This helps to develop positive self-confidence and liking for this technology in students.

Also based on self-efficacy theory, students with strong self-efficacy beliefs exert a greater positive attitude to the internet while those with weak self-efficacy beliefs exert negative attitude to the internet. This means that the higher the level of self-efficacy skills of the students, the higher the positive attitude towards the internet and vice versa.

On the contrary, Stajikovic and Luthans (1998) found out that an individual's level of self-efficacy is affected by situational factors such as environmental contexts which may negatively influence self-efficacy and attitude to the internet by increasing personal anxiety through thoughts of failure. This emotional arousal may be perceived by the individual as signs of vulnerability to poor attitude. However, this emotional arousal is only one portion of the factors affecting self-efficacy and attitude to the internet and thus can be controlled.

5. CONCLUSION

In the study, there was a very high positive and significant relationship between computer self-efficacy skills and attitude towards computers and internet. It is therefore a fact that individual students even in a competitive environment would not use a technology if they do not develop a positive attitude to it and see the benefits relative to such technology and therefore will lack self-efficacy skills of such a technology. Developing positive attitudes to computers and internet is necessary for self-efficacy skills in computer, considering the fact that as a communication vehicle and for information delivery, computers and internet provide tremendous possibilities in all aspects of learning as well as all walks of human life.

RECOMMENDATIONS

Based on the findings of the study the following recommendations were made:

i. The teacher should introduce educational games or word processing in classroom computer instruction. This will open a way for a positive attitude to the computer and internet.

ii. The state secondary education board should organise psychological training that would help enhance students' computer self-efficacy for improved attitude towards computers and internet.

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