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PSYCHOLOGICAL FACTORS AS CORRELATES OF COMPUTER APPLICATION USAGE IN DATA ANALYSIS AMONG POSTGRADUATE STUDENTS IN UNIVERSITY OF PORT HARCOURT, RIVERS STATE, NIGERIA

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ABSTRACT: *The study investigated on the computer attitude, self-efficacy level and anxiety as factors associated with the use of computer in data analysis among post graduate students of the University of Port Harcourt. Three research questions and three null hypotheses were respectively answered and tested. A correlational design was adopted. A stratified sample of 364 students based on their mode and year of study, that is, Ph.D (2011/2013 = 427) Masters (2011/2012 = 2274) and Postgraduate Diploma (PGD 2012/2013 = 1376) were drawn from the population of 4.077. Hence the sample size was drawn using Taro Yamen formula. Four instruments were used for data collection and the reliability of the instruments were ascertained using the Cronbach alpha method and showed reliability coefficients of' 0.67, 0.77, and 0.72 and 0.94 for computer attitude, self-efficacy, anxiety and use of computer respectively. Data analysis was done with Pearson Product Moment Correlation statistics for answering and testing the hypotheses. Results revealed that there are low positive and significant relationship between computer attitude of post graduate students, positive, moderate and significant relationship between computer self-efficacy of post graduate students and negative, strong and significant relationship between the students computer anxiety level and their use of computer applications in data analysis. Based on the results recommendations were made including that government through the Federal and State Ministries of Education should ensure that knowledge of computer is incorporated in admission requirement of post graduate students.*

KEYWORDS: Computer applications. Attitude, Self-efficacy Anxiety, Data analysis, Research statistical soft wares, computer soft wares.

INTRODUCTION

There is clear and widespread agreement among the public and educators that the use of' computer in educational tasks is appropriate. This is why in Nigeria today computer education is perceived as new instructional and acceptable system that was designed to improve the quality of teaching and learning. It aids in technological and socio-economic development of a nation. Computer is used in various works of life and later occupational activities especially in the analysis of data. This accounts for why computer and related technologies provide powerful tools to meet the new challenges of designing. structuring and analyzing research data that go beyond the conventional manual practices and facilitate to record a broader repertoire of cognitive skills and knowledge. In the past, manual method was employed in analyzing research data but in recent time, computer means of analyzing research data in educational institutions in Nigeria has been vastly appreciated. This accounts for why scholars have different conceptualizations and regards about computer.

Computer according to Denzin and Lincoln (2005), is newly innovation that has come to play a bigger role in the analysis of' quantitative data. Computers have made a very vital impact on society by changing the way of doing things in the educational aspect of' the society. The technology has affected every field of life. People now used computer to perform different tasks quickly and easily, the use of computer makes different tasks easier, it also saves time and effort and reduces the overall cost to complete a particular work (Flores & Knaupt, 2007). Computer enables researchers to extract, categorize and interlink data segments from a large variety and volume of source documents. In fact unfamiliarity and unwillingness to use computer-based data management programmes can sometimes result in additional weeks work (Saetre, 2010). Further, Battle. (1997) argue that computer is a technological innovation under the control of stored programme that can perform some of the intellectual roles even beyond human capability. It is a power- driven machine equipped with keyboards, electronic circuits, storage compartments, and recording devices for the high speed performance of mathematical operations. Hence, computer could he said to be a man-made machine made up of electronic components that operates information at a very high speed to produce results that arc meaningful to the user. It is basically a processor of information. Computer is a machine designed to make life easier due to its speed, accuracy, ability to store large quantity of information and to carry out long and complex operation without human intervention. Computers, irrespective of type and size have five basic parts namely; Input Unit, Memory Units, Control Units (CU), Arithmetic and Logic Units (ALU) and Output Units. Both ALU and CU are joined into one piece of hardware known as the Central Processing Unit (CPU) which is the brain of the computer.

Dike (2010) has it that a computer is a programmable machine. From the foregoing, it is obvious that computer can execute a programme list of instructions and respond to new instruction that is given. Today however, the term is most often used to refer to the desktop and laptop computers that most people use. He opined that the term computer is referred to a programmable machine. Wokoma (2012) noted that the term computer technically, only refers to the "computer" itself and not the monitor, keyboard, and mouse. In describing the nature of computer, he noted that computer is still acceptable to refer to all these things together as the computer but in a more technical sense, the box that holds that motherboard, the drives and the memory is called the system unit. Computer is a programmable machine that can store, retrieve, and process data. Today, computers have at least one Central Processing Unit (CPU) that performs most calculations and include a main memory, a control unit, and arithmetic logical unit. Increasingly, Personal Computers (PC) contain specialized graphic processor with dedicated memory for handling the computations needed to display complex graphics, three dimensional simulations and gains (Wokoma, 2012). Use of computer according to Henderson cited in Chuks, Sussana & Darlina, (2014) stated that the use of computer in research data analyses provides numerous benefits and advantages to the researcher. They are provision of accurate, reliable and quick information, provision of' information flexibility to be used by an individual according to his or her requirements, provide increased flexibility and facilitation of reformatting and combining of data from different sources.

Equally, computer has been regarded by Anikpo (2011) to be a multi-tool for teaching and learning. It is a mech-electronic device that can help in the teaching, learning, documentary and analytical tasks in human endeavours. The uses of computer apart from that of research, has been adjudged to be efficient and effective. Its usage has become the divine force in the delivery of educational instructions and carrying out researches in educational institutions beyond. This has given credence to why the use of computer for data analysis has been

increasingly growing to meeting with the dynamics of research in general and educational research in particular. Again, Anikpo (2011) states that computer broaden students and researchers knowledge and level of understanding in the activities of research in education. This implies that the use of computer for the advancement of analyzing research data and processing compels the support and acceptance of the use of computer. This is because research data analysis acts as the constructive phase of evaluating an academic project, thesis or dissertation.

A computer application is software that is a subclass of computer software that employs the capabilities of a computer directly to a task that the user wishes to perform. This should be contrasted with system software which is involved in integrating a computer's various capabilities, but typically does not directly apply them in the performance of tasks that benefit the user. In this context the term application refers to both the application software and its implementation (Ceruzzi and Paul, 2000). Computer application is a set of one or more programs designed to carry out operations for a specific application. Application software cannot on itself but is dependent on system software to execute. Examples of application software include MS Word, MS Excel, the term is used to distinguish such software from another type of computer program referred to as system software, which manages and integrates a computer's capabilities but does not directly perform tasks that benefit the user. The system software serves the application, which in turn serves the user. Examples of types of application software may include accounting software, media players, and office suites. Many application softwares deal principally with documents. Applications may be bundled with the computer and its system software or published separately, and may be coded as e.g proprietary, open-source or university projects. The main roles of computer applications are automated information coding, automated information storage, automated information processing, automated information retrieval, automated speech recognition, automated computer assisted design and computer assisted diagnostic etc.

Data analysis is the process of evaluating data using analytical and logical reasoning to examine each component of the data provided. This form of analysis is just one of the many steps that must be completed when conducting a research experiment. Data from various sources is gathered, reviewed, and then analyzed to form some sort of finding or conclusion. There are a variety of specific data analysis method, some of which include data mining, text analytics, business intelligence, and data visualizations.

According to Shamoo and Resnik (2003), data analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data using various analytical procedures, and providing a way of drawing inductive inferences from data and distinguishing the signal (the phenomenon of interest) from the noise (statistical fluctuations) present in the data. An essential component to ensure data integrity in the accurate and appropriate analysis of' research findings is the aspect of computer application. It is important to point out that improper statistical analyses distort scientific findings, mislead casual readers, may negatively influence the public perception of research and may inform wrong policy formulation, (Shepherd, 2002). Therefore, there are number of issues that researchers should be cognizant of with respect to research data. Shephard (2002) further states that the emphasis has shifted from an understanding of how to calculate statistical tests to understanding where it is appropriate to use one test or another, how to interpret the research data and how to use computer application to analyze research data and produce output.

It is, after all, only through the analysis of our data that we begin to see our research questions finally illuminated.

The collection of quantitative data will usually require the recording of measures or indicators on a research instrument (a questionnaire or schedule) and then inputting the data into a computer analysis programme or application such as Statistical Packages for the Social Sciences (SPSS), Statistical Analysis System (SAS), STATA, MINITAB, etc. Statistical analysis techniques can be complicated owing to the widespread use of computers in analyzing quantitative data in research. However, there are some variables which associated with the use of computer application in the analysis of research data. Such factors include students' attitude, self-efficacy level and anxiety level towards the use of computer for research data analysis.

An attitude can be defined as a way of being "set" for or against something (Murphy and Newcomb. 2002). This definition includes both a motivational perspective (e.g., a state of readiness to act or respond) and a cognitive perspective (e.g., the individual's beliefs and cognitions). An attitude is an internal state that influences behaviour, which can be inferred from an individual's actions and words.

An attitude is an evaluation of a person's disposition towards an object, being or thing, ranging from extremely negative to extremely positive. It may be a positive or negative evaluation of people, objects, events, activities, and ideas. Hsu, Wang and Chiu (2009) define attitude as a psychological tendency expressed by evaluating a particular entity with some degree of favour or disfavour. Though it is sometimes common to define an attitude as affect toward an object, affect (i.e., discrete emotions or overall arousal) is generally understood to be distinct from attitude as a measure of favourability (Azjcn and Fishbein, 2005). For the purpose of the study, attitude can be defined as a way of' being "set" for or against something the use of computer for statistical problems mainly data analysis. This definition includes both a motivational perspective (e.g., a state of readiness to act or respond) and a cognitive perspective (e.g.. the individual's beliefs and cognitions). It is an attitude of internal state that influences behaviour. We can infer these internal states from an individual's actions and words. Therefore, computer attitude has been defined by Smith, Caputi and Rawstorns cited in Opara and Egbejule (2017) as a person's general evaluation or feeling of favours or antipathy towards computer technology and specific computer related activities such as data analyses. We can say, therefore, that a person who actively avoids computers has a negative attitude toward them and vice versa. In general, an individual will tend to avoid computers (be set against them) because of his or her conceptions (beliefs and cognitions) about them.

Mahmud and Zainol (2008) examined postgraduate students' attitude and competency in statistical data analysis. The findings revealed that students attitude toward statistics, whether, positive or negative, influence their attitudes toward statistics in data analysis. In another study by Isman, Caglar, Dabaj, Altinay and Altinay, (2002), they were of the view that there is a positive relationship between students' attitude and computer usage as students give importance to the computers as a part of their life. In addition to this, research results represent that high percentages concentrated on that there are positive attitudes towards computers because of being tool to organize data and life efficiently.

Computer self-efficacy is a belief of one's capability to use the computer with high confidence On the other hand previous computer experience may lead students to believe computer applications courses are easy, (Sam, Othman, & Nordin. 2005). Computer self-efficacy has a major impact on an individual's expectations towards using computers for data analysis. Saade

and Kira (2009) defined self-efficacy as an individual's belief in his/her ability to perform a task for producing specific outcome, which may impact personal engagement, effort, and persistence. Within this context, computer self-efficacy is a specific type of self-efficacy referring to a belief of one's capability to use the computer, especially in data analysis. Sam, Othman, and Nordin (2005), see computer self-efficacy as a belief of one's capability to use the computer with high confidence in their ability to use computers. Also they further, argued that better computer self-efficacy could increase persistence in studying computing and in data analysis.

Computer self-efficacy has been shown to be positively related to performance during computer training. A student's confidence about computer skills may affect the willingness to learn about computer skills especially in analyzing data. The less confident a student feels about computer skills, the more he or she desires to learn about computer technology. Sam, Othman, and Nordin (2005), found that computer self-efficacy associated with attitudes toward computer technologies and that past enrollment in computer programming courses was found to be positively related to self-efficacy and computer self-efficacy positively related to plans to take more computer related courses such as statistics in data analysis.

According to Henderson (1995), anxiety is viewed as a drive that motivates the organism to avoid the stimulus for anxiety. This implies that an individual will avoid the use of a computer in the presence of computer anxiety and if possible, in research data analysis. Also, he referred to anxiety as "a diffuse, unpleasant, vague, sense of apprehension often accompanied by autonomic symptoms. Specifically, computer anxiety involves an array of emotional reactions including fear, apprehension, uneasiness, and disrupt of computer application in research data analysis and in general.

Computer anxiety has been defined as a fear of computers when using one, or fearing the possibility of using a computer, especially in data analysis (Sam, Othman, & Nordin, 2005). It is different from negative attitudes toward computers that entail beliefs and feelings about computers rather than one's emotional reaction towards using computers. Computer anxiety is characterized as an affective response, an emotional fear of potential negative outcomes such as damaging the equipment or looking foolish. From an information processing perspectives, the negative feelings associated with high anxiety detract cognitive resources from task performance. Thus the performance of participants with higher computer anxiety might be poorer than those with little or no computer anxiety.

A high level of computer anxiety, on the other hand, has been negatively related to learning computer skills, resistance to the use of computers and poorer task performance. These three characteristics can have an important impact on computer use and ability to learn to use computers for data analysis. Ali, and Iqbal, (2012) in their study on sixty-six (66) gradates of psychology to ascertain if there is a positive relationship between students anxiety and statistics, found out that there is a positive relationship between students anxiety and statistics, negative relationship between comfortablilty in solving mathematics problem and statistics. In Shah, Hassan, and Embi, (2011), it was also found out in their study on computer anxiety in data analysis among students, that there is a significant negative relationship of computer anxiety on data analysis.

The advantages of computer application in research data analysis have gained support in the area of speed, flexibility, time economy, handling of large amount of information (data), making feasible complex analytical processes, sophisticating and increasing the status and

credibility of research projects. These advantages have in no small way made computer programmes very useful in carrying out research projects. However, in the midst of' these advantages of computer in educational research data analysis, one would have thought that its usage in analyzing research data would have appreciated. But, what is observed in the higher educational institutions is that researchers who could use computer to perform various tasks hardly use it for the analysis of data. In this context, through the personal observation of the researchers, many do not have the capability of using computer in data analysis. This dissatisfactory situation has become a great concern and bothered the curiosity of the researchers to ask questions on factors responsible for the relatively poor usage of computers in analyzing research data. It is against this background that this present study seeks to examine students' computer attitude, self-efficacy and anxiety as factors associated with the use of computer application in the analysis of research data in University of Port Harcourt.

Specifically, the objectives of the study were to: assess the extent to which computer attitude, self-efficacy and anxiety level of postgraduate students relate to their use of computer applications in data analysis in the University of Port Harcourt.

Three research questions guided the study.

1. What is the relationship between computer attitude of postgraduate students and their use of computer applications in data analysis in the University of Port Harcourt?
2. What is the relationship between computer self-efficacy of' postgraduate students and their use of computer applications in data analysis in the University of' Port Harcourt?
3. What is the relationship between computer anxiety level of' postgraduate students and their use of computer applications in data analysis in the University of' Port Harcourt?

The following null hypotheses postulated and tested at 0.05 alpha level guided the study.

1. Computer attitude of postgraduate students does not significantly relate to their use of computer applications in data analysis in the University of' Port Harcourt.
2. Computer self-efficacy of postgraduate students does not significantly relate to their use of computer applications in data analysis in the University of Port Harcourt; and
3. Computer anxiety of postgraduate students does not significantly relate to their use of computer applications in data analysis in the University of Port Harcourt,

METHOD

This study adopted a correlational research design. This is suitable in this research because it is a method of establishing the nature (whether positive or negative) of a relationship between two variables. In this respect, Nwankwo (2011) states that a correlational form of relationship or association studies usually involves finding out whether there is any relationship between two or more variables by correlating the scores from the variables involved. He further said that the variables must yield scores to be correlated to obtained coefficient value(s) using various methods such as Pearson Product Moment correlation (r),

The sample size of the study was 364 Post Graduate Students of University of Port Harcourt. A sampling technique used was stratified random technique where the population of the study

is divided into their modes of' study, that is, Ph.D (20l1/2013 427), Masters programme (2011/2012 2274) and Postgraduate Diploma (PGD 2012/20 13 1376), and that gives a total of 4,077 the sample size was then determined using Taro Yamen sampling method. The instruments for data collection in this study were Use of Computer Application Questionnaire (UCAQ), Computer Attitude Scale (CAS), Computer self-efficacy Scale (CSS), and Computer Anxiety Questionnaire (CAQ). After developing the instruments, the construct validity was established by subjecting it to factor analysis; and critical assessment by two experts in Educational Measurement and Evaluation in the Faculty of Education, University of Port Harcourt. The reliability coefficients of the research instruments were determined using Cronbach Alpha Method (CAM). And the reliability coefficient indices of 0.67 were obtained for Computer Attitude Scale; 0.77 for Computer Self-efficacy Scale; 0.72 for Computer Anxiety Questionnaire and 0.94 for Use of Computer Application Questionnaire. This means that the instruments were consistently reliable, and therefore were used for data collection in this study.

Specifically, the Pearsons Product Moment Correlation (PPMC) was applied in addressing the research questions and testing the null hypotheses respectively. The choice of this analytical method is apt because of the nature of the research questions, which were concerned with finding the relationship between the study variables, while in the testing of the null hypotheses, the p-value of the correlation coefficient was used.

RESULTS

Research Question 1: What is the relationship between computer attitude of postgraduate students and their use of computer applications in data analysis?

Hypothesis 1: Computer attitude of postgraduate students does not significantly relate to their use of computer applications in data analysis.

In order to answer the research question, Pearson Product Moment Correlation was used while the hypothesis was tested using the significant level of r.

Table 1: Result of Pearson Correlation Coefficient between computer attitude and computer application in data analysis

		Mean	Std deviation	Use of computer application	Computer attitude
Use of computer application	Pearson correlation	48.86	15.03	1	.538
	Sig. (2-tailed)				.001
	N			364	
Computer attitude	Pearson correlation	24.09	9.08	.538	1
	Sig. (2-tailed)			.001	
	N			364	364

*Significant level = 0.05

Table l showed Pearson correlation coefficient between computer attitude of post graduate students and their use of computer application. From the results, computer attitude and computer application have a mean and standard deviation scores of 48.86 and 24.09 (mean scores) respectively; 15.03 and 9.08 (standard deviation) respectively. The results also showed that (r-value) of 0.538, which is approximately 0.54 at a probability value of 0.001 is significant and positive. The result also indicates a weak relationship between the two variables, that is, 54^2 x l00 = 29.16, while their degree of disassociation was found to be 0.71, that is,1-0.54^2 thereby confirming the weak relationship.

Research question 2: What is the relationship between computer self-efficacy of postgraduate students and their use of computer applications in data analysis?

Hypothesis 1: Computer self-efficacy of postgraduate students does not significantly relate to their use of computer applications in data analysis.

In order to answer the research question, Pearson Product Moment Correlation was used while the hypothesis was tested using the significant level of r.

Table 2: Result of Pearson Correlation Coefficient between computer self-efficacy and computer application in data analysis

		Mean	**Std deviation**	**Use of computer application**	**Computer attitude**
Use of computer application	Pearson correlation	48.86	15.03	1	.776
	Sig. (2-tailed)				.003
	N			364	364
Computer self-efficacy	Pearson correlation	22.22	9.11	.776	1
	Sig. (2-tailed)			.003	
	N			364	364

*Significant level = 0.05

Table 2 revealed the relationship between computer self-efficacy of post graduate students and their use of computer application in data analysis in University of Port Harcourt. The use of Computer application and computer self-efficacy have mean scores of 48.86 and 22.22 respectively, and standard deviation scores of 15.03 and 9.11 respectively. The results also revealed that the value of Pearson correlation coefficient is 0.776, which is approximately 78%. This means that the relationship between computer self-efficacy of post graduate students and their use of computer in data analysis is positive and moderate as the magnitude of the relationship between the variables is 61%. (0.78^2 x 100 = 60.84).

A closer look at the correlation table also shows that the probability level (p-value) at 2-tailed test is 0.003. This value is less than the chosen 0.05 alpha level. This therefore, means that there is a significant relationship between the computer self-efficacy of post graduate students

and the use of computer application. Hence, the null hypothesis was rejected and the alternative, accepted.

Research question 3: What is the relationship between computer anxiety of postgraduate students and their use of computer applications in data analysis?

Hypothesis 3: Computer anxiety of postgraduate students does not significantly relate to their use of computer applications in data analysis.

In order to answer the research question, Pearson Product Moment Correlation was used while the hypothesis was tested using the significant level of r.

Table 3: Result of Pearson Correlation Coefficient between computer anxiety and computer application in data analysis.

		Mean	**Std deviation**	**Use of computer application**	**Computer attitude**
Use of computer application	Pearson correlation	48.86	15.03	1	-.846
	Sig. (2-tailed)				.006
	N			364	364
Computer anxiety	Pearson correlation	21.99	7.41	-.846	1
	Sig. (2-tailed)			.006	
	N			364	364

*Significant level = 0.05

As presented in table 3, the mean and standard deviation scores of the use of computer application and computer anxiety are 48.86 and 21.99 respectively and standard deviation scores of 15.03 and 7.41 respectively. The test of the relationship between computer anxiety of post graduate student and their use of computer applications in data analysis is conducted using Pearson correlation with r-value of -.846, which is approximately 85%. This result strongly indicates that there is a negative and strong relationship between the two variables (computer anxiety and computer application). This decision is informed by the fact that the r-value (-0.846) is negatively signed. It therefore means that as computer anxiety of post graduate students' increases, their ability to use computer application in data analysis reduces or decreases. This is as a result of' the inverse or indirect relationship as indicated in the result. In numeric terms, the result suggests that the higher the computer anxiety, the lower the use of computer application in data analysis.

A consideration of the null hypothesis test shows that the probability level (p-value) of 2-tailed test is 0.006, which is statistically adjudged to be less than the chosen 5% (0.05) alpha level. And so, the null hypothesis which postulates that computer anxiety of post graduate students does not significantly relate to their use of computer applications in data analysis is rejected, thereby leading to the acceptance of the alternative hypothesis.

In line with the specific objectives of the study, the findings of the study were summarized as follows:

1. There is a low, positive, and significant relationship between computer attitude of post graduate students and their use of computer app1ications in data analysis.
2. The relationship between computer self-efficacy of post graduate students and their use of computer applications in data analysis is positive and moderate and significant.
3. Computer anxiety of post graduate students and their use of computer application in data analysis are negatively, strongly and significantly related.

DISCUSSIONS OF FINDINGS

Table 1 revealed that the relationship between computer attitude and computer application in data analysis is positively related. This suggests that the higher the 'computer attitude of post graduate students, the higher their ability to use computer application in data analysis, but in a low magnitude. This positive and low relationship between computer attitude of post graduate students and their use of computer application was informed by their responses to the questionnaire items,

The reaction of the post graduate students in the questionnaire items revealed that the students are not afraid to get involved with computer application for data analysis, they trust themselves in the matter of analyzing data using computer application, they use computer to correct any human error that may be arise in data analysis, they feel comfortable using computer application in data analysis, they are satisfied with how easy it is to use computer application in data analysis, it is always good to use statistical software for data analysis and they are able to efficiently complete their studies using statistical software and they have the ability to recover data easily and quickly when they use computer application in data analysis.

This result is however support by Mahmud, and Zainol, (2008) who revealed that students attitude toward statistics, whether, positive or negative, influence their attitudes toward statistics in data analysis. Also, in another study by lsman, Caglar, Dabaj, Altinay, & Altinay, (2002), they were of the view that there is a positive relationship between students attitude and computer usage as students give importance to the computers as part of their life. In addition to this, research results represent that high percentages concentrated on that there are positive attitudes towards computers because of being tool to organize data and life efficiently. From the foregoing, it therefore implies that computer attitude of the post graduate students, enhances their ability to appreciate that research data analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data.

Again, table 2 reports the result of relationship between computer self-efficacy of post graduate students and their use of computer application in data analysis in University of Port Harcourt. The result revealed that the value of Pearson correlation coefficient value is 0.776, which is approximately 78%. This means that the relationship between computer self-efficacy of post graduate- students and their use of computer in data analysis is positive and moderate. This is because the value of' Pearson correlation coefficient has a positive sign. The implication of

this result is that, as computer self-efficacy of the post graduate students increases, their ability to use computer applications in data analysis equally increases.

In the result also, the null hypothesis is rejected, meaning that computer self-efficacy of post graduate students significantly relate to their use of computer application in data analysis in University of Port Harcourt. This also suggests that direct relationship exists between computer self-efficacy of' post graduate students and their use of computer application in data analysis, so the higher computer self-efficacy the higher the use of computer application in the analysis of data for research.

The positive and moderate relationship between computer self-efficacy and computer application is informed by the facts that post graduate students are positive about certain facts that they know how to boot computer, can solve inferential problems using computer application, perform descriptive statistics using computer statistical softwares, input data into computer and retrieve, print data and analyzed results with computer.

In buttressing, the result above, the reports of empirical studies of Sam. Othman, & Nordin, (2005), confirmed it that computer self-efficacy is a belief of one's capability to use the computer applications with high confidence and students better in computer self-efficacy could increase persistence in studying computing and in data analysis. Also maintained that computer self-efficacy is positively related to plans to take more computer related courses such as statistics in data analysis.

Lastly, the test of the relationship between computer anxiety of post graduate students and their use of computer applications in data analysis was conducted using Pearson correlation is -0.846, which is approximately -.85. This result strongly indicates that there is a negative and strong relationship between the two variables (computer anxiety and computer application). This decision is informed by the fact that the r-value is negatively signed but has a high value. It therefore means that as computer anxiety of post graduate students' increases, their ability to use computer application in data analysis reduces or decreases. This is as a result of the inverse or indirect relationship as indicated in the result. In numeric terms, the result suggests that as computer anxiety of post graduate students increases, the students' ability to use computer application in data analysis decreases and as such, the higher the computer anxiety, the lower the use of computer application in data analysis.

A consideration of the hypothesis test shows that the probability level (p-value) of 2-tailed test is 0.006. This value (0.006) is statistically adjudged to be less than the conventional chosen 5% (0.05) alpha level. This result indicates that the r-value of 0.846 is found to be statistically significant. Hence, suggesting the rejection of the null hypothesis which postulates that computer anxiety of post graduate students does not significantly relate to their use of computer applications in data analysis, and the acceptance of the alternative hypothesis. This means that computer anxiety of post graduate students significantly relate to their use of computer applications in data analysis in University of Port Harcourt, though increase in computer anxiety reduces the ability of post graduate students in the use computer application in data analysis.

The negative relationship between the two variables is attributed to the fact that the post graduates students expressed their opinions that they would dislike working with machines that are smarter themselves, they feel apprehensive about using computers for data analysis, they have difficulty in understanding the technical aspects of computer, they think that they could

cause the computer to destroy a large amount of information by hitting the wrong key during data analysis, however, they hesitate to use a computer for fear of making mistakes that they cannot correct.

In line with the result, Sam, Othman, & Nordin, (2005) argue that a high level, of computer anxiety, on the other hand, has been negatively related to learning computer, skills resistance to the use of computers and poorer task performance. Also Snah, Hassan and Embi (2011) found out that there is a significant negative relationship of computer anxiety on data analysis.Contrary to this result Ali, and Iqhal. (2012) ascertain that there is a positive relationship between students' anxiety and statistics. That is the higher the score on Statistics Anxiety, the lower will be the marks in Statistics Examination.

IMPLICATIONS OF THE FINDINGS

The findings revealed that there is positive and low/moderate relationship between computer attitude/self-efficacy and use of computer application in data analysis respectively, but a negative and strong relationship exists between computer anxiety of post graduate students and their use of Computer application in data analysis. This implies that many of the post graduate students are deficient in the use of computer application for data analysis. Hence, there may be need for School of Graduate Studies, University of Port Harcourt to ensure that computer appreciation and application for the purpose of research is taught very well in order to increase students' attitude and self-efficacy and at the same time reduce their anxiety level in the use of computer applications for data analysis.

CONCLUSION

Based on these findings, the study concludes that computer attitude, self-efficacy are positive factors while anxiety is negative factor that associates with the use of computer application in data analysis among post graduate students in the University of Port Harcourt, Rives State.

RECOMMENDATIONS

The following recommendations were made based on the findings.

1. The University authority should ensure that knowledge of computer is incorporated in admission requirement of post graduate students.

2. That the post-graduate students should have positive attitude and self-efficacy toward the use of computer in data analysis.

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