ASSESSING THE INFLUENCE OF STUDY HABIT AND ATTITUDE ON COMPUTER EDUCATION TEACHER TRAINEES' ACHIEVEMENT IN ELECTRONIC SPREADSHEET

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Abstract
This study sought to determine the influence of study habits and attitudes on academic achievement. The study adopted an expost facto (non-experimental) research design. The target population of the study consisted of all the Computer Science Education Teacher Trainees in tertiary institutions in Lagos State where Microsoft Excel is offered as a course. 87 students of Federal College of Education (Technical), Akoka were purposively sampled for the study based on the following criteria: (i) they are computer science students of the college; (ii) they have been taught Microsoft excel as a course; (iii) they are available and willing to participate in the study. The instrument used for the study comprised of three sections A,B and C as follows: Section A sought personal information from the respondents. These include: sex, session, course combination and age. Sections B and C were study habits and attitude scales. The reliability was also determine using Cronbach Alpha with the aid of statistical package for social sciences (SPSS) version 21.0. It was found to be 0.7 which makes it reliable and fit for the study. Descriptive statistics such as frequency, simple percentage, mean and standard deviation were used. Correlation and Regression analysis were the inferential statistics used for the analysis. The findings of the study showed that while course of study, session and attitude related significantly with academic achievement, only course of study related significant and had significant influence on the academic achievement of the students. It was recommended among other things that Lecturers should encourage the students to inculcate positive attitude towards their study.

Keywords: Study Habit, Attitude, Computer Educatikon, Teacher Trainees' Achievement, Electronic Spreadsheet

Introduction

Performance in any course like Electronic spreadsheet in the context of this article is any expression used to represent students' scholastic standing. This scholastic standing could be explained in terms of the grade obtained in the course. Student's academic performance occupies a very important place in education as well as in the learning process. Ali (2009) agreed that students' performance (academic achievement) plays an important role in producing the best quality graduates who will become great leaders and instrumental in the country's economic and social development.

Several factors could influence academic performance. Some of these factors include study habits and attitudes. Study habits play a very important role in the academic race of students. Success or failure of each student depends upon his or her own study habits. According to Sadia (2015), effective study habits help students to achieve good result. According to Nagaraju and Rajashekhar,(2014) the higher the study habits, the higher the academic performance of students. Poor study habits will result in a poor academic performance whereas good study habits will result in good academic performance. Effective

study habits in this study would be further broken down to time management, assimilation and environment. Each of these components would be studied to confirm the extent of their influence on performance.

Time management is a priority-based structuring of time allocation and distribution among competing demands since time cannot be stored, and its availability can neither be increased beyond nor decrease from the normal twenty four hours. Time management is very important and it may actually affect individual's overall performance and achievements.

Methods of knowledge assimilation are defined as the personal preference for using certain learning strategies and techniques. It is the way in which individuals begin to concentrate on, process, internalize and retain new and difficult academic information. Methods of knowledge assimilation involves learners' preferred ways to receive, process, and recall information during instruction which is related to learners' motivation and information-processing habits (Aragon, Johnson, & Shaik, 2002).

Student learning is affected not only by the student's learning style but also by the environment where the learning is taking place. Studies on study environment have shown that the environment does not only affect the student's approach to learning but also the student's academic outcome, level of motivation, and degree of learning effectiveness. Study environment which is also learning environment refers to the whole range of components and activities within which learning happens.Tsavga (2011) maintains that the study environment plays a vital role in determining how students perform or respond to circumstances and situations around them. This implies that no society is void of environmental influences.

Research findings have revealed that there is a strong relationship between the students' study habits and their academic performance. It has been found that for a student to perform excellently, he or she has to form good study habits Acheaw, (2004). Onwuegbuzie (2001) ; Moghadam and Cheraghian (2008); Evans and Julius (2015); Osa-Edoh and Alutu (2012); Anwar (2013); Kurshid., Tanveer, & Naz Qasmi, (2012); and Nuthana and Yenagi (2009) in their different studies confirmed the fact that study habits relate positively with academic performance.

Attitude refers to an individual's way of thinking, acting and behaving. According to Rajab (2007), an attitude is a mental or neural state of readiness, organized through experience, exerting a directive influence upon the individual's response to all objects and situations with which it is related,. Studies on attitudes' relationship with performance seems to agree that attitude exerts influence on academic performance.

Sarwar, Bashir, and Alam (2010) examined the correlation between study attitude and academic achievement at secondary school level in Pakistan. His findings reveal that study attitude of secondary school students was related with their academic achievement. There was also a significant difference between study attitude of male, female, rural and urban students. Mustafa (2013) studied the effect of Attitude, gender and achievement in computer programming. The aim of his research was to explore the relationship among students' attitudes toward programming, It was found that there was a significant positive correlation between students' attitudes and their achievements in programming. The results showed that male students had more positive attitudes toward programming than female students.

Studies on the influence of study habits and students' attitude on academic achievement in electronic spreadsheet in Nigeria seems to be rare. It is on this note that this study sought to determine the influence of study habits and attitudes on academic achievement. The study also sought to determine in addition, the influence of demographic variables such as sex, age, course of study and year of study.

Purpose of the Study

The objective of this study is:

i. To determine the relationship between the predictor variables (sex, course of study, session, age, attitude, time management and environment) and performance in Ms Excel.
ii. To predict the composite influence of the predictor variables (sex, course of study, session, age, attitude, time management and environment) and achievement in Ms. Excel.
iii. To predict the influence of each of the predictor variables (sex, course of study, session, age, attitude, time management and environment) on students' achievement in Ms. Excel.

Significance of the Study

The recommendation of this research work will be of good use to school administration, computer science teacher and other education bodies to provide remedy to the identified problems. In addition, this study is significant because its findings may form the basis for future researches which aim at improving student' attitude, study habits and eradicating difficulties that will eventually improve student academic performance.

Research Questions

i. The following research questions are formulated to be answered by this study:
ii. What is the relationship between students' performance in Electronic spreadsheet, sex, course of study, session, age, attitude, time management, assimilation, and environment?
iii. What is the composite effect of the eight predictor variables (sex, course of study, session, age, attitude, time management, assimilation, and environment) and students' performance in electronic spreadsheet (microsoft excel)?
iv. What are the relative effects of the eight predictor variables (sex, course of study, session, age, attitude, time management, assimilation, and environment) and students' performance in electronic spreadsheet (microsoft excel)?

Methodology

The study adopted an expost facto (non-experimental) research design. The target population of the study consisted of all the Computer Science Education Teacher Trainees in tertiary institutions in Lagos State where Microsoft Excel is offered as a course. 87 students of Federal College of Education (Technical), Akoka were purposively sampled for the study based on the following criteria: (i) they are computer science students of the college; (ii) they have been taught Microsoft excel as a course; (iii) they are available and willing to participate in the study. Computer students of Adeniran Ogunsanya College of Education, Ijanikin were used for the pilot study, to enable us among other reasons establish the reliability of the instrument.

The instrument used for the study comprised of three sections A,B and C as follows: Section A sought personal information from the respondents. These include: sex, session, course combination and age. Section B is an attitudinal scale meant to measure the attitudes of computer science students. Section C is the Study Habit Scale which comprised of 3 subsections as follows: (i) time management, (ii) methods of knowledge assimilation and (iii) study environment. The instrument was adopted from Jado (2014) and validated by experts. The reliability was also determine using Cronbach Alpha with the aid of statistical package for social sciences (SPSS) version 21.0. It was found to be 0.7 which makes it reliable and fit for the study. Descriptive and inferential statistics were used for data analysis. Descriptive statistics such as frequency, simple percentage, mean and standard deviation were used. Correlation and Regression analysis were the inferential statistics used for the analysis.

Result

Research Question One: What is the relationship between students' performance in Electronic spreadsheet, sex, course of study, session, age, attitude, time management, assimilation, and environment.

To answer the research question one above, a correlation matrix (table 4) showing the correlation coefficients among students' performance in Electronic spreadsheet, sex, course of study, session, age, attitude, time management, assimilation, and environment.

Table 4 presents the correlation matrix of the correlation coefficients of the predictor variables (sex, course of study, session, age, attitude, time management, assimilation, and environment) and students' performance in electronic spreadsheet (microsoft excel).

Table 1: Correlation Matrix of Predictor variables and students' achievement in Electronic spreadsheet (microsoft excel).

Var	Sx	COS	Session	Ag	Att	Tmg	Ass	Env	Ach
Sx	1.000								
COS	0.246*	1.000							
Session	-0.049	0.255*	1.000						
Ag	0.021	0.056	-0.008	1.000					
Att	0.218*	-0.306*	-0.279*	0.215	1.000				
Tmg	0.151	0.060	-0.168	-0.004	0.407*	1.000			
Ass	0.197	-0.192	-0.260*	0.189	0.762*	0.292*	1.000		
Env	-0.012	-0.159	-0.257*	0.123	0.460*	0.458*	0.278*	1.000	
Ach	0.030	-0.302*	-0.051*	-0.027	0.284*	-0.001	0.225	0.093	1.000
Mean	1.41	2.76	1.63	2.44	43.52	14.64	12.84	17.23	69.05
SD	0.495	0.921	0.783	0.672	5.530	1.994	1.879	2.587	10.119

*Note: Sx = Sex; COS = Course of study; Ag = Age;Att = Attitude; Tmg =Time management; Ass = Assimilation; Env = Environment; Ach = Achievement * p < .05*

From table 1, it can be observed that the relationship between assimilation and attitude (r= 0.762, p<0.05), environment and attitude (r= 0.460, p<0.05), environment and time management (r= 0.458, p<0.05) topped the list of relationships that are positive and significant. In relation to achievement, it is only the relationship between achievement and attitude that is positive and significant (r= 0.284, p<0.05). The relationship between sex and achievement, age and achievement, time management and achievement, assimilation and achievement as well as environment and achievement are not statistically significant. The relationship between course of study and achievement and session and achievement are negative and significant. Session refers to the academic year the teacher trainees took the course. The value attached to the sessions are in ascending order. A negative statistically significant relationship between session and academic achievement therefore implies that students' performance generally decreases; meaning the students that took the course earlier performed better; thus signifying a fall in the level of students' performance in electronic spreadsheet.

Research Question Two: What is the composite effect of the eight predictor variables (sex, course of study, year of study, age, attitude, time management, assimilation, and environment) and students'performance in electronic spreadsheet (Microsoft Excel).

Table 2: Multiple Regression of the predictor variables on students performance in Electronic Spreadsheet (Microsoft Excel).

Parameter	Value
Multiple Regression ®	.497[a]
R – Square	.247
Adjusted R – Square	.149
Std Error of Estimate	9.347

The multiple regression correlation coefficient (R) showing the linear relationship between the eight predictor variables (sex, course of study, session, age, attitude, time management, assimilation, and

environment) and students' performance in electronic spreadsheet (microsoft excel). The adjusted R square value is 0.149.

This implies that the variation in students' performance in electronic spreadsheet (microsoft excel) accounted for by the stated predictor variables (sex, course of study, session, age, attitude, time management, assimilation, and environment) is 14.9 %.

Table 3: Multiple Regression ANOVA Table

Model	Sum of square	Df	Mean square	F	Sig.
Regression	1752.015	8	219.002	2.507	.020
Residual	5329.756	61	87.373		
Total	7081.771	69			

A. Predictors: (Constant), sex, course of study, session, age, attitude, time management, assimilation, and environment

B. Dependent variable: students' performance in electronic spreadsheet (microsoft excel)

As shown in table 3 above, further verification using multiple regression ANOVA produced F – ratio = 2.507, $p < 0.05$. This implies that there is a significant linear relationship between the above stated predictor variables (sex, course of study, session, age, attitude, time management, assimilation and environment) and students' performance in electronic spreadsheet (microsoft excel).

Research Question Three: What are the relative effects of the eight predictor variables (sex, course of study, session, age, attitude, time management, assimilation, and environment) and students' performance in electronic spreadsheet (microsoft excel).

Table 4: Coefficients indicating Relative Effects of the predictor variables on students' performance in electronic spreadsheet (microsoft excel).

Model	Unstandardized Coefficients		Standardized coefficient	T	P – Value	Remark
	B	Std. Error	Beta			
Constant	76.418	12.553		6.088	.000	
Sex	.740	2.487	0.037	0.297	.767	N.S
Course of study	-3.014	1.491	-0.264	-2.021	.048	S
session	-3.224	1.710	-0.222	-1.886	.064	N.S
Age	-2.084	1.816	-0.133	-1.147	.256	N.S
Attitude	0.315	0.359	0.178	0.878	.383	N.S
Time management	-0.464	0.649	-0.095	-0.716	.477	N.S
Assimilation	0.611	0.900	0.115	0.679	.499	N.S
Environment	-0.301	0.510	-0.081	-0.590	.557	N.S

a. Dependent Variable: Students' performance in electronic spreadsheet (microsoft excel)

Table 4 above showed the relative effects of the predictor variables (sex, course of study, session, age, attitude, time management, assimilation, and environment) on students' performance in electronic spreadsheet (microsoft excel) Statics. It is only course of study that contributed significantly to students' performance in electronic spreadsheet (microsoft excel), but the contribution is indirect ($\beta = -0.264$, $t = -2.021$, $p < 0.05$). The contributions of the remaining seven predictor variables are not significant and so cannot be generalised

Discussion

The result showed that course of study (or area of specialisation), session and attitude related significantly with achievement. The correlation between year of study and achievement is negative; this implies that students in lower levels performed better. The significant relationship between attitude and achievement corroborates with the findings of Acheaw, (2004). Onwuegbuzie (2001) ; Moghadam and Cheraghian (2008); Evans and Julius (2015); Osa-Edoh and Alutu (2012); Anwar (2013); Facal (2012); Kurshid, F., Tanveer, A., & Naz Qasmi, F. (2012);Kurshid, F., Tanveer, A., & Naz Qasmi, F. (2012) and Nuthana and Yenagi (2009). Only course of study related significantly with and also contributed significantly to the

variation in students' academic performance in electronic spreadsheet (Microsoft excel). This is in agreement with Aina (2013), who found a significant difference between students' academic achievement in Physics among Nigeria Certificate in Education students based on their subject combination or area of specialisation. The contribution of the remaining seven predictor variables (sex, year of study, age, attitude, time management, assimilation and environment) are not significant and cannot be generalized.

Conclusion

Couse of study, session and attitude related significantly and positively with academic achievement. It was only course of study that related significantly and contributed significantly to variations in students' academic performance in electronic spreadsheet (Microsoft excel), the contribution of the remaining seven predictor variables (sex, session, age, attitude, time management, assimilation and environment) were not found to be significant and therefore cannot be generalized.

Recommendations

From the findings of the study, the following recommendations are made:

i. More emphasis should be laid on the monitoring of the academic performance of students at the higher levels.
ii. All hands should be on deck in the area of presentation, environment etc to ensure that students attitude to learning increases positively in order to boost students' academic achievement.
iii. Other teaching strategies that can improve students' attitude towards Microsoft Excel should be incorporated to the teaching and learning process.
iv. (iv)Lecturers should encourage the students to inculcate positive attitude towards their study

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