

RELATIONSHIP BETWEEN STUDY BEHAVIOUR AND ACADEMIC ACHIEVEMENT OF NCE STUDENTS IN COLLEGES OF EDUCATION IN KANO STATE, NIGERIA

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Abstract: *The research investigated relationship between study behaviour and academic achievement among NCE students in colleges of education in Kano state. A correlational research design was adopted for the research. Using University of Florida (2013) sample size table, 400 subjects were proportionately selected out of the 25,876 students from the three colleges of education in the state. Students' Study Behaviour Instrument with .67 reliability coefficient was used to collect data on study behaviour while a self-design proforma was to code students grades in all their academic courses. There was a medium positive relationship ($r=.336$) between academic achievement and study behaviour of the students and active aim of study (with a higher mean $m= 16.57$) was found to be prevalent among the students ($p= 000$). It is therefore recommended that educational stakeholders need to emphasise the adoption of appropriate study behaviour because of its positive relationship with academic achievement.*

Keywords: 1. Study 2. Behaviour 3. Academic Achievement.

Introduction

Academic achievement means the display of knowledge attained or skills displayed in school subjects assigned by test and examination scores or marks assigned by subject teacher (Aminu, 2012). It also refers to a level of proficiency in scholastic work in general or in a specific skill, such as mathematics or reading (VandenBos, 2015). Academic achievement of students is a subject of concern to all stakeholders in education such as governments, schools, teachers, parents and students, and other development partners. That is why many researches have been conducted to find out factors that influence and/or are related to students' achievements in school subjects in order to understand and improve their performance (Umar, 2018). The factors found by researchers to be related to academic achievements include: self-concept and self-efficacy (Leondary & Gialamas, 2002), Family background (Mayanci, 2012), students' entry requirement (Njoku, 2002), self-esteem, ability, self-set goals (Carrol & Garavalia, 2004) and motivation (Mangal, 2007) among others. This means that academic achievements can be the product of many factors or many things like the gender of the students and the conduct of the students when they are studying (study behaviour).

Studying is a conscious attempt made by an individual in reading a material for the purpose of understanding such a material (Kolo 2009). When studying, students conduct themselves differently; in other words, they exhibit different behaviours. Some are active readers while others are passive readers. Others have deep approach to studies while others have surface approach. In terms of study time management also, students differ. These three components are the aims of the study (Active or passive), approaches to study (deep or surface) and study time management, constitute study behaviour. In other words, study behaviour, which refers to mental effort or energy that one puts in studying, include aims of studying, which can be passive or active; approaches to study which can be surface or deep; and study time management (Kolo, 2009). Each behaviour can lead to different effect on academic attainments of the students.

Therefore, educational researches with the aim of understanding and improving student's academic achievements need to focus on students' characteristics and behaviours (Marafa, 1999). These behaviours include, among others, study behaviour which comprises of students' aims of study, approaches to study and study time management (Kolo, 2009), as explained above. In other words, academic achievements besides other factors may also be influenced by students' study behaviour. Scholars found that students' achievements and study behaviour are connected in many ways. For example, active involvement in studying which is an aspect of study behaviour is one of the basic principles of academic success (Astin, 1993).

As discussed above academic achievements of an individual student can be related to many contributing factors some of which have been mentioned above. Studying lecture notes and other textbooks can be related to students' achievements and students exhibit various behaviours when studying, as explained above. It is against this background that this research will investigate the relationship between study behaviour of NCE students in colleges of education in Kano state and their academic achievements.

Statement of the Problem

Poor academic achievement among students is obvious recently. This can be observed in the number of students who usually repeat or carry over courses in every semester in colleges of education (Goni and Bello, 2018). For example, the minister of education in Nigeria during one of his engagements with the national executive of the Colleges of

Education Academic Staff Union lamented that in spite of the efforts made by government in the colleges of education, the government is not satisfied with the graduates being produced. Nationally, meetings, seminars and conferences were organized to identify the causes of the failure (Mayanci, 2012). Researches have also been conducted on many variables or factors such self-concept, self-efficacy, self-esteem, ability, family background, entry requirement among others (Mangal, 2011) that are related to students' academic achievements. But the students' behaviours while studying (reading their notes or relevant text books) have not been given much attention especially among NCE students in the study area, kano state. Research needs to be conducted on the students' study behaviour to see whether it is related to their academic achievements. Besides, establishing empirically the study behaviour that is prevalent among the students, that is how do majority of them study- active studying or passive one is also important but lacking hence this research. Therefore, this research investigates the relationship between study behaviour of NCE students and their academic achievements in colleges of education in Kano state.

Research Objectives

The followings were objectives of the research:

1. Find out to what extent study behaviour relates to academic achievements of NCE students in colleges of education in Kano state, Nigeria.
2. To investigate between active and passive aims of studying which one is more prevalent among NCE students in colleges of education in Kano state, Nigeria.
3. Find out whether there is any significant difference between male and female students'
 - i. academic achievement
 - ii. Study behaviour

Research Questions

The study sought out answers to the following questions;

1. How significant is the relationship between study behaviour and academic achievements of NCE students in colleges of education in Kano state, Nigeria?
2. Which of the two study behaviours- active or passive- is more prevalent among NCE students in colleges of education in Kano state, Nigeria?
3. Is there any significant difference between male and female students'
 - i. Academic achievement
 - ii. Study behaviour?

Research Hypotheses;

The following Null hypotheses guided the study:

Ho1 There is no significant relationship between study behaviour and academic achievement among NCE students in colleges of education in Kano State.

Ho2 There is no significant difference between the mean scores of active and passive aims of studying among NCE students in colleges of education in Kano state.

Ho3 There is no significant difference between male and females'

- i. Academic achievement
- ii. Study behaviour.

Significant of the study

There is the need for all stakeholders in education to fully understand the nature of students- how they learn, how they behave, how they study etc- for guidance, counselling and other pedagogical adjustments where necessary. This is ordinarily important, and it becomes

eminent especially when certain drawback like poor academic achievement is observed among students. In view of this, considering observed poor academic achievement among NCE students, many variables need to be studied to establish their relations to students' academic achievement. The variable 'study behaviour' and its relationship to academic achievement among NCE students in colleges of education in Kano state has not been given much attention recently. Also, empirical knowledge of the prevalent aim of studying, either active or passive among the students, despite its importance in providing study guide to the students is lacking. Academically, this could not be established based on speculations or baseless assumptions but to be established empirically through research such as this, and this is what this study aims to achieve and therefore significant. The result of the study would be beneficial to school counsellors, parents and the students. Knowing, empirically, how study behaviour is related to academic achievement by the stakeholders mentioned earlier would greatly help them in designing appropriate study guide for the students for optimal achievement.

Methodology

Research Design

A correlational research design was adopted for the research. Correlational research is that in which a relationship between two or more variables are investigated (Ofo, 2009). In the present study, data was collected and correlated from observations made on each students' study behaviour and academic achievement hence the use of the correlational design.

Two instruments were used in collecting data for the research. The first one was 'Students' Study Behaviour Instrument' which is an adaption from Kolo's (2009), Self-Assessment Study Inventory. The instrument has 4 sections, with 30 items on approaches to study, aims of study and time management in addition to bio data covered in section A. the instrument was validated by expert in psychology, guidance and counselling and psychometrics. A test re-test reliability coefficient of .67 was established after pilot testing the instrument twice with the interval of two weeks.

Example of items on the Students' Study Behaviour Inventory.

When I am reading my notes or course text book my only intention is to be able:

1. To recall the ideas and facts I read.
2. To comprehend the details in order to present the facts.

The other instrument is a proforma specifically design to code the score grades of the students in all their academic courses in the 2022/2023 academic session. The scores (grades) were obtained from the students' record through examination officers in their respective departments.

Data collection took place directly by the researchers with the help of research assistants from each of the three colleges in the study. Before the commencement of the process a permission was requested from the managements of the colleges. The permissions were granted though with some difficulties.

After identifying the students selected in the sample through the research assistants, the students were briefed on the purpose of the research for them to voluntarily participate. A date, time and venue were fixed where the students were given the Student's Study Behaviour Inventory to voluntarily respond, given them adequate time. The students responded and the

instruments were retrieved there and then, this has contributed in having no missing instruments. This process was replicated in all the three colleges selected for the research.

On academic achievements, the collection was made through research assistants in each of the schools by obtaining the exams record of the sampled students from their respective departments. Each subject grades in all their academic courses were coded on the proforma designed for that purpose. Grade F is coded 0, E 1, D 2, C 3, B 4 and A 5. After the coding the total mark was summed up for each student. the total mark indicates their academic achievement.

The data collected was analysed using different inferential statistics. Null hypothesis 1 was tested using Pearson product moment correlation coefficient, this was because there were two continuous variables; one independent (study behaviour) and the other dependent (academic achievement). Second hypothesis was tested using one-way repeated measure ANOVA because it tested one group of students' responses on two different items (passive and active study). The third hypothesis was tested using independent sample t test because there was one categorical independent variable at two levels (males and Females) and one continuous dependent variable (academic achievement or study behavior).

Results

Ho1 There is no significant relationship between study behaviour and academic achievement among NCE students in colleges of education in Kano State.

Table 1.
Relationship between Study Behaviour and Academic Achievement.

Variables	N	Mean	Std. Deviation	r-Cal	p-Value	Decision
Study Behaviour	400	29.35	6.970	.048	.336	H0 rejected
Academic Performance	400	38.08	14.928			

The table above shows that there is a moderate positive relationship ($r = .336$, $n = 400$. $P > .05$) between academic achievement and study behaviour of NCE students in colleges of education in Kano state, Nigeria.

Ho2 There is no significant difference between male and female students'
 i. Academic achievement
 ii. Study behaviour.

Ho2 There is no significant difference between the mean scores of active and passive aims of studying among NCE students in colleges of education in Kano state.

Table 2
Descriptive Statistics on aims of studying for passive and active studying.

Variables	Mean	Std, Deviation	N
passive study approach	12.78	4.607	400
active study approach	16.57	4.917	400

Table 3
One-way repeated measure ANOVA for aims of studying

Effect	Value	F	Hypothesis df	Error df	Sig.	Sig.	Eta Squared
Aims of study	Wilks' Lambda	.745	136.300 ^b	1.000	399.000	.000	.255

The result above shows that, statistically, there is a significant difference between the mean scores of passive and active studying, Wilks' lambda = .745, $f = 136.300^b$, $p < .000$, Partial Eta Squared (indicating effect size) = .255 (medium). The p value being less than 0.05 makes the null hypothesis which states that there is no significant difference to be rejected. The result shows active studying with a mean higher ($m = 16.57$) than passive studying ($m = 12.78$) to be more prevalent among the students.

Table 4
Independent sample t test on academic achievement and study behaviour based on gender.

Variable	Males		Females		t	P	Eta squared
	M	SD	M	SD			
Academic Achievement	37.52	15.081	38.86	14.71	-.882	.378	0.002
Study behavior	28.26	7.013	30.90	6.626	-3.787	.00017	0.035

This independent-sample t-test analysis for academic achievement indicates that there is no significant difference in academic achievement between males ($n = 235$, $m = 37.52$, $SD = 15.081$) and females ($n = 165$, $m = 38.86$, $SD = 14.716$), $t(400) = -.882$, $p = .378$.

The independent-samples t-test analysis for study behaviour indicates that there is a significant difference in study behaviour between males ($n = 235$, $m = 28.26$, $SD = 7.013$) and females ($n = 165$, $m = 30.90$, $SD = 6.626$), $t(400) = -3.787$, $p = 0.00017$. $P < 0.05$, this makes the null hypotheses which states that there is no significant difference between males and females study behaviour to be rejected.

Discussion

Study behaviour, which comprises of at least three components- aim of studying, approaches to studying and study time management, has been found to have a moderate positive relationship with academic achievement in this research. This finding does not come as surprise because in the literature some researchers also found the same while others found no relationship between study behaviour and academic achievement or performance. For instance, Umar, (2018) found no significant relationship between study behaviour and academic performance of secondary school students' academic performance. The difference in the findings of the two studies can be attributed to many factors. For instance, the subjects of in this research are college students while the subjects in the Umar's research are secondary school students. Another important factor is the dependent variables, where as in this research it is academic achievement that was analysed, in Umar's work it was academic performance that was analysed. Achievement is a secondary data because it was the recorded performance of the students in all their academic subjects (courses) that was coded and analysed. On the other hand, performance is a primary data because Umar conducted a test in English and Mathematics to the students by himself and analysed their performances. The strength of the present research lies in the fact that the performances of the students in all their academic

courses are a better indicator of their academic achievement than their performances in just two academic subjects (courses) as in Umar (2018).

But there are other studies whose findings are the same with the findings of this research. For instance, Ebele and Olofu (2016) found study habit, which has overlapping variables with study behaviour, to be significantly related to academic performances. Like in Umar (2018), Ebele and Olofu's study also used secondary schools' students as their subjects unlike in this research in which college students are the subjects. But despite similarity in subjects between Ebele and Olofu (2016) and that of Umar (2018), the findings in the two researches differed.

Another aspect of the findings that is somehow surprising is the aim of studying in which active studying – for deeper meaning- is found to be more prevalent among the students than passive studying- just for remembering the facts. What makes the finding surprising is that, researchers identify active studying with higher academic achievement (Astin, 1993) but despite the prevalent of active studying among the students of the colleges of education on whom the research was conducted, there is an observed poor academic achievement among them (Goni and Bello, 2018). Also, the difference in the study behaviour between males and females as found in the research might have signaled differences in the academic achievement between the two genders but that is not the case. The results indicate that, despite the difference found in the study behaviour between males and females but their study behaviours are found to be significantly different.

Conclusion

Based on the research finding and the discussions of the result that follows, it can be concluded that the study behavior of the NCE students in the three public colleges of education in Kano State, Nigeria is moderately related to their academic achievement in the positive direction. In view of this, stake holders in education should enhance the development of appropriate study behaviour for maximum success among the students. The research also concludes that male and female students of the study area do not differ in their academic achievement but their study behaviour differ as far as the results and discussion of the findings is concerned. Another conclusion of the research is that active aim of studying- that is studying for deeper meaning and understanding- is more prevalent among the students.

Suggestion for further research

One of the findings of the research shows that active studying-studying for deeper meaning rather than just memorizing facts- is the prevalent aim of studying among the students on whom the research was conducted. Active studying is usually associated with higher academic achievement (Astin, 1993), but among subjects of this research poor academic achievement is observed (Goni) despite having active aim of studying. This may be possible if the teachers in those colleges value passive aim of studying where students would just memorize learning content and give back the teachers what is given to them. In view of this, there is a need for an empirical research to investigate and find out between active studying and passive studying which one is given more preference by the teachers in these colleges.

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