

INFLUENCE OF SELF-REGULATION ON ACADEMIC PERFORMANCE AMONG STUDENTS OF COLLEGES OF EDUCATION IN NORTH-EAST, NIGERIA

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Abstract

This study investigated the influence of self-regulation on academic performance among students of colleges of education in North-East Nigeria, the study has two research objectives, two research questions and tested two null hypotheses. A correlational survey research design was adopted for the study and a simple multistage sampling technique was used to select a sample size of 1,145 from a population of 22,911 year II students of colleges of education in North-East. self-regulatory questionnaire (SRQ) was adapted from Brown, Miller & Lewandowski 1999, The instruments was validated and the reliability was established as .728, Null hypotheses were tested at $P \leq 0.05$ levels of significance using Pearson Product Moment Correlation coefficient (PPMCC), and t-tests. The result revealed significant relationship between self-regulatory and academic performance (r -value= .081 & p -value<0.05) and there is no significant difference in the self-regulation of Male and Female students (t -value= .037 & p -value=> 0.05). Finally, some recommendations were made, which include, Learning should be organized in such a way that, it can meet the requirements of all learners in order to boost their academic performance, so that, they can acquired the needed competences for them to contribute to the general development of the society.

Keywords:Self-regulation, academic performance

Introduction

Self-regulation is very important and is one of the essential ingredients for achievements in educational setting. Researchers in the field of educational psychology have laid emphasis on the importance of psycho-social variables such as Self-regulation, school adjustment and locus of control for supporting students' learning. Self-regulated skill of students is considered as one of the life and career skills necessary to prepare students for education and employment. Self-regulatory capacities have been related to both genetic and environmental factors and their interaction. Some educational interventions can be designed to foster self-regulation and, hence, reduce maladjustment, low performance and school drop-out rate.

Self-regulation is an umbrella term used to describe the various processes by which students' track and attain goals. These processes include both those that are initiated consciously and deliberately, as well as those that are more automatic and operate without conscious intent (Garriid & Vargas, 2012). Self-regulation refers to the capacity of students to override and alter their responses. It is the process by which students' attempt to constrain unwanted urges by gaining control over the impulsive response. Self-regulation is the ability of colleges of education students to plan, develop, implement, and flexibly maintain planned behavior in order to achieve academic goals as measured using self-regulatory questionnaire developed by Brown, Miller and Lewandowski (1999).

It is assumed that everyone is capable of self-regulation to an extent. What really differs between people is the quality and quantity of their self-regulatory processes. Self-regulated learners are interested in subject matter, well-prepared, ready with comments and insights, are able to admit if they do not understand, and are driven to construct understanding. Self-regulation is thought to incorporate metacognitive knowledge and skills as well as self-efficacy and the motivational and behavioural

processes needed to enact these beliefs. (Daniela, 2015).

In particular, self-regulated learners are contingent of their academic strengths and weaknesses, and they have a repertoire of strategies they appropriately apply to tackle the day-to-day challenges of academic tasks. Self-regulated learners are successful because they control their learning environment. They exert this control by directing and regulating their own actions toward their learning goals. The self-regulated learning is used in three different phases of learning. The first phase is during the initial learning, the second phase is when troubleshooting a problem encountered during learning and the third phase is when they are trying to teach others (Daniela, 2015).

Statement of the Problem

The problem of under achievement has assumed a worrisome dimension in the Nigerian Educational System. Unfortunately, poor academic performance has risen steadily to become a seemingly untamable monster. Several factors have been discovered in the past as the causes of this social malaise, but there seem to be indication that some hidden factors may be responsible and these need investigation. This desire to see this problem solved gave rise to this study and the researcher's aim is to see if self-regulation, school adjustment and locus of control can help to improve students' academic performance.

Similarly, poor academic performance and drop-out rate of students in Colleges of Education and other higher institutions have been a source of concern to stakeholders. These reasons could be as a result of poor study habits in term of self-regulation, most students cannot regulate their thoughts, behaviours and emotions in order to successfully navigate their learning experience. They cannot control their performance before, during and after learning. The Self-regulation of these students is very low since they cannot activate, take control and evaluate their learning. They are unaware of their strengths and weaknesses, they have poor utilization of their metacognition strategies, attributes their success and failures to uncontrollable factors. However, these learners cannot set goals for their learning and cannot monitor and regulate their cognition, motivation and behavior.

Objectives of the Study

The main objective of the study was to investigate the influence of self-regulation on the academic performance among students of Colleges of Education in North-East, Nigeria.

Specifically the study sought to:

- (1) determine the relationship between self-regulation and the academic performance among students of Colleges of Education in North-East, Nigeria
- (2) determine the difference in the Self-regulation between male and female students of Colleges of Education in North-East, Nigeria

Hypotheses

The following hypotheses were formulated and tested at 0.05 alpha level in the study.

Ho₁ There is no significant relationship between self-regulation and the academic performance among students of Colleges of Education in North-East, Nigeria

Ho₂ There is no significant difference in the Self-regulation between male and female students of Colleges of Education in North-East, Nigeria

Methodology

The research design used for this study was correlational research design. Correlational research assesses the relationships between and among two or more variables. It allows making predictions but cannot be used to draw inferences about the causal relationships between and among the variables. Linear relationships between variables are normally analyzed using the Pearson correlation coefficient. and it aid wider coverage of large geopolitical area under investigation within a possible limited period of time. It is the best design to adopt when a researcher intends to explore relationship between variables. Survey method was used in carrying out the research work because the study involves the use of questionnaire in which the respondents in the study gave and filled the information needed for the study. The survey research method is a very valuable tool for assessing opinions and trends on both small scale such as local government or large population such as state and geo-political zone.

The population for this study consisted of all the Students of Colleges of Education in North-East, Nigeria with a total population of twenty-two thousand nine hundred and eleven (22,911).

Table 1 Distribution of the Population according to Colleges

S/N	College of Education	Population
1	Aminu Sale College of Education, Azare, Bauchi State	1933
2	Adamu Tafawa Balewa College of Edu., Kangere, Bauchi State	2,662
3	A.D Rufai College of Education Missau, Bauchi State	1626
4	Federal College of Education Gombe, Gombe State	4198
5	College of Education Billiri Gombe State	482
6	Federal College of Education Yola, Adamawa State	6776
7	Adamawa State College of Education Hong, Adamawa State	2493
8	Federal College of Education Potiskum, Yobe state	2051
9	Ummar Sulaiman College of Education Gashuwa, Yobe state	0690
Total		22,911

Source: Field Survey, 2021

The sample in this study was one thousand one hundred and forty five students (1,145) out of the population of twenty two thousand nine hundred and eleven students (22,911) which represented the five (5%) percent of the population based on the recommendations by Gay and Airasian (2013). They posited that, when population is up to 1,000 elements or respondents, 20% of the population is a good sample, when population is up to 5,000 elements or respondents 10% of the population is a good sample, when population is up to 10,000 elements or respondents 5% of such population is enough as a sample.

Table 2. Distribution of the Sample Size

S/N	Sample School	Population	Sample
1	Adamu Tafawa Balewa College of Education Kangere	2,662	396
2	College of Education Billiri	482	72
3	Federal College of Education Potiskum	2051	306
4	Adamawa State College of Education Hong	2493	371
Total		7,688	1,145

The table 2 above shows the proportional distribution of the sample of the study across four (4) sampled colleges of education by dividing the total population of each college of education by the total number of the population of the sampled colleges of education and multiplies by the sample of the study which is (1,145). This resulted to the actual sample of each college of education participated in the study.

Multistage sampling method was used to select four states out of the six states in the North-East, Nigeria to participate in the study. However, random sampling techniques was used in order to ensure equal chance of being selected, This sampling allows every student to have equal chance of being selected. To measure the self-regulation of the students, Brown, Miller & Lewandowski 1999 self-regulatory questionnaire (SRQ) was adapted. This version was adapted and modified in this study in measuring the students' self-regulation in the study area. The scale was selected because it has been used widely in the literature in order to assess self-regulation characteristics of students and has been shown to have strong reliability of .90 and validity for assessing self-regulation characteristics. The original instrument contained twenty (20) items in which the validators selected all the twenty (20) items as suit the environmental and cultural context, in which each student will tick appropriate option applicable to

him from the Four (4) Likert scale (Strongly Agree- SA; Agree –A; Disagree – D; Strongly Disagree - SD) provided on each statement.

To ascertain the content and construct validities of the instruments, the researcher presents the instruments to three (03) specialists two from the area of test, measurement and evaluation and one from educational psychology, the reliability coefficient of pilot testing result for self-regulatory questionnaire (SRQ) was .731, The data obtained were analyzed using different statistical tools with the aids of Statistical Package of Social Sciences (SPSS) version 21.0. Hypotheses one (1) was tested using Pearson Product Moment Correlation (PPMC). In addition Hypotheses two (2),) was tested using independent t-test.

Hypothesis One: There is no significant relationship between self-regulation and academic performance among students of Colleges of Education in North-East, Nigeria.

Table 3: Pearson Product Moment Correlation (PPMC) Showing the Relationship between Self-regulation and Academic Performance of Students of Colleges of Education in North-East, Nigeria.

Variables	N	r- Value	P-value
Self-regulation	661	.081	.038
Academic Performance	661		

* means Significant at 0.05 alpha level of significance

Table 3 reveals correlation co-efficient of .081* which is significant at 0.05 alpha levels of significance ($r = .038$, $p < 0.05$). Therefore, the stated null hypothesis two is rejected. This implies that, there is significant relationship between self-regulation and academic performance among students of Colleges of Education in North-East, Nigeria. Moreover, a unit increase in self-regulation leads to a unit increase in students' academic performance.

Hypothesis two: There is no significant difference in the self-regulation of male and female students of Colleges of Education in North-East, Nigeria.

Table 4: t-Test Summary Table Showing the Difference in the Self-regulation of Male and Female Students of Colleges of Education in North-East, Nigeria.

Variable	Gender	N	Mean	SD	Df	t-Cal.	Sig. of t-value
Self-regulation	Male	322	52.0124	11.0603	659	.037	.971 (NS)
	Female	339	51.9823	10.1445			

NS means Not Significant at 0.05 alpha level of significance.

Table 4 reveals that there is no significant difference in the self-regulation of male and female students of Colleges of Education in North-East, Nigeria ($t = .037$; $df = 659$; $p > 0.05$). Therefore, the hypothesis six is upheld. This implies that, there is no significant difference in the self-regulation of students of Colleges of Education in North-East, Nigeria based on gender.

Discussion of Findings

In hypothesis one, the analysis has shown that, there is significant relationship between self-regulation and academic performance among students of Colleges of Education in North-East, Nigeria. This finding was supported by Zee and Bree (2017) who found that positive associations between self-regulation and academic performance in math and reading skills of elementary students in the Netherlands were exist among students. Similarly, this finding gain further support from the work of Kaur, Saini and Vig (2018) found that metacognition and self-regulation contributed positively towards academic achievement of secondary school students in Punjab. Furthermore the students who are self-regulated in their learning process tend to have better scores than those who are not self-regulated

learners (Xiao, Yao & Wang, 2019).

This finding also revealed there is significant relationship between self-regulation and academic performance among students of Colleges of Education in North-East, Nigeria was contrary to the finding of Ekuri, and Offiah (2018), their study investigated the impact of self-regulatory attributes on students' academic performance in Mathematics. The results revealed that self-regulatory attribute variables had a significant relationship with academic performance.

The findings in Hypothesis two revealed that there is no significant difference in the self-regulation of male and female students of Colleges of Education in North-East, Nigeria. This finding is in contrary to the findings of Dradeka (2018) who found significant differences in self-regulation of university students in Saudi Arabia in favour of students with high academic achievement. Also, male students tended to report on average higher levels of academic self-regulation than female students. The finding of this study also contradicts the findings of Sarkar and Banik (2017), in which they posited that there is Significant gender differences with regard to academic motivation and self-regulated learning and they were in favour of the boys.

Conclusion

Based on the findings of this study, the following conclusions were drawn:

- Self-regulation predicts academic performance among students of Colleges of Education in North-East, Nigeria.
- There is no significant difference in the self-regulation of male and female students of Colleges of Education in North-East, Nigeria.

Recommendations

Based on the findings of this study, the researcher recommended that:

1. Colleges lectures and counsellors should inculcate values such as confidence, competence, effective use of time, good organization and so on among the students so as to reduce the attitude of not performing tasks as at when they have to.
2. Learning should be organized in such a way that, it can meet the requirements of all learners in order to boost their academic performance, so that, they can acquired the needed competences for them to contribute to the general development of the society.
3. Self-regulation emerged as the greatest cause of variation in the students' academic performance. Educational psychologist should initiate intervention programmes aimed at developing and encouraging self-regulatory learning among the students in colleges.
5. Academic administrators should pay attention to help students to understand how their perceptions about self-regulation may affect their academic performance, develop policies regarding coaching, mentoring and counselling students.

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