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ACADEMIC MOTIVATION AND LOCUS OF CONTROL AS PREDICTORS OF ACADEMIC PERFORMANCE AMONG SECONDARY SCHOOL STUDENTS IN ANAMBRA STATE

By

Ifeoma E. Obi
Department of Educational Foundations, Faculty of Education,
Chukwuemeka Odumegwu Ojukwu, University, Anambra State.

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Chika C. Anyaegbunam
Departmnt of Early Childhood Care and Education
School of Early Childhood Care and Primary Education
Nwafor Orizu College of Education Nsugbe, Anambra State.
Email: chikaanyaegbunam2019@gmail.com

Abstract

The study investigated academic motivation and locus of control as predictors of academic performance among public secondary school students in Anambra State. The study was guided by three research questions and three null hypotheses tested at 0.05 level of significance. The study adopted correlational research design. The population of the study comprised 13742 senior secondary two (SS2) students. A sample of 389 respondents was drawn using Taro Yamane. Proportionate stratified random sampling technique was used to draw the sample. Two instruments used for data collection were; Academic Motivation Scale (AMS) and Locus of Control Scale (LCS). The instruments were validated by three experts from the department of Educational Foundations, Chukwuemeka Odumegwu Ojukwu University. The reliability of the instrument was established using Cronbach Alpha. The computation yielded Co-efficient values of 0.74 for AMS and 0.82 for LCS. Simple linear and multiple regressions were used for data analysis. The findings of the study revealed that academic motivation has a moderate predictive value for English language and a modest predictive value for mathematics and for academic performance. The findings also showed that locus of control had a weak positive predictive value for academic performance in English language and Mathematics. The findings suggest that the joint predictive value of the academic motivation and locus of control for academic performance in English and Mathematics was moderate and weak respectively. Based on the findings, teachers should incorporate motivational

strategies into their teaching methods to stimulate student's interest in subjects like English language and Mathematics.

Keywords: *Academic Motivation, Locus of Control, Students' Academic Performance*

Introduction

Academic performance has been recognized as a key indicator of students' intellectual development and a determinant of future educational and career opportunities. It is the measurable achievement outcomes of a learner informal educational settings, typically assessed through grades, test scores or completion of educational tasks and objectives. Adeleye et al (2024) asserted that it is one of the most important indicators of educational success and is often used to determine a student's level of mastery of curriculum content. Steinmayr et al (2015) defined academic performance as a measure of knowledge, understanding or skills in a specific subject or a group of subjects. Arten and Anton (2020) viewed academic performance as the level of success and accomplishment attained by students in their educational pursuits. The researcher defines academic performance as the extent to which a student attain predefined academic goals, usually assessed through grades or examination scores. It represents cumulative learning outcomes including knowledge and cognitive skills achieved over a defined academic period.

Academic performance, particularly in core subjects like English language and Mathematics, is widely regarded as a critical determinant of students' future academic and career prospects. However, despite the recognized importance of these subjects, academic performance in both English language and Mathematics among Nigerian secondary school students has remained consistently poor over the years. According to the West African Examination Council (WAEC) Chief Examiners' reports, a large proportion of students fail to obtain credit passes in both subjects, with pass rates often falling below 50% (WAEC, 2022).

Over the years, educational researchers have consistently explored factors that influence academic performance among students. These factors range from external variable such as school quality, overcrowed classrooms, parental involvement, and socio-economic factors (Abial etal, 2023) to internet factors such as motivation, self-efficacy, locus of control and learning strategies (Tella, 2022). Among the internal factors, locus of control and academic motivation here emerged as key factors that influence students' learning behavior and academic performance,(Olatoye, 2011).

Academic motivation is the internal process and external influences that initiate, direct, and sustain students' engagement, efforts, and persistence in academic tasks. Ormrod and Jones (2018) defined academic motivation as student's willingness, drive and desire to engage in learning and succeed in academic activities.

Similarly, Schunk et al (2014) described academic motivation as the internal desires and external incentives that compel a student to engage in academic tasks, persist through challenges and strive towards achievement. Motivation can be intrinsic or extrinsic. Students who are intrinsically motivated engage in learning out of curiosity, interest or desire for mastery and are more likely to engage deeply with academic content and persevere in the face of challenges (Maeulenbroeks et al 2024). Conversly, students who are extrinsically motivated are driven by external rewards like grades or parental approval may not sustain long-term academic interest especially when rewards are not forth coming (zhou 2025).

In educational settings, academic motivation, influences students's willingness to invest in time and energy in not only whether a student's study affect their studies, affect emotional responses to learning tasks learns but also how much and how well and ultimately determines the quality of learning outcomes they learn. Ormrod and Jones (2018) asserted that motivated students are more likely to attend classes regularly, participate actively in lessons, complete assignments on time and employ effective learning strategies such as goal setting, time management and self-monitoring. These behaviours contribute significantly to higher academic performance.

Locus of control is a key psychological construct that has significant implications for students' academic achievement. It refers to individuals' belief about the extent to which outcomes in life including academic success or failure are contingent upon their own actions or external circumstances, (Rotter 1966). Let court (2014) defined locus of control as a generalized expectancy regarding the degree to which individuals perceived outcomes as contingent on their own behavior: versus controlled by external forces. Nowicki and Duke,(2017) emphasized that locus of control is a learned cognitive orientation that significantly affects academic behavior, motivation and performance.

Students with an internal locus of control believe that their academic outcomes are primarily determined by their own efforts, study habits and decisions. These students tend to take greater personal responsibility for their learning, set academic goals, persist through difficulties, and actively seek help or resources when needed. On the other hand, students with external locus of control attribute their success or failure to factors outside their control, such as luck, teaches bias, test difficulties or family circumstances. As a result, they may be less likely to put in sustained effort, and more likely to feel helpless when they encounter challenges, (Nowicki & Duke, 2017, Lefcourt, 2014).

Gender has been studied as a factor influencing academic performance of students. UNESCO,(2019) described gender as the socially constructed roles, expectations and behaviours that influence how students perceive themselves and how they are treated within learning environment based on the perceived sex. In gender, disparities in academic performance have been observed with varying patterns depending on the subject area. Giving the growing concern over student's academic performance in secondary schools, especially in contexts with under achievement's prevalent, it becomes imperative to

examine how academic motivation and locus of control predict academic performance. The study therefore investigated academic motivation and locus of control as predictors of academic performance among secondary school students in Anambra state.

Statement of the Problem

Nigeria as a country emphasizes on education. This is because it believed to be the main avenue for national development. This can be achieved if students will get actively involved in academic activities to attain better academic performance and consequently contribute to the national development. Academic performance among secondary school students remains a key concern for educators, parents and policymakers. Despite significant efforts to improve learning outcomes, many students seem to underperform in core subjects like English language and Mathematics. This under performance has become a major source of concern for stakeholders in education because if it continues, it may lead them to all sorts of societal crimes like; drug abuse, dropping out of school, loss of interest in academic pursuit among others.

Various studies have attempted to identify significant factors contributing to students' academic performance. However, some of the studies dealt with one variable (academic motivation or Locus of control), some were conducted outside the country and few conducted in Nigeria seems not to resolve the questions of the predictive value of academic motivation and locus of control on academic performance. There seem to be dearth of studies on the relationship between academic motivation, locus of control and academic performance in secondary schools in Anambra state. The study therefore investigated academic motivation and locus of control as predictors of academic performance among secondary school students in Anambra state.

Research Questions

The study was guided by the following research questions.

1. What is the predictive value of academic motivation on academic performance in English and Mathematics among Senior Secondary Two (SS2) students in public secondary schools in Anambra State?
2. What is the predictive value of locus of control on academic performance in English and Mathematics among SS2 students in public secondary schools in Anambra State?
3. What are the joint predictive value of academic motivation and locus of control on academic performance in English language and Mathematics among SS2 students in public secondary schools in Anambra state?

Hypotheses

The following null hypotheses were tested at 0 .05 level of significant.

1. Academic Motivation is not a significant predictor of academic performance in English and Mathematics of SS2 students in public secondary schools in Anambra State.
2. Locus of Control is not a significant predictor of academic performance in English and Mathematics of SS2 Students in public secondary Schools in Anambra State.
3. Academic motivation and locus of control will not jointly and significantly predict academic performance in English language and Mathematics among SS2 students in public secondary schools in Anambra State.

Method The study adopted a correlational research design. The population for this study was 13,742 (6,600 males and 7142 females) SS2 students in the public secondary schools in Anambra state. The sample of the study consisted of 389 (204 females and 185 males) SS2 students selected using Taro Yamane. Proportionate stratified random sampling technique was used to draw the sample. Two instruments used for data collection were Academic Motivation Scale (AMS) developed by Dayel et al (2018) and Locus of Control Scale (LCS) developed by Craig et al (1984). The students' scores in English language and Mathematics were used to measure the academic performance. The face validation of the instruments was ascertained by the two experts in Guidance and Counselling and an expert in Measurement and Evaluation all from Department of Educational Foundations, Chukwuemeka Odumegwu Ojukwu University. The reliability of the instruments was ascertained using Cronbach Alpha. The results gave coefficient values of 0.81 and 0.79 for AMS and LCS respectively. The researcher administered the instruments to the respondents with the help of three research assistants. The completed copies of the questionnaire were retrieved on the spot. Out of 389 copies of the questionnaire administered, 372 were correctly filled representing 95.6% used for data analysis. Simple linear regression analysis was used to answer research questions 1 - 2, test hypotheses 1 - 2 at 0.05 level of significance, while multiple regression analysis was used to answer research question 3 and test hypotheses 3 at 0.05 level of significance.

Results

Research Question One What is the predictive value of academic motivation on academic performance in English language and Mathematics among senior secondary two (SS2) students in public secondary schools in Anambra State?

Table 1: Simple Regression Analysis with Academic Motivation as Predictors of Academic Performance in English language and Mathematics among Senior Secondary Two (SS2) students.

Predictor	Dependent Variable	B	SE	β	Remark
	English Language				
Constant		12.83	4.77		
Academic motivation		0.70	0.08	0.41	Moderate positive predictive value
R = 0.41					
R^2=0.17					
Adj.=0.17					
	Mathematics				
Constant		21.39	4.78		
Academic motivation		0.55	0.08	0.35	Modest positive predictive value
R = 0.35					
R^2=0.12					
Adj.=0.12					

B = unstandardized régressions coefficient, SE = standard error; β = standardized regression coefficients and beta weight

Table 1 showed the summary of simple regression result using academic motivation scores of senior secondary two (SS2) students in public secondary schools in Anambra State as a predictor of their academic performance in English language and Mathematics. The squared regression R (R^2) of 0.17 for English Language and 0.12 for mathematics showed that academic motivation explained 17% of the

variance in academic performance in English language but explained 12% of students' academic performance in mathematics. Using the beta weight (β), the value for the contribution of academic motivation for English Language was 0.41 while that of mathematics was 0.35. This implied that a unit increase in academic motivation leads to 0.41 unit increase in academic performance in English language, and a unit increase in academic motivation leads to 0.35 unit increase in academic performance in Mathematics among senior secondary two (SS2) students in public secondary schools in Anambra state. The values also indicated that academic motivation had a modest positive predictive value for academic performance in Mathematics and a moderate positive predictive value in English language.

Research Question Two What is the predictive value of locus of control on academic performance in English language and Mathematics among SS2 students in public secondary schools in Anambra State?

Table 2: Simple Regression Analysis with Locus of Control as Predictor of Academic performance in English language and Mathematics among Senior Secondary Two (SS2) Student.

Predictor	Dependent Variable	B	SE	β	Remark
	English Language				
Constant		38.79	6.25		
locus of control		0.31	0.13	0.13	Weak positive predictive value
R = 0.13					
R^2=0.02					
Adj.=0.01					
	Mathematics				
Constant		39.83	6.09		
locus of control		0.32	0.12	0.13	Weak positive predictive value
R = 0.13					
R^2=0.02					
Adj.=0.02					

Table 2 showed the summary of simple regression result using locus of control scores of senior secondary two (SS2) students in public secondary schools in Anambra State as a predictor of their academic performance in English and Mathematics. The R^2 of 0.02 indicated that locus of control explains only

2% of the variances in students' academic performance in English language and their performance in mathematics. The beta weight (β) for English language and mathematics was 0.13. That value indicated that a unit increase in locus of control leads to 0.13 unit increase in academic performance in English and Mathematics respectively among senior secondary two (SS2) students in public secondary schools in Anambra state. The β value of 0.13 indicated that locus of control had a weak positive predictive value for academic performance in English language and mathematics.

Research Question Three What are the joint predictive values of academic motivation and locus of control on academic performance in English and Mathematics among SS2 students in public secondary schools in Anambra state?

Table 3: Multiple Regression Analysis with Academic Motivation and Locus of Control as Predictors of Academic Performance in English and Mathematics among SS2 Students.

Predictors	**Dependent Variable**	***R***	***R^2***	**Adj. R**	**Remark**
Academic motivation Locus of control	English Language	0.41	0.17	0.17	Moderate positive predictive value
Academic motivation Locus of control	Mathematics	0.37	0.13	0.12	Weak positive predictive value

Table 3 displays the result of multiple regression analysis which used SS2 students in public secondary schools in Anambra academic motivation and locus of control scores to predict their academic performance in English and Mathematics scores. For English Language the multiple regression model produced R =0.41 and R^2 = 0.17, The R^2indicates that jointly, the two predictors explained 17% of the variance in academic performance in English.While for Mathematics the multiple regression model produced R =0.37 and R^2 = 0.13, The R^2indicates that jointly, the two predictors explained 13% of the variance in academic performance in Mathematics. These values suggest that the joint predictive value of the academic motivation and locus of control for academic performance in English and Mathematics among SS2 students in public secondary schools in Anambra state was moderate and weak respectively.

Hypotheses

Hypothesis One: Academic motivation is not a significant predictor of academic performance in English and Mathematics among SS2 students in public secondary schools in Anambra State.

Table 4: Test of Significance of Simple Regression with Academic Motivation Scores as Predictor of Academic Performance in English language and Mathematics among SS2 Students

Predictor	Dependent	B	SE	β	T	p-value	Remark
Constant		12.83	4.77		2.69	0.007	
Academic motivation	English Language	0.67	0.08	0.41	8.71	0.000	Significant
Constant		21.39	4.78		4.47	0.000	
Academic motivation	Mathematics	0.55	0.08	0.35	7.20	0.000	Significant

Table 4 showed Academic motivation was a significant predictor of academic performance in English and Mathematics among SS2 students in public secondary schools in Anambra State, $\beta = 0.41$, $t = 8.71$, $p < 0.05$ and $\beta = 0.35$, $t = 7.20$, $p < 0.05$ respectively. Since the p-value was less than 0.05 for both English and Mathematics, the null hypothesis was rejected.

Hypothesis Two Locus of control is not a significant predictor of academic performance in English language and Mathematics among SS2 Students in public secondary Schools in Anambra State.

Table 5: Test of Significance of Simple Regression with Locus of Control Scores as Predictor of Academic Performance in English and Mathematics among SS2 Students.

Predictor	Dependent	B	SE	B	T	p-value	Remark
Constant		38.79	6.25		6.20	0.000	
locus of control	English Language	0.31	0.13	0.13	2.45	0.015	Significant
Constant		39.83	6.09		6.55	0.000	
locus of control	Mathematics	0.32	0.12	0.13	2.59	0.010	Significant

Table 5 showed that locus of control was a significant predictor of academic performance in English language and Mathematics among SS2 students in public secondary schools in Anambra State, β = 0.13, t = 6.20, p< 0.05 and β = 0.13, t = 6.55, p< 0.05 respectively. Since the p-value was less than 0.05 for both English and Mathematics, the null hypothesis was rejected.
Hypotheses Three Academic motivation and locus of control will not jointly and significantly predict academic performance in English and Mathematics among SS2 students in public secondary schools in Anambra State.

Table 6: Test of Significance of Multiple Regression Analysis with Academic Motivation and Locus of Control as Joint Predictors of Academic Performance in English language and Mathematics among SS2 Students.

Predictors	***Dependent***	***R***	***R²***	**Adj. R²**	***F***	***p*-value**	**Remark**
Academic motivation and locus of control	English Language	0.41	0.17	0.17	38.31	0.00	Significant
Academic motivation and locus of control	Mathematics	0.36	0.13	0.12	26.76	0.00	Significant

As shown in Table 6 Academic motivation and locus of control were joint significant predictors of academic performance in English and Mathematics among SS2 students in public secondary schools in Anambra State F(2,372) = 38.31 and 26.76, p< 0.05. Therefore, the null hypothesis was rejected.

Discussion

The findings of the study revealed that academic motivation had a moderate positive predictive value for academic performance in English language and a modest positive predictive value in Mathematics. The result of the correspondent null hypotheses revealed that academic motivation was a significant predictor of academic performance among SS2 students in public secondary schools in Anambra state. The findings is also in agreement with that of Anierobi (2022) Dogan (2015) and Oke et al (2016) who found that academic motivation predicted academic performance of students. The possible reasons for these results could be that academic motivation is not the only factor that could predict academic performance, though it is an important factor. The predictive value may be moderate or weak due to complex interplay of various factors such as teaching quality, assessment methods, intelligence, and emotional well-being.

The findings of the study showed that locus of control had a weak positive predictive value for academic performance in English language and Mathematics. The results of the corresponding null hypothesis indicated that locus of control was a significant predictor of academic performance among SS2 students in public secondary schools in Anambra state. The findings of this study is in consonance with the studies of Okeke and Ukoh (2020) and Oshakuade et al (2023) whose study revealed a weak relationship between locus of control and academic performance of students. The possible reasons for this results could be that there may be other variables that influences both locus of control and academic performance, such as motivation, self-efficacy or parental involvement. If these variables are not accounted for, they can confound the relationship between locus of control and academic performance, resulting in a weak predictive value.

The findings of the study as revealed in table 5 showed that there is a joint predictive value of academic motivation and locus of control locus on academic performance in English language and Mathematics among SS2 students. The results of the corresponding null hypotheses shown in table 10 revealed that academic motivation and locus of control were joint significant predictors of academic performance in English language and Mathematics among SS2 students in public secondary schools in Anambra state. The findings agree to the study of Ali and Mitra (2019) which revealed a positive relationship among academic motivation, locus of control and academic performance. The possible reason for this result could be that the SS2 students in Anambra state have high academic motivations and locus of control. Students with high academic motivation and locus of control are more likely to believe in their ability to succeed and take actions to achieve their goals.

Conclusion

The study investigated academic motivation and locus of control as predictors of academic performance among SS2 students in public secondary schools in Anambra state. Based on the findings, the study concluded that academic motivation and locus of control had a positive predictive value for academic performance in English language and Mathematics among SS2 students in public secondary schools in Anambra state.

Recommendations

Based on the findings, the following recommendations were made:

1. Teachers should incorporate motivational strategies into their teaching methods to stimulate students' interest in subjects like English and Mathematics. Strategies such as offering constructive feedback, recognizing achievements, and encouraging a growth mindset can help foster a positive learning environment.

2. School administrators should organize regular workshops and seminars aimed at developing students' self-regulation skills and locus of control. These sessions can provide students with tools to take ownership of their learning, which is particularly beneficial for female students, who were shown to have a stronger link between locus of control and academic performance.

3. Educational stakeholders should implement policies that emphasize the importance of self-motivation and locus of control in the school curriculum. Incorporating activities that build these skills can prepare students for academic challenges, thus improving their performance across various subjects.

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