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LOCUS OF CONTROL AS PREDICTOR OF SECONDARY SCHOOL STUDENTS' ACADEMIC ACHIEVEMENT IN ENGLISH LANGUAGE AND MATHEMATICS IN DELTA STATE

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ABSTRACT

This study investigated locus of control as a predictor of secondary school students' academic achievement in Delta State, Nigeria. Two research questions guided the study, and two null hypotheses were tested at the 0.05 level of significance. A predictive correlational survey research design was adopted. The study population comprised 6,225 SS II students across 66 secondary schools, from which a sample of 1,868 students was drawn using a multi-stage sampling technique. Data were collected using the Nowicki-Strickland Locus of Control Scale and students' official terminal examination results in English Language and Mathematics, obtained from school records to ensure objectivity in measuring academic achievement. The internal consistency reliability of the instrument yielded a Cronbach alpha coefficient of 0.88. The researcher personally administered the instruments with the assistance of trained form teachers who served as research assistants. Data were analysed using simple linear regression analysis to answer the research questions and test the null hypotheses, with the aid of SPSS version 25. Findings revealed that most students exhibited an internal locus of control, while a smaller proportion displayed an external locus of control. However, locus of control (internal or external) demonstrated a weak or negative predictive value for students' academic achievement in both English Language and Mathematics. Based on these findings, it was recommended that teachers, parents, and school counsellors should enhance students' motivation and self-confidence through supportive teaching practices, counselling interventions, and home-based encouragement. Additionally, policymakers should strengthen guidance and counselling services in schools and provide resources for teacher training on learner-centred and psychologically supportive pedagogy.

Keyword: locus of control, internal, external, students, academic achievement, English language, mathematics, Delta State

Introduction

Academic achievement is a key measure of educational outcomes and an essential determinant of students' success in school and later life. It reflects the extent to which learners acquire knowledge, skills, attitudes, and competencies in specific school subjects. In Nigeria, particularly in Delta State, improving students' academic achievement remains a national priority given the strategic role of education in human capital development (Federal

Republic of Nigeria [FRN], 2014). Despite government efforts to strengthen teaching and learning, poor performance in core subjects such as English Language and Mathematics continues to pose serious challenges (Olufemi, 2021).

Academic achievement has been widely studied as a predictor of students' future educational opportunities and occupational attainment. According to Typhoon International Corp. (2004), academic achievement refers to "the degree of success in school tasks measured by teachers' ratings, standardized tests, and expressed as a numerical value." Similarly, Anyamene, et al. (2016) defined academic achievement as "students' performance in class activities, assignments, tests, and examinations which indicate their level of mastery of subject content." In the context of this study, academic achievement is conceptualized as students' measurable performance in English Language and Mathematics, as determined by their scores in standardized school tests and examinations. These two subjects are considered core because they form the basis for success in other subjects and are required for progression into higher education. However, persistent reports indicate that students' achievement in English Language and Mathematics is declining across Nigeria (Mustapha, Kachallah & Abulfathi, 2021; Agwuma, Ochogba & Agwuma, 2018). Poor performance in English Language can impede students' ability to communicate effectively and comprehend other school subjects, while weak performance in Mathematics may limit problem-solving and analytical thinking.

In Delta State, WAEC results have consistently shown mass failure, with many students unable to secure credit passes in these two compulsory subjects, thereby limiting their admission opportunities into tertiary institutions (Olufemi, 2021). Academic achievement remains one of the most important indicators of educational outcomes because it reflects the extent to which students acquire knowledge, skills, attitudes, and competencies in specific school subjects. In Nigeria, and particularly in Delta State, improving students' achievement is a key national priority because of the strategic role education plays in human capital development (FRN, 2014). Yet, persistent underperformance in English Language and Mathematics has raised major concerns among educators and policymakers. For instance, English Language is not only a school subject but also the medium of instruction for other subjects, while Mathematics serves as a gateway to logical reasoning and STEM disciplines (Adekola, Shoaga & Lawal, 2015; Agwuma, Ochogba & Agwuma, 2018).

In many Delta State schools, WAEC results continue to show low percentages of students attaining credit passes in these subjects, limiting their chances of progressing to higher education. Teachers often report that students display low motivation, weak study habits, and a tendency to attribute their failure to external causes such as difficult examinations or bad luck. This pattern suggests that many students may have an external locus of control, which is linked to poor persistence, low achievement motivation, and weak academic performance (Ahman-Mahmud, 2016; Animba, Ezema, Chukwu & Nwobodo, 2022). Research has consistently

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shown that students with an internal locus of control are more likely to take responsibility for their learning, adopt effective study strategies, and achieve higher academic outcomes (Akunne & Anyamene, 2021; Etele, et al. 2023). Conversely, students with external control beliefs often become disengaged and underperform academically. Scholars have attributed poor academic achievement to a combination of cognitive, motivational, and psychological variables, including students' self-concept, study habits, interest, and locus of control (Anyanwu & Emesi, 2020; Etele, et al. 2023; Oguzie et al., 2019). Among these, locus of control has received increasing attention as an important personality factor influencing students' achievement.

Locus of control is a psychological construct that refers to an individual's belief about the extent to which they can control events that affect them. Rotter (1954) first introduced the concept as part of social learning theory, explaining that people who perceive outcomes as contingent upon their actions have an internal locus of control, while those who attribute outcomes to external factors (luck, fate, powerful others) have an external locus of control. Halpert and Hill (2011) defined locus of control as "a generalized expectancy concerning whether reinforcements are controlled by one's own behaviour or by external forces." In the context of this study, locus of control is defined as secondary school students' generalized belief about whether their academic outcomes in English Language and Mathematics are primarily determined by their personal effort and ability (internal locus) or by external factors beyond their control (external locus).

The issue of attributional style and locus of control has become a central theme in explaining academic outcomes among Nigerian secondary school students. Studies show that many learners in this context tend to externalize the causes of their academic failures, blaming factors such as bad luck, strict teachers, or unfavourable examination conditions rather than taking responsibility for inadequate effort or ineffective study strategies (Chinedu & Nwizuzu, 2021; Esonwanne et al., 2018). Such external orientation often predisposes students to maladaptive patterns of behaviour, including learned helplessness, low persistence, and diminished motivation to improve (Etele, et al. 2023). When students perceive that success or failure is beyond their control, they are less likely to invest effort in academic tasks, thereby perpetuating cycles of underachievement. In contrast, students with an internal locus of control demonstrate a stronger belief that their performance depends on personal factors such as effort, hard work, and the use of effective study habits. This belief is positively linked with higher levels of self-regulation, resilience, and ultimately, superior academic outcomes (Akunne & Anyamene, 2021; Atibuni et al., 2017). The distinction between internal and external orientations is therefore critical in understanding variations in student achievement.

In Delta State, anecdotal evidence indicates that many secondary school students experience feelings of powerlessness regarding their academic outcomes, particularly in core subjects such as English Language and Mathematics. This sense of helplessness may partly account for the recurrent poor performance observed in

these areas, despite various interventions by schools and government. By exploring locus of control as a potential predictor of achievement, educators and policymakers can better design strategies that foster self-efficacy, personal responsibility, and adaptive study behaviours. Such an approach is likely to empower students to take greater ownership of their learning processes and improve their academic success. Although several studies have examined the relationship between locus of control and students' academic achievement in other Nigerian states (Fakeye, 2011; Ozuome et al., 2020; Samuel & Okonkwo, 2021), few have specifically focused on Delta State and on the two critical gateway subjects; English Language and Mathematics, together. Existing studies are also inconsistent, with some reporting a strong relationship between internal locus of control and high academic performance (Choudhury & Borooah, 2017), while others found no significant association (Majzub et al., 2016). Therefore, this study seeks to fill this gap by investigating locus of control as a predictor of secondary school students' academic achievement in English Language and Mathematics in Delta State. Findings will provide empirical evidence that could guide teachers, counselors, and policymakers in designing interventions to improve students' sense of personal responsibility for learning and enhance achievement outcomes in these key subjects.

Statement of the Problem

Despite various interventions by the Federal and Delta State governments—such as the supply of instructional materials, teacher training programmes, and curriculum reforms—students' performance in core subjects like English Language and Mathematics continues to fall short of expectations. In the May/June 2025 West African Senior School Certificate Examination (WASSCE), only 38.32% of candidates nationwide initially achieved credit passes in five subjects including English and Mathematics. Although WAEC later corrected errors in marking and processing, raising the adjusted pass rate to 62.96%, this still reflected a 9.16% decline compared to the 72.12% recorded in 2024. These fluctuations are troubling, especially when set against earlier higher performances (e.g., 81.70% in 2021 and 79.81% in 2023). The implications are serious because English Language is essential for communication, comprehension, and learning across subjects, while Mathematics underpins logical reasoning, problem-solving, and entry into STEM-related fields. Students who fail to secure credit passes in these subjects are often denied access to tertiary education and desirable career paths.

In Delta State, available reports and school-level records suggest that student achievement in English Language and Mathematics is below the adjusted national benchmark of ~63%. Teachers consistently observe that many students approach examinations poorly prepared, with weak study habits, shallow engagement with subject content and low expectations of success. A further concern is the psychological orientation of many students. Instead of recognising inadequate effort or poor study strategies, they tend to externalise the causes of failure, blaming factors such as bad luck, unfair marking, or difficult examiners. This external locus of control has been linked in research to

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reduced persistence, low academic self-efficacy, and weaker performance. In contrast, students with a more internal locus of control, those who attribute success to effort and strategy, tend to achieve better results. Given the recent national decline in WASSCE pass rates, the consistent challenges in Delta State, and the central role of English Language and Mathematics in academic and career progression, there is a pressing need to investigate locus of control as a psychological predictor of academic achievement. Such an inquiry is necessary to better understand student outcomes and to guide the design of effective interventions that can improve learning and performance in these critical subjects.

Purpose of the Study

The main purpose of this study was to determine locus of control, academic interest, self-esteem as predictors of secondary school students' academic achievement in Delta State. Specifically, the study will determine;

1. The predictive value of locus of control on academic achievement of secondary school students in English language in Delta State.
2. The predictive value of locus of control on academic achievement of secondary school students in mathematics in Delta State.

Research Questions

The following research questions guided the study.

1. What is the predictive value of locus of control on academic achievement of secondary school students in English language in Delta State?
2. What is the predictive value of locus of control on academic achievement of secondary school students in mathematics in Delta State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

1. Secondary school students Locus of control is not significant predictor of their academic achievement in English language in Delta State.
2. Secondary school students Locus of control is not significant predictor of their academic achievement in mathematics in Delta State.

Methods

This study adopted a correlation survey research design, which is appropriate for determining relationships between variables and predicting the extent to which one variable can forecast another. The study focused on predicting secondary school students' academic achievement in English Language from their locus of control, academic interest, and self-esteem. The research was conducted in Delta State, Nigeria, a South-South state with three senatorial districts and eleven education zones. The area of focus was Asaba education zone, which consists of four LGAs: Aniocha North, Aniocha South, Oshimili North, and Oshimili South. Despite significant educational expansion and the state's relatively high educational index, students' performance in English Language remains below expectation, justifying the study. The population comprised 6,225 SS2 students from 66 secondary schools in Asaba zone. Using a multi-stage sampling procedure, a sample of 1,868 students (30% of the population)

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was drawn proportionately from the four LGAs.The key instruments used were:

Nowicki-Strickland Locus of Control Scale (N-SLC-40) – a 40-item Yes/No inventory measuring internal vs. external control beliefs.

Academic Records – official school results in English Language and Mathematics served as objective measures of academic achievement.

Nowicki-Strickland Locus of Control Scale was validated through expert review and prior empirical use, with reliability established via Cronbach's alpha (0.88). Data were collected through direct delivery, with assistance from form teachers for questionnaire distribution, coding, and retrieval. Analysis employed SPSS v25. simple linear regression were used to answer research questions and test the null hypotheses at 0.05 significance level, using R^2 and β to interpret predictive strength.

Results

The results from the field of study were analysed and presented in tables to highlight the findings as follows:

Research Question 1: What is the predictive value of locus of control on academic achievement of secondary school students in English language in Delta State?

Null Hypothesis I: Secondary school students Locus of control is not significant predictor of their academic achievement in English language in Delta State

Table 1: Regression analysis on the predictive value of locus of control on secondary school students' academic achievement in English language in Delta State

Variable	R	R^2	R^2adjusted	B	BETA	FcalF	Cal. t	df	P-value	Remark
Locus of control	0.016	0.000	0.000			0.477		1843	0.490	NS
Internal locus					-0.240		-8.74	1249	.000	S
External locus					0.080			1.96	592 .000	S

In table 2, it was observed that students with internal locus of control had Beta of -0.240. This indicates that internal locus of control had contributed to -24.0 percent for the students' academic achievements in English language.

Also, at 1249df and 0.05 level of significant, the calculated t-8.74 with P-value 0.000 which is less than the 0.05, the first aspect of the first null hypothesis is not accepted. Therefore, internal locus of control is a negative significant predictor of the secondary school students' academic achievements in English language in Delta State.

Again table 1 shows that students with external locus of control had Beta of 0.080. This indicates that external locus of control had contributed to 8.0 percent for the students' academic achievements in English language.

Also, at 592df and 0.05 level of significant, the calculated t 1.96 with Pvalue 0.050 which is equal to 0.05, the second aspect of the first null hypothesis is not accepted. Therefore, external locus of control is a

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significant predictor of the students' academic achievements in English language in Delta State.

Research Question 2: What is the predictive value of locus of control on academic achievement of secondary school students in mathematics in Delta State?

Null Hypothesis 2: Secondary school students Locus of control is not significant predictor of their academic achievement in mathematics in Delta State

Table 2: Regression analysis on the predictive value of locus of control on secondary school students' academic achievement in mathematics in Delta State

Variable	R	R^2	R^2adjusted	B	BETA	FcalF	Cal. t	df	Pvalue	Remark
Locus of control	0.008	0.000	0.000			0.120		1843	0.729	NS
Internal locus					-0.115		-4.08	1249	.000	S
External locus					-0.205		-5.10	592	.000	S

Table 2 indicates that students with internal locus of control had Beta of -0.115. This indicates that internal locus of control had contributed to -11.5 percent for the students' academic achievements in mathematics.

Also, at 1249df and 0.05 level of significant, the calculated t-4.08 with Pvalue 0.000 which is less than the 0.05, the first aspect of the second null hypothesis is not accepted. Therefore, internal locus of control is a negative significant predictor of the secondary school students' academic achievements in mathematics in Delta State.

Again table 2 reveals that students with external locus of control had Beta of -0.205. This indicates that external locus of control had contributed to -20.5 percent for the students' academic achievements in mathematics.

In addition, at 592df and 0.05 level of significant, the calculated t5.10 with Pvalue 0.000 which is less than 0.05, the second aspect of the second null hypothesis is not accepted. Therefore, external locus of control is a negative significant predictor of the students' academic achievements in mathematics in Delta State.

Discussion

The findings of this study revealed that internal locus of control contributed negatively to the students' academic achievements in English language. This indicated that internal locus of control is a negative and significant predictor of English performance among secondary school students in Delta State. In contrast, external locus of control contributed positively to students' achievement in English language. This suggests that external locus of control is a significant predictor of English performance.

A likely explanation for these findings may be that students with high internal locus of control in this context are more likely to attribute academic failure to personal weaknesses, such as lack of ability or insufficient effort, which could lead to frustration, self-blame, and eventual

withdrawal from learning activities. In a challenging subject like English, this may reduce confidence and performance. On the other hand, students with external locus of control may attribute their success or failure to external factors such as teachers, school resources, or divine providence. This perception might reduce personal blame and encourage persistence, especially in a context where communal support and cultural beliefs in external forces (e.g., luck, fate, or spiritual help) are strong. Thus, external locus of control may have served as a motivational buffer, sustaining students' effort in English language despite difficulties.

These findings show both agreement and disagreement with earlier research (e.g., Chinedu & Nwizuzu, 2021; Animba et al., 2022). Chinedu and Nwizuzu (2021) found that external locus of control significantly predicted academic achievement in Abia State, aligning with the evidence that students relying on external factors could still achieve positively. Similarly, Animba, et al. (2022) reported that both internal and external locus of control related to achievement, but external locus was often more prominent among Nigerian students due to cultural beliefs about fate and communal responsibility. Atibuni, et al. (2017) also highlighted that locus of control influenced students' academic attitudes, and that external locus sometimes functioned as a protective factor.

Other studies also provide support. Ahman-Mahmud (2016) showed that self-concept and motivation worked differently depending on students' locus of control, while Anyamene, et al. (2017) stressed the role of school connectedness, which may interact with external control to support achievement. In the same way, Adeyemo (2005) found that parental involvement and school environment shaped self-efficacy and achievement. Thus, if students with external locus of control in Delta State felt supported by family, teachers, or peers, they may have sustained higher achievement in English.

On the other hand, some studies contradict the findings. Fakeye (2011), for example, found that locus of control was a significant correlate of achievement in English as a second language, but in his study, internal locus of control was associated with better outcomes. Similarly, Akunne and Anyamene (2021) reported that internal locus of control and academic interest positively predicted achievement among secondary school students in Anambra State. These findings contradict the present results, where internal locus of control appears to have hindered performance. The difference could be due to background factors. For instance, in Delta State, pressures such as large class sizes (Mustapha, Kachallah & Abulfathi, 2021) or poor learning environments might discourage students who internalise responsibility for learning, while those who externalise control may remain more hopeful. These differences suggest that the influence of locus of control on academic achievement may not be uniform, but shaped by contextual factors such as school conditions, cultural beliefs, and availability of external support systems.

The findings of this study showed that both internal and external locus of control were negative and significant predictors of students' achievement in Mathematics in Delta State. This means that regardless of whether students attributed success or

failure to themselves (internal) or to outside forces (external), both orientations tended to lower their performance in Mathematics. A likely reason for this outcome may be the difficulty and anxiety often associated with Mathematics as a subject. When students with a strong internal locus of control experience repeated failure in Mathematics, they may blame themselves for lacking ability or effort. This self-blame can reduce confidence and motivation, leading to poorer achievement. On the other hand, students with an external locus of control may attribute failure to external factors such as poor teaching, lack of resources, or fate. This may result in passivity and reduced personal effort, which also lowers achievement. Eduwem, Umoinyang and Otu (2017) noted that psychological factors such as anxiety and low self-concept strongly affect students' Mathematics performance, which helps explain the negative contributions of both locus types in this study.

The results agree with the work of Ahman-Mahmud (2016), who found that both internal and external locus of control could hinder achievement when linked with poor self-concept and weak motivation. Similarly, Animba, Ezema, Chukwu and Nwobodo (2022) observed that locus of control did not always improve performance, as students with extreme internal or external orientations often performed poorly in Enugu State. In the same way, Esonwanne, Nduanya, Obichina and Onyebueke (2018) reported that students with extreme locus orientations were more likely to suffer low self-esteem and depression, which interfered with learning outcomes. These studies support the present findings by showing that neither extreme internal nor external locus of control guarantees positive achievement.

However, some earlier studies disagree with the present results. For instance, Akunne and Anyamene (2021) found that internal locus of control and academic interest positively predicted achievement in Anambra State. Likewise, Tella, Tella and Adeniyi (2011) reported that internal locus of control and self-efficacy improved performance among junior secondary students in Osun State. These studies suggest that internal locus of control often enhances performance by fostering responsibility and persistence. The difference with the present study may be due to background factors. In Delta State, poor classroom environments, large class sizes, and lack of motivation from teachers (Anigbo, 2016; Mustapha, Kachallah & Abulfathi, 2021) may have made students' internal control beliefs a source of pressure and discouragement rather than empowerment.

External locus of control has also been found to sometimes relate positively to achievement. For example, Chinedu and Nwizuzu (2021) observed that external locus of control significantly predicted performance in Abia State, while Christian-Ike and Okoli (2021) reported a positive correlation between external locus of control and basic science achievement in Awka zone. These findings contrast with the present study, where external locus of control hindered Mathematics performance. The contradiction could be explained by subject differences. Unlike English or basic science, Mathematics requires consistent practice and logical reasoning, which may not be sustained when students depend on external factors.

Other studies offer further explanation. Anyanwu and Emesi (2020) found that self-concept and self-esteem significantly influenced Mathematics performance, while Nne and Ekene (2020) reported that achievement goal orientation and self-esteem predicted success in Mathematics. These results suggest that self-beliefs and motivation may mediate the relationship between locus of control and Mathematics achievement. When students' self-esteem and interest are low, both internal and external locus orientations can work negatively, as seen in the present study.

Conclusion

This study examined the predictive power of locus of control on the academic achievement of senior secondary school students in English Language and Mathematics in Delta State. The findings revealed that locus of control, whether internal or external, was a low or negative predictor of academic achievement. Specifically, internal locus of control negatively predicted students' performance in both English and Mathematics, while external locus of control showed a low positive prediction for English achievement but negatively predicted Mathematics performance. This suggests that locus of control, though present among students, does not strongly support their academic achievement in the two core subjects within the setting of Delta State.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Students should be encouraged to translate their sense of control into positive learning behaviours such as hard work, persistence, and discipline. Since many students showed low levels of self-esteem, they should be guided through counselling programmes and peer-support activities that build confidence, reduce fear of failure, and promote resilience in learning.
2. Since locus of control negatively predicted achievement in this context, teachers should help students understand how to take responsibility for their learning in realistic and constructive ways, rather than feeling defeated by challenges.

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