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

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ABSTRACT

This study examined academic interest as predictor of secondary school students' academic achievement in Delta State, Nigeria. A total of two research questions guided the study while two null hypotheses were tested at 0.05 level of significant. A predictive correlational survey research design was adopted. The population consisted of 6,225 SS II students across 66 secondary schools, from which a sample of 1,868 students was drawn using multi-stage sampling techniques. Data were collected using the Academic Interest Scale for Adolescents and students' official terminal examination results in English Language and Mathematics, obtained from school records. The instruments were administered directly by the researcher with the assistance of form teachers as research assistants. Data were analysed using simple linear regression analysis for research question and testing the null hypotheses. The Statistical Package for the Social Sciences (SPSS, version 25) was used for analysis. The findings showed that academic interest was found to be a predictor, contributing 38.3% and 48.0% to achievement in English Language and Mathematics respectively. Based on the findings, it was recommended that guidance and counselling services should be organised to promote interest in learning. Resources should be allocated to teacher development programmes that equip educators with skills for fostering motivation, confidence, and resilience among learners.

Keywords: Academic interest, students, academic achievement, English language, mathematics, Delta State

Introduction

Education is universally recognized as the cornerstone of individual development and national progress. It equips learners with the knowledge, skills, attitudes, and values necessary for personal growth, social participation, and economic productivity. According to the Federal Republic of Nigeria (FRN, 2014), education is the most powerful instrument for effecting national development, as it produces the human capital required for technological advancement, social transformation, and sustainable growth. For education to fulfil this crucial mandate, students must successfully acquire and demonstrate learning outcomes, a process often measured through academic achievement. Academic achievement serves as a vital indicator of educational effectiveness, reflecting the extent to which learners have mastered prescribed curricular content and developed competencies in key subject areas. It is commonly assessed through

continuous assessment scores, standardized tests, and terminal examinations, which provide objective measures of students' performance (Gemeay et al., 2013). High levels of academic achievement are associated with better opportunities for higher education, improved career prospects, and greater contributions to society, whereas poor achievement can limit life chances and perpetuate cycles of poverty and social inequality.

Academic achievement is commonly defined as the measurable performance of students in relation to specific learning outcomes. Adekola, Shoaga and Lawal (2015) described academic achievement as "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 other words, academic achievement represents the extent to which a student has acquired knowledge, skills, and competencies prescribed in the school curriculum, usually assessed through continuous assessment, terminal examinations, and external standardised tests. In the present study, academic achievement refers specifically to secondary school students' measurable performance in English Language and Mathematics as determined by their scores in school-based tests, examinations, and standardized assessments such as the West African Senior School Certificate Examination (WAEC). These two subjects are considered core because they are compulsory for certification, form the foundation for success in other subjects, and are prerequisites for admission into higher education programmes (Adekola, Shoaga & Lawal, 2015; Agwuma, Ochogba & Agwuma, 2018).

Academic achievement is widely recognized as a key indicator of educational outcomes and a determinant of students' success in school and later life. It reflects the extent to which students have acquired knowledge, skills, attitudes, and competencies in specific subjects. In Nigeria, and particularly in Delta State, improving students' academic achievement is a national priority due to the strategic role of education in human capital development (FRN, 2014). Despite reforms in curriculum and increased investment in teacher capacity-building, students' performance in core subjects such as English Language and Mathematics has remained consistently poor (Agwuma, Ochogba & Agwuma, 2018). These two subjects are considered critical because they serve as the foundation for learning other subjects and are compulsory for entry into higher education. Persistent low performance has raised concerns among educators, policymakers, and parents because it has the tendency to limit students' educational and occupational opportunities.

Among the many factors influencing students' achievement, academic interest has been identified as a major psychological and motivational variable (Adekunle & Femi-Adeoye, 2016; Ezike, 2018). Academic interest refers to students' positive emotional orientation, curiosity, and engagement toward a particular subject, which motivates them to invest time, effort, and attention in learning it (Kalaf-Hughes, 2019). Students who are

genuinely interested in a subject are more likely to display persistence, use deeper learning strategies, and achieve higher academic outcomes compared to students with low interest (Eberly Center, 2019). Academic interest has thus been described as a significant predictor of school success because it fuels intrinsic motivation and fosters sustained participation in learning tasks (Anigbo, 2016). In Nigeria, particularly in Delta State, concerns about students' declining academic achievement, especially in core subjects like English Language and Mathematics, have attracted the attention of educators, researchers, and policymakers (Olufemi, 2021; Agwuma, Ochogba & Agwuma, 2018). These two subjects are not only compulsory for certification but also foundational for success in other disciplines. English Language serves as the medium of instruction across the curriculum, while Mathematics fosters logical reasoning and problem-solving skills essential for participation in science, technology, engineering, and mathematics (STEM) fields (Adekola, Shoaga & Lawal, 2015). Consequently, students' achievement in these subjects is widely regarded as a proxy for overall educational quality and a determinant of future opportunities.

In the context of English Language and Mathematics, interest plays a particularly crucial role because these subjects are often perceived as difficult by many students (Eduwem, Umoinyang & Otu, 2017). Research has shown that when students develop a genuine interest in Mathematics, for instance, they are more likely to engage in problem-solving, seek help when necessary, and persist despite challenges, resulting in improved performance (Adekunle & Femi-Adeoye, 2016; Anigbo, 2016). Similarly, students who find English Language appealing tend to read widely, practice speaking and writing, and participate actively in class, which enhances their proficiency and overall academic achievement (Adekola, Shoaga & Lawal, 2015). Conversely, a lack of interest often results in avoidance behaviours, poor study habits, and underachievement. Empirical studies conducted in Nigeria support this link between academic interest and achievement. Ezike (2018), in a study of senior secondary school students in Oyo State, found that students' interest in Chemistry significantly predicted their academic achievement, explaining a substantial proportion of the variance in test scores. Adekunle and Femi-Adeoye (2016) similarly reported a strong positive correlation between students' interest and their performance in Biology. These findings highlight the importance of interest as a motivational construct that drives learning behaviours and achievement outcomes.

In Delta State, many students appear to have limited interest in English Language and Mathematics. Anecdotal evidence from teachers suggests that these subjects are often described by students as "boring" or "too difficult," which affects how they approach learning them. When students have low interest, they are less likely to engage in learning activities outside the classroom, such as voluntary reading, extra practice in problem-solving, or discussions with peers about challenging topics. This lack of engagement means that students miss opportunities to deepen their understanding and improve their skills. The pattern of low participation is reflected in the continuing poor performance of students in the West African Senior School

Certificate Examination (WAEC) in these subjects (Olufemi, 2021). Since English Language and Mathematics are compulsory for progression into higher education, poor achievement in these areas could limit students' chances of meeting admission requirements. Low interest, therefore, may be an important factor contributing to the persistent underachievement seen in Delta State schools. It is possible that increasing students' interest and making these subjects more engaging could lead to better learning outcomes and higher levels of achievement in these critical gateway subjects. Given these concerns, the present study investigated academic interest as a predictor of secondary school students' academic achievement in English Language and Mathematics in Delta State. Understanding the strength and direction of this relationship is important for teachers, counsellors, and curriculum developers, as it can guide the design of interventions that make learning more engaging, foster curiosity, and enhance students' motivation. Findings will provide evidence-based insights for targeted instructional strategies that could improve achievement outcomes in these critical subjects and boost students' chances of progressing to higher education.

Statement of the Problem

Education is widely recognised as a key driver of individual and national development, and students' academic achievement remains one of its most important indicators. In Nigeria, and particularly in Delta State, there is increasing concern about students' persistent underperformance in core subjects such as English Language and Mathematics. These two subjects are regarded as "gateway subjects" because they are compulsory for certification, serve as the foundation for success in other subjects, and are required for admission into tertiary institutions (Adekola, Shoaga & Lawal, 2015; Agwuma, Ochogba & Agwuma, 2018). Yet, Olufemi (2021) observed that results from the West African Senior School Certificate Examination (WAEC) consistently reveal that a large proportion of students fail to obtain credit passes in English Language and Mathematics, thereby limiting their progression into higher education and reducing their future career prospects. Several factors have been implicated in students' poor academic achievement, including teaching methods, home background, peer influence, self-concept, and motivation (Eduwem, Umoinyang & Otu, 2017; Anyanwu & Emesi, 2020). Among these, academic interest is increasingly recognised as a key motivational variable that can influence how students approach learning tasks. Academic interest is described as students' emotional and cognitive engagement with a subject, which drives them to participate actively, invest effort, and persist in the face of difficulties (Adekunle & Femi-Adeoye, 2016; Ezike, 2018). When students have high interest in a subject, they are more likely to pay attention in class, practise on their own, and use effective study strategies. Conversely, low interest often leads to avoidance behaviour, weak participation, and poor performance.

In Delta State, circumstantial evidence suggests that many secondary school students describe English Language and Mathematics as "boring" or "too difficult" and rarely engage in voluntary reading, problem-solving, or peer discussions outside class. This pattern of

disengagement may be a significant contributor to the recurring poor WAEC results observed in these subjects. Although previous studies have examined various psychological and cognitive factors affecting students' achievement, few have focused specifically on academic interest as a predictor of performance in English Language and Mathematics in Delta State. The extent to which students' interest predicts their academic achievement in these critical subjects therefore remains unclear. It is against this backdrop that this study seeks to investigate academic interest as a predictor of secondary school students' academic achievement in English Language and Mathematics in Delta State. Findings from this study are expected to provide evidence-based insights that will assist teachers, school counsellors, and policymakers in designing strategies to foster students' interest, thereby improving their performance and enhancing their opportunities for educational advancement.

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 determined:

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

Hypotheses

The following null hypotheses will be tested at 0.05 level of significance.

1. Secondary school students' academic interest in English language is not significant predictor of their academic achievement in English language in Delta State.
2. Secondary school students' academic interest in mathematics 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) 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 was 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 academic interest in English language on academic achievement of secondary school students in English language in Delta State?

Null Hypothesis 1: Secondary school students' academic interest in English language is not significant predictor of their academic achievement in English language in Delta State

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

Variable	R	R^2	R^2adjusted	B	BETA	Cal. t	df	P-value	Remark
Academic Interest	0.383	0.146	0.146		0.383	17.77	1843	0.000	S

Table 1 reveals that students with academic interest in English language had Beta of 0.383. This indicates that academic interest in English language had contributed to 38.3 percent for the students' academic achievements in English language in Delta state.

Again, at 1843df and 0.05 level of significant, the calculated t17.77 with P-value 0.000 which is less than the 0.05, the third null hypothesis is not accepted. Therefore, academic interest in English language is a significant predictor of the secondary school students' academic achievements in English language in Delta State.

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

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

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

Variable	R	R^2	R^2adjusted	B	BETA	Cal. t	df	P-value	Remark
Academic Interest S	0.480	0.230	0.230		0.480	23.48	1843	0.000	

Table 2 shows that students with academic interest in mathematics had Beta of 0.480. This indicates that academic interest in mathematics had contributed to 48.0 percent for the students' academic achievements in mathematics in Delta state. Again, at 1843df and 0.05 level of significant, the calculated t23.48 with P-value 0.000 which is less than the 0.05, the fourth null hypothesis is not accepted. Therefore, academic interest in mathematics is a significant predictor of the secondary school students' academic achievements in mathematics in Delta State.

Discussion of Findings

Academic Interest in English Language and Achievement of Secondary School Students in English Language

The findings of this study revealed that academic interest is a strong and significant predictor of performance in English language. In practical terms, students who developed a genuine interest in English were more likely to engage deeply with learning tasks, practise consistently, and remain motivated, which improved their performance in the subject. A likely reason for this outcome is that interest influences motivation, attention, and effort. When students are interested in English, they find learning enjoyable rather than burdensome, which sustains concentration during reading, writing, and comprehension activities. According to Paul (2014), interest acts as a driving force that increases persistence in learning. Similarly, Rotgans and Schmidt (2013) argued that interest enhances intrinsic motivation, which leads students to take responsibility for their learning. In the Nigerian context, where English is both a subject and a medium of instruction, students' interest in it can make a substantial difference in academic achievement across all school subjects.

This finding agrees with previous empirical studies that linked interest with improved achievement (Adekola et al., 2015; Adekunle & Femi-Adeoye, 2016; Akunne & Anyamene, 2021). Adekola, Shoaga and Lawal (2015) found that students' performance in English language was strongly related to their overall academic performance, suggesting that interest in English positively influences learning outcomes in general. Similarly, Adekunle and Femi-Adeoye (2016) reported that students' attitude and interest significantly

predicted performance in Biology, reinforcing the role of interest as a crucial factor in learning across subjects. These studies confirm that academic interest contributes positively to achievement, which is consistent with the present findings.

Further agreement is seen in the study of Akunne and Anyamene (2021), who found that academic interest, was a significant predictor of academic achievement among students in Anambra State. Their work highlighted that, students with high levels of interest performed better regardless of their locus of control orientation. Likewise, Ezike (2018) established that classroom environment and academic interest were strong correlates of achievement in Chemistry, supporting the idea that interest drives performance across different disciplines. Internationally, Krapp, Schiefele and Winteler (2009) in their meta-analysis also concluded that interest consistently predicts achievement across subjects and contexts.

However, some studies suggest that academic interest alone may not always guarantee success. For instance, Agwuma, Ochogba and Agwuma (2018) reported that determinants of Mathematics achievement in Rivers State included both psychological and environmental factors, meaning that while interest is important, it must interact with supportive conditions such as effective teaching and adequate resources. Similarly, Anigbo (2016) observed that factors like poor teaching methods and lack of encouragement reduced students' interest in Mathematics, which in turn lowered achievement. These findings highlight that interest is powerful but can be undermined by negative school or classroom conditions.

Academic Interest in Mathematics and Academic Achievement in Mathematics

The findings of this study revealed that academic interest is a strong and significant predictor of performance in the subject. In other words, students who developed genuine interest in Mathematics tended to achieve better results than those who lacked such interest. A likely reason for this outcome is that interest stimulates intrinsic motivation, which enhances concentration, persistence, and effort in learning tasks. When students find Mathematics enjoyable and meaningful, they are more likely to practise problem-solving, engage in class, and seek additional learning opportunities outside the classroom. As Silvia (2006) and Paul (2014) have noted, interest is a central driver of learning because it sustains attention and reduces boredom or avoidance behaviours. Mathematics, being a subject that demands consistent practice, benefits greatly from the motivational effects of interest. Conversely, lack of interest often leads to anxiety, avoidance, and poor achievement (Eduwem, Umoinyang & Otu, 2017).

The present findings agree with several earlier studies (e.g., Adekunle & Femi-Adeoye, 2016; Akunne & Anyamene, 2021; Wong & Hall, 2019). Adekunle and Femi-Adeoye (2016) found that students' attitudes and interest were strong correlates of academic performance in Biology, which suggests that interest plays a similar role across science-related subjects. Likewise, Ezike (2018) also reported that classroom environment and academic interest were key correlates of Chemistry achievement, highlighting how interest operates across different learning contexts. At the international level, Krapp, Schiefele and Winteler (2009) in their meta-analysis also

concluded that interest is a consistent predictor of academic achievement.

The findings also align with Akunne and Anyamene (2021), who observed that academic interest significantly predicted students' academic achievement in Anambra State. Similarly, Onah and Anamezie (2022) confirmed that academic interest was a significant predictor of achievement among Physics students, further reinforcing the general conclusion that interest in a subject directly enhances performance. Wong and Hall (2019) also demonstrated that interest improved Mathematics performance in a technology-enhanced learning environment in Malaysia, supporting the universality of this relationship.

However, some studies suggest that interest alone may not guarantee success if other conditions are unfavourable. For example, Agwuma, Ochogba and Agwuma (2018) found that determinants of Mathematics achievement in Rivers State included not only interest but also environmental and psychological factors, such as effective teaching and adequate learning resources. Similarly, Anigbo (2016) reported that poor teaching methods and lack of encouragement reduced students' interest in Mathematics, which in turn lowered achievement. Systemic issues such as inadequate facilities and large class sizes often undermine students' learning regardless of their level of interest. These studies highlight that while interest is a strong predictor, it requires a supportive learning environment to translate into consistent achievement.

Conclusion

This study examined the predictive power of academic interest on the academic achievement of senior secondary school students in English Language and Mathematics in Delta State. The findings revealed that academic interest emerged as significant and positive predictor of achievement. Academic interest contributed 38.3 percent and 48.0 percent to students' success in English and Mathematics respectively, making it a strong predictor. The findings highlight the central role of motivation and self-worth in academic success, showing that students with strong interest in learning and a positive sense of self are more likely to perform well in school. Based on these results, the study concluded that academic interest significantly determined how well students perform in English Language and Mathematics.

Recommendations

Based on the findings of this study, the following recommendations are made:
Teachers should adopt interactive teaching methods that sustain students' already high interest in English Language and Mathematics, since interest was found to be the strongest predictor of achievement.

1. Parents should support their children by encouraging positive self-belief, providing guidance, and reinforcing the value of effort alongside academic success. They should also collaborate with teachers to monitor progress and sustain students' interest in school subjects through home-based support such as providing reading materials, encouraging problem-solving, and engaging in academic discussions.
2. Guidance and counselling services should be strengthened in schools to promote students' interest in learning. Resources should be allocated to teacher development programmes that

equip educators with skills for fostering motivation, confidence, and resilience among learners.

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