

Perception of personality traits and adverse childhood experience as predictors of academic achievement among selected secondary school Students in Nyanya Abuja, Nigeria

Kathryn, Une Obaike, Akawu, Monday, Augustine Nalah Bala², & Emmanuel Alhassan

^{1,2,3,4} **Department of Psychology, Faculty of Social Sciences, Nasarawa State University, Keffi. email Kateobaike@gmail.com 08135267431**

ABSTRACT

This study examined Perception of personality traits and adverse childhood experience as predictors of academic achievement among selected secondary school student In Nyanya Abuja, Nigeria. This study investigated the Perception of personality Traits and adverse childhood experience as predictors of academic achievement among selected secondary school student. A survey research design was used to select a sample of 191 participants, population 377. In addition to providing demographic data, participants responded to (3) standardized self-report, questionnaires. Data was analyzed using appropriate descriptive and inferential statistics. On the whole, three hypotheses were formulated and inferentially tested at 0.05 level of significant, using simple linear and multiple regression analysis. Findings revealed

that personality traits (openness to experience, extraversion, conscientiousness, neuroticism and agreeableness) significantly and jointly predicted academic achievement among secondary school students [$R = .430$; $R^2 = .185$; $F(5, 182) = 8.262$; $p < .001$]. In addition, finding revealed that adverse childhood experience significantly predicted academic achievement among government secondary school students [$\beta = -.379$, $t = -5.616$; $p = .001$]. Given these results, findings confirm all the hypotheses formulated for the study and highlight the importance of addressing psychological and behavioral risk concluded and recommended Government should provide Interventions targeting, Schools management should provide strengthen guidance and counselling units to provide psychological support for students experiencing emotional.

Keywords: personality traits and adverse childhood and academic achievement

Introduction

Academic achievement remains one of the most widely used indicators of educational success across the world. It reflects the extent to which learners have attained the expected knowledge, skills, competencies, and behavioral outcomes set by educational systems. Globally (Balogun, J.A.2023; Moore 2019) academic achievement is not only a measure of individual student performance but also a benchmark for evaluating school effectiveness, national educational progress, and human capital development. Because education is strongly linked with economic productivity, social mobility, and long-term wellbeing, academic outcomes have become central to research, policy planning, and psychological inquiry.

Researchers note that academic achievement is influenced by multiple interacting factors: cognitive ability, school environment, home

background, mental health, personality characteristics, and childhood experiences (Liu et al., 2022). Studies across Europe, North America, and Asia highlight a similar pattern: students who demonstrate strong academic achievement often show high levels of self-discipline, intrinsic motivation, emotional stability, and supportive home environments. Conversely, students exposed to chronic stress, trauma, poor parental support, or unstable social environments tend to experience learning difficulties, reduced concentration, absenteeism, and lower educational outcomes (Mbaluka et al., 2021).

Increasingly, global research has moved away from viewing academic achievement solely through the lens of IQ or cognitive capacity. Instead, scholars now emphasize non-cognitive factors such as personality traits, socio-emotional competencies, and adverse childhood experiences. This shift reflects the understanding that learning is deeply shaped by students' emotional wellbeing, temperament, and early childhood environment (LoBue, V., & Ogren, M. 2022; Nasvytiene & Lazdauskas, 2021; li et al., 2023). In Nigeria, academic achievement has become a major concern due to persistent decline in performance at both basic and senior secondary levels. Reports from the West African Examinations Council (WAEC) and the National Examinations Council (NECO) consistently show low pass rates, particularly in core subjects such as Mathematics and English Language. Several scholars attribute this trend to a combination of

student-related, home-related, and systemic factors (Peng & Kievit, 2020).

These trends highlight the need to examine academic achievement not only from a cognitive or infrastructural viewpoint but also through the psychological factors that shape students' learning behavior (Badei et al., 2024; Ezepue et al., 2025).

Big Five model conscientiousness, openness, extraversion, agreeableness, and neuroticism are widely recognized as influential in academic contexts. Conscientiousness, which includes traits such as organization, diligence, and responsibility, is consistently associated with higher academic achievement across various cultural contexts (Poropat, 2009). Openness to experience, which fosters intellectual curiosity and creativity, also supports learning and cognitive engagement. Conversely, high neuroticism often correlates with anxiety and emotional instability, negatively impacting academic outcomes (O'Connor & Paunonen, 2007).

Adverse childhood experiences, such as abuse, neglect, and household dysfunction, are known to impair emotional and cognitive development, which in turn affects academic performance. High ACE scores are linked to poorer educational outcomes, including lower grades, increased behavioral problems, and higher dropout rates (Anda et al., 2006). ACEs can interfere with brain development, especially in regions

associated with memory, attention, and emotional regulation, all of which are critical for academic success (Shonkoff et al., 2012).

Adverse Childhood Experiences (ACEs) are a significant public health concern with profound implications for various aspects of human development, including academic performance. These experiences, which encompass various forms of abuse, neglect, and household dysfunction, are known to have lasting effects on cognitive, emotional, and social functioning. The impact of ACEs on academic performance is a global issue, transcending geographic, economic, and cultural boundaries.

Adverse childhood experiences refer to potentially traumatic events that occur before the age of 18 including various forms of abuse, neglect, and household dysfunction, these are significant stressors that can have long-lasting impacts on individual's psychological and physical health. These experiences can hinder a student's ability to perform academically due to their impact on cognitive functioning; emotional regulation and social interactions. Children with high ACE scores often struggle with emotional regulation, leading to increased anxiety, depression and behavioral problems. These emotional issues can interfere with their ability to focus, participate in class and complete assignments. Adverse childhood experiences (ACEs) disrupt the development of executive functions such as planning, organizing and impulse control, which are crucial for academic success.

Statement of the Problem

Academic achievement is widely regarded as a crucial determinant of future success and socio-economic mobility. However, it is increasingly evident that students' academic outcomes are not solely influenced by cognitive abilities or educational resources, but also by psychological and emotional factors, including personality traits and adverse childhood experiences (ACEs). While personality traits such as conscientiousness, openness, and emotional stability have been associated with academic achievement, the presence of adverse experiences in childhood, such as abuse, neglect, or exposure to domestic violence, can significantly impair cognitive functioning and emotional regulation, leading to poor academic achievement.

Despite growing global recognition of these influences, there remains a lack of integrated understanding of how personality traits and ACEs jointly affect academic performance, particularly from the perspective of students themselves. In many educational systems, academic difficulties are often attributed to external factors such as teaching quality or curriculum design, while internal psychological and developmental factors are overlooked. Furthermore, the subjective perception of these influences—how students interpret their own personality traits and early life experiences in relation to their academic journey—has not been sufficiently explored.

This gap in understanding limits the ability of educators, policymakers, and mental health professionals to design effective interventions that address the holistic needs of students.

Research Questions

- i. Does Big Five personality traits (openness to experience, extraversion, conscientiousness, neuroticism and agreeableness) significantly predict academic achievement among government secondary school students Nyanya, Abuja, Nigeria?
- ii. Does adverse childhood experience significantly predict academic achievement of government secondary school students Nyanya, Abuja Nigeri

Hypotheses

Based on the literature review, the following hypotheses are proposed;

- i. Big Five personality traits (openness to experience, extraversion, conscientiousness, neuroticism and agreeableness) will significantly predict academic achievement among government secondary school students Nyanya, Abuja, Nigeria.
- ii. Adverse childhood experience will significantly predict academic achievement of government secondary school students Nyanya, Abuja, Nigeria.

Significance of Study

Findings from this research work would be beneficial to the teachers, researchers, students, parents and the society at large.

Teacher(s): findings from this research work will enable teachers to pair students whose personality traits positively influence academic achievement with others whose personality traits negatively influence academic achievement during learning. Hence, the problem of poor performance amongst students will be reduced.

Researcher(s): results from this study will enlighten the researcher and other researchers who might likely carry out similar research in the future on students whose personality traits and adverse childhood experience affect academic achievement whether negatively or positively.

Student(s): findings from this student will enlighten each student on whether his/her personality trait and adverse childhood experience influence academic achievement positively or otherwise. it may also make students re-adjust, if need be, so as to perform better in school.

Parent(s): outcome from this research will educate parents on the existence of different personality traits and its influence on academic achievement. This will make them to encourage their neurotic children to have more confidence in themselves and their abilities.

Society: findings from this study would be beneficial to every member of the society as it will educate them on the influence of the major five (5) personality traits (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) and Adverse childhood

experiences on academic performance of students in secondary schools.

Scope of the Study

This study examined the perception of personality traits and adverse childhood experiences (ACEs) as predictors of academic achievement among secondary school students in Nyanya, Abuja, Nigeria. The study was delimited to selected government secondary school students within Nyanya and focused specifically on students within the senior secondary school category.

Conceptual Clarification/Literature review

This section presents the conceptual definitions of key variables in the study and critically reviews related empirical literature to provide a theoretical and research-based foundation for understanding the relationship between of personality traits and adverse childhood experiences (ACEs) as predictors of academic achievement

Personality Traits and Academic Achievement

Research on personality traits and academic achievement has consistently demonstrated that dispositional characteristics significantly predict educational outcomes beyond cognitive ability. Most empirical studies are grounded in the Five-Factor Model (FFM) developed by Paul Costa and Robert McCrae (1992). Across studies, conscientiousness emerges as the most powerful and consistent predictor of academic success. A landmark meta-analysis by Poropat

(2009), synthesizing findings from over 70,000 students, found that conscientiousness had mean correlation of $r = .22$ with academic performance. When controlling for intelligence, conscientiousness remained a significant predictor. The predictive strength was comparable to IQ in some samples.

Midenda and Owonwami (2023) conducted a study to examine the extent to which personality traits predict academic achievement among undergraduate students in public universities in Adamawa State, Nigeria. The aim of the study was to determine whether the five major personality traits openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism serve as significant predictors of students' academic performance. The researchers adopted a quantitative survey design and used a sample of 330 undergraduate students selected through a multistage sampling technique from a population of 2,287 students across public universities in the state. The Big Five Inventory (BFI) was employed to measure personality traits, while students' cumulative grade point averages (CGPA) were collected through a pro forma to measure academic achievement. Reliability of the instrument was confirmed with a Cronbach's alpha coefficient of 0.875, indicating good internal consistency. Data were analyzed using descriptive statistics and multiple regression analysis at a 0.05 level of significance.

The results revealed that the Big Five personality traits jointly predicted students' academic achievement with a significant regression model ($F = 173.666$, $p < .05$) and a strong predictive value ($R = 73.6\%$). Among the five traits, conscientiousness and openness to experience emerged as the strongest positive predictors of academic achievement, while neuroticism showed a negative association with academic outcomes. The findings suggest that students who are organized, disciplined, intellectually curious, and emotionally stable tend to perform better academically compared to those with higher levels of anxiety or emotional instability. The researchers concluded that personality traits constitute an important psychological factor influencing academic performance and recommended that educators and academic counsellors should help students develop positive personality characteristics such as conscientiousness and emotional stability in order to enhance their academic success.

Similarly, Ude and Akintunde (2020) investigated the relationship between personality traits and achievement motivation among students in tertiary institutions in Plateau State, Nigeria, with the broader implication of understanding how personality influences academic outcomes. The aim of the study was to determine whether the dimensions of personality traits significantly relate to students' motivation to achieve academically. The researchers employed a cross-sectional survey design involving 333 undergraduate students drawn

from a population of about 2,000 second-year students across five tertiary institutions in Plateau State. Data were collected using structured self-administered questionnaires, including the 44-item Big Five Inventory to assess personality traits and a 32-item Achievement Motivation Inventory to measure students' motivation for academic success. The reliability of the instruments was confirmed with Cronbach alpha coefficients above 0.70, indicating acceptable internal consistency. Pearson Product Moment Correlation (PPMC) was used to test the hypotheses at a 0.05 level of significance.

Adverse Childhood Experiences and Academic Achievement

The impact of ACEs on academic performance has been extensively documented. Anda et al. (2006) demonstrated that students exposed to multiple ACEs were more likely to experience cognitive difficulties, behavioral issues, and decreased school engagement. Similarly, Jimenez et al. (2016) found a dose-response relationship between ACE scores and academic performance among elementary students: the higher the number of ACEs, the lower the academic achievement.

Aderonke et al. (2025) investigated the relationship between adverse childhood experiences, personality traits, and psychological outcomes among adolescents in Nigeria. The aim of the study was to examine how exposure to childhood adversity contributes to emotional and behavioral difficulties that may affect students' functioning and academic engagement. The researchers adopted a cross-sectional

survey design and utilized a multistage sampling technique to select 357 in-school adolescents from five secondary schools in Lagos State, Nigeria. Participants comprised 138 males (38.7%) and 219 females (61.3%). The results showed that adverse childhood experiences were prevalent among the participants, with 23.8% reporting mild exposure, 33.1% moderate exposure, and 13.4% severe exposure to childhood adversity. Furthermore, the findings revealed that ACEs significantly predicted internalizing psychological problems such as anxiety and depression, accounting for approximately 16% of variance in anxiety and 26% in depression among the adolescents. These psychological difficulties were found to interfere with students' concentration, emotional regulation, and participation in academic activities, thereby negatively influencing their academic performance.

Similarly, a study conducted by Lawal and Abdul Malik (2024) examined the association between adverse childhood experiences and psychosocial wellbeing among university students in Nigeria. The aim of the study was to determine whether exposure to childhood adversity predicts psychological and social difficulties among undergraduate students, which may ultimately affect their academic functioning. The researchers adopted a cross-sectional research design involving 277 preclinical medical students in their second and third years at the University of Ibadan. The findings revealed that approximately 40.8% of the students reported at least one category of adverse childhood

experience, including emotional abuse, physical abuse, parental separation, and sexual abuse. The study further demonstrated that exposure to adverse childhood experiences was significantly associated with lower psychosocial wellbeing and reduced self-esteem among the students. Individuals who had experienced ACEs were about six times more likely to exhibit low self-esteem compared to those without such experiences. Another important empirical investigation was conducted by Morenike et al. (2020) who examined the relationship between adverse childhood experiences, bullying victimization, resilience, social support, and self-esteem among Nigerian children and adolescents. The aim of the study was to evaluate the reliability of ACE measurement scales and to explore how childhood adversity relates to important psychosocial factors that influence educational outcomes. The researchers adopted a correlational research design involving Nigerian children and adolescents who completed standardized psychological instruments measuring adverse childhood experiences, self-esteem, resilience, social support, and bullying victimization. The results of the study indicated that adverse childhood experiences were negatively associated with protective psychological factors such as resilience, social support, and self-esteem, while they were positively associated with bullying victimization. These findings suggest that children exposed to high levels of adversity tend to experience reduced psychological resources necessary for effective learning and academic

engagement. Lower self-esteem and reduced resilience may lead to decreased motivation, poor classroom participation, and difficulty coping with academic challenges. Conversely, students with stronger social support networks and higher resilience were better able to cope with the negative effects of childhood adversity and maintain positive educational outcomes.

Methodology

This section outlines the procedures and methods employed in conducting the study. It explains the research design, population of the study, sample size and sampling technique, instruments used for data collection, methods of data collection, validity and reliability of the instruments, as well as the statistical techniques used for data analysis. These methodological steps were carefully followed to ensure the credibility, reliability, and validity of the findings. influence perception of personality traits and adverse childhood experiences (ACEs) as predictors of academic achievement among secondary school students in Nyanya, Abuja, Nigeria

Population, Sample and Sampling Size Techniques

The study population include students from Government secondary school, Nyanya, Abuja, from SS 1-3, ranging from age 15-18. The total populations in this school were 377 as of the time of this research. The study participants were randomly selected using multi stage sampling technique, the reason for using multi stage sampling is to enable the

researcher breakdown the population into smaller units so that data collection would be more efficient.

A random sample was used to select student using a probability sampling technique, which in this study is stratified random sampling, to ensure representativeness across the district. A total of 190 students were selected for the study and among the sampled students, 68 The sample size for this study was determined using Rao soft sample size calculator. The calculator has both online and offline calculator, but for the purpose of this study, the online version will be used to determine the participants for the study. The margin of error that was be accepted is 5% with the confidence level of 95%. (Evidence of the calculation is attached in the appendix section as Appendix A).

To calculate the sample size using Rao soft's sampling formula, we need to set the following parameters (Rao soft's defaults):

Margin of error (e): 5%

Confidence level (Z): 95%

Population size (N): 377

Response distribution (**p**): 50% (most conservative estimate)

$$n = \frac{N \cdot Z^2 \cdot P(1-P)}{e^2 (N-1) + Z^2 \cdot P(1-P)}$$

where:

N=377

Z=1.96Z = 1.96Z=1.96 (for 95% confidence level)

$$p=0.5p = 0.5p=0.5$$

$$e=0.05e = 0.05e=0.05$$

$$n = 191$$

Hence, the required Sample Size is approximately 190 respondents

Research Instrument

Three instruments were used in this study. These are:

Section A: Big Five Inventory (BFI). The Big Five Inventory developed by John et al., (1991) was used to measure personality traits from a five-dimension perspective (i.e., extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience). The BFI contains 44-items designed and scored on 5-point Likert-format ranging from 1 (Disagree Strongly) to 5 (Strongly Agree). All items of the BFI are scored directly. Umeh (2004) validated the Big Five Inventory (BFI) and provided the psychometric properties for Nigerian Samples. John et al. (1991) obtained a Coefficient alpha of .80 and a 3-month test-retest Coefficient of .85. The Big Five Inventory has mean convergent validity coefficient of .75 and .85 with the Big Five Instrument authored by McCrea and Costa (1992) and Golberg (1992) respectively. The divergent validity Coefficients obtained by Umeh (2004) correlating the BFI with University Maladjusted Scale (Kleinmuntz,1961) are Extraversion .05, Agreeableness .13, Conscientiousness .11, Neuroticism .39, and Openness .24. The norms for the scale are extraversion 27.10, agreeableness 28.75,

conscientiousness 29.60, neuroticism 24.48, and openness to experience 35.18. Scores equal to or higher than the norms indicate that the individual manifests the specific personality trait while scores lower than the norm indicates that the individual does not manifest the specific personality trait. **Section B: The Childhood Trauma Questionnaire (CTQ).** Childhood Trauma Questionnaire is one of the most widely used questionnaire to measure adverse childhood experience. The CTQ is a self-report instrument that assesses different types of childhood maltreatment, including emotional, physical, and sexual abuse, as well as emotional and physical neglect. It has been widely used in research and clinical settings to assess the impact of childhood trauma on various outcomes, including mental health and well-being. The CTQ has shown strong internal consistency reliability across its subscales. The original study by Bernstein and Fink (1994) reported high Cronbach's alpha coefficients for each of the five subscales at .851: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. Subsequent studies and reviews have consistently found high internal consistency for the CTQ, indicating its reliability in measuring childhood trauma experiences. For the purpose of this study, the scale demonstrates a Cronbach Alpha of up to .75. The Childhood Trauma Questionnaire (CTQ) is scored based on participants' responses to its items. The questionnaire consists of 28 items, and respondents rate each item on a 5-point Likert

scale, ranging from "never true" to "very often true." The CTQ items are divided into five subscales, each corresponding to a specific type of childhood trauma.

Section C: Academic Achievement Questionnaire .Academic achievement scale used for this study was developed by Křeménková and Novotný (2020) and tagged as new measure of academic achievement, which tested the reliability and factor structure of academic achievement questionnaire (AAQ). It is a 9-item scale developed to measure academic achievement with sample items such as 'What is your average (most common) exam mark during university study?', 'How well can you organize your time for study?' among others, with response format ranging from 1 - 7, (not at all to without problem). Two studies were conducted on two unique samples comprising a total of 1,153 university students. The first study with a pilot version of AAQ confirmed the three-factor structure using an exploratory factor analysis and specified 9 items for the final version of questionnaire. The second study using an exploratory and confirmatory factor analyses supported the three-factor structure and showed good goodness-of-fit of the instrument (CFI = .995, TFI = .998, IFI = .995, RMSEA = .028), convergent and discriminant validity (AVE = .502 to .562 being higher than .5, MSV = .162 and ASV = .115 being lower than AVE, and 95% confidence intervals being other than 1), as well as acceptable reliability (McDonald's omega of .908, .727, and .529 and composite reliability greater than .7).

Techniques for Data Analysis

To test the research hypotheses, a combination of statistical techniques was employed, based on the nature of each hypothesis and the relationships being investigated. Descriptive statistics was first used to summarize the characteristics of the study sample, including mean scores and standard deviations for demographic characteristics. To examine Hypothesis 1 and 3, multiple regression was used for testing, while simple linear regression was used for testing Hypothesis 2, Pearson's correlation coefficient was also used for testing multicollinearity for the study. Statistical Package for Social Science (SPSS) was used in conducting the analysis.

Hypothesis One

This hypothesis stated that Big Five personality traits (openness to experience, extraversion, conscientiousness, neuroticism and agreeableness) will significantly predict academic achievement among government secondary school students Nyanya, Abuja, Nigeria. This was tested using multiple regression and the result is presented in table 3.

Table 3:

Summary of multiple regression showing personality traits (openness, extraversion, conscientiousness, neuroticism and agreeableness) as predictor of academic achievement among secondary school students

DV	Predictor(s)	β	t	p	R	R ²	F	df	P
----	--------------	---------	---	---	---	----------------	---	----	---

Academic Achievement	Constant				.430	.185	8.262	5,182	<.001
	Openness	-.457	-2.991	<.01					
	Extraversion	-.507	-5.356	<.001					
	Conscientiousness	.504	4.568	<.001					
	Neuroticism	-.087	-.931	>.05					
	Agreeableness	.572	4.374	<.001					

**** $p < .001$**

Result in table 3 shows that personality traits (openness to experience, extraversion, conscientiousness, neuroticism and agreeableness) significantly and jointly predicted academic achievement among secondary school students in Nyanya Abuja Nigeria [$R = .430$; $R^2 = .185$; $F(5, 182) = 8.262$; $p < .001$]. Observation of coefficient of determination [$R^2 = .185$] shows that all the dimensions of personality significantly and jointly accounted for 18.5% of the total variance observed in academic achievement among students. Based on this result, hypothesis one which stated that 'that Big Five personality traits (openness to experience, extraversion, conscientiousness, neuroticism and agreeableness) will significantly predict academic achievement among government secondary school students Nyanya, Abuja, Nigeria' was therefore accepted.

On the independent basis, the result showed that openness to experience [$\beta = -.457$, $t = -2.991$; $p < .01$], extraversion [$\beta = -.507$, $t = -5.356$; $p < .001$] negatively and independently predicted academic achievement, while conscientiousness [$\beta = .504$, $t = 4.568$; $p < .001$] and agreeableness [$\beta = .572$, $t = 4.374$; $p < .001$] positively and independently predicted academic achievement significantly among secondary school students in Nyanya, Abuja Nigeria. The result further showed, on the other hand that, neuroticism [$\beta = -.087$, $t = -.931$; $p > .05$] did not significantly and independently predict academic achievement among secondary school students in Nyanya, Abuja Nigeria.

Hypothesis Two

This hypothesis stated that adverse childhood experience will significantly predict academic achievement of government secondary school students in Nyanya, Abuja, Nigeria. This was tested using simple linear regression analysis and the result is presented in table 4.

Table 4:
Summary of simple linear regression showing adverse childhood experience as a predictor of academic achievement among secondary school students in Abuja Nigeria

Model		Unstandardize d Coefficients	Standardi zed Coefficien t	t	Sig
		B	Std. Error	B	
1	Academic Achievement	29.37	1.970	14.90	.00
	Constant	5		8	0

Adverse Childhood Experience	-.088	.016	-.379	-5.616	.00 0
------------------------------------	-------	------	-------	--------	----------

Result in table 4 shows that adverse childhood experience significantly predicted academic achievement among government secondary school students in Nasarawa State, Nigeria [$\beta = -.379$, $t = -5.616$; $p = .001$]. Adverse childhood experience significantly and negatively predicted academic achievement, meaning that secondary school students, who had adverse childhood experience significantly scored low on academic achievement, while those with low adverse childhood experience had higher level of academic achievement. Based on this result, hypothesis two which stated that ‘adverse childhood experience will significantly predict academic achievement of government secondary school students Nyanya, Abuja, Nigeria’ was therefore accepted.

Discussion of the finding

This study was conducted to investigate personality traits and adverse childhood experience as predictors of academic achievement among government secondary school students in Nyanya Abuja, Nigeria. Three hypotheses were formulated and tested the results are presented in the previous chapter. The findings of the present study revealed that the Big Five personality traits jointly and significantly predicted academic achievement among secondary school students in Nyanya Abuja,

Nigeria. Specifically, the regression result indicated that personality traits accounted for 18.5% of the total variance observed in academic achievement among the students. This suggests that personality dispositions play a meaningful role in explaining differences in students' academic performance. The finding supports the growing body of literature which posits that personality characteristics influence how students approach learning tasks, regulate their study behavior, and persist in academic activities.

For instance, a study by Midenda and Owonwami (2023) found that personality traits significantly predicted academic achievement among undergraduate students in Nigerian universities, with the Big Five traits jointly explaining a substantial proportion of variance in academic performance. Similarly, Poropat (2009) conducted a large meta-analysis involving several samples and concluded that personality traits are reliable predictors of academic achievement across educational levels, particularly within the Big Five framework. The implication of these findings is that personality traits shape students' behavioral tendencies such as diligence, persistence, curiosity, and emotional stability, all of which are crucial for academic success.

Similarly, the negative relationship between extraversion and academic achievement found in this study may be explained by the tendency of highly extraverted students to engage more in social activities and external stimulation, which may reduce the time and concentration

required for academic tasks. This finding corroborates earlier research by Chamorro-Premuzic and Furnham (2003) who reported that extraversion may negatively predict academic performance because extraverted individuals often prioritize social interaction over solitary study activities. However, the present finding contrasts with studies such as Ude and Akintunde (2020) who reported positive relationships between some personality traits and academic motivation among Nigerian tertiary institution students. The discrepancy may be attributed to differences in educational level, cultural context, and the nature of academic demands faced by secondary school students compared to university students.

Furthermore, the findings revealed that conscientiousness and agreeableness positively and significantly predicted academic achievement among the students, whereas neuroticism did not significantly predict academic achievement. The positive influence of conscientiousness on academic achievement is consistent with numerous empirical studies identifying conscientiousness as the strongest personality predictor of academic success. Students who are conscientious tend to be organized, disciplined, responsible, and persistent in their academic pursuits, which naturally enhances their academic performance. Supporting this finding, Poropat (2009) reported that conscientiousness consistently demonstrates the strongest positive relationship with academic achievement across

various educational contexts. Similarly, Komarraju, Karau, Schmeck, and Avdic (2011) found that conscientious students employ effective study strategies and demonstrate higher academic motivation, which ultimately contributes to better academic outcomes.

The positive relationship between agreeableness and academic achievement observed in this study may also be attributed to the cooperative and compliant nature of agreeable students, who are more likely to maintain positive relationships with teachers and peers, thereby fostering a supportive learning environment. In contrast, neuroticism did not significantly predict academic achievement among the students in this study. Although neuroticism is often associated with anxiety and emotional instability that may hinder academic performance, some studies have reported non-significant relationships depending on contextual and individual coping factors. For example, Komarraju et al. (2011) noted that while neuroticism may influence emotional experiences in academic settings, its direct impact on academic performance is sometimes weak or inconsistent. Overall, the findings highlight the importance of personality characteristics particularly conscientiousness and agreeableness in promoting academic success among secondary school students.

From the second hypothesis, the finding revealed that adverse childhood experiences (ACEs) significantly and negatively predicted

academic achievement among government secondary school students in Nyanya, Nasarawa State, Nigeria. Specifically, the regression result indicated that adverse childhood experiences had a significant negative influence on students' academic performance ($\beta = -.379$, $t = -5.616$; $p = .001$). This implies that students who reported higher levels of childhood adversity tended to perform poorly academically, whereas those with lower exposure to adverse childhood experiences demonstrated better academic outcomes. The acceptance of the second hypothesis therefore confirms that early life experiences play a significant role in shaping students' educational development and performance in school. This finding is consistent with the theoretical assumption that stressful and traumatic childhood experiences can negatively affect cognitive functioning, emotional stability, and motivation for learning, all of which are essential for academic success. Empirical studies have supported this relationship.

For example, Bethell et al. (2017) found that children exposed to multiple adverse childhood experiences were significantly more likely to experience academic difficulties and poor school engagement. Similarly, Perfect et al. (2016) reported that adverse childhood experiences such as abuse, neglect, and household dysfunction often disrupt children's emotional regulation and cognitive development, which consequently impairs their ability to concentrate, learn effectively, and achieve academically. These findings therefore

reinforce the view that childhood adversity constitutes a critical risk factor for poor educational outcomes.

Conclusion

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

- i. Personality traits (openness to experience, extraversion, conscientiousness, neuroticism and agreeableness) significantly and jointly predicted academic achievement among secondary school students in Nyanya Abuja.
- ii. Adverse childhood experience significantly predicted academic achievement among secondary school students in Nyanya, Abuja.
- iii. Personality traits and adverse childhood experience significantly and jointly presented academic achievement among secondary school students in Nyanya, Abuja.

Recommendation

Based on the finding of this study, the following recommendations were provided;

- i. Schools should strengthen guidance and counselling units to provide psychological support for students experiencing emotional or behavioral challenges arising from adverse childhood experiences.
- ii. Teachers and school administrators should design programs and classroom activities that encourage the

development of positive personality traits such as conscientiousness, responsibility, cooperation, and emotional stability among students.

- iii. Parents and guardians should be educated on the impact of adverse childhood experiences on students' academic achievement and psychological wellbeing. Schools and community organizations can organize workshops, seminars, and awareness campaigns to encourage parents to provide supportive, stable, and nurturing home environments that foster healthy emotional and cognitive development in children.

REFERENCES

- Achor, E. E., Ejeh, E. E., Kayode, B. S., & Adache, V. F. (2024). Perceived impact of personality traits on the academic performance of students in biology. *Innovare Journal of Education*, 12(2), 1-7.
- Akintola, A. A., Ogungbemi, T. M., Akpunne, B. C., & Ojo, T. E. (2025). Adverse childhood experiences, personality traits and internalizing disorder among adolescents in Nigeria. *South African Journal of Psychiatry*, 31, 1-9.
- Allport, G.W. (1937). *Personality: A psychological interpretation*. Holt.
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., ... & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. *European Archives of Psychiatry and Clinical Neuroscience*, 256(3), 174-186.
- Anwar, Z., Hanurawan, F., Chusniyah, T., Setiyowati, N., & Rehman, S. (2024). Measurement models and predictors of student academic success: A systematic literature review. *Scientia Social Sciences*.
- Badei, J., Akpadaka, O. G., & Ireyejoju, P. J. (2024). Strategies for addressing issues and challenges affecting access to quality education in Nigeria. *Fuoye International Journal of Education*, 7(1).
- Balogun, J. A. (2023). *Reimagining Nigeria's Educational System: Improving Academic Performance Through High Stakes Standardized Testing*. Routledge.

- Bethell, C. D., Davis, M. B., Gombojav, N., Stumbo, S., & Powers, K. (2017). A national and across-state profile on adverse childhood experiences among children and possibilities to heal and thrive. *Academic Pediatrics, 17*(7), S130-S142.
- Blodgett, C., & Lanigan, J. D. (2018). The association between ACEs and academic outcomes: school-based study. *School Psychology Quarterly, 33*(1), 137-146.
- Chamorro-Premuzic, T., & Furnham, A. (2003). Personality traits and academic examination performance. *European Journal of Personality, 17*(3), 237-250.
- Costa, P.T., & McCrae, R.R. (1992). Revised NEO personality inventory (NEO PI-R) and NEO five-factor inventory (NEO-FFI) professional manual. Psychological Assessment Resources
- Cristobal, E., Flavián, C. & Guinaliu, M. (2007) Perceived E-Service Quality (PeSQ) Measurement Validation and Effects on Consumer Satisfaction and Web Site Loyalty. *Managing Service Quality: An International Journal, 17*, 317-340.
- Dube, S. R., Cook, M. L., & Edwards, V. J. (2010). Health-related outcomes of adverse childhood experiences in Texas, 2002. Preventing Chronic Disease.
- Ezepue, E. I., Nduka, C. U., & Nweke, P. O. (2025). Factors Influencing Academic Performance of Public Secondary School Students in Enugu Education Zone, Enugu State-Nigeria. *Pakistan Journal of Life & Social Sciences, 23*(1).
- Folayan, M. O., Oginni, O., Arowolo, O., El Tantawi, M., (2020). Internal consistency and correlation of the adverse childhood experiences, bully victimization, self-esteem, resilience, and social support scales in Nigerian children. *BMC Research Notes, 13*(331), 1-6.
- Goldberg, L.R. (1993). *The structure of phenotypic personality traits American Psychologist, 48*(1), 26-34
- Hahm, H. C., Cook, B. L., Ault-Brutus, A., & Alegria, M. (2020). The ambiguous measurement of adverse childhood experiences: A critique and call for refinement. *Social Science & Medicine.*
- Harith, S. H., Ahmad, A., & Suhaini, M. (2020). Factors influencing student achievement: A systematic review. *International Journal of Psychosocial Rehabilitation, 24*(5), 550-560.
- Heaven, P. C. L., & Ciarrochi, J. (2012). When IQ is not everything: The role of personality and self-efficacy in predicting academic performance. *Personality and Individual Differences, 53*(5), 518-522.

- Huang, C. C., Tan, Y., Cheung, S. P., & Hu, H. (2021). Adverse childhood experiences and psychological well-being: The role of resilience. *International Journal of Environmental Research and Public Health*, 18(4), 1636.
- Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L., & Dunne, M. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *The Lancet Public Health*, 2(8), e356–e366.
- Jimenez, M. E., Wade, R., Lin, Y., Morrow, L. M., & Reichman, N. E. (2016). Adverse experiences in early childhood and kindergarten outcomes. *Pediatrics*, 137(2), e20151839.
- John, O.P., Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp.102-138). Guilford press.
- Kagan, J., & Segal, J. (1988). Temperamental predictors of behavior. In N. Fox & Davidson (Eds.), *The developmental of emotion and personality*(pp.185-211).
- Komarraju, M., Karau, S. J., Schmeck, R. R., & Avdic, A. (2011). The Big Five personality traits, learning styles, and academic achievement. *Personality and Individual Differences*, 51(4), 472–477.
- Křeménková, L., & Novotný, J. S. (2020). New measure of academic achievement: testing the reliability and factor structure of the Academic Achievement Questionnaire (AAQ). *Core and expressed personality traits as possible determinants of academic functioning" IGA_PDF_2020_025*: Page 1 - 16.
- Lawal, O. T., & Abdulmalik, J. O. (2024). Adverse childhood experiences and psychosocial wellbeing among preclinical medical students of the University of Ibadan. *African Journal of Biomedical Research*, 23(SE1), 47–52.
- Li, S., Tang, Y., & Zheng, Y. (2023). How the home learning environment contributes to children's social-emotional competence. *Frontiers in psychology*, 14, 1065978.
- Liu, J., Peng, P., Zhao, B., & Luo, L. (2022). Socioeconomic status and academic achievement in primary and secondary education: A meta-analytic review. *Educational Psychology Review*, 34(4), 2867–2896.
- LoBue, V., & Ogren, M. (2022). How the emotional environment shapes the emotional life of the child. *Policy insights from the behavioral and Brian Sciences*

- Marie J. Chartier, Walker, J.R., & Naimi, T.s. (2010). Health risks and behaviors associated with adverse childhood experiences in Alberta, Canada. *Canadian Journal of Public Health*
- Mbaluka, S. N., Brand, J. L., & Henry Saturne, B. (2021). Associating student self-discipline and parental involvement in students' academic activities with student academic performance. *Journal of research on Christian education*, 30(3), 270-293.
- Midenda, S. J., & Owonwami, I. T. (2023). Personality traits as predictors of academic achievement among undergraduate education students in public universities in Adamawa State, Nigeria. *Kwara State University Journal of Education Research*, 6(1), 45-56.
- Miller-Lewis, L. R., Searle, A. K., Sawyer, M. G., Baghurst, P. A., & Hedley, D. (2013). Resource factors for mental health resilience in early childhood: An analysis with multiple methodologies. *Child and Adolescent Psychiatry and Mental Health*, 7(1), 6.
- Mischel, W. (1968). Personality and assessment. John Wiley & Sons
- Moore, P. J. (2019). Academic achievement. *Educational Psychology*, 39(8), 981-983.
- Nasvytiene, D., & Lazdauskas, T. (2021). Temperament and academic achievement in children: A meta-analysis. *European Journal of investigation in Health, Psychology and Education*, 11(3), 736-757
- Naumann, J., & Soto, C. R (2008). Personality traits across the lifespan: stability and Change. In O.P. John, R.W. Robins, & L.A. Pervin (Eds.), *Handbook of Personality: theory and research*
- O'Connor, M. C., & Paunonen, S. V. (2007). Big Five personality predictors of post-secondary academic performance. *Personality and Individual Differences*, 43(5), 971-990.
- Oshri, A., Duprey, E. B., Liu, S., & Mumford, E. A. (2018). The interaction between personality traits and early life adversity in predicting academic success. *Development and Psychopathology*, 30(4), 1493-1507.
- Peng, P., & Kievit, R. A. (2020). The development of academic achievement and cognitive abilities: A bidirectional perspective. *Child development perspectives*, 14(1), 15-20.
- Pervin, L.A. (1975). Personality: Theory, assessment, and research. John Wiley. & Sons.
- Qu, G., Shu, L., Liu, H., et al. (2024). Association between adverse childhood experiences and academic performance among children and adolescents: *A meta-analysis. Trauma, Violence, & Abuse.*
- Ryckman, R.M (2024). Theories of personality (11th ed). *Cengage Learning*.

- Sarif, M. N., & Vandana. (2022). Correlates and antecedents of academic achievement: A systematic review. *International Journal of Educational Sciences*, 36(1-3), 19-29.
- Seman, K., & Ismail, Z. (2019). Big five personality traits on academic performance among foundation students. *Asian Social science and Humanities Research Journal*
- Shonkoff, J. P., Garner, A. S., & The Committee on Psychosocial Aspects of Child and Family Health. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*, 129(1), e232-e246.
- Taiwo, D.E., & Amadi, G.N. (2019). Personality. *traits and academic under achievement of secondary school students in Bayelsa State, Nigeria*
- Tan, C. Y. (2024). Socioeconomic status and student learning: Insights from an umbrella review. *Educational Psychology Review*.
- Ude, U. E., & Akintunde, O. O. (2020). Personality traits and achievement motivation among tertiary institution students in Plateau State, Nigeria. *Asian Journal of Education and Social Studies*, 11(2), 8-17.
- UNICEF. (2017). *A Familiar Face: Violence in the lives of children and adolescents*. United Nations Children's Fund.
- Wang, X. S., Perry, L. B., & Malpique, A. (2023). Factors predicting mathematics achievement in PISA: A systematic review. *Large-Scale Assessments in Education*.
- Wickrama, K.A.S., & Noh, S. (2010). Family economic hardship and adolescent problem behaviors: An examination of mediating and moderating processes. *Journal of family issues*, 31(5), 611-635
- Zhu, Y., Zhang, G., & Anme, T. (2023). Adverse childhood experiences, resilience, and emotional problems in children. *International Journal of Environmental Research and Public Health*, 20(4), 3028.