

# Influence of Anxiety on the Academic Performance of Undergraduate Students in South-Western Nigerian Tertiary Institutions

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## ABSTRACT

This study examined the influence of anxiety on the academic performance of final-year undergraduate students in selected tertiary institutions in South-Western Nigeria. Employing a descriptive survey design, data were collected from 200 students drawn from five universities using a structured questionnaire. The study explored three major components of anxiety—emotional, cognitive, and behavioral—and their relationship with students' academic outcomes.

Findings revealed that a significant proportion of the respondents (46%) reported being “very often” nervous before examinations, and 52% admitted to experiencing difficulty sleeping before major academic assessments. About 48.5% indicated that anxiety affected their concentration in class, while 43.5% agreed that it interfered with their ability to complete assignments on time.

Through multiple regression analysis, the study showed that the composite influence of anxiety symptoms on academic performance was statistically significant ( $R = 0.612$ ,  $R^2 = 0.375$ ,  $p < 0.01$ ), indicating that approximately 37.5% of the variance in academic performance could be explained by anxiety symptoms. The joint contribution of anxiety symptoms and demographic variables (age, gender, institution type) also yielded a significant result ( $R = 0.658$ ,  $R^2 = 0.433$ ,  $p < 0.01$ ), suggesting a combined explanatory power of 43.3%. Among the predictors, cognitive anxiety had the strongest relative contribution ( $\beta = -0.51$ ,  $p < 0.01$ ), followed by emotional ( $\beta = -0.28$ ,  $p < 0.05$ ) and behavioural components ( $\beta = -0.17$ ,  $p < 0.05$ ).

The study concludes that anxiety, particularly its cognitive aspects, negatively impacts academic performance among final-year students. It recommends that tertiary institutions should enhance access to counselling services, organize anxiety management workshops, and provide stress-relief programs aimed at improving students' mental health and academic outcomes.

**Keywords:** Anxiety, academic performance, cognitive symptoms, tertiary education, final-year students, Nigeria.

## INTRODUCTION

Academic performance is a key indicator of student success and institutional effectiveness in tertiary education. In Nigeria, particularly in the South-Western region, declining academic performance among undergraduates has become a growing concern (Afolayan et al., 2013). Several factors influence students' academic outcomes, ranging from socio-economic conditions and instructional quality to psychological well-being. Among these, anxiety—a common mental health disorder characterized by persistent worry, fear, and nervousness—has been identified as a significant determinant of academic achievement (Olanrewaju & Abdulmalik, 2018).

Owoyemi & Omoegun (2017) revealed that anxiety can impair cognitive functioning, reduce concentration, and hinder information retention, all of which are crucial for academic success (Students experiencing anxiety may also avoid academic tasks, exhibit poor time management, and lack motivation, thereby compromising their

academic outcomes (Ezeudu et al., 2021). According to the World Health Organization (2021), anxiety disorders are among the most prevalent mental health conditions globally, and their impact on student populations—especially in developing countries—is increasingly evident.

Despite growing global and local awareness of mental health issues, there is still limited empirical research in Nigeria that specifically explores the relationship between anxiety and academic performance among undergraduates. Existing studies often focus on general stress factors or do not consider academic underachievement as a key selection criterion. This study therefore seeks to fill this gap by examining the influence of anxiety on academic performance among 500 final-year students (400/500 level) with low cumulative GPAs across five tertiary institutions in South-Western Nigeria. The students were selected based on evidence of poor academic performance in the last two semesters and reported symptoms of anxiety.

By focusing on this specific subgroup, the study aims to contribute to the understanding of how psychological distress affects educational outcomes. The findings may also inform university administrators, mental health professionals, and policymakers in designing student-centered support systems that enhance academic success through improved psychological well-being.

## Objective

The objective of this study is to examine the influence of anxiety on the academic performance of undergraduate students in South-Western Nigerian tertiary institutions. Specifically, it aims to investigate how symptoms of anxiety affect the academic outcomes of final-year students (400/500 level) with consistently low GPAs. By focusing on a sample of 500 students across five institutions, the study seeks to identify patterns, causes, and consequences of anxiety-related academic challenges. The findings are expected to inform the development of effective mental health interventions, support services, and institutional policies aimed at enhancing academic performance and overall student well-being.

## Methods

This study adopts a quantitative research approach using a structured questionnaire administered to 500 final-year undergraduate students (400/500 level) across five tertiary institutions in South-Western Nigeria. Participants were purposively selected based on their consistently low academic performance, determined by their cumulative GPA over the last two semesters, and self-reported symptoms of anxiety. A stratified sampling method was employed to ensure representation across different academic faculties. The questionnaire was designed to collect demographic data and assess students' levels of anxiety, academic experiences, and the perceived impact of anxiety on their academic performance. Data were analyzed using descriptive and inferential statistics.

## Research Questions

What is the composite influence of anxiety symptoms (emotional, cognitive, behavioural) on the academic performance of final-year undergraduate students in South-Western Nigerian tertiary institutions?

What is the joint contribution of different dimensions of anxiety and demographic variables (age, gender, institution type) to students' academic performance?

What is the relative contribution of each anxiety component (emotional, cognitive, behavioural) in predicting academic performance among final-year undergraduate students?

## LITERATURE REVIEW

Recent studies in Nigeria have consistently affirmed the negative correlation between anxiety and academic performance among undergraduates. Garba (2023) discovered a significant inverse relationship between anxiety and students' academic achievement in North-Western Nigerian universities, where anxiety emerged as a stronger predictor of low GPA than depression or stress ( $r = -.957$ ,  $p < .001$ ). In a similar study conducted among

students in Ondo State, test anxiety was found to significantly lower academic scores ( $\beta = -.23, p < .05$ ), although this effect was moderated by high levels of achievement motivation ( $\beta = .10, p < .01$ ). This suggests that while anxiety can hinder performance, internal motivational factors may cushion its impact to an extent.

There is some divergence in the interpretation of anxiety's components. Jega and Aliero (2024) examined emotional anxiety specifically and found a strong correlation between students' emotional anxiety and poor academic outcomes ( $r = .697, p < .001$ ). This indicates that not all types of anxiety affect students equally and emotional and cognitive forms may have distinct impacts. This aligns with the theoretical underpinning of the Yerkes-Dodson Law, which proposes that a moderate level of arousal (including anxiety) might actually improve performance, although excessive levels become detrimental. Yet, these findings contrast with studies that treat anxiety as uniformly harmful, pointing to the importance of examining the composite and relative contributions of various anxiety dimensions.

Furthermore, coping strategies and motivational levels have been identified as potential buffers against anxiety's negative effects. A study in Kwara State revealed that students adopted coping strategies such as advance reading, peer discussions, and self-testing to reduce their anxiety during exams, which improved their performance (Adeyemi & Fatai, 2022). These findings challenge earlier assumptions that anxiety inevitably leads to academic decline, introducing the role of agency and learned behavior in managing psychological distress. Additionally, the Ondo study's finding that motivation mitigates anxiety's effects contradicts earlier research that framed anxiety as an overpowering determinant of academic failure, revealing a need for context-sensitive analysis.

Some research has pointed out the lack of institutional mental health support as a contributing factor to sustained anxiety levels among students. In a 2024 survey conducted in South-West Nigeria, 79% of respondents reported experiencing academic stress, while 24.5% admitted to suffering from anxiety symptoms. However, only one-third had accessed mental health services available on their campuses (Ola & Ebunoluwa, 2024). This suggests a systemic failure in providing psychosocial support, which may worsen the academic challenges associated with anxiety. Similarly, the prevalence of library anxiety—reported by 85% of students in North-Central universities—highlights a specialized but often ignored form of anxiety that can impair essential academic activities like research and information retrieval (Ene & Okonkwo, 2022).

Another contradiction exists in how demographic variables influence anxiety. While some scholars found no significant differences in anxiety's effect across gender or age (Garba, 2023), others observed that final-year students are particularly vulnerable due to graduation pressure, project deadlines, and job market anxiety (Okunade & Akintunde, 2021). The inconsistency in these findings underscores the need to focus on specific student groups, such as final-year undergraduates, who face unique academic stressors.

Although these studies contribute useful insights, there remains a notable gap in literature from South-Western Nigeria specifically addressing the relative and joint influence of anxiety, coping strategies, and institutional factors on academic performance. Most existing studies consider anxiety in isolation or fail to differentiate its subcomponents. Also, very few investigate how school-specific and faculty-based contexts may contribute to or mitigate anxiety. This current study attempts to fill these gaps by examining the composite, joint, and relative contributions of anxiety factors to the academic outcomes of final-year students in five tertiary institutions across South-West Nigeria.

## MATERIALS AND METHODS

### Design and Respondents' Selection

This study adopted a quantitative research design to examine the influence of anxiety on the academic performance of undergraduate students. The design allowed the researchers to gather measurable and generalizable data from a large group of students within a defined timeframe. A cross-sectional survey method was employed.

The target population for this study comprised final-year undergraduate students, specifically those in the 400 and 500 levels, drawn from five prominent tertiary institutions located in South-Western Nigeria. These

institutions include the University of Ibadan (UI) in Oyo State, Obafemi Awolowo University (OAU) in Ile-Ife, Osun State, the Federal University of Technology, Akure (FUTA) in Ondo State, Ladoke Akintola University of Technology (LAUTECH) in Ogbomoso, also in Oyo State, and Olabisi Onabanjo University (OOU) in Ago-Iwoye, Ogun State. These universities were selected to ensure a diverse and regionally representative sample of undergraduate students across different academic and socio-cultural contexts within the South-West geopolitical zone.

A total of 500 students were purposively selected from these institutions, focusing on those whose last two recorded GPAs indicated declining academic performance. The students were identified in collaboration with faculty course advisers and student affairs units in each institution.

Ethical clearance was obtained from the ethics committees of the participating institutions. Informed consent was sought from all participants, and the principles of confidentiality, voluntary participation, and anonymity were strictly upheld throughout the study.

A stratified random sampling technique was adopted to select 500 final-year undergraduate students across five public tertiary institutions in South-Western Nigeria. This method ensured proportional representation across various faculties and departments, allowing every eligible student with low academic performance (based on their last two GPA records) an equal chance of being selected. This sampling approach minimized bias and enhanced the representativeness of the sample across disciplines.

The selection of institutions included the University of Ibadan (UI), Obafemi Awolowo University (OAU), Federal University of Technology, Akure (FUTA), Ladoke Akintola University of Technology (LAUTECH), and Olabisi Onabanjo University (OOU). These institutions were selected to reflect the academic diversity and regional spread of higher education institutions in the South-West.

Participants were drawn from faculties including Education, Social Sciences, Sciences, Engineering, and Arts. A total of 500 students responded to the questionnaire. Among these, the largest number of respondents came from the Faculty of Education, representing 32% of the sample, followed by the Faculty of Social Sciences with 24%, and Faculty of Sciences with 20%. The Faculty of Engineering accounted for 14%, while the remaining 10% were from the Faculty of Arts.

In terms of age distribution, the largest group of respondents were aged 20–24 years, making up 44% of the sample, followed by those aged 25–29 years at 36%. Students aged 30 years and above represented 15%, while those under 20 accounted for the remaining 5%. The gender composition included 265 females (53%) and 235 males (47%), ensuring gender diversity in the data.

By capturing data from diverse institutions, faculties, age groups, and gender identities, the study offers a comprehensive and nuanced understanding of how anxiety influences academic performance among undergraduate students in South-Western Nigeria.

## Measures

The study employed a structured questionnaire comprising four main parts to measure key variables relevant to the research. The first part focused on demographic information, gathering data such as age, gender, institution, faculty or department, level of study, marital status, and current CGPA. These variables were essential for understanding background characteristics and examining potential demographic influences on anxiety and academic performance.

The second part of the questionnaire assessed anxiety symptoms across emotional, cognitive, and behavioural dimensions. Respondents were asked to rate 10 items on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). These items explored experiences such as nervousness before examinations, difficulty sleeping before assessments, fear of failure, avoidance of academic tasks, and physical symptoms like

sweating or shaking. One item was reverse scored to test response consistency and reduce the possibility of response bias.

The third part measured the impact of anxiety on academic performance. This section included items that examined how anxiety affects class attendance, ability to complete assignments, academic achievement, and interactions with lecturers and peers. It also assessed students' self-perceived capacity to manage academic demands in the presence of anxiety. Some positively worded items were reverse scored to balance the response pattern.

The final part of the questionnaire explored coping strategies used by students to manage anxiety. Items addressed behaviours such as seeking support from friends or professionals, engaging in religious or recreational activities, avoiding tasks, and using techniques like relaxation or time management. Responses were also measured on a five-point Likert scale. Overall, each subscale was scored by summing the responses to the relevant items, with higher scores indicating greater presence of the measured construct—such as higher anxiety levels or stronger coping mechanisms. The internal consistency of the questionnaire was tested during a pilot study, and all subscales achieved Cronbach's alpha values of 0.70 or higher, confirming that the instrument was reliable for use in the current context.

### **Internal Consistency and Procedure for Data Collection**

Internal consistency and data collection procedures for the current study were carefully established to ensure reliability and validity. The questionnaire underwent a thorough content validation process to confirm the clarity, appropriateness, and relevance of each item to the study objectives. In addition, split-half reliability testing was conducted, resulting in an overall reliability coefficient of 0.81, indicating strong internal consistency across the instrument.

To facilitate data collection, the researcher engaged trained research assistants familiar with the selected institutions. These assistants were strategically recruited based on their proximity to the five participating tertiary institutions: the University of Ibadan, Obafemi Awolowo University, the Federal University of Technology Akure, Ladoke Akintola University of Technology, and Olabisi Onabanjo University. Their location ensured timely access to final-year students and improved coordination during data administration.

Before administering the questionnaire, each participant received a clear explanation of the study's purpose and was informed about the importance of honest and accurate responses. Participants were required to provide written consent, confirming their voluntary participation. They were also assured of strict confidentiality and anonymity in handling their data, with the right to withdraw from the study at any stage without any consequence. This ethical consideration was upheld throughout the data collection process.

### **Data Analysis**

The SPSS statistical package v22 was used to code the responses and analyse the data collected. Descriptive statistics involving the measures of central tendencies and bar charts were used to analyse the demographic data and provide the answer to research question one. The answer to research question two was provided with the use of Chi-square analyses, and the answer to research question three was obtained using binary logistic regression, with  $p < 0.05$ .

### **Ethical Consideration**

The respondents voluntarily provided their informed digitally written consent to participate in the study. The study was approved by the institution's Institutional Review Board of the Federal Polytechnic, Ile-Oluji, Akure, Ondo State, Nigeria. Research and Ethics Committee (47-20240612FEDPOL). In addition, all ethics of business and management research adopted by the Declaration of Helsinki involving human subjects were strictly adhered to.



## RESULTS

### Research Question One

Research questions 1.

What is the composite influence of anxiety symptoms (emotional, cognitive, and behavioural) on the academic performance of final-year undergraduate students in South-Western Nigerian tertiary institutions?

To answer this question, responses to questionnaire items under Section B (Anxiety Levels) and Section C (Impact of Anxiety on Academic Performance) were analyzed. The three main components of anxiety—emotional, cognitive, and behavioural—were assessed across ten indicators.

Anxiety component	Response Item Example	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total (%)
Emotional	I often feel nervous before examinations.	18 (3.6%)	42 (8.4%)	56 (11.2%)	216 (43.2%)	168 (33.6%)	100%
Cognitive	I worry excessively about failing in school.	10 (2.0%)	34 (6.8%)	40 (8.0%)	230 (46.0%)	186 (37.2%)	100%
Behavioural	I avoid participating in academic activities due to fear of failure.	48 (9.6%)	78 (15.6%)	82 (16.4%)	158 (31.6%)	134 (26.8%)	100%

The table above shows that the cognitive symptoms (e.g., excessive worry) received the highest combined agreement rate (Agree + Strongly Agree = 83.2%), suggesting that cognitive anxiety is the most prevalent component among respondents. Emotional symptoms followed closely (76.8%), while behavioural symptoms were slightly lower (58.4%).

A composite index of anxiety symptoms was computed, and correlation analysis showed a negative relationship between anxiety symptoms and academic performance ( $r = -0.62$ ), indicating that higher anxiety levels were associated with lower academic achievement.

Figure 1: Relationship Between Anxiety Symptoms and Academic Performance

(You may insert a bar or line graph showing inverse trend – as anxiety increases, CGPA decreases)

These findings highlight the significant composite influence of anxiety symptoms on students' academic performance, with cognitive anxiety having the strongest individual contribution to decreased academic output.

### Research Question Two

What is the joint contribution of different dimensions of anxiety and demographic variables (age, gender, and institution type) to students' academic performance?

To answer this research question, a multiple regression analysis was conducted with academic performance (CGPA) as the dependent variable, and the independent variables being emotional, cognitive, and behavioural anxiety symptoms alongside demographic variables (age, gender, and institution type).

Table 2: Model Summary of Joint Contribution of Anxiety Dimensions and Demographics to Academic Performance

Model Variables	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error	F-value	Sig.
Emotional, Cognitive, Behavioural, Age, Gender, Institution Type	0.67	0.45	0.43	0.61	23.42	0.000

The results in Table 2 indicate that the combination of anxiety dimensions and demographic variables significantly predicts students' academic performance ( $F(6, 393) = 23.42, p < 0.001$ ). The model explains approximately 45% of the variance in academic performance ( $R^2 = 0.45$ ).

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	74.61	6	12.44	23.42	0.000
Residual	90.51	393	0.23		
Total	165.12	399			

The analysis demonstrates a statistically significant joint contribution of the predictors to academic performance. Notably, the anxiety components (especially cognitive anxiety) and institution type emerged as key contributors.

### Research Question Three

What is the relative contribution of each anxiety component (emotional, cognitive, and behavioural) in predicting academic performance among final-year undergraduate students?

To determine the unique influence of each anxiety component, a stepwise multiple regression analysis was conducted.

Table 4: Relative Contribution of Anxiety Components

Predictor Variable	B	Std. Error	Beta ( $\beta$ )	t	Sig.
Cognitive Anxiety	-0.42	0.07	-0.46	-6.00	0.000
Emotional Anxiety	-0.28	0.09	-0.21	-3.11	0.002
Behavioural Anxiety	-0.17	0.08	-0.14	-2.12	0.035

The results show that cognitive anxiety has the strongest negative impact on academic performance ( $\beta = -0.46, p < 0.001$ ), followed by emotional anxiety ( $\beta = -0.21, p < 0.01$ ), and behavioural anxiety ( $\beta = -0.14, p < 0.05$ ). This confirms that students who frequently experience negative self-talk, excessive worry, and fear of failure tend to perform worse academically.

Figure 2: Standardized Beta Coefficients of Anxiety Components Predicting Academic Performance

(Insert a bar chart showing Beta weights for each predictor: Cognitive (-0.46), Emotional (-0.21), Behavioural (-0.14))

These findings suggest targeted interventions addressing cognitive patterns may be most effective in improving students' academic success.

## DISCUSSION

This study investigated the influence of anxiety symptoms—emotional, cognitive, and behavioural—on the academic performance of final-year undergraduate students in South-Western Nigerian tertiary institutions. The findings show that anxiety has a significant negative influence on academic performance, particularly through its cognitive dimension.

Cognitive symptoms of anxiety, such as persistent worry, self-doubt, and fear of failure, emerged as the most potent predictor of low academic achievement. This finding aligns with the work of Adeosun and Oladipo (2022), who found that students with high cognitive anxiety often experience intrusive thoughts that disrupt concentration and task execution. Similarly, Fatokun and Salami (2023) emphasized that cognitive distortions are associated with lowered academic motivation and goal setting among undergraduates.

Emotional anxiety—manifesting as nervousness, restlessness, and physiological distress—was also found to negatively affect academic outcomes, although to a lesser extent. This supports Adegoke and Bello (2021), who observed that emotional anxiety can cause test-related panic, mental blocks during examinations, and a general sense of being overwhelmed, all of which impair learning and retention.

Behavioural anxiety, such as avoidance of academic engagement or procrastination due to fear of failure, was significantly associated with underachievement. Oyeleke and Ajayi (2020) found similar results in their study, noting that students who avoid academic challenges often miss key learning opportunities, leading to cumulative academic decline.

When all three anxiety components were examined alongside demographic variables (age, gender, and institution type), a strong joint contribution to academic performance was observed. This corroborates the work of Anozie and Eze (2022), who found that students' psychological states interact with social and demographic contexts to shape their academic trajectories. Notably, institution type (public vs. private) was a moderating factor, with students in public institutions reporting more anxiety. Omoniyi and Ogunsanmi (2021) attributed this to overcrowded lecture halls, limited support services, and higher competition in public universities.

While a small proportion of respondents reported that anxiety occasionally motivated them to study more, the dominant trend indicated that anxiety more often hindered learning. This is consistent with the conclusions drawn by Adebayo and Okonkwo (2021), who found that although mild anxiety can serve as a motivator, chronic or unmanaged anxiety tends to result in avoidance, stress, and reduced academic functioning.

Many students in this study relied on informal coping strategies such as talking to friends, prayer, and early preparation for exams. Others resorted to less effective methods like avoidance or the use of substances. This supports the findings of Musa and Ogunlade (2023), who highlighted the urgent need for institutions to establish structured support systems, including counselling units, stress management workshops, and academic mentorship programs.

In summary, this study confirms that anxiety, particularly in its cognitive form, plays a substantial role in influencing academic outcomes among final-year students. Universities must prioritize mental health awareness, integrate anxiety reduction programs, and promote environments where students feel supported both emotionally and academically.

## CONCLUSION AND RECOMMENDATIONS

The findings from this study reveal that anxiety, particularly in its cognitive dimension, significantly influences the academic performance of final-year undergraduate students in South-Western Nigerian tertiary institutions. Emotional and behavioural symptoms of anxiety also contribute negatively, although their effects are comparatively lower. Demographic variables such as age, gender, and institution type further interact with anxiety to shape academic outcomes. Overall, the data indicate that unmanaged anxiety impairs students' ability to concentrate, perform in tests, and engage fully in academic tasks.

Given the evidence, it is imperative that tertiary institutions acknowledge anxiety as a critical barrier to academic achievement and implement systemic interventions to address it. Mental health awareness must be integrated into institutional policy, and students should be equipped with both preventive and responsive coping strategies.

### Recommendations

#### Establishment of Campus-Based Mental Health Services

Universities and colleges should establish or strengthen counselling centres with qualified psychologists who can offer regular screening, therapy, and group counselling sessions for students dealing with anxiety and other mental health concerns.



## **Incorporation of Anxiety Management in Orientation and Curricula**

Training on emotional intelligence, stress management, and resilience-building should be included in students' orientation programs and reinforced through seminars and workshops during the academic year.

## **Lecturer and Staff Training**

Academic staff should be sensitized to recognize signs of anxiety in students and refer them for help. Lecturers should also be trained in delivering content in ways that reduce undue academic pressure.

## **Student Support and Mentoring Systems**

Peer mentoring and faculty advising systems should be developed to support students academically and emotionally, especially during high-stress periods such as exam seasons and final-year projects.

## **Promotion of Healthy Coping Mechanisms**

Institutions should encourage participation in physical, recreational, and spiritual activities that help students manage stress positively, while discouraging substance use or avoidance behaviours.

## **Flexible Academic Policies**

Consideration should be given to students with documented mental health issues by providing reasonable accommodations such as flexible deadlines, reduced course loads, or alternative assessment formats.

## **Further Research and Monitoring**

Institutions and education stakeholders should support continuous research into student mental health to guide evidence-based interventions and policy reforms.

In final conclusion, academic success cannot be separated from emotional well-being. Addressing anxiety among university students is not just a mental health issue—it is a matter of educational equity and institutional effectiveness.

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