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# INFLUENCE OF EXAMINATION ANXIETY ON THE ACADEMIC ACHIEVEMENT OF SENIOR SECONDARY SCHOOL STUDENTS IN MATHEMATICS IN AFIKPO EDUCATION ZONE OF EBONYI STATE

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## ABSTRACT

*The study investigated Influence of Examination Anxiety on the Academic Achievement of Senior Secondary School Students in Mathematics in Afikpo Education Zone of Ebonyi State. The study was guided by three specific purposes, three research questions and three hypotheses. Descriptive survey research design was adopted for the study. The population of the study was 2,498 Senior Secondary II Students in Afikpo Education Zones in Ebonyi State. (1,196 males and 1,302 females). Taro Yamane model was used to draw the sample size of 345 senior secondary students. (166 males and 179 females). The data for the study was collected using a structed qustionnaire. The instrument was validated and tested for reliability. Data were analyzed using mean and standard deviation to answer the research questions and t test to answer the null hypotheses at 0.05 level of significance. The findings of the research questions revealed that Examination fear, nervousness and tension influence the academic achievement of senior secondary school students in Mathematics. It was also found that there is no significant difference in the mean responses of male and female students on the influence of examination fear, nervousness and tension on academic achievement in Mathematics. It was recommended that Guidance and Counselling Units should be strengthened in schools to provide regular sessions that help students develop coping mechanisms for examination fear, tension, and nervousness.*

**Keywords:** Examination, Anxiety, Academic Achievement, Secondary School, Students, Mathematics

## Introduction

Examination anxiety has emerged as a critical concern in educational psychology, especially among secondary school students. Examination anxiety is a form of performance anxiety that occurs when individuals experience extreme stress, fear, or worry before or during exams. According to Nwachukwu (2023), examination anxiety is a cognitive and emotional response characterized by worry, tension, and apprehension before or during an examination, which interferes with academic performance, particularly in high-stakes subjects like Mathematics. In this work, examination anxiety is defined as the state of psychological distress, worry, and heightened emotional and physiological

arousal experienced by students when preparing for or participating in Mathematics examinations.

Examination anxiety seems to be a prevalent phenomenon among students across various educational levels, particularly in high-stakes academic environments. Understanding the level of examination anxiety in students is critical in proffering solution to it. Examination anxiety ranges in intensity, from mild discomfort to debilitating fear, and its prevalence and severity have been extensively studied in recent years (Cassady & Gridley, 2019). Several factors influence the level of examination anxiety in students. These are individual psychological traits, academic preparedness, and external pressures. Students with low self-efficacy are more likely to experience high levels of anxiety, as they doubt their capacity to perform well in exams. According to Salami and Ogundele (2018), students who demonstrated low confidence in their academic abilities reported significantly higher levels of examination anxiety compared to their peers with greater self-assurance. Another factor influencing examination anxiety levels is the type of the examination itself. High-stakes exams, such as final-year assessments or entrance examinations, tend to elicit higher levels of anxiety. In the view of Akande and Olawale (2020) on Nigerian senior secondary school students, they found that over 60% of participants experienced high levels of anxiety during their Senior Secondary Certificate Examinations (SSCE). This anxiety was largely attributed to the pressure to succeed and the societal implications of failing such critical exams. The researchers concluded that the higher the perceived importance of the exam, the more likely students were to experience severe anxiety. This examination anxiety may include examination tension, fear, and heighten nervousness.

Examination fear is a significant component of examination anxiety that disrupts students' academic performance. According to Okeke and Ekechukwu (2020)**,** Examination fear is described as a psychological state characterized by heightened anxiety and apprehension about the outcome of academic assessments, often leading to impaired cognitive and emotional functioning during exams. In this study, examination fear refers to the emotional distress and apprehension experienced by senior secondary school students in anticipation of Mathematics examinations. This fear manifests through physical symptoms such as restlessness, mental blocks, or an inability to recall learned material, which significantly impacts their academic performance and problem-solving abilities. Adeyemo et al., (2019) noted that fear of failure and negative outcomes during exams can lead to psychological distress and diminished confidence, which are detrimental to performance, particularly in subjects like Mathematics that demand cognitive clarity and problem-solving.

Tension refers to a state of mental, emotional, or physical strain caused by stress, pressure, or conflicting demands. It often manifests as

feelings of discomfort, worry, or unease, and can affect cognitive and physiological functioning According to Adebayo and Okonkwo (2021), Examination tension is described as the psychological strain and discomfort experienced by students during or before examinations, often caused by fear of failure or inadequate preparation, which may hinder cognitive processing and academic performance. In this study, examination tension refers to the emotional strain and psychological pressure that senior secondary school students experience during Mathematics examinations. This state of heightened stress often leads to physiological reactions like sweating or a rapid heartbeat, alongside cognitive disruptions such as difficulty concentrating or recalling learned material. Examination tension, characterized by heightened emotional and mental strain before or during exams, affects students' academic achievements by impairing their focus and cognitive functioning (Owens et al., 2017). In Mathematics, tension exacerbates the inability to process information effectively, leading to mistakes or incomplete solutions during timed assessments.

Examination nervousness highlights the psychological barriers that impede students' ability to effectively recall information and solve problems under exam conditions, making it a critical factor in assessing academic outcomes. In the view of Adesanya and Oladipo (2021), Examination nervousness is described as the anxiety-induced emotional instability that students encounter in evaluative situations, characterized by fear of failure, self-doubt, and diminished performance due to stress-related distractions. In this study, examination nervousness is the heightened state of emotional arousal and unease that senior secondary school students experience during or before Mathematics examinations. It is characterized by symptoms such as trembling, mental disorientation, and fear of failure, which can negatively affect students' focus and performance. Nervousness, a physical manifestation of anxiety, includes symptoms like sweating, increased heart rate, and restlessness, which directly disrupt cognitive tasks required in Mathematics examinations (Suleiman & Adeleke, 2020). Investigating this dimension is essential because nervousness often undermines even well-prepared students, causing them to underperform in mathematics despite adequate knowledge, and problem-solving skill.

Academic achievement is the quantifiable result of a student's efforts within an educational framework, determining their mastery of subjects and preparedness for subsequent levels of education. According to Adeyemi (2019) academic achievement is the measurable performance of a student in academic tasks, typically evaluated through tests, assignments, and exams, which reflects the extent to which educational goals have been achieved by the learner. In this study, academic achievement refers to the measurable outcomes of senior secondary school students' performance in Mathematics

as demonstrated through grades, test scores, and problem-solving abilities. The Influence of examination anxiety on the academic achievement of students cannot be overstated. A meta-analysis conducted by Von der Embse et al. (2018) found that high levels of test anxiety are consistently linked to lower academic achievement. This is particularly pronounced in subjects such as Mathematics, where students are required to solve complex problems under time constraints. However, despite these efforts to mitigate the negative impact of examination anxiety on academic achievement, many students in Nigeria appears to continue to struggle with high levels of anxiety during Mathematics examinations, resulting in poor performance. Given the importance of Mathematics in shaping students' future academic and professional success, and the detrimental effects of examination anxiety on their performance, this study seeks to investigate the influence of examination anxiety on senior secondary school students' academic achievement in Mathematics.

Mathematics is widely regarded as a fundamental subject in secondary school curricula worldwide, including Nigeria. According to Abah (2020) Mathematics is described as a tool for analyzing patterns, structures, and relationships in both abstract and practical terms. In this work, Mathematics is defined as the science of numbers, quantity, and space, which can be studied in both its pure form (pure mathematics) or applied to other fields (applied mathematics). It involves the use of symbols and rules to structure logical reasoning, problem-solving, and theoretical exploration. Mathematics helps in developing critical thinking and analytical skills, as it teaches how to approach problems methodically and logically. In education, mathematics is fundamental for building a strong foundation in quantitative reasoning, necessary for advanced fields like physics, economics, and computer science. Mathematics is essential for many fields of study, including engineering, economics, and technology. Despite its importance, students' performance in Mathematics, especially in senior secondary schools, continues to decline. According to the West African Examinations Council (WAEC), students in Nigeria consistently perform below expectations in Mathematics, with reports showing high failure rates in the Senior Secondary Certificate Examination (SSCE) (WAEC, 2022). It was in this light that these that this study seeks to investigate the influence of Examination Anxiety on the Academic Achievement of senior secondary school students in Mathematics in Afikpo Education Zone of Ebonyi State.

**Statement of the problem**

Examination anxiety has become a significant issue among senior secondary school students, particularly in subjects like Mathematics, which demands high cognitive engagement and problem-solving skills. In Afikpo Education Zone of Ebonyi State, the academic achievement of students in Mathematics has been consistently low, as evidenced by the West African Examinations

Council (WAEC) Chief Examiner's reports from the last two years (2022 and 2023). The reports highlighted that many students exhibited weaknesses in answering mathematical questions, particularly those that required complex calculations and logical reasoning. According to the WAEC Chief Examiner (2022), poor performance was often attributed to students' lack of confidence, fear of failure, and inability to properly organize their thoughts under exam conditions—indicating high levels of examination anxiety (WAEC, 2022). Despite the widespread recognition of the issue, there has been limited research on how examination anxiety specifically impacts the academic achievement and problem-solving abilities of senior secondary school students in the Afikpo Education Zone. Given the importance of Mathematics in both academic progression and future career opportunities, understanding the overall Influence of examination anxiety on students' achievement is critical. This study, therefore, seeks to investigate the influence of Examination Anxiety on the Academic Achievement of senior secondary school students in Mathematics in Afikpo Education Zone of Ebonyi State.

**Purpose of the study**

The main purpose of this study was to investigate the Influence of Examination Anxiety on the Academic Achievement of Senior Secondary School Students in Mathematics in Afikpo Education Zone of Ebonyi State. Specifically, the study investigated the influence of examination:

1. fear on the academic achievement of senior secondary school students in Mathematics.
2. tension on the academic achievement of senior secondary school students in Mathematics.
3. nervousness on the academic achievement of senior secondary school students in Mathematics.

**Research questions**

The following research questions guided the study:

1. How does examination fear influence the academic achievement of senior secondary school students in Mathematics?
2. How does examination tension influence the academic achievement of senior secondary school students in Mathematics?
3. How does examination nervousness influence the academic achievement of senior secondary school students in Mathematics?

**Hypotheses**

The following null hypothesis will guide the study

Ho1: There is no significant difference in the mean responses of male and female students on the influence of examination fear on academic achievement in Mathematics.

Ho2: There is no significant difference in the mean responses of male and female students on the influence of examination tension on academic achievement in Mathematics.

Ho3: There is no significant difference in the mean responses of male and female students on the influence of

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examination nervousness on academic achievement in Mathematics.

## Methodology

The design of the study is a descriptive survey research design. This study will be carried out in public senior secondary schools in Afikpo Education Zone of Ebonyi State. The population of the study comprise of all (2,498) of the Senior Secondary Students in the Education Zones (1,196 males representing 48% and 1,302 females representing 52%). The sample size of the study comprised 345 senior secondary students. This was determined using Yaro Yamane's formula. The total number of 166 males and 179 females, representing 48% and 52% of the sample size, respectively, was used. Furthermore, proportionate sampling technique was used to determine the sample size from each of the schools under study, and simple random technique was used to select the required sample. The instrument for data collection in this study was a questionnaire designed by the researcher. The 24-item questionnaire was face validated by three experts, two were selected from the Department of Educational Foundations and the other one was a Measurement and Evaluation expert, all in Ebonyi State University, Abakaliki. The instrument was tested for reliability using Cronbach Alpha. From the analysis, the following section reliability coefficients were obtained: 0.96, 0.98 and 0.95 for sections A, B and C respectively. Nevertheless, the entire 24 items gave a reliability coefficient of 0.98, which indicated the instrument has a very high internal consistency. This figure also showed that the instrument was suitable for use for the study. Copies of the questionnaires was administered to the students in their respective schools in the Afikpo Education zone by the researcher and three research assistants. The researcher briefed the research assistants on the administration and retrieval of the questionnaire. The respondents filled the questionnaires by ticking (√) to the extent they agree or disagreed with the statement made and the researcher, with the research assistants collected the questionnaires at completion. Research questions 1-3 was answered on individual item basis using mean and standard deviation. The mean used for decision making was 2.50. Mean scores from 2.50 and above was accepted while mean scores below 2.50 was not accepted. The null hypotheses will be tested at 0.05 alpha level using t-test. Spss generated p value was used as basis for decision rule. When the significance level is higher that the p value, reject the null hypothesis, otherwise no not reject.

## Result

Data collected for the study were presented in this chapter as follow:

### Research Questions

**Research Question 1:** How does examination fear influence the academic achievement of senior secondary school students in Mathematics?

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The data collected from items 1-7 were used to answer research question 1. Summary of the result of data analysis were presented in table 1.

**Table 1:** Mean scores and standard deviation of the influence of examination fear on the academic achievement of senior secondary school students in Mathematics.

| S/N | ITEMS | X | S.D | Decision |
|---|---|---|---|---|
| **1** | I feel overwhelmed by fear during mathematics examinations. | 2.93 | 1.11 | Accepted |
| **2** | Fear of failing mathematics makes it difficult for me to concentrate during exams. | 3.14 | 0.84 | Accepted |
| **3** | I often forget what I have studied due to fear during mathematics exams. | 3.04 | 0.99 | Accepted |
| **4** | The fear of mathematics exams negatively affects my confidence in solving problems. | 3.22 | 0.84 | Accepted |
| **5** | Fear of failure leading to disappointing my parents influences my performance in mathematics exams. | 3.15 | 1.01 | Accepted |
| **6** | I avoid mathematics exams because of fear of failure. | 3.36 | 0.84 | Accepted |
| **7** | My fear for mathematics exams causes me to perform poorly even when I feel prepared. | 3.30 | 0.91 | Accepted |
| | **Grand Mean** | **3.16** | **0.93** | Accepted |

Result in table 1 revealed that the items mean scores ranges between 2.93 and 3.36, which are all above 2.50, and the standard deviation ranges between 0.84 and 1.11 which implies that there was no much deviation among the means, therefore, all the items were accepted. Furthermore, the grand mean of 3.16 is above 2.50; the benchmark, which therefore indicated that examination fear influences the academic achievement of senior secondary school students in Mathematics.

**Research Question 2:** How does examination tension influence the academic achievement of senior secondary school students in Mathematics?

The data collected from items 8-14 were used to answer research question 2. Summary of the result of data analysis were presented in table 2.

**Table 2:** Mean scores and standard deviation of the influence of examination tension on the academic achievement of senior secondary school students in Mathematics.

| S/N | ITEMS | _X | S.D | Decision |
|---|---|---|---|---|
| **8** | I feel tensed during mathematics examinations, even when I have prepared for it. | 2.85 | 0.97 | Accepted |
| **9** | My hands often shake due to tension during mathematics exams. | 2.58 | 0.71 | Accepted |
| **10** | Examination tension reduces my ability to focus during mathematics exams. | 2.82 | 0.86 | Accepted |
| **11** | I tend to rush through mathematics questions which often leads to mistakes because of examination tension. | 3.01 | 0.99 | Accepted |

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| | | | | |
|---|---|---|---|---|
| **12** | Tension during exams prevents me from completing mathematics questions resulting me in writing and cancelling. | 2.75 | 0.85 | Accepted |
| **13** | Examination tension affects my ability to think clearly during mathematics exams. | 3.29 | 0.98 | Accepted |
| **14** | I feel physically uneasy (e.g., stomach ache, sweating) during mathematics exams. | 3.12 | 0.76 | Accepted |
| | **Grand Mean** | **2.92** | **0.87** | **Accepted** |

Result in table 2 revealed that the items mean scores ranges between 2.58 and 3.29, which are all above 2.50, and the standard deviation ranges between 0.71 and 0.99 which implies that there was no much deviation among the means, therefore, all the items were Accepted. Furthermore, the grand mean of 2.92 is above 2.50; the benchmark, which therefore indicated that examination tension influences the academic achievement of senior secondary school students in Mathematics.

**Research Question 3:** How does examination nervousness influence the academic achievement of senior secondary school students in Mathematics?

The data collected from items 15-21 were used to answer research question 3. Summary of the result of data analysis were presented in table 3.

**Table 3:** Mean scores and standard deviation of the influence of examination nervousness on the academic achievement of senior secondary school students in Mathematics.

| S/N | ITEMS | X | S.D | Decision |
|---|---|---|---|---|
| **15** | Nervousness makes me forget formulas during mathematics exams. | 3.15 | 0.86 | Accepted |
| **16** | I feel nervous when the mathematics examination date is announced. | 3.37 | 0.77 | Accepted |
| **17** | I find it difficult to stay calm during mathematics exams due to nervousness. | 3.18 | 0.98 | Accepted |
| **18** | My nervousness increases as the mathematics exam progresses. | 2.97 | 0.78 | Accepted |
| **19** | Nervousness affects my ability to even read mathematics questions correctly. | 3.25 | 0.97 | Accepted |
| **20** | I tend to make careless mistakes in mathematics exams because of nervousness. | 2.99 | 0.98 | Accepted |
| **21** | My nervousness is higher in mathematics exams than in other subjects. | 3.36 | 0.84 | Accepted |
| | **Grand Mean** | **3.18** | **0.88** | **Accepted** |

Result in table 3 shows that the items mean scores ranges between 2.97 and 3.37, which are all above 2.50, and the standard deviation ranges between 0.77 and 0.98 which implies that there

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was no much deviation among the means, therefore, all the items were accepted. Furthermore, the grand mean of 3.18 is above 2.50; the benchmark, which therefore indicated that examination nervousness influences the academic achievement of senior secondary school students in Mathematics.

**Hypotheses**

**Hypothesis 1:** There is no significant difference in the mean responses of male and female students on the influence of examination fear on academic achievement in Mathematics.

The t-test result of the analysis was presented in table 4

**Table 4:** T-test analysis of male and female students on the influence of examination fear on their academic achievement in Mathematics.

| S/N | Variable | No.=345 | X | StD | DF | t.Cal. | p-val | Decision |
|---|---|---|---|---|---|---|---|---|
| 1 | Male | 166 | 3.08 | 1.13 | 343 | 0.83 | 0.41 | Not Significant |
| | Female | 179 | 2.85 | 1.10 | | | | |
| 2 | Male | 166 | 3.19 | 0.94 | 343 | 0.42 | 0.68 | Not Significant |
| | Female | 179 | 3.11 | 0.79 | | | | |
| 3 | Male | 166 | 3.19 | 0.75 | 343 | 0.97 | 0.34 | Not Significant |
| | Female | 179 | 2.96 | 1.10 | | | | |
| 4 | Male | 166 | 3.42 | 0.64 | 343 | 1.56 | 0.12 | Not Significant |
| | Female | 179 | 3.11 | 0.91 | | | | |
| 5 | Male | 166 | 2.96 | 1.15 | 343 | 1.19 | 0.24 | Not Significant |
| | Female | 179 | 3.26 | 0.92 | | | | |
| 6 | Male | 166 | 3.19 | 0.90 | 343 | 1.25 | 0.22 | Not Significant |
| | Female | 179 | 3.45 | 0.80 | | | | |
| 7 | Male | 166 | 3.00 | 1.06 | 343 | 2.16 | 0.03 | Significant |
| | Female | 179 | 3.47 | 0.78 | | | | |

Table 4 showed that, aside for item 7, all the other items have no significant results. This is because the p-values were greater than the level of significance (0.05). Therefore, the null hypothesis that there is no significant difference in the mean responses of male and female students on the influence of examination fear on academic achievement in Mathematics is not rejected.

**Hypothesis 2:** There is no significant difference in the mean responses of male and female students on the influence of examination tension on academic achievement in Mathematics.

The t-test result of the analysis was presented in table 5

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**Table 5:** T-test analysis of male and female students on the influence of examination tension on their academic achievement in Mathematics.

| S/N | Variable | No.=345 | X | StD | DF | t.Cal. | p-val | Decision |
|---|---|---|---|---|---|---|---|---|
| 8 | Male | 166 | 2.78 | 1.03 | 343 | 0.52 | 0.60 | Not Significant |
| | Female | 179 | 2.89 | 0.94 | | | | |
| 9 | Male | 166 | 2.65 | 0.63 | 343 | 0.71 | 0.48 | Not Significant |
| | Female | 179 | 2.53 | 0.75 | | | | |
| 10 | Male | 166 | 2.88 | 0.86 | 343 | 0.46 | 0.65 | Not Significant |
| | Female | 179 | 2.79 | 0.86 | | | | |
| 11 | Male | 166 | 2.96 | 1.04 | 343 | 0.33 | 0.74 | Not Significant |
| | Female | 179 | 3.04 | 0.98 | | | | |
| 12 | Male | 166 | 2.88 | 0.71 | 343 | 0.99 | 0.33 | Not Significant |
| | Female | 179 | 2.68 | 0.91 | | | | |
| 13 | Male | 166 | 3.50 | 0.81 | 343 | 1.39 | 0.17 | Not Significant |
| | Female | 179 | 3.17 | 1.05 | | | | |
| 14 | Male | 166 | 3.00 | 0.80 | 343 | 1.03 | 0.31 | Not Significant |
| | Female | 179 | 3.19 | 0.74 | | | | |

Table 5 showed that all the items have no significant results. This is because the p-values were greater than the level of significance (0.05). Therefore, the null hypothesis that there is no significant difference in the mean responses of male and female students on the influence of examination tension on their academic achievement in Mathematics is not rejected.

**Hypothesis 3:** There is no significant difference in the mean responses of male and female students on the influence of examination nervousness on academic achievement in Mathematics.

The t-test result of the analysis was presented in table 6

**Table 6:** T-test analysis of male and female students on the influence of examination nervousness on their academic achievement in Mathematics.

| S/N | Variable | No.=345 | X | StD | DF | t.Cal. | p-val | Decision |
|---|---|---|---|---|---|---|---|---|
| 15 | Male | 166 | 3.12 | 0.91 | 343 | 0.26 | 0.80 | Not Significant |
| | Female | 179 | 3.17 | 0.84 | | | | |
| 16 | Male | 166 | 3.15 | 0.78 | 343 | 1.80 | 0.08 | Not Significant |
| | Female | 179 | 3.49 | 0.75 | | | | |
| 17 | Male | 166 | 3.04 | 1.11 | 343 | 0.91 | 0.37 | Not Significant |
| | Female | 179 | 3.26 | 0.90 | | | | |
| 18 | Male | 166 | 2.85 | 0.73 | 343 | 1.03 | 0.31 | Not Significant |
| | Female | 179 | 3.04 | 0.81 | | | | |
| 19 | Male | 166 | 2.85 | 0.88 | 343 | 2.74 | 0.01 | Significant |
| | Female | 179 | 3.47 | 0.95 | | | | |
| 20 | Male | 166 | 3.04 | 0.99 | 343 | 0.34 | 0.74 | Not Significant |
| | Female | 179 | 2.96 | 0.98 | | | | |
| 21 | Male | 166 | 3.19 | 0.90 | 343 | 1.25 | 0.22 | Not Significant |
| | Female | 179 | 3.45 | 0.80 | | | | |

Table 6 showed that, aside from item 19, all the other items have no significant results. This is because the p-values were greater than the level of significance (0.05). Therefore, the null hypothesis that there is no significant difference in the mean responses of male and female students on the influence of examination nervousness on their academic achievement in Mathematics is not rejected.

**Discussion**

The findings of this study revealed that examination fear influences the academic achievement of senior secondary school students in Mathematics. This result aligns with Abubakar and Etim (2021), who found that examination fear significantly reduces students' ability to concentrate, recall learned concepts, and perform problem-solving tasks in Mathematics. Similarly, Akinwale and Okonkwo (2022) found that fear of failure and strict evaluation conditions create emotional tension that impairs working memory, leading to poor achievement. In agreement, Adeoye and Hassan (2023) observed that students with high test-related fear often avoid academic engagement, resulting in reduced mastery of mathematical skills.

However, some scholars hold opposing views. Eze and Adamu (2020) reported that mild examination fear can serve as a motivational stimulus, encouraging students to prepare better and perform well. Likewise, Lawal and Ojo (2021) argued that when fear is managed constructively, it can enhance alertness and persistence during examinations.

The study also revealed that there is no significant difference in the mean responses of male and female students on the influence of examination fear on academic achievement in Mathematics. This aligns with Okafor and Musa (2022), who found that both male and female students exhibit similar anxiety patterns under exam stress, with comparable academic outcomes. Similarly, Ibrahim and Bello (2023) noted that gender does not significantly moderate the relationship between fear and academic performance. On the contrary, Ola and Adeyemi (2021) found that female students tend to experience greater fear due to self-efficacy concerns and social pressure, suggesting a possible gender variation in test-related emotions.

The finding revealed that examination tension influences the academic achievement of senior secondary school students in Mathematics. This finding corroborates Nwachukwu and Daniel (2022), who established that heightened emotional tension before and during examinations reduces task persistence and comprehension in quantitative subjects. Similarly, Adebisi and Chukwu (2023) found that tension linked to time pressure and fear of negative evaluation negatively impacts mathematical problem-solving accuracy. Babatunde and Nwosu (2024) further observed that examination tension triggers physiological symptoms such as rapid heartbeat and restlessness,

which undermine concentration and result in lower achievement.

Conversely, Onwuka and Eze (2021) contended that moderate levels of tension can enhance attentiveness and mental readiness, leading to improved scores in Mathematics. Uche and Ibrahim (2022) also posited that tension alone does not predict achievement unless combined with poor study habits or low academic confidence.

The finding that there is no significant difference between male and female students regarding the influence of examination tension on academic achievement agrees with Odu and Nnamani (2023), who reported that both genders experience comparable academic stress responses under similar learning conditions. Akinola and Umeh (2022) equally observed that gender-based emotional regulation strategies tend to balance out, producing statistically insignificant differences. In contrast, Ezeh and Okoro (2021) found that female students report slightly higher examination tension levels, which occasionally correlate with marginally lower test outcomes.

The findings revealed that examination nervousness influences the academic achievement of senior secondary school students in Mathematics. This result supports Ogunleye and Adediran (2023), who discovered that excessive nervousness before tests leads to cognitive overload, affecting performance in abstract subjects like Mathematics. Likewise, Nwankwo and Ali (2021) noted that nervousness induces self-doubt and interferes with logical reasoning processes required for solving numerical problems. Bello and Opara (2022) similarly found that students who experience high nervousness during Mathematics examinations record significantly lower test scores compared to calmer peers. In contrast, Okeke and Chijioke (2020) argued that mild nervousness could increase mental alertness and exam focus, thus enhancing achievement when managed effectively. Taiwo and Ibrahim (2022) also observed that some students use pre-exam nervousness as motivation to intensify revision and adopt better test-taking strategies.

The study further found that there is no significant difference between male and female students on the influence of examination nervousness on academic achievement in Mathematics. This supports Adamu and Eze (2023), who reported that both male and female students exhibit similar physiological and emotional responses to nervousness under exam conditions. Lawson and Okoro (2024) also found that gender was not a significant predictor of nervousness-related achievement differences. Conversely, Nwosu and Bassey (2021) argued that female students are generally more prone to emotional expression and test-related nervousness, which might occasionally affect their performance more than males.

## Conclusion

This study examined the influence of examination fear, tension, and nervousness

on the academic achievement of senior secondary school students in Mathematics. The findings revealed that these emotional factors significantly affect students' performance by reducing concentration, confidence, and problem-solving efficiency. However, gender was found not to significantly influence the relationship between these psychological states and academic achievement, suggesting that both male and female students experience similar levels of test-related anxiety. The results imply that emotional readiness is as important as intellectual preparation in determining students' success in Mathematics. Therefore, addressing examination-related anxiety is crucial for improving academic outcomes and fostering positive attitudes toward Mathematics learning.

**Recommendations**

1. Guidance and Counselling Units should be strengthened in schools to provide regular sessions that help students develop coping mechanisms for examination fear, tension, and nervousness.
2. Teachers should adopt supportive and student-centered teaching strategies that build confidence, reduce fear, nervousness, tension, and encourage consistent preparation for examinations.
3. Parents should create a positive home environment that emphasizes effort and learning rather than excessive tension, fear or nervousness.

## REFERENCES

Abah, J. (2020). Mathematics as a tool for analyzing patterns and structures in education. *Nigerian Journal of Science and Mathematics Education, 7*(1), 45–58.

Abubakar, T., & Etim, A. (2021). Examination fear and students' performance in quantitative subjects in Nigerian secondary schools. *Journal of Educational Psychology and Counselling, 10*(2), 31–43.

Adebayo, K., & Okonkwo, V. (2021). Examination tension and academic performance among secondary school students in Lagos State. *Nigerian Journal of Educational Research and Development, 8*(3), 88–102.

Adebisi, O., & Chukwu, P. (2023). Emotional tension and its effect on mathematics achievement among Nigerian senior secondary students. *Journal of Psychology and Educational Studies, 11*(2), 52–65.

Adamu, A., & Eze, C. (2023). Gender differences in examination nervousness and academic performance among secondary school students. *International Journal of Educational Psychology in Africa, 5*(1), 60–73.

Adeoye, A., & Hassan, M. (2023). Impact of test fear and self-efficacy on students' engagement and achievement in mathematics. *Nigerian Journal of Educational Measurement, 9*(2), 45–59.

Adeyemi, T. (2019). The effects of test anxiety on academic achievement in secondary school mathematics. *African Journal of Educational Assessment, 6*(2), 25–38.

Adeyemo, F., Ojo, L., & Lawal, R. (2019). Fear of failure and its impact on students' confidence in mathematics examinations. *Journal of Cognitive and Educational Studies, 5*(4), 19–30.

Adesanya, M., & Oladipo, K. (2021). Examination nervousness and emotional instability among secondary school students. *Journal of Educational and Behavioural Studies, 8*(1), 55–67.

Akinola, B., & Umeh, C. (2022). Resilience and academic motivation among students in Nigeria: The moderating role of gender and anxiety. *African Educational Research Journal, 10*(1), 22–31.

Akinwale, F., & Okonkwo, P. (2022). Fear of evaluation and academic achievement in mathematics among Nigerian students. *International Journal of Educational Development Studies, 9*(3), 41–53.

Akande, J., & Olawale, S. (2020). Prevalence and determinants of examination anxiety among Nigerian senior secondary students. *Journal of Educational Studies and Policy, 8*(2), 64–78.

Babatunde, K., & Nwosu, J. (2024). The physiological impact of academic tension on mathematics achievement. *Nigerian Journal of Learning and Cognitive Psychology, 5*(2), 18–30.

Bello, S., & Opara, J. (2022). Nervousness and performance among secondary school mathematics learners in Nigeria. *Journal of Educational Psychology Research, 7*(3), 77–90.

Cassady, J. C., & Gridley, B. E. (2019). Anxiety and academic performance: The moderating role of motivation and self-efficacy. *Contemporary Educational Psychology, 56*, 105–117.

Eze, U., & Adamu, H. (2020). Moderate test fear as a motivational factor in students' examination performance. *Journal of Education and Human Development, 9*(4), 60–73.

Ezeh, I., & Okoro, A. (2021). Gender variations in examination tension and performance in mathematics. *International Journal of Educational and Social Studies, 6*(3), 81–94.

Gift, M. (2018). The relevance of secondary education in Nigeria's national development. *Journal of Educational Foundations, 4*(2), 33–47.

Ibrahim, A., & Bello, M. (2023). Gender and test-related fear: Implications for mathematics performance among Nigerian secondary school students. *Journal of Learning and Psychology, 5*(1), 21–34.

Ibrahim, Y., & Musa, K. (2020). The influence of emotional tension on students' examination outcomes in science and mathematics. *Journal of Cognitive Behaviour and Learning, 7*(2), 99–112.

Lawal, T., & Ojo, P. (2021). Positive aspects of mild examination fear in academic motivation. *Journal of Educational Behaviour and Achievement, 10*(1), 43–58.

Lawson, E., & Okoro, C. (2024). Gender and emotional stability in mathematics examination contexts. *Nigerian Journal of Psychology and Education, 11*(1), 64–78.

National Policy on Education. (2014). *Federal Republic of Nigeria: National Policy on Education.* Lagos: NERDC Press.

Nwachukwu, J. (2023). Examination anxiety and academic performance among Nigerian secondary school students. *Nigerian Journal of Guidance and Counselling, 11*(1), 23–37.

Nwachukwu, L., & Daniel, E. (2022). Emotional tension and academic outcomes in quantitative reasoning among secondary students. *Journal of Psychology and Education, 9*(2), 47–61.

Nwafor, I. (2021). Gender gap and mathematics performance: The role of anxiety and stereotype threat in Nigerian schools. *Journal of African Educational Research, 7*(3), 95–109.

Nwankwo, T., & Ali, F. (2021). The relationship between nervousness and cognitive performance in mathematics examinations. *West African Journal of Educational Psychology, 6*(2), 52–66.

Nwosu, E., & Bassey, J. (2021). Gender differences in nervousness and performance in high-stakes mathematics tests. *Journal of Gender Studies in Education, 4*(1), 83–95.

Odu, F., & Nnamani, E. (2023). Gender and stress responses in examination settings: A comparative study among Nigerian students. *Journal of Educational Psychology Research, 9*(1), 70–85.

Okafor, D., & Musa, T. (2022). Gender, examination fear, and academic achievement among secondary students in Nigeria. *Journal of Social and Educational Research, 8*(4), 101–115.

Okeke, P., & Chijioke, G. (2020). Nervousness and exam alertness among secondary school students: An empirical study. *Journal of Educational Assessment, 7*(1), 18–31.

Okeke, R., & Ekechukwu, C. (2020). Examination fear and emotional stability among secondary school learners in Nigeria. *Journal of Educational Psychology and Counselling, 8*(2), 67–80.

Ogunleye, T., & Adediran, A. (2023). Cognitive overload and nervousness during mathematics tests among Nigerian students. *African Journal of Psychological and Educational Sciences, 10*(1), 55–68.

Ola, D., & Adeyemi, F. (2021). Gender and examination fear among Nigerian secondary school students. *Journal of Educational Studies and Psychology, 5*(2), 71–84.

Oluwatosin, R., & Adebayo, T. (2021). Fear of evaluation and stress among Nigerian students during high-stakes examinations. *Journal of African Educational Psychology, 6*(3), 45–58.

Onwuka, E., & Eze, M. (2021). Moderate examination tension as a predictor of improved performance in mathematics. *Nigerian Journal of Educational Evaluation, 8*(1), 26–39.

Owens, M., Stevenson, J., Hadwin, J., & Norgate, R. (2017). Anxiety and cognitive performance: Effects on working memory in children and adolescents. *Journal of Experimental Child Psychology, 153*, 1–16.

Owens, M., Stevenson, J., Hadwin, J., & Norgate, R. (2014). Examination anxiety and mathematics performance among adolescents. *British Journal of*

*Educational Psychology*, *84*(1), 101–119.

Putwain, D., & Symes, W. (2018). Exam anxiety and its impact on students' motivation and performance. *British Journal of Educational Psychology*, *88*(2), 155–170.

Salami, K. (2019). Parental pressure and examination anxiety among secondary school students in Nigeria. *Nigerian Journal of Child and Adolescent Psychology*, *5*(1), 33–48.

Salami, K., & Ogundele, L. (2018). Academic self-efficacy and examination anxiety in Nigerian secondary schools. *Journal of Psychology and Education Research*, *10*(3), 42–56.

Suleiman, M., & Adeleke, O. (2020). Nervousness and physiological responses during academic examinations. *African Journal of Psychological Science*, *5*(1), 22–36.

Taiwo, J., & Ibrahim, A. (2022). Motivational benefits of mild nervousness before high-stakes examinations. *International Journal of Educational Studies*, *9*(2), 50–63.

Von der Embse, N., Jester, D., Roy, D., & Post, J. (2018). Test anxiety effects on academic performance: A meta-analysis. *Journal of Educational Psychology*, *110*(2), 174–195.

West African Examinations Council (WAEC). (2022). *Chief Examiners' Report on Candidates' Performance in the May/June SSCE*. Lagos: WAEC Press.

West African Examinations Council (WAEC). (2023). *Chief Examiners' Report on Candidates' Performance in the May/June SSCE*. Lagos: WAEC Press.