

INFLUENCE OF TEST ANXIETY ON ACADEMIC ACHIEVEMENT OF SENIOR SECONDARY SCHOOL STUDENTS IN SOUTH-WEST, NIGERIA

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Abstract

The study examined the influence of test anxiety on academic achievement of senior secondary school students in South-West, Nigeria. Five research questions and two hypotheses were formulated to guide the study. The research employed correlational survey design. The population comprised 1,468,912 students in South-West, Nigeria. The sample was three hundred and eighty-four (384) students. A self-design questionnaire was used for the study. The questionnaire was titled: Student's Test Anxiety Level Question (STALQ). The reliability coefficient index of 0.92 was obtained using test-retest. The data collected were analyzed using mean scores, standard deviation, t-test and Pearson Product Moment Correlation Coefficient (PPMCC). The findings showed that four items recorded low extent while nine other items revealed a high extent. There was significant difference between male and female students test anxiety in senior secondary schools in South-West, Nigeria; and there was no significant relationship between students' test anxiety level and their academic achievement. Based on their findings the study recommended that school administrators and teachers should pay more attention to students with emotional problems and refer them to schools psychological and counselling centres by adopting this will reduce students' emotional challenges.

Key Words: Test anxiety, academic achievement, gender, secondary school

Introduction

Tests and examinations are ways through which academic achievements and accomplishments of students are measured in formal education setting. They are an integral part of education as the certification of the students depends on it. Nowadays, the competition in every sphere of life makes it more essential for students to secure good marks in their examinations in order to feel accomplished and successful. Hence, numerous students feel anxious about their forthcoming tests and examinations. Anxiety is a complex and multidimensional phenomenon

resulting in an emotional feeling of tension, apprehension, nervousness and worry associated with an arousal of the automatic nervous system (James, 2018).

Test anxiety is the most prevalent mental health disorder which is attracting worldwide concern, with considerable impact on cognitive function (Sisbane, 2019). High anxiety level can threaten individuals' mental and physical health and capable of resulting in to negative effects on students' academic achievement (Alemu & Feyssa, 2020). Students with excessive anxiety may experience genuine problems during their schooling. Bhat and Farooq (2017) revealed that students who possesses high test anxiety levels are more likely to have poor academic achievement, with less classroom engagement. The reason for poor academic achievement is because they are convinced that they would fail regardless of how hard they study. On the other hand students who exhibits minimal anxiety levels are believe to develop high expectation for academic success. Unity and Igbudu, (2015) found that student with high anxiety levels indicates low academic achievement.

Bolbolian, *et al.*, (2021) revealed that there was significant relationship between test anxiety and academic achievement of students in Geometry, just as Crisan and Copaci (2015) found out that there is significant relationship between students' anxiety levels and students' academic achievement and anxiety as a key factor in undermining student academic achievement. However, Gidado and Ugochukwu, (2024) found that there was inverse correlation between test anxiety and academic achievement of senior secondary students in Federal Capital Territory, Abuja, and a non-disparity in test anxiety levels between rural and urban senior secondary school students.

Chepkorir, *et al.*, (2014) revealed that students suffer from social anxiety disorder because students with social anxiety such as fear common situations such as participating in small groups interaction, eating or writing in public places, asking questions for the sake of clarification during classroom lesson, going to social events, such as parties, meeting or talking to strangers, entering a room when other people are present, talking or giving a presentation to a group, and maintaining eye

contact with strangers tends to have poor academic performance. Chukwu (2014), students who possess high test anxiety are less effective in classroom activities, as they perform poorly in class because they are convinced that they would fail while writing a test. Student who exhibits minimal anxiety levels is not encouraged to develop an expectation of failure. Students with high levels of anxiety have this conditioning, in contrast to those with low anxiety levels. They think that they will always fail, regardless of how hard they study. Dogan and Murat (2016) found that test anxiety is a mental condition which students feel intense tension, discomfort, and anxiety before, during, and after a test. These reactions make it difficult for them to perform effectively, negatively impact their emotional, social, and behavioural growth and later result to poor academic performance.

Statement of the Problem

Education is essential for a person's success in life since it equips one with the knowledge and abilities necessary for success. This is largely determined through periodic assessments of students' achievement. Test anxiety is one of the feelings that individuals go through in life. It happens when a person feels powerless over their life decision. Test anxiety is an illness of the mind that has an emotional, social and psychological impact on individuals and manifests itself in their daily lives in school, particularly during examinations.

It has been observed that senior secondary school students in South-West, Nigeria are faced with anxiety pressure during classroom and examination activities, as they exhibit feeling of fear of tests/examinations and aggressive behaviour in classroom. Students who exhibit these behaviours tend to develop fear, worry, loss of interest and focus towards their career goals in school. During this process, they also find it difficult to withstand the stress tension and lack the coping skills and ability to make proper decision their may negatively influence their learning, psychological wellbeing and academic performance. Test anxiety is a major factor contributing to variety of negative outcomes including psychological distress, academic underachievement, academic failure. According to Chipas (2020) who

revealed that effects of anxiety on students' academic achievement are inimical to academic progress and help the students to be dull class. He further stress that the academic achievement of students might be double minded because of the destructive nature of test anxiety disorder which has become a total spiritual disease or epidemiology that has eaten deep into the fabric of students in Nigeria. Also, Fulton (2016) found that students having high test anxiety levels frequently exhibit low self-assurance in their capabilities to handle academic demands because they lack the necessary skills to succeed and consequently, lack control over their actions or are losing control over them. Harma and Sud (2020) explained worry as a cognitive component as it is related to mental perceptions and thinking about personal academic achievement scores. It comprises stress, fear, worry and negative thoughts result to poor achievement scores and failure in examinations.

The consequences of test anxiety among senior secondary school students resulting to poor academic achievement. Several number of students with test anxiety disorder face several pressure and challenges in academic achievement as they need to maintain optimal academic balance because of those challenges and pressures fail to attain an acceptable level of academic achievement. Based on the above, the researchers were inspired to investigate the influence of test anxiety on academic performance of senior secondary school students in South-West, Nigeria.

Research Questions

The following research questions were raised to guide the study.

1. What is the test anxiety levels of senior secondary school students in South-West, Nigeria?
2. What is the academic achievement of senior secondary school students in South-West, Nigeria?
3. What is the test anxiety levels of senior secondary schools in South-West, Nigeria on the basis of gender?
4. What is the academic achievement of senior secondary school students in South-West, Nigeria on the basis of gender?

5. What is the relationship between test anxiety levels and academic achievement of senior secondary school students in South-West, Nigeria?

Hypotheses

The following null hypotheses were formulated for this study:

H₀₁: There is no significant difference between male and female students test anxiety level in senior secondary schools in South-West, Nigeria.

H₀₂: There is no significant relationship between students test anxiety level and academic achievement in senior secondary schools in South-West, Nigeria.

Methods

The study employed a correlational survey research design. Correlation survey design aimed at identifying predictive relationship among two or more variables. According to Cheprasov (2018), a correlation study is a type of research design where a researcher seeks to understand what kind of relations naturally occurring between two or more variables. The correlation survey design was appropriate for this study because it finds the relationship that exists between two or more variables that are related to one another.

The total number of students in public senior secondary schools in South-West is 1,468,913 students, comprising 698,021 male students and 770,892 female students. The breakdown of the population shows that there were 141,825 students in Ekiti State, 327,724 students in Lagos State, 281,598 students in Ogun State, 262,382 students Ondo State, 179,745 students Osun State and 275,639 students in Oyo State. (Source: Ekiti State Education Management Board, Statistics Unit, 2022; Lagos State Ministry of Education, 2022; Ogun State Ministry of Education, 2022; Ondo State Department of Statistics, 2022; Secondary Education Management Board, Osun State, 2022; Oyo State National Bureau of Statistics, 2022). The sample size for this study was 384 students across the six States. The sample size was determined using Krejcie and Morgan (1970) table. Also, proportionate sampling was used to determine the number of students who participated in each state.

The research instrument for this study was self-structured questionnaire. The questionnaire was titled Students' Test Anxiety Level Questionnaire (STALQ). Responses to the items on the questionnaire were structured using four (4) point Likert scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). The data collected was analyzed using descriptive and inferential statistics. Mean scores were used to analyzed the research questions one, two and four, t-test was used to analyzed hypothesis one while Pearson Product Moment Correlation Coefficient (PPMCC) was used to analyzed hypotheses two.

To ascertain the validity of the instrument the questionnaire was presented to experts in educational measurement and evaluation, and language expert for scrutiny to ensure that the instrument measure what it is supposed to measure. The comments and suggestions made were incorporated into the instrument after which a final copy of the questionnaire was produced. The name of the validity was content and construct validity. The reliability of the instruments was determined by conducting a pilot study with 50 respondents in two schools but outside the main study area. A test-retest method was employed to determine the reliability coefficient. Test-retest method of reliability is a statistical measurement administering the same test twice over a period of time to a group of individuals. The first test was administered to the students, two weeks later the same test was administered to the same students. Students' responses were collated after which data collected was subjected to Pearson Product Moment Correlation Coefficient (PPMCC) which yielded reliability index of 0.92. The method used in computing the reliability coefficient was properly explained.

Results

Research Question One: What is the test anxiety level of senior secondary school students in South-West, Nigeria?

Table 1: Test Anxiety Level of Senior Secondary School Students in South-West, Nigeria

S/No.	Statement	Mean	Std Dev.	Decision
1	I feel worried whenever I heard about tests/examinations	2.86	1.02	High Extent
2	Everything about school scares me	2.46	0.88	Low Extent
3	I keep worrying that my classmates are better than I am in respect to test/examination	3.64	0.62	High Extent
4	I get anxious unnecessarily during examinations	3.48	0.74	High Extent
5	The fear of failure and academic stress cannot make me to forget things I already know	2.53	1.08	High Extent
6	My mind goes blank when I start writing during examination	3.31	0.91	High Extent
7	I find it difficult to understand what I learned due to fear of the subject	3.32	0.87	High Extent
	I often lose concentration due to fear of examinations			
8	The more I prepare for classroom activities, the more I get confused during examination	2.80	1.09	High Extent
9	I feel disturbed if I forget things I know during examinations	2.48	0.95	Low Extent
10	Sometimes my heart beats very fast whenever my teacher enters the class	2.85	0.93	High Extent
11	I usually get depressed after answering questions in the class	2.46	1.02	Low Extent
12	I seem to defeat myself while working on important issue in the class	2.32	0.90	Low Extent
	Grand Mean/Std. Dev.			
13		2.81	1.02	High Extent
		2.87	0.92	High Extent

As shown in table 1, level of test anxiety of senior secondary school students in South-West, Nigeria was presented. The table show a grand mean of 2.87, this shows the extent of student's anxiety level in the study area. The thirteen items analyzed also revealed that four (4) items recorded low extent, while nine other

items revealed a high extent. This indicates that students widely displaced feelings of uneasiness, tension, fear and worry toward classroom learning activities.

Research Question Two: What is the academic achievement of senior secondary school students in South-West, Nigeria?

Table 2: Academic Achievement of Senior Secondary School Students

Subject	Minimum	Maximum	Average Score
Mathematics	39.00	72.00	60.14
English Language	30.00	67.00	60.17

As shown in table 2, academic achievement of senior secondary school students was presented. The table revealed a minimum score of 39.00 and a maximum score is 72.00 with an average score of 60.14 for Mathematics, while the minimum score of 30.00 and the maximum score is 67.00 with an average score of 60.17 was obtained for English Language. The average mean scores of 60.14 and 60.17 in respect of Mathematics and English Language indicates that student's achievement is high since the two are above average.

Research Question Four: What is the academic achievement of senior secondary school students in South-West, Nigeria on the basis of gender?

Table 3: Academic Achievement of Male and Female Students

Subject	Gender	N	X	SD
English Language	Male	255	2.44	0.53
	Female	129	1.98	0.12
Mathematics	Male	255	3.13	1.33
	Female	129	2.26	0.71

As shown in table 3, academic achievement of male and female students was presented. The table revealed that male students has a mean score of 2.44 with 0.53 SD, while female students mean score of 1.98 with a standard deviation of 0.12 for English Language. On the other hand, male students has a mean score of 3.13 and standard deviation of 1.33 in Mathematics, while their female counter parts has a mean score of 2.26, with standard deviation of 0.17. The table revealed that male

students performed better than female students in both English language and Mathematics.

Testing Hypotheses

H₀₁: There is no significant difference between male and female students test anxiety level of senior secondary schools in South-West, Nigeria.

Table 4: t-test Analysis on Difference between Male and Female Students Test Anxiety Level

Gender	Number	Mean	SD	t-value	df	Sig(2-tailed)	Decision
Male	255	2.73	0.33	0.224	382	.000	Rejected
Female	129	2.59	0.08				

As shown in table 4, t-test analysis on difference between male and female students test anxiety level was presented. The table revealed a mean score of 2.73 with standard deviation of 0.33 for male students, while a mean score of 2.59 with standard deviation of 0.08 was obtained for female students. The table further indicates a calculated t-value of 0.224 at 382 degree of freedom with the t-value of 000 ($p < 0.05$). Therefore, the null hypothesis was rejected. This implies that there is significant difference between male and female students test anxiety level of senior secondary schools in South-West, Nigeria.

H₀₂: There is no significant relationship between test anxiety level and academic achievement in senior secondary school students in South-West, Nigeria.

Table 5: Correlational Test between Anxiety Level and Academic Achievement

Variables	N	X	SD	r-cal	p-value	Decision
Test Anxiety and Academic Achievement	384	2.87	0.92	.846	.118	Accepted

As shown in table 5, a correlational test between test anxiety level and academic achievement was carried out. The table revealed that mean of 2.87, standard deviation of 0.92 and an r value of .846. The table also indicates a the p-value of .118 with $p > 0.05$. This implies that the null hypothesis was accepted.

Therefore, there is no significant correlation between anxiety level and academic achievement in senior secondary schools in South-West, Nigeria.

Discussion of Findings

The study revealed that there was significant difference between male and female students test anxiety among senior secondary school students in South-West, Nigeria. The results also, show that female students perform less than their male counterpart with a mean score of 1.98 and 2.26 for English, as against a mean score of 2.44 and 3.13 for female and male students respectively. The finding is in agreement with D'Agostino *et al.*, (2022) who found that female students exhibit high anxiety level than male students during test/examination. This may be because they lack the necessary skills and lack control over their actions, or lacking of self-confidence. The results also show that female students perform less than their male counterpart with a mean score of 1.98 and 2.26 for English Language as against a mean score of 2.44 and 3.13 for female and male students respectively. The finding further echoed DordiNejad, *et al.*, (2011) who discovered that female students who had high anxiety levels performed worse than male students who had lower anxiety levels. They saw less adaptive task values and a decrease in cognitive learning techniques among students who had high experienced test anxiety levels. Also, findings contradicts earlier findings by Gidado and Ugochukwu (2024) who revealed that there is no significant difference between male and female students test anxiety among senior secondary school students in FCT, Abuja.

On the issue of correlation between anxiety level and academic achievement, the finding revealed that there is no significant relationship between student's anxiety level and academic achievement in senior secondary schools in South-West, Nigeria. It is therefore concluded that students are faced with inner distress which may result to psychological turmoil such as fear, depression and high tension during classroom test/examination. The finding is consistent with the finding of Gidado and Ugochukwu (2024) whose indicates that there is no correlation between test anxiety levels and academic achievement of students in the Federal Capital, Abuja.

However, their finding contradicts Syokwaa, *et al.*, (2014) whose that there was significance relationship between anxiety and academic performance among freshmen college students, with and r value of 0.441 ($p > 0.05$).

Conclusion

Based on these findings, the study concludes that senior secondary students who are faced with physical and emotional distress which resulted to widely displacing feeling of fear, uneasiness, tension, depression and worry are not significant determinants of students' academic achievement in South-West Nigeria.

Recommendations

Based on the findings the following recommendations were made from the findings of the research.

1. Teachers and school administrators should pay more attention to students with emotional problems and refer them to schools psychological and counselling centres by adopting this will reduce students' emotional challenges.
2. State government at all levels should encourage teachers with proper and quality personality behaviour in classroom in order to stimulate healthy competition among students and also boosting high academic achievement.
3. School administrators and teachers should be given adequate resources they needed through regular training in order to reduce students' test/examination anxiety and to boost their confidence in various subjects.

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