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Perceived Influence of Test Anxiety on the Academic Performance of Secondary School Students in Physics

Emmanuel Edoja Achor[1*], Jonah Joel Kyado[2], Esther E. Ejeh[3], Kingsley I. Eba[4]

[1,4] Department of Science and Mathematics Education, Benue State University, Makurdi, Nigeria.

[2] Department of Science Education, Taraba State University, Jalingo, Nigeria.

[3] Department of Curriculum and Instructional Technology, Kogi State College of Education, Ankpa, Nigeria.

Purpose: This study aimed to investigate the perceived influence of test anxiety on the academic performance of secondary school students in physics in Benue State, Nigeria. **Methodology:** The research utilized a descriptive survey design, with a target population of 15,060 students from government-approved secondary schools in the Obi Local Government Area of Benue State. A random sampling technique was employed to select 250 students from five secondary schools. The data collection instruments employed were the Mathematics Text Anxiety Questionnaire (MTAQ) and Mathematics Performance Text (MPT). The collected data were analyzed using measures such as means and standard deviation to address the research questions, while the analysis of variance was conducted to test the hypothesis at a significance level of 0.05. **Findings:** The findings indicated a significant difference in the influence of test anxiety levels exhibited by students on their average performance in physics within the secondary schools of the Obi Local Government Area in Benue State. Moreover, the results revealed a significant difference in the influence of test anxiety levels exhibited by male students on their average performance in physics in secondary schools. **Significance:** Similarly, a significant difference was observed in the influence of test anxiety levels exhibited by female students on their average performance in physics within secondary schools. Based on these findings, recommendations for school management are proposed.

Keywords: achievement in Physics, anxiety, gender, Physics, text anxiety.

* Corresponding author: *Emmanuel Edoja Achor, nuelachor@yahoo.com*

Introduction

Physics as a branch of science deals with the study of matter and energy and the association between them with regards to time and space. Physics is the basis of discoveries that pave ways for other disciplines such as chemistry, agriculture, environmental and biological sciences-which brighten our modern society. Through the findings such as magnetism, electricity, semi-conductors and others our modern comforts are made and they include televisions, computers, phones and other business and home technologies as well as possible contemporary ways of movement, such as aircraft and information and communications technology. These have drawn people across the world closer together all relying on concepts of physics (Zahrakar, 2018).

Physics as a discipline seeks to develop in a learner scientific attitude and problem-solving approach suitable for learners' ability to condone, adjust and pull through in his environment for quality livelihood in the society. Physics therefore seeks a unified set of laws control matter, motion and energy at microscopic and macroscopic scale of daily life and out of largest distance. Physics is therefore focused on explaining and forecasting how the universe works (Asadullapoor, Fati, & Gharaee, 2011). These identified relevance of Physics notwithstanding, performance at secondary school level in Benue State of Nigeria is nothing to write home about and this many suspect a number of factors such teaching strategies used, standard of laboratory and its practices as well as text anxiety as been responsible.

Anxiety is a known phenomenon that account for a common cause of poor academic performance among students globally. It is a universal irrefutable fact in human life that control an individual's achievement in numerous situations; an average level of anxiety is needful in nursing people hardworking and being liable of what they have to do (Khan et al, 2018; Donnelly, 2009). Anxiety is defined by Asadullapoor, Fati, and Gharaee, (2011) as feelings that are unpleasant and unclear like when person forecasts a danger situation. Extreme level of anxiety impend individual's mental and physical health and also has a negative effect on their personal, social, familial, occupational, and educational performance (Zahrakar, 2018). One of the popular and largest research areas in recent years has been test anxiety and its dimensions. Test anxiety has been profoundly identified as a two-factor construct, consisting of the cognitive (often referred to as "worry") and emotional (or affective) parts. The main view of the relationship between these two factors suggests the cognitive component that directly wield influence on the performance of students in exams, while the emotional component is related but does not directly prompt test performance (Cassady, 2011). The individual might have a feeling of upset that their performances are being observed out to be assessed (Cheraghian, Fereydouni, BarazPardejani & Bavarsad, 2018). Sometimes this can lead to low self-confidence or poor academic performance (Moadeli & Ghazanfari, 2015).

Test anxiety is an unpleasant reaction toward testing. It's the most important problem that confronts the students in their education globally (Khosravi & Bigdeli, 2018). Test anxiety is also a psychological situation in which students have feeling of extreme upset and anxiety in test conditions. A little anxiety during exams is needed to help students get stimulated and learn. Pressuring up so much of anxiety do not assist the student to perform rather it will ipact the academic performance cynically (Coon & Mitterer, 2019). The psychological signs that mount up in students before a test includes restlessness, unusual body movements, difficulty in concentrating, insomnia, fatigue, muscle contraction, abdominal pain, and tremors (Porto, 2013). These indicators have negative outcomes on student lives and growth

(Ferreira, Almondes, Braga, Mata, Lemos & Maia, 2014) and do wield influence on academic performance in one way or the other.

Academic output of students plays an important role in building the quality graduates who will turn out to be great leaders and manpower for the country. The outcome of education refers to the level to which the known is influenced by anxiety which occurs as a result of pressure affecting learning and memory as well as influencing academics negatively. Student's academic achievement and learning performance is influenced by numerous factors. These include family factors and school factors. Individual or school factors has to do with student's way of learning, negative and irrational reasoning about tests, student ability to handle time, outcome of inadequate rest, student's previous educational background, certain demographic characteristics such as age, gender, ethnicity insufficient physical activity and class attendance among others (Nelson & Harwood, 2011).

In their study on the relationship between test anxiety and academic achievement, Rana and Mahmood (2010) noted that cognitive factors (worry) are essential in bringing about anxiety more than affective (emotional) factors. The result of study on the influence of students' test anxiety and teacher assessment practices on students executed by Hancock (2012) showed that students with high test anxiety level achieved poorly and were less prompted to learn which results to low achievement. Literature on students' sex and cognitive test anxiety scores revealed that female students consistently revealed high cognitive test anxiety in most cognitive test conditions (Olatoye & Afiwape, 2003; Okoiye & Falaye, 2011). Cassady & Johnson (2012), and Farooqi, Ghani & Spielberger (2012), reported that there was gender differences in test anxiety but the differences were not associated with performance from test. In the same vein, report by Olatoye (2017) revealed no significant difference in test anxiety level of male and female students.

Most of the Physics students encounter high level of anxiety during final exam even though their scores are good throughout the term (Akbary-boorang & Aminyazdi, 2019). Driscoll, Evans, Ramsey & Wheeler (2009) found that Physics students have nearly twice the rate for moderately high to high test anxiety when compared with the general public and high school students. Physics programmes can be seen as highly overstretched settingstype. Physics students are under pressure to take many tests while in school and for professional development. Physics students have tests, which are highly tasking and demand for more reading before sitting for the tests or exams (Mahat, 2018).

In view of the factors listed which may contribute to influence of text anxiety on students' performance, the present study focused on perceived influence of test anxiety on academic performance of students in Physics at secondary school level in Obi Local Government Area, Benue State Nigeria.

Literature Review

This study is anchored on Inverted -U-Principle theory propounded by Yerkes-Dodson in 1908 as Law of Drive Theory (Yerkes & Dodson, 1908). The theory links arousal to performance, and it is also referred to as the theory of 'Arousal and Performance. Arousal is the level of excitement or activation generated in the central nervous system to trigger production of the energy required to perform a desired task. The level of arousal of energy experienced by the individual determines the effectiveness of that individual's performance of the task at hand. The U principle theory's argument is that if arousal increases, performance would increase as well, but if arousal became too great and continuously, then performance would deteriorate. This means that during onset of the arousal state, the individual would

still feel confident in his/her ability to control the arousal pressure, and performance would continue to improve. However, once the arousal becomes too great, the individual would start to doubt his/her ability to cope, and her/his performance would automatically begin to drop. There is therefore a progressive relationship between a person's level of arousal and the ability to function effectively. However, when the person is too anxious, the anxiety may interfere with performance because his/her concentration tends to focus too much on his/her anxiety build-up process to the extent that he/she loses focus of the task at hand. The shift of attention gives a leeway to continue rising levels of anxiety, leading to the person's inability to maintain the balance that would enable them perform effectively.

In relation to the Inverted -U principle therefore, this study assumed that in a normal situation a student would need some level of anxiety to positively energize him/her to attend to academic pursuits. At mild and moderate anxiety levels, their performance ability is likely to bring forth desirable grades. But once the anxiety escalates and remains beyond optimum level, the possibility is that the student's academic achievement would drop. This study attempted to establish whether this assumption holds true for respondents of the study area of this research in Physics.

Rana & Mahmood (2010) conducted research study on the relationship between test anxiety and academic achievement. A sample of 414 students was randomly selected from seven different science departments in a public schools. Descriptive survey design was used. Multistage sampling technique of proportionate stratified and simple random sampling techniques was employed for sample selection. Data were collected by using the Test Anxiety Inventory (TAI) developed by Spielberger. Pearson correlation, multivariate statistics and regression analyses were run for data analysis. It was found that a significant negative relationship exists between test anxiety scores and students' achievement scores. Results showed that a cognitive factor (worry) contributes more in test anxiety than affective factors (emotional). Therefore, it is concluded that test anxiety is one of the factors which are responsible for students' underachievement and low performance but it can be managed by appropriate training of students in dealing with factors causing test anxiety. Rana & Mahmood (2010) research is relevant to the present study because the objectives of both studies are the relationship between test anxiety and academic achievement and both study made use of descriptive survey design. However, Rana & Mahmood (2010) study is different in that, they focused on test anxiety and academic achievement while the present study deals with perceived influence of test anxiety on academic performance of students in Physics at the secondary school level. Location, population, and sample size are different, the gap this study tends to fill.

Roy (2019) carried out a study to investigate test anxiety and academic achievement of senior secondary school students in Kokrajhar District. Study was carried out on a sample of 684 high school students. The sample size was 684 respondents. Descriptive survey design was used. Simple random sampling techniques was employed for sample selection The questionnaire was used to collect data from the respondents. The data was analyzed by the researcher using frequency count and percentage. The study revealed that a significant negative correlation was found between academic achievement and attest anxiety of high school students. Further researches are suggested for more generalised results in relation to other variables like gender, management type of institution, locality, medium of instruction, socio-economic status of the parents. Roy (2019) research is related to the present study because the objective of the studies is to examine the test anxiety and academic achievement of senior secondary school students in Kokrajhar District. However, Roy's study is different because, it focused on test anxiety and academic achievement of senior secondary school students, while

the present study deals with perceived influence of test anxiety on academic performance of students in Physics at the secondary school level.

Khan (2020) investigated the influence of test anxiety on students' academic achievement at secondary level. Descriptive survey design was used. Total number of sample students was 187 both male and female who enrolled in 10th class and completed their 9th Board examination (BISE) in 2018. Convenient sampling technique was used. Selfdeveloped a Likert scale questionnaire consist of 34 restricted response items to measure the anxiety among the student at secondary level (close-ended with Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree, options) was designed and scoring from 5 to 1, descending was allotted to each level. Reliability analysis of the questionnaire was also computed through Cronbach's Alpha Model where the value of 0.834 was deducted which shows the scale was very consistent and reliable. Then the instrument was used to collect the data towards secondary school level for measuring the effect of anxiety on students 'academic performance. Collected data was tabulated analysis and interpreted in the light of objectives of study. Descriptive and inferential statistics were performed to obtain the answers of research questions. The filled back questionnaires were sorted school wise, scored and feed into computer for calculations.

Frequency, mean performance, standard deviation, correlation, and independent sample t-test was used for analysis. Data analysis revealed that anxiety really matters for students during, before and after the exams because of fear of failure, competition with other classmates and friends or fear of losing the race of competition influences the performance of students. But it was also found the weak relationship between the results of students and score on scale. It was also revealed in gender wise comparison, on most of the statements there was no significance mean difference observed between male and female students. It was suggested that further studies can be made to explore the measures to control the test anxiety among students that could support them to rise up for competition with zeal and zest to achieve their study targets efficiently and effectively. Khan (2020) research is related to the present study because the objective of both studies is to examine perceived influence of test anxiety on academic performance of students in Physics at the secondary school level. Khan's study is different because, they used quasi-experimental research design, while the present study will make use of descriptive survey design. Location, population, and sample size are different.

Mittu & Nandana (2020) investigated into study of test anxiety as predictor of academic performance among university students. Descriptive survey method was used to conduct the study. One hundred university students were selected as a sample of the present study through convenience sampling technique. In order to collect the responses of respondents, questionnaire of test anxiety by Nist & Diehl (2011) was used. Statistical techniques namely Pearson's coefficient of correlation and linear regression analysis were used to analyze the data. Results of study revealed that in case of university students 1) test anxiety has negative and statistical significant relationship with academic performance; 2) test anxiety has statistical significant contribution towards academic performance, but test anxiety is not the strong predictor of academic performance in case of university students. Mittu & Nandana (2020) research is relevant to the present study because the objectives of both studies are perceived influence of test anxiety on academic performance of students at the secondary school level. However, Mittu and Nandana's study is different in that, they focused on test anxiety as predictor of academic performance among university students, Location, population, and sample size are different.This study evaluates the effectiveness of an intervention of formative assessments with a clicker-based technology on anxiety and academic performance. We use a randomized experiment in physics education in one school in

Dutch secondary education. For treated students, the formative assessments are operationalized through quizzing at the end of each physics class, where clickers enable students to respond to questions. Control students do not receive these assessments and do not use clickers, but apart from that, the classes they attend are similar. Findings from multilevel regressions indicate that the formative assessments significantly reduce anxiety in physics and improve academic performance in physics in comparison with traditional teaching. Furthermore, a mediation effect of anxiety in physics on academic performance is observed. In sum, this implies that an easy to implement technique of formative assessments can make students feel more at ease, which contributes to better educational performance,

This research is on the effect of physics anxiety on the academic performance of physics education students in Federal University of Agriculture, Makurdi, Benue State. The researcher used descriptive survey design to carry out this research. The purpose of the study was to determine if there is physics anxiety among students of physics education in Federal University of Agriculture, Makurdi, determine the factors that cause physics anxiety among the students, and to examine the relationship between physics anxiety and academic performance of the same students of physics education in Federal University of Agriculture, Makurdi. The work used both primary and secondary sources of data. The total population of the studies is 2000 students and the researcher used stratified random sampling to determine the sample size and the sample size was 400. Therefore, 400 Copies of questionnaire were administered but only 300 were recovered and analyzed. The researcher used chi-square statistical tool to analyses the hypothesis. Findings revealed that, there was physics anxiety among physics education students of federal university of agriculture, Makurdi and stress, fear, family background are some of the causes of anxiety in physics. There is a significant relationship between physics anxiety and students' academic performance in Federal University of Agriculture, Makurdi, Benue State which means students with negative anxiety will perform poorly compared to students with positive anxiety. Based on the findings of this study the following were recommended, the university should provide the students with adequate facilities to enable effective learning of physics, students should feel free to express themselves so that the teacher will know their anxiety level and help to reduce it, the university should provide more lecture venues in order to reduce over population which can also cause anxiety, physics teachers should be motivated properly for effective teaching and students should improve on their study habit in order to boost their academic performance.

Statement of the Problem

The poor academic performance of secondary school students in physics subject has become a thing of worry to parents, educators, researchers and the government. Despite the importance attached to physics subject and effort of the government in ensuring that qualitative education is provided at the secondary level, this ugly incident of students' poor academic performance in physics subject still lingers on in Obi Local Government Area of Benue State. It has been observed that students often perform poorly in the subject (Achor, Danjuma & Orji, 2018; Achor & Ngbea, 2022). This poor performance may be due to anxiety particularly during examination. They therefore cultivate fear of failures. Because of this failure, they resort to cheating during examinations, some even become involved in certificate racketeering and this attitude towards examination is a major element of the indiscipline of the wider society. Besides, available previous studies are in the area of mathematics, nursing and biology among others with dearth in physics. It is costly to assume that those findings can be applied to physics.

This is worrisome. Hence this study seeks to establish the perceived influence of test anxiety on academic performance of students in Physics at secondary school level in Obi Local Government Area, Benue State, Nigeria.

Purpose of the Study

This study investigated the perceived influence of test anxiety on academic performance of students in Physics at the secondary school level. Specifically, the objectives of the study are to:

1. Find the influence of the rate of test anxiety exhibited on mean performance in physics at secondary schools level.
2. Determine the influence of the rate of test anxiety exhibited on mean performance in physics by male students at secondary schools level.
3. Determine the influence of the rate of test anxiety exhibited on mean performance in physics by female students at secondary school level.

Research Questions

The following research questions were answered in this study:

1. What is the influence of the rate of test anxiety exhibited by students on their mean performance in physics at secondary school level?
2. What is the influence of the rate of test anxiety exhibited by male students on their mean performance in physics at secondary school level?
3. What is the influence of the rate of test anxiety exhibited by female students on their mean performance in physics at secondary school level?

Hypotheses

The following hypotheses were tested 0.05 level:

1. There is no significant influence of the rate of test anxiety exhibited by students on their mean performance in physics at secondary school level.
2. There is no significant influence of the rate of test anxiety exhibited by male students on their mean performance in physics at secondary school level.
3. There is no significant influence of the rate of test anxiety exhibited by female students on their mean performance in physics at secondary school level.

Research Method

Descriptive Survey design was adopted for this study. The design is considered appropriate because information was obtained based on respondents' opinions, choices on low, moderate, high test anxiety and student academic performance in secondary school. The information were gathered from a few group of students in Obi Local Government Area who were representatives of the entire population.

The population from which the sample was drawn comprised all the 15,060 students from government approved secondary schools in Obi Local Government Area (Teaching Service Board, 2021).

The sample for this study was made up of 250 Senior Secondary II (SSII) students from five schools randomly drawn from the total coeducational secondary schools in the area. Prior to this, inspection was conducted to ensure that the schools covered the topics achievement test will be drawn from. In each school an intact class was used for the study. Achor and Ejigbo (2006) stated that a sample should be large enough to serve as an adequate representation of the population about which the researcher wishes to make generalization and small enough to be selected economically in terms of subjects' availability and expenses in terms of both time and money.

The instruments for data collection were two: Mathematics Text Anxiety Questionnaire (MTAQ) and Mathematics Performance Test (MPT). The MTAQ has 12 items while MPT has 20 items. A four-point Likert scale of strongly agree(SA), Agree (A), Disagree (D) and Strongly Disagree (SD) options from which respondents have to tick one to indicate their decision for each item on MTAQ questionnaire. The total number of respondents who indicates a particular option shall be counted and recorded. The coding were SA=4, A=3, D=2 and SD=1, for positive statement while the reverse is the case for negative statement. MTAQ was grouped based on responses into low, moderate and high test anxieties. MPT is a multiple choice test of options A to D. Only one option was correct.

To ensure the validity, the researchers' self-designed instruments were presented to two experts in the field of Physics education, in the department of science and mathematics education Benue State University Makurdi, Nigeria for phase validation, content validation (for MPT only), corrections and to ensure grammatical editing before it was administered for data collection. The reliability of MTAQ was .89 using Cronbach's Alpha while that of MPT was .83 using Kuder Richardson 21. The two instruments were considered adequate for use.

The researchers personally visited the five (5) sampled schools and administered the questionnaire on 250 SS II students with the aid of two research assistants. This was done after obtaining permission from the school authorities. These were completed and returned on the sport. The data collected were analyzed using mean and standard deviation to answer the research questions while the analysis of variance was used to test the hypotheses at 0.05 level of significance.

Results and Discussion

The data collected for the study were analyzed and interpreted based on the research questions and hypotheses formulated.

Research Question One:

What is the influence of the rate of test anxiety exhibited by students on their mean performance in physics at secondary school level?

Table 1

Mean and Standard Deviation of Influence of Test Anxiety on Mean Performance in Physics by Secondary School Students

Rate of Test Anxiety Exhibited by Students	N	Mean Performance	Std. Deviation	Std. Error
Low	115	2.91	.58	.03
Moderate	60	1.85	.58	.04
High	75	1.90	.55	.06

Table 1 shows the mean and standard deviation of the influence of the rate of test anxiety exhibited by students on their mean performance in physics in secondary schools in Obi Local Government Area of Benue State. The table shows that 115 students exhibited low rate of test anxiety, 60 students exhibited moderate rate of test anxiety and 75 students exhibited high rate of test anxiety. The table reveals that the influence of test anxiety on mean performance in physics of students in secondary schools is 2.91 with standard deviation of 0.58. The influence of moderate test anxiety on mean performance in physics of students in secondary schools is 1.85 with standard deviation of 0.58 while the influence of high test anxiety on mean performance in physics of students in secondary schools is 1.90 with standard deviation of 0.55. The obtained means and standard deviations show that the students' mean performance in physics of students in secondary schools in Obi Local Government Area of Benue State is influenced by test anxiety with the performance of low test anxiety students being the least affected.

Research Question Two

What is the influence of the rate of test anxiety exhibited by male students on their mean performance in physics at secondary school level?

Table 2

Mean and Standard Deviation of Influence of Test Anxiety on Mean Performance in Physics of Male Students in Secondary Schools

Rate of Test Anxiety Exhibited by Male Students	N	Mean Male Performance	Std. Deviation	Std. Error
Low	65	3.91	.58	.03
Moderate	38	1.82	.55	.07
High	34	1.83	.55	.06

Table 2 shows the mean and standard deviation of the influence of the rate of test anxiety exhibited by male students on their mean performance in physics in secondary schools. The table shows that 65 male students exhibited low rate of test anxiety, 38 male students exhibited moderate rate of test anxiety and 34 male students exhibited high rate of test anxiety. The table reveals that the influence of low test anxiety on mean performance in physics of male students in secondary schools is 3.91 with standard deviation of 0.58. Table 2 further reveals that the influence of moderate test anxiety on mean performance in physics of male students in secondary schools is 1.82 with standard deviation of 0.55, while that of high test anxiety on mean performance in physics of male students is 1.83 with standard deviation of 0.55. The obtained means and standard deviations show that male students' mean perfor-

mance in physics in secondary schools is influenced by test anxiety with the performance of low test anxiety male students being the least affected.

Research Question Three

What is the influence of the rate of test anxiety exhibited by female students on their mean performance in physics at secondary school level?

Table 3

Mean and Standard Deviation of Influence of Test Anxiety on Mean Performance in Physics of Female Students in Secondary Schools

Rate of Test Anxiety Exhibited by Female Students	N	Mean Female Performance	Std. Deviation	Std. Error
Low	50	3.85	.58	.04
Moderate	22	1.89	.58	.07
High	41	1.91	.57	.03

Table 3 shows the mean and standard deviation of the influence of the rate of test anxiety exhibited by female students on their mean performance in physics in secondary schools. The table shows that 50 female students exhibited low rate of test anxiety, 22 female students exhibited moderate rate of test anxiety and 41 female students exhibited high rate of test anxiety. The table reveals that the influence of low test anxiety on mean performance in physics of female students in secondary schools is 3.85 with standard deviation of 0.58. Table 3 further reveals that the influence of moderate test anxiety on mean performance in physics of female students is 1.89 with standard deviation of 0.58, while the influence of high test anxiety students in secondary schools is 1.91 with standard deviation of 0.57. The obtained means and standard deviations show that the female students' mean performance in physics in secondary schools is influenced by test anxiety with the performance of low test anxiety female students being the least affected.

Hypothesis One

There is no significant difference in the influence of the rate of test anxiety exhibited by students on their mean performance in physics in secondary schools.

Table 4

ANOVA of Influence of Test Anxiety on Mean Performance in Physics of Students in Secondary Schools

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.421	2	.211	.640	.028
Within Groups	196.485	137	.329		
Total	196.907	249			

Table 4 reveals that $F(2, 249) = 0.640$; $p = 0.028 < 0.05$. Since the p-value is less than 0.05 level of significance, the null hypothesis is rejected. This implies that there is significant difference in the influ-

ence of rate of test anxiety exhibited by students on their mean performance in physics in secondary schools. Thus, based on evidence from data analysis, students' mean performance in physics in secondary schools in Obi Local Government Area of Benue State is significantly influenced by the rate of test anxiety exhibited.

Hypothesis Two

There is no significant difference in the influence of the rate of test anxiety exhibited by male students on their mean performance in physics in secondary schools.

Table 5

ANOVA of Influence of Test Anxiety on Mean Performance in Physics of Male Students in Secondary Schools

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.631	2	.315	.959	.034
Within Groups	196.276	134	.329		
Total	196.907	136			

Table 5 reveals that $F(2, 136) = 0.959$; $p = 0.034 < 0.05$. Since the p-value is less than 0.05 level of significance, the null hypothesis is rejected. This implies that there is significant difference in the influence of the rate of test anxiety exhibited by male students on their mean performance in physics in secondary schools. Therefore, based on evidence from data analysis, male students' mean performance in physics in secondary schools in Obi Local Government Area of Benue State is significantly influenced by the rate of test anxiety exhibited.

Hypothesis Three

There is no significant difference in the influence of the rate of test anxiety exhibited by female students on their mean performance in physics in secondary schools.

Table 6

ANOVA of Influence of Test Anxiety on Mean Performance in Physics of Female Students in Secondary Schools

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.539	2	.270	.820	.041
Within Groups	196.367	110	.329		
Total	196.907	112			

Table 6 reveals that $F(2, 112) = 0.820$; $p = 0.041 < 0.05$. Since the p-value is less than 0.05 level of significance, the null hypothesis is rejected. This means that there is significant difference in the influence of the rate of test anxiety exhibited by female students on their mean performance in physics in secondary schools. Therefore female students' mean performance in physics in secondary schools in Obi Local Government Area of Benue State is significantly influenced by the rate of test anxiety exhibited.

Finding revealed that there is significant difference in the influence of the rate of test anxiety exhibited by students on their mean performance in physics in secondary schools in Obi Local Government Area of Benue State, Nigeria. This indicates that the mean performance in physics in secondary schools is significantly influenced by the rate of test anxiety exhibited by the students. The result is in favour of students that exhibited low rate of test anxiety.

The finding of this study agrees with that of Dacey and Fiore (2020) that the worry component of test anxiety is defined as students' concerns about failing tests. The finding agrees with that of Hebert, Geisthard and Hoffman (2019) that characteristics of anxiety affect students behaviorally, cognitively, and physiologically and that high stakes testing can be very difficult for students with anxiety. The finding also agrees with that of Ndirangu, Muola, Kithuka, and Nassiuma (2008) that there was a statistically significant difference between the levels of anxiety aroused by different subjects. The finding also agrees with that of Hembree (2018) that test anxiety was a key factor in undermining students' performance and that students with high levels of test anxiety score significantly lower on standardized tests compared with students with lower levels of anxiety. The finding also agrees with that of Merell et al (2018) that as anxiety regarding performance of school tasks becomes more severe, students' ability to adequately perform these tasks gradually declines, and even plummets as the anxiety becomes extreme. Students in such a predicament may feel so overwhelmed by the tasks facing them, and fears regarding their ability to perform those tasks, that they simply cannot complete the tasks effectively. The finding also agrees with that of Rana and Mahmood (2010) that test anxiety is one of the factors which are responsible for students' underachievement and low performance.

The significant difference found in the present study is due to the fact that the rate of test anxiety exhibited by students is characterized by continuous long lasting tension and worry. The students in physics class cannot identify the specific cause of their anxiety, have trouble taking an examination and this is responsible for the significant difference in the influence of the rate of test anxiety exhibited by students on their mean performance in physics in secondary schools in Obi Local Government Area of Benue State. In particular, the low rate test anxiety students performed better than those in moderate and high level of text anxiety.

Finding revealed that there is significant difference in the influence of the rate of test anxiety exhibited by male students on their mean performance in physics in secondary schools. This means that the mean performance in physics in secondary schools is significantly influenced by the frequency of test anxiety exhibited by the male students. This result is in favour of male students that exhibited low occurrence of test anxiety. The finding agrees with that of Tobias and Frank (2018) using the same task conditions and procedures for both sexes, the observed mean of error per problem was greater for the low state anxiety group on performance task. The finding also agrees with that of Nadeem, Ali, Maqbool and Zaidi (2012) that when anxiety increases, academic achievement decreases in male students.

The significant difference found in the present study is due to the fact that the rate of test anxiety exhibited is very stressful for male students who experience it. Nervousness and anxiety are perfectly normal reactions to stress. For some people, however, this fear can become so intense that it actually interferes with their ability to perform well. This is responsible for the significant difference in the influence of the rate of test anxiety exhibited by male students on their mean performance in physics in secondary schools.

Finding revealed that there is significant difference in the influence of the rate of test anxiety exhibited by female students on their mean performance in physics in secondary schools. This implies that the

mean performance in physics in secondary is significantly influenced by the rate of test anxiety exhibited by the female students. This result shows that female students that exhibited low rate of test anxiety performed better in Physics.

The finding of this study is in agreement with Speiberg (2017) that high rate anxiety girls made significantly more error than did low state anxious girl students. The finding of this study is also in agreement with Nadeem, Ali, Maqbool and Zaidi (2012) that when anxiety increases, academic achievement decreases in female students. The significant difference found in the present study is due to the fact that low anxiety female students connect their sense of self-worth to their test scores. The pressure the female students put on themselves cause severe test anxiety. This could be responsible for the significant difference in the influence of the rate of test anxiety exhibited by female students on their mean performance in physics in secondary school.

Conclusion

From the findings, the study concludes that the mean performance in physics in secondary schools in Obi Local Government Area is significantly influenced by the rate of test anxiety exhibited by the students. The study further concludes that the mean performance in physics in secondary schools in Obi Local Government Area of Benue State is significantly influenced by the frequency of test anxiety exhibited by the male and female students. Further, low text anxiety students generally and for male and female groups consistently performed better in Physics.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. School management should put in place measures to control test anxiety among students that could support them to rise up for competition to achieve their study targets.
2. Physics teachers should manage test anxiety students in their class by appropriate enlightenment of male as well as female students in dealing with factors causing test anxiety.
3. The school guidance counselor should enlighten the male and female students on how to manage the high demand and pressure placed on them for excellent results in order to increase their confidence level.

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