EFFECT OF TEST ANXIETY ON ACADEMIC PERFORMANCE OF COLLEGE OF EDUCATION STUDENTS IN NASARAWA STATE, NIGERIA

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Abstract
This paper focused on the assessment of test anxiety among students of Nasarawa State College of Education academic performance as an area of study. The research employed descriptive survey research design as appropriate for this study. The population of the study consisted of 8,124 second year students of Colleges of Education in Nasarawa State. The sample for the study consisted 812 second year students. Simple random sampling technique was adopted for sampling the students. The researchers developed Statistics Anxiety Instrument (SAI) consisting of 30 items that reveal traits of test anxiety that students exhibit before, during and after a test. The instrument yielded 0.79 as index of logical validity through experts' appraisaland 0.84 as index of internal consistency through the Cronbach Alpha method of computing reliability. Descriptive statistics was used to summarize data related to the research questions. t-test statistics was used to test the null hypotheses at 0.05 level of significance. The study found out that during statistics test, students mostly get so nervous that they forget facts that they know while thinking about the grades they may get interferes with their study and achievement in statistics examination.The study recommended that lecturers should employ different teaching methods that are students-centered and techniques such as frequent testing, assignments, and projects after teaching a topic to reduce student test anxiety especially when a test is announced.Lecturers should also announce every test and give students enough time to prepare both physically and mentally.

Keywords: *Test anxiety, academic performance*

Introduction

Statistics, is a mathematical course offered in tertiary institutions. It serves as body of science that pertains to the collection, analysis, interpretation or explanation, and presentation of data. As a branch of mathematics, it helps in collection of students' test anxiety scores for analysis, interpretation and decision making in order to determine students with high anxiety academic that can affect their performance. Tests and examinations at all stages of education, especially at the higher education level. have been considered important and powerful tool for decision-making in our competitive society, with people of all ages being evaluated with respect to their achievement, skills and abilities. Zollar and Ben-chain (1990p12) posited that "the

era in which we live is a test-conscious age in which the lives of many people are not only greatly influenced, but are also determined by their test performance." Students consistently perceive examination as a source of increased anxiety and a situation engulfed with uncertainty/unfairness in letting them demonstrate their true achievement (Spielberger, 2000). Such feelings among students limit their potential achievement during the test situation, resulting to higher test anxiety and directly causing a drop in the students' achievements. Therefore, test anxiety can be seen as a measurement error that accompanies the assessment of students' achievements since tests are not meant to measure students' achievement under intimidating situation but to know their level of achievement in an environment fair enough to let them demonstrate their abilities to the fullest.

Test anxiety is bound to manifest among students anytime a test is sequenced. Indeed, moderate anxiety is necessary to motivate excellent performance, but anxiety prompted by lack of preparedness for test has damaging effects on learners (Anikweze, 2010). When individuals are pressurized to make high scores in a test, their anxiety is bound to increase (Deffenbacher, 2001). Goldman (2003) found that individuals with high levels of anxiety tend to do worse on cognitive tests. Therefore, Goldman concluded that individuals with high test anxiety worry about not doing as well as they would like to do on a test. Most people find examinations stressful and may focus on expectations of failure and the undesirable consequences of personal inadequacy (Smith, 2002).

According to Agbo (2001), volatile subjects such as Statistics, Physics, Mathematics and Chemistry in natural sciences trigger higher levels of anxiety in students. Although, efforts have been made by the Federal Government of Nigeria through the National Commission for Colleges of Education (NCCE) and Teachers' Registration Council of Nigeria (TRCN) who insist that professional and registered lecturers are employed in Nigerian Colleges of Education as well as ensuring that non-professional lecturers undergo post-graduate programmes in education. However, one factor that has not received much attention in recent time is the issue of students' test anxiety.

The concept of anxiety was formalised as a psychological construct by an Australian Neurologist Sigmund Freud in the 19th century and has played a central role in the behavioural sciences ever since. Manifestations of anxiety include both psychological responses (e.g. palm sweating) and affective responses (ranging from vague feelings of dread to terror). Other physical symptoms of anxiety reflect a chronic "readiness" to deal with some future threat. These symptoms may include fidgeting, muscle tension, sleeping problems, and headaches. Higher levels of anxiety may produce such symptoms as rapid heartbeat, sweating, increased blood pressure, nausea, and dizziness (Asher, 2003). Anxiety refers to emotional state in which people feel uneasy, apprehensive, or fearful. People usually experience anxiety about events they cannot control or predict, or about events that seem

threatening or dangerous. For example, students taking an important test may feel anxious because they cannot predict the test questions or feel certain of a good grade (Oludipe, 2009). People often use the words *fear* and *anxiety*to describe the same thing. Fear describes a reaction to immediate danger characterized by a strong desire to escape the situation (Stober, 2004).

Cassady and Johnson (2002) and Nicholson (2009) agreed that it is important to distinguish between anxiety as a transitory state and anxiety as a continuing personality. The first kind of anxiety is strongly situation-dependent. Testing is one kind of situation that seems to arouse anxiety states in some people some of the time. However, for students (young children especially), anxiety seems to be reduced in the presence of a warm, sympathetic examiner. High anxiety level has a damaging effect on students' academic achievement (Nicholson, 2009) However, one area that has not received attention in recent time is whether mature students in tertiary institutions most especially student-teachers equally experience test anxiety. Students' performance in Colleges of Education in NasarawaState keeps declining in spite the increase in staff strength (Nasarawa State Government, 2013). Researcher's experience in teaching statistics in Colleges of Education over time has shown that general performance of students in economics keeps declining with relatively less interest in the subject due to its calculative nature. Again, students always express fear and uneasiness whenever test is announced. Combination of these traits constitutes anxiety.Similarly, in recent time, there have been many research studies relating to anxiety and test achievement. Examples include a research study conducted by Cassady and Johnson (2002) to investigate the effect of cognitive test anxiety on students' academic performance and which found that cognitive test anxiety exerts a significant stable and negative impact on academic performance measures. However, contradictory findings in this area have been reported, this is due to lack of standard indigenous instrument that can be used to measure statistics anxiety levels among students. Hence, to develop and validate a standard indigenous instrument that can be used to measure statistics anxiety among higher students in Colleges of Education becomes imperative.

This paper used test anxiety theories such as two-factor theory (worry and emotionality) by Spielberger (2000), and four-factor theory (Worry, tension, test irrelevant thinking and Bodily symptoms) proposed by Sarason (2000) as cited in Ayatoallah andVenkatesan (2009). Worry and irreverent thinking are considered cognitive components whereby tension and bodily symptoms are considered emotional components. In addition, the two common models used in explaining the effect of test anxiety on academic achievement are the interference and deficits models. Initially.AyatoallahandVentatesan (2009) proposed that test anxiety consisted of worry (cognitive) and emotionality (physiological) components. Cognitive components refer to the mental activity that revolve around during test situations and will give an impact to the individual. In this two-factor model, worry is the cognitive activity that accompanies the test anxiety and refers to tension, high

heart rate, sweating, feeling sick and shaking. It has been theorized that the construct of test anxiety is multidimensional. Test anxiety has also been over-whelmingly identified as a two-factor contrite consisting of the cognitive (often referred to as "worry") and emotional (or affective) components (Morris, Davis, andHutchrings, 1981; Schwarzer, 2000).

The predominant view of the relationship between these two factors suggest the cognitive component directly impacts performance (Bandalos, Yates, and Thorndike-Christ, 1995; Hembree, 1999), while the emotionality components is related but does not directly influence test performance (Sarason, 2000; Williams, 1999). The apparent relationship between emotionality and test performance is such that emotionality impacts test performance only under situations where the individual also maintains a high level of cognitive test anxiety (Deffenbacher, 2001; in Hodapp, Glanzmann, &Laux, 2005). Although, emotionality has traditionally not been viewed as central to performance, recent work has demonstrated that emotionality may be the triggering mechanism for self-regulation strategies that facilitate performance (Schutz and Davis, 2000).

The issue of poor academic performance of students in statistics test in Nigeria has been of much concern to the government, parents, teachers and even students' themselves. It is believed that the menace of low academic performance in statistics which had eaten deep into the Nigerian academic system is the reason for poor quality of students and eventual leaders produced into the Nigerian economy. However, the quality of education is said to not only depend on the teachers as reflected in the performance of their duties, but also in the coordination of the school variables. It is believed that the school physical features have a form of relationship with the student academic performance.Hancock (2001) found statistically significant results which revealed that all students especially students with high anxiety level performed poorly and were less motivated to learn. Thus. he concluded that when students who are particularly test-anxious are exposed to a highly evaluative assessment environment in their educational institutions, they perform poorly and are less motivated to perform. The study recommended that, conducive and well ventilated halls should be provided, proper lighting and adequate seats and seating space should be made available in halls.

Oludipe (2009) the statistical procedure used in analyzing the data collected was t-test of significant. The study found that Arts students' (English) performed poorly due to their high level of anxiety than their Science (Statistics) counterparts. He concluded that "low test-anxious students (science) performed better than high test anxious students (English)on both numerical and non-numerical tasks in Statistics/English'Agbo (2001) which concluded that volatile subjects such as statistics, physics, mathematics and chemistry trigger higher levels of anxiety in students.He recommended that lecturers should employ different teaching methods

that are students centered and they should be engage with frequent testing, assignments which will reduce students test anxiety especially when test is announced. On the other hand, Schonwetter (1995) and Harman (2004), by relating this phenomenon to classroom instructions, the research clearly further discussed "how high test-anxious students were unable to benefit directly from organized instruction which ultimately affected their performance in class".

Amos (2011) The results showed that there was negative relationship between indices of test anxiety and students' achievement in Economics, Mathematics and English Language tests irrespective of gender. This invalidated the three hypotheses that stated that there are no significant relationships between anxiety levels and the mean achievement score of students in Economics, Mathematics and English Language test. This is revealed by the correlation coefficients of -0.85, -0.79 and -0.26 for students' anxiety and achievement in Economics, Mathematics and English Language test respectively. All the correlation coefficients showed negative values signifying inverse relationships between test anxiety and achievement in Economics, Mathematics and English Language tests. The coefficient of determination of 0.61, 0.54 and 0.27 for test anxiety and achievement in Economics, Mathematics, and English Language test respectively indicated that only reasonable changes in students' achievement in Economics and Mathematics test are explained by test anxiety. Khalid and Hasan (2009) found that students with good academic achievement have low test anxiety scores and vice versa.

Anikweze and Amos (2016) The results showed negative relationship between the indices of test anxiety and students' achievement in Economics, Mathematics and English language test irrespective of gender. The study recommended that lecturers should employ different teaching methods that are students-centered and techniques such as frequent testing, assignments and projects after teaching a topic to reduce students test anxiety especially when test is announced to them. It has been found that students consistently perceive statistics examination as a source of increase in anxiety and a situation engulfed with uncertainty/unfairness in letting them demonstrate their true achievements. Such feelings among students' limit their potential performance during the test situation, resulting in higher test anxiety directly causing drop in the student achievement. Therefore, anxiety can be seen as a measurement error towards measuring student achievement as tests are not meant to measure student achievement under intimidating situation but to know their level of achievement in an environment fair enough to let them demonstrate their abilities to the fullest.

Educational causes of anxiety among tertiary school students include; unconducive environment of examination hall, unfriendly behavior of examiners among others and internal factors like poor organization of questions in a test, insufficient description of the content, lack of clarity in instruction for students, lack of teachers' dedication and resourcefulness, lack of appropriate use of suitable teaching methods

and lack of teaching experience on the part of the teachers e.t.c. However, on the side of the students, poor test taking skills, backward students' knowledge base, not-good-enough problem solving skills, inability to manage time effectively, poor study habits/skills, among other things could cause anxiety in students during examinations. The missing link is the unavailability of standard indigenous instrument that can be used to measure statistics anxiety among higher students in Colleges of Education. Therefore, the thrust of this study was to assessed the statistics anxiety among students of Colleges of Education academic performance in Nasarawa State, Nigeria.

Objectives of the Study

The aim of the paper is to asses the effect of anxiety on academic performance of Colleges of Education students in Nasarawa State, Nigeria. The specific objectives of the study are to:

1. determine the level of statistics anxiety on students' academic performance.
2. compare the level of statistics anxiety of male and female students' academi performance.

Research Questions

It is the desire of the researcher that at the end of this research answers to the following questions would have been provided:

1. What is the level of statistics anxiety exhibited on students' academic performance?
2. What is the difference in the levels of statistics anxiety of male and female students on academic performance?

Hypotheses

For the purpose of this research, the following null hypotheses were tested at the 0.05 level of significance:

1. There is no significant difference in the levels of statistics anxiety and students' academic performance.
2. There is no significant difference in the levels of statistics anxiety of male and female students' academic performance.

Methodology

There search employed descriptive survey research design as appropriate for this study. The population is made up of 4,755 males and 3,369 female students. Again, the population constitutes 3,001 science students and 5,123 art students. The sample of this study consisted of 812 second year students of Colleges of Education in NasarawaState. The sample was made up of 475 males and 337 female students. Again, the sample constitutes 300 science students and 512 art students. The study adopted a simple random sampling technique. Respondents weresampled along male/female dichotomy. Finally, the lucky dip method of simple random sampling was employed to obtain the sample size. Serial numbers of the elements in the

sampling frame were recorded on pieces of papers folded and mixed thoroughly before respondents were asked to pick at once without replacement. This technique gave the respondents equal opportunity of being selected thereby, reducing the bias effect that may interfere with the validity and reliability of the study.

For the purpose of this study, the researchers developed one instrument for data collection. The instrument, called Statistics Anxiety Instrument on students' academic performance (SAISAP)was developed consisting of (30) items that reveal traits of test anxiety students exhibit before, during and after a test. Demographic information regarding students' gender is part of the instrument. SAISAP is based on 4-pointrating scale. The maximum point is 4 and the minimum is 1 for each item. The maximum score obtainable per student is 120 and the minimum is 30 for all the responses.

Statistics Anxiety Instrument on Students' Academic Performance (SAISAP) was subjected to experts' appraisal for validation. Construct validity indicates the extent to which two tests that measure conceptually related properties agree. It seeks an answer to whether scores on the test relate to other qualities with which they are expected to be related. The concurrent validities between the test and other measures of the same domain are correlational measures of convergent validity (Anikweze, 2013).The instrument yielded the concurrent validity of 0.76 which was determined by adding the two indices of the experts' appraisal and divide it by 2.

SAISAP was pilot tested on a small portion of the population who are not part of the sampled respondents. The instrument was pilot tested on fifty (50) respondents. This was to determine the reliability of the instrument. Cronbach Alpha coefficient method of estimating reliability was employed to compute coefficients of internal consistency. This is considered suitable because Cronbach Alpha coefficient is more general method of estimating internal consistency for instruments with scales that provide responses on a continuum of 4 or 5 type scale (Emaikwu, 2011). The reliability coefficient was 0.84 which is considered strong enough for a suitable instrument.

The instrument was administered personally by the researchers with prior arrangement with the Institutions concerned. With the aid of the lecturers of the various colleges, the consent of the students, the privacy of information and other ethical sureties were guaranteed to the students. Freedom to ask questions for clarification was granted and sufficient time to respond to the items was alsogiven to the students. However, students were notallowed to interact with one another in the process of responding to the items. Subsequently, all the 812completed questionnaires were collected at once for analysis. Descriptive statistics (mean and standard deviation) was used to summarize data related to the research questions. t-test statistics was used to test the null hypotheses at the 0.05 level of significance.

Results

Research Question 1: What is the level of statistics anxiety exhibited on students' academic performance?

Table 1: Level of Statistics Anxiety Exhibited by Students

S/N	Statement	Mean	SD	Remark
1	I lose sleep over worrying about statistics test.	2.54	1.00	Significant
2	Few minutes to start statistics examination, I find my hands and arms trembling.	2.65	1.14	Significant
3	During statistics test, I find myself sweating in an unusual manner.	2.54	1.01	Significant
4	As soon as statistics test is over, I try to stop worrying about it, but I just can't.	2.62	1.09	Significant
5	I always have an uneasy and upset feeling before taking a statistics semester examination.	2.64	1.16	Significant
6	I sometimes feel my heart beating very fast during statistics examination.	2.61	1.10	Significant
7	After statistics test, I frequently experience stomach upset and headache.	2.54	1.00	Significant
8	During statistics test, I mostly get so nervous that I forget facts I know.	2.65	1.14	Significant
9	Thinking about the grades I may get interferes with my studying and achievement in statistics examination.	2.50	1.02	Significant
10	While taking statistics test, I find myself wondering whether the other students are doing better than I am.	2.62	1.09	Significant
11	During statistics examination, I find myself thinking of the consequences of failing.	2.64	1.16	Significant
12	My mind goes blank whenever statistics test is announced.	2.61	1.10	Significant
13	After taking statistics test, I feel I could have done better than I actually did.	2.54	1.00	Significant
14	Before taking a statistics test, I feel confident and relaxed.	2.65	1.14	Significant
15	During statistics test, I mostly have the feeling that I am not doing well.	2.65	1.26	Significant
	Grand Mean	2.60	1.09	
	Scale Mean	2.50		

Source: Field survey, 2020

Table 1 shows the descriptive statistics for the level of statistics anxiety exhibited by students as measured by SAI. The table reveals that students exhibited statistics anxiety since their mean is above the scale mean of 2.50 which make it significant as in remark. It is evident that in item 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15, students were of the opinion that:they lose sleep over worrying about statistics test, Few minutes to start statistics examination, they find their hands and arms trembling, During statistics test, they find themselves sweating in an unusual manner and as soon as statistics test is over, they try to stop worrying about it, but they just can't, they always have an uneasy and upset feeling before taking a statistics semester examination, they sometimes feel their hearts beating very fast during statistics examination, After statistics test, they frequently experience stomach upset and headache, During statistics test, they mostly get so nervous that they forget facts they know, Thinking about the grades they may get interferes with their studying and achievement in statistics examination, While taking statistics test, they find themselves wondering whether the other students are doing better them, During statistics examination, they find themselves thinking of the consequences of failing, their minds go blank whenever statistics test is announced, After taking statistics test, they feel they could have done better than they actually did, Before taking a statistics test, they feel confident and relaxed and During statistics test, they mostly have the feeling that they may not do well.

Research Question 2: What is the difference in the levels of statistics anxiety of male and female students' academic performance?

Table 2: Difference in the Level of Statistics Anxiety of Male and Female Students

S/N	Statement	Male			Female		
		Mean	SD	Remark	Mean	SD	Remark
1	I lose sleep over worrying about statistics test.	2.31	1.14	Insignificant	2.65	1.14	Significant
2	Few minutes to start statistics examination, I find my hands and arms trembling.	2.24	1.01	Insignificant	2.54	1.01	Significant
3	During statistics test, I find myself sweating in an unusual manner.	2.45	1.09	Insignificant	2.62	1.09	Significant
4	As soon as statistics test is over, I try to stop worrying about it, but I just can't.	2.36	1.16	Insignificant	2.64	1.16	Significant
5	I always have an uneasy and upset feeling before taking a statistics semester examination.	2.42	1.10	Insignificant	2.61	1.10	Significant
6	I sometimes feel my heart beating very fast during statistics examination.	2.34	1.00	Insignificant	2.54	1.00	Significant
7	After statistics test, I frequently experience stomach upset and headache.	2.44	1.14	Insignificant	2.65	1.14	Significant
8	During statistics test, I mostly get so nervous that I forget facts I know.	2.42	1.02	Insignificant	2.50	1.02	Significant
9	Thinking about the grades I may get interferes with my studying and achievement in statistics examination.	2.35	1.09	Insignificant	2.62	1.09	Significant
10	While taking statistics test, I find myself wondering whether the other students are doing better than I am.	2.43	1.14	Insignificant	2.54	1.00	Significant
11	During statistics examination, I find myself thinking of the consequences of failing.	2.32	1.01	Insignificant	2.65	1.14	Significant
12	My mind goes blank whenever statistics test is announced.	2.44	1.09	Insignificant	2.50	1.02	Significant
13	After taking statistics test, I feel I could have done better than I actually did.	2.26	1.16	Insignificant	2.62	1.09	Significant
14	Before taking a statistics test, I feel confident and relaxed.	2.44	1.10	Insignificant	2.65	1.14	Significant
15	During statistics test, I mostly have the feeling that I am not doing well.	2.34	1.00	Insignificant	2.54	1.01	Significant
	Grand Mean	2.37	1.08		2.60	1.08	
	Scale Mean	2.50					

Source: Field survey, 2020

Table 2 shows the descriptive statistics for the level of statistics anxiety exhibited by male and female students as measured by SAI. Male students have their mean below the scale mean of 2.50 which is insignificant as in remark but female students have their mean above the scale mean of 2.50 which shows that they experience statistics anxiety more than their male counterparts which is indicated as significant in the remark. It is evident that in item 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15, both male and female students were of the opinion that: they lose sleep over worrying about statistics test, Few minutes to start statistics examination, they find their hands and arms trembling, During statistics test, they find themselves sweating in an unusual manner, As soon as statistics test is over, they try to stop worrying about it, but they just can't, they always have an uneasy and upset feeling before taking a statistics semester examination, they sometimes feel their hearts beating very fast during statistics examination, After statistics test, they frequently experience stomach upset and headache, During statistics test, they mostly get so nervous that they forget facts they know, Thinking about the grades they may get interferes with their studying and achievement in statistics examination, While taking statistics test, they find themselves wondering whether the other students are doing better them, During statistics examination, they find themselves thinking of the consequences of failing, their minds go blank whenever statistics test is announced, After taking statistics test, they feel they could have done better than they actually did, Before taking a statistics test, they feel confident and relaxed and During statistics test, they mostly have the feeling that they may not do well.

Testing of Hypotheses

The following were tested at 0.05 level of significance::

Hypothesis 1: There is no significant difference in the level of statistics anxiety of science and art students as measured by SAI.

Table 3: t-test Statistics for the Difference in the Level of Statistics Anxiety of Science and Arts Students as Measured by SAI

Variable	N	X	SD	Df	t_{cal}	t_{tab}	Decision
Anxiety	300	2.40	1.05				
				810	1.812	1.645	Reject Ho
Performance	512	2.58	1.06				

df = 810, α = 0.05, © SPSS version 17, Stds'= Students', Stats= Statistics

Table 8 showed the t-test of significance for difference in the level of statistics anxiety on students' academic performance. At the 0.05 level of significance and degrees of freedom of 810, the t-test value of 1.812 which is greater than the critical value of 1.645 was obtained. Therefore, since the calculated value of t-test statistics is greater than the critical value, the null hypothesis is rejected. Hence, there is significant difference in the level of statistics anxiety on students' academic performance. The implication of this finding is that students that exhibit more statistics anxiety have poor academic performance than their counterparts.

Hypothesis 2: There is no significant difference in the level of statistics anxiety of male and female students' academic performance

Table 3: t-test of Significance for difference in the Level of Statistics Anxiety of Male and Female Students

Variable	N	X	SD	Df	t_{cal}	t_{tab}	Decision
Male	475	2.37	1.08				
				810	1.973	1.645	Reject Ho. 1
Female	337	2.60	1.08				

df = 810, α = 0.05, © SPSS version 17, Stds= Students', Stats= Statistics

Table 3 showed the t-test of significance for difference in the level of statistics anxiety of male and female students academic performance. At the 0.05 level of significance and degrees of freedom of 810, the t-test value of 1.973 which is greater than the critical value of 1.645 was obtained. Therefore, since the calculated value of t-test statistics is greater than the critical value, the null hypothesis is rejected. Hence, there is significant difference in the level of statistics anxiety of male and female students' academic performance. The implication of this finding is that female students exhibit more statistics anxiety than their male counterparts.

Discussion of Findings

It was found that students exhibit anxiety at different levels by losing sleep over worrying about statistics test, few minutes to start statistics examination, they find their hands and arms trembling, during statistics test, they find themselves sweating in an unusual manner, they always have an uneasy and upset feeling before taking a statistics semester examination, they sometimes feel their hearts beating very fast during statistics examination, after statistics test, they frequently experience stomach upset and headache.

These findings agreed with Agbo (2001) which concluded that volatile subjects such as statistics, physics, mathematics and chemistry trigger higher levels of anxiety in students. The assertion is similar and in line with the present findings that the physical symptoms of anxiety reflect chronic "readiness" to deal with some future threat. These symptoms may include fidgeting, muscle tension, sleeping problems, and headaches. Higher levels of anxiety may produce such symptoms as rapid heartbeat, sweating, increased blood pressure, nausea, and dizziness Asher (2003). Evidence from the current study corroborate Harman (2004) that other factors such as students' attitudes and self-talk, inappropriate methodology, learning environment, readiness and motivation are factors that affect students' achievement in science and social science subjects. Students were also found to exhibit test anxiety in varying levels. However, the analysis also showed how the developed instrument was sensitive enough when applied during statistics test, to identify students who get so nervous that they forget the facts they know, thinking about the grades they may get interferes with their studying and achievement in statistics examination, while taking statistics test, they find themselves wondering whether the other students are doing better than they are. This is in line with the assertion of Jerrel and Ronald (2001) that students exhibit anxiety in quantitative subjects and subsequently perform poorly, while students even at high anxiety achieve high scores in qualitative subjects. This finding is explained by the fact that many students are scared of figures and calculative subjects. At the mention of statistics and mathematics, many students feel uncomfortable and become anxious. It also implies that even at low and high levels of anxiety, more students still scored average and above average in statistics test, this evidence contradicts the finding of Khalid and Hassan (2009) in a study conducted using 187 statistics undergraduate students and reported that students with good academic achievement have moderate test anxiety scores but students with low and high anxiety have poor performance. The findings from Agbo (2001), Harman (2004) and Jarrel & Ronald (2001) are all in agreement with the current findings of these study that students' exhibits statistics test anxiety before, during and after test and examination.

The null hypothesis on the influence of gender was rejected because of the evidence that female students exhibited more statistics anxiety than their male counterparts. This finding however, concurred with the assertion of Zeidner (1990) that female students have been repeatedly found to report high levels of overall test anxiety than

male students. Both male and female students experience high anxiety levels because most tests at the tertiary institutions are high stake tests that generate a lot of anxiety. The students are conscious of the competitive society that lay emphasis on certificates rather than practicability. Therefore, mature students at College of Education both males and females experience test anxiety because they want to have good certificate since we live in a test conscious era, only that female students show more level of anxiety than their male counterparts. Zollar and Ben-chain (1990p23) posited that "the era in which we leave is a test conscious age in which the lives of many people are not only greatly influenced, but are also determined by their test performance". Hence, more care and psychological solution should be made available to all students (males and females) to enable them cope with the challenges in the study of statistics. This concurred with the findings from Zeidner (1990), Zollar and Ben-chain (1990), Oludipe (2009), are in agreement with the present study which agreed that female students exhibits more levels of statistics anxiety than their male counterparts which leads to female students' poor performance in statistics in tertiary institutions.

Conclusion

During statistics test, students mostly get so nervous that they forget facts they know. thinking about the grades they may get interferes with their studying and performance in statistics examination, while taking statistics test, they find themselves wondering whether the other students are doing better than they are.Female students exhibit more statistics anxiety than their male counterparts. In this 21st century, people live in a testtaking environment and that when students are anxious before and during statistics tests, test anxiety has a significant and effective impact on their academic performance. To effectively manage statistics test anxiety, students can be helped by teachers, parents and educational administrators through use of three domains of learning such as cognitive, affective and psychomotor domains.

Recommendations

Based on the findings of this study, the following were recommended:

1. Statistics students should be fully informed by the lecturers about the nature of course, duration of the semester, and level of commitment necessary for the successful completion of the course. The students with higher test anxiety must be identified and treated in order to increase their academic performance and lecturers should help students develop positive attitude towards tests and examinations by advising them to be self- confident, counteracting every negative self-talk with a positive statement.
2. Lecturers should employ different teaching methods that are students-centered and techniques such as frequent testing, assignments, and projects after teaching a topic to get student acquainted with test taking and thereby reduce students' test anxiety especially when test is announced for both male and female students' to enhance their academic performance in statistics'.

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