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Influence of Academic Anxiety and Stress on Academic Performance of Undergraduate Students in Katsina State, Nigeria

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Abstract

The study examined the influence of academic anxiety and academic stress on academic Performance of undergraduate students in Katsina state, Nigeria. The study has 3 research objectives and 3 research hypotheses. The study adopted ex – post facto research design. The population of the study is 225 students from Department of Education which comprises of 175 male and 50 female, total population sampling technique was used and all the 225 students were used as sample of the study. The instruments for data collection were academic anxiety inventory (AAI), academic stress inventory (ASI), and cumulative grade point average (CGPA) for academic Performance. PPMC was used to obtain the reliability coefficient for the AAI and ASI which were found to be 0.81 and 0.703 respectively. Independent sample t-test as well as multiple regression were used to test the hypotheses. Findings of the study revealed that Anxiety and Stress significantly accounts for 98.7% of the total variance of students' Performance ($F_{1, 224} = 4176.054$, $R=0.993$, $R^2=0.987$ and $p = .000$), Stress significantly accounts for 92.2% of the total variance of students' Performance ($F_{1, 224} = 646.824.457$, $R=0.960$, $R^2=0.922$ and $p = .000$), Anxiety and Stress significantly accounts for 98.7% of the total variance of students' Performance ($F_{2, 223} = 2113.457$, $R=0.994$, $R^2=0.987$ and $p = .000$). It was concluded that both stress and anxiety have relative influence on students' academic Performance separately and combined. The study recommended that the university management should introduce anxiety management training as a therapeutic technique suitable for treating students with academic anxiety and stress, Students should be very hardworking, attend lectures regularly and prepare very well before any test or examination in order to avoid the risk of academic stress.

Keywords: Anxiety, academic stress, academic performance, counselling

Introduction

A nation's progress is indeed closely tied to academic Performance and development of its students. Education plays a vital role in shaping the future of any country. Students come to university with the aim of achieving better academic Performance in each and every semester, but surprisingly academic Performance of students is badly affected due to increase in anxiety and stress in the society as observed by researcher. There is no doubt to the fact that anxiety and stress has increased in the society (Fan & Chen, 2011). Anxiety and stress not only affect education but also student's personalities which affect them throughout their lives.

Anxiety is a common phenomenon of everyday life. It plays a crucial role in human life, because all of us are the victims of anxiety in different ways. We are living in the age of anxiety. Anxiety is a general feeling that all is not well. It is a state of helpless apprehension which may

not be restricted to a limited number of environmental setting. It also involves a pattern of physiological and psychological reaction like feeling, stress, and emotion. It is often accompanied by muscular tension, restlessness, fatigue and problem in concentration. According to [Amalu \(2017\)](#) Anxiety is an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure, As a result of uncertainty in outcomes of the test.

Anxiety makes students to be worry, and be less likely to volunteer answers in class and to be hesitant in expressing personally relevant information especially during examination, test and assignment. High level of anxiety interferes with concentration and memory, which is critical for academic success. It is normal for a student to feel anxious before test or examination, but it become problematic when the level of anxiety is excess. Example of factors that make students level of anxiety to be excess include; past experience with course, perception of course load, inability to manage time, family issues and beliefs. These factors may result to a unique reaction to a situation and lead to anxiety. The negative effects of anxiety can be explained by two models namely; the interference and the learning deficit models. According to the interference models, anxious student are distracted due to irrelevant task and negative thoughts during examinations, while the learning deficit model proposes that it is student's ineffective study habits during preparation for examination that causes them to be anxious. Anxiety disorder which comes in form of acute stress, that is induced using unexpected threat and difficulties in the academic field is called Academic Anxiety ([Jessica, Hales, Robinson & Robinson, 2019](#)).

Academic Anxiety is one form of anxiety that occur within the scope of educational institution. [Lee and Larson \(2019\)](#), indicates that academic anxiety is conceptualized as a state of distress induced by a student's appraisal of excessive academic demands i.e overloaded homework, examinations. It refers to as the feelings of worry, tension, or dread that is associated with academic settings or tasks. This could be exams, assignments, subjects, social pressures related to schoolwork or merely feeling uneasy about studying or working in groups in class. It is common for learners to feel some degree of nervousness about academic requirements or assignments. Low level of anxiety can actually be helpful in creating motivation to academic goals. However, high level of anxiety can become detrimental to academic success, and students should engage in coping strategies to manage academic anxiety. Academic anxiety can be caused by different sources that are specific to each person. The symptoms of academic anxiety include; physiological symptoms that are felt in the body. Academic anxiety can often cause parts of the body to have a nervous or fearful reaction. These symptoms include; headaches, dizziness, nervous sweating, elevated heart rate to mention but few. Cognitive symptoms involve unhelpful thoughts that interfere with performance. Symptoms in this facet of anxiety don't manifest in the body, but in the way a student thinks a student experiencing this has worries that prevent them from being able to focus on schoolwork. They include; cognitive distraction, attentional control, cognitive overload. Behavioral symptom manifest in student habits and behavior. They include; avoidance or procrastination, working on an unrelated task, intentionally putting low effort into task due to fear of failure. Social symptom involves the fear of negative reaction from other people peers, parents, teachers etc. More so, not every student will exhibit symptom from all categories. For example, it is possible that someone may experience physiological and cognitive symptoms without experiencing any behavioral symptoms.

Stress is an undesirable, unpalatable and inevitable concept that crops up as individuals pursue their personal interests and goals. As man strives to attain the basic need of life stress emerges, in an attempt to meet these needs however individuals and most especially students are affected physically, emotionally, socially and spiritually. Stress is the body's response to any

undesirable mental physical, emotional, social, environmental demands. Stress is a state of disequilibrium (physical, physiological, psycho-emotional state of mind) in humans which results the organisms or individual's inability to handle the demands (physical, mental, psycho-social) of life. Stress can be described as the generalized known specific reaction of the body to many demands made on it (Alkai & Baba, 2018)

Academic stress among students has been a topic of interest for many years. Although attending school can be a rewarding experience, it can also be a time of considerable stress for students. Students experience high stress as a result of some factors like academic commitments, poor study habits and ineffective time management skills to mention a few (Alkai & Baba, 2018). The combination of many sources of stress (stressors) such as planning for the future, struggling with exams and assignment and meeting the demand of school can be overwhelming experience for many students. The researcher observed that academic stressors often resulted from taking and studying for examination, grade competition, and the large amount of content to master in a short period of time. Many Students often experience high and uncontrollable worry about events which occurred in past or may happened in future. Also same students are extremely worry about performing completely well and these can negatively affect learning, leading to poor academic performance, school dropout or under Performance in school, it can also predict significant problem in child life which may not be recover easily.

Moreover, some students lack of confidence due to anxiety and stress, which in turn affect them in class, during the period of exams, or while demonstrating their knowledge on test (Alkai & Baba, 2018). Also observed some students also experience fear during examination to the extent that even if they have the knowledge, they will lack the confidence or ability to recall what they know or read, resulting in physical and mental shutdown. Academic pressure is a significant source of anxiety and stress for many students. The importance of performing adequately on texts without second chances or alternative ways of one's grade many cause stress. Research has revealed that test were the number one source of anxiety and stress among students. The academic work load requires that students face a series of peak periods due to the fact that there is a relatively constant underlying pressure to complete an upcoming assignment (Alkai & Baba, 2018).

Academic Performance is the outcome of education. It refers to the level of success and accomplishments attained by students in their educational pursuits. Academic Performance is also a student's ability to succeed in an academic setting and is measured by the amount of academic content they learn over a period of time. Academic Performance is a term use to describe the rating of a student following an examination, academic Performance is a performance indicator which precedes educational activities in the process of school evaluation. The performance indicator in this case can be considered as grades students get at the end of assessment activities (Fan, & Chen, 2011).

Academic Performance of students therefore consists of scores obtained from teacher made test or examination in a particular course.it also include the development of critical thinking skills, problem-solving abilities, creativity, and social emotional competencies. It is one of the most vital considerations among students in university level. High academic Performance is often seen as an indicator of students' engagement, motivation, and effective learning strategies. It reflects their ability to meet academic standards, grasp complex concepts, and apply knowledge to real-word situations. Despite living in the era where education is accessible to all, there are still some identified internal and external factors affecting academic Performance.

Because of this controversial issues with respect to student academics, the researcher is inspired

to conduct this study to observe the continuous verification of such effects over time and at different locations in society. Academic anxiety and stress are these factors that have effects on the mastery of academic Performance. It is on this note that the present study is conceptualize to determine the influence of academic anxiety and stress on academic Performance of undergraduate in department of education, Umaru Musa Yar'adua University, Katsina State, Nigeria.

Statement of the Problem

The researcher observed that poor academic Performance among undergraduate is worrisome and it could be well connected to student academic anxiety and stress. This claim is evidenced from the cumulative grade point average (CGPA) of 300 level students form department of Education in 2022/2023 academic sessions (UMYU, 2023). 300 level undergraduate of 2022/2023 academic session C G P A shows that 20% of students from the Department of Education is Average and over 30% is low and 50% fail, while 300 level undergraduate students of 2022/2023 academic session from the same department statistic figure shows that 30% of students C G P A is average, 35% low and 35% of student fail. This generate a menace that remain a major point of concern as it determines the level of degree a student will graduate with and cause others to drop-out. This prompted the researcher to investigate the interconnections of the variables. The purpose of the study therefore is to examine influence of academic anxiety and stress on academic Performance of undergraduates in Department of Education, Umaru Musa Yar'adua university katsina state Nigeria.

Objectives of the study

The research was directed to achieve the following objectives:

1. To find out the influence of Academic Anxiety on Academic Performance of undergraduate students in Katsina State.
2. To find out the influence of stress on Academic Performance of undergraduate students in Katsina state.

Research Hypotheses

The following research hypotheses were formulated to guide the researcher in achieving the above stated objectives.

H₀₁: There is no influence of Academic Anxiety on Academic Performance of undergraduate students in Katsina State.

H₀₂: There is no influence of Stress on Academic Performance of undergraduate students in Katsina State.

Methodology

The researcher used ex-post factor design. This is because the researcher did not attempted to manipulate the variables since they have already occurred (Cohen, Mansion & Morison, 2010). The population of the study was 225 300 level undergraduate students of Umaru Musa Yar'adua university for the 2022/2023 academic session which comprised of 175 males and 50 females students, The sample size of the study selected consisted of 225 students from 300 level both male and female in the Department of Education Umaru Musa Yar'adua University, Katsina state. Total population sampling technique was adopted in using the 225 students from

Instrumentation

The study used three instruments to collect the data namely, Academic Anxiety Inventory (AAI), Academic Stress Inventory and Cumulative Grade point of the students was used for their Performance.

Anxiety

Academic Anxiety Inventory (AAI) by [Cassady, and Starling \(2009\)](#) was adopted and modified by the researcher. This inventory indicates how an individual generally feel. It consisted of twelve (12) items. The inventory was scored using four points scale, adopted from [Cassady, and Starling, \(2019\)](#); not at all typical of me =1, somewhat typical of me =2, Quite typical of me= 3, very typical of me=4.

Academic Stress

Academic Anxiety Inventory by [Stallman and Hurst, \(2016\)](#) was adopted and modified by the researcher. Academic Stress Inventory; This inventory described when an individual is faced with difficulty or tension as a result of day to day activities or happening. It consists of twenty (20) items. The inventory was served using four points scale, adopted from [Stallman, and Hurst, \(2016\)](#), not at all=0, sometimes=1, frequently=2, constantly=3 Scoring is score problem score=number of items endorsed >0; Range =0-22 Extent score= sum of all items; Range =0-60.

Grade

Cummulative Grade Point Average (CGPA) of the 300 level students was collected by the researcher through the examination officer of the Department of Education Umaru Musa Yar'adua University.

The reliability of Academic Anxiety Inventory (AAI) was determined using reliability of internal consistency (single administration). Cronbacch alpha method of analysis was then used to analysed the data and the reliability coefficient was found to be 0.810 indicating high level of reliability. The reliability of Academic Stress Inventory (ASI) was determined using reliability of internal consistency (single administration). Cronbach alpha method of analysis was then used to analysed the data and the reliability coefficient was found to be 0.703 indicating good level of reliability.

Findings

The null hypotheses stated to guide this study were tested as follows;

H₀₁: There is no significant influence of Anxiety on Academic Performance of 300 level students in Department of Education, Umaru Musa Yar'adua University Katsina State.

Table 1 below indicated that the absolute calculated F-value for the influence of students' anxiety on their academic Performance is $F_{1,224} = 4176.054$, ($R=0.993$, $R^2=0.987$ and $p = .000$). However, anxiety significantly accounts for 98.7% of the total variance of Performance. The null hypothesis which states that there is no relative significant influence of Anxiety on Academic Performance of 300 level students in Department of Education, Umaru Musa Yar'adua University Katsina State is therefore rejected.

Table 1: Regression analysis on influence of anxiety on student’s academic Performance.

| R | R ² | Adjusted R ² | Std Error of the Estimate |
|-------|----------------|-------------------------|---------------------------|
| 0.993 | 0.987 | 0.987 | 0.08294 |

| Model | Sum of squares | Df | Mean square | F | Sig | Remark |
|------------|----------------|-----|-------------|----------|-------|-------------|
| Regression | 28.727 | 1 | 28.727 | 4176.054 | 0.000 | Significant |
| Residual | 0.378 | 224 | 0.007 | | | |
| Total | 29.105 | 225 | | | | |

Significant at $P \leq 0.05$

H₀₂: There is no significant influence of Stress on Academic Performance of 300 level students in Department of Education, Umaru Musa Yar’adua University Katsina State.

Table 2: Regression analysis on influence of stress on student’s academic Performance.

| R | R ² | Adjusted R ² | Std Error of the Estimate |
|-------|----------------|-------------------------|---------------------------|
| 0.960 | 0.922 | 0.920 | 0.20364 |

| Model | Sum of squares | Df | Mean square | F | Sig | Remark |
|------------|----------------|-----|-------------|---------|-------|-------------|
| Regression | 26.824 | 1 | 26.824 | 646.824 | 0.000 | Significant |
| Residual | 2.281 | 224 | 0.041 | | | |
| Total | 29.105 | 225 | | | | |

Significant at $P \leq 0.05$

Table 2 above indicated that the absolute calculated F-value for the influence of students’ stress on their academic Performance is $F_{1,224} = 646.824$, ($R=0.960$, $R^2=0.922$ and $p = .000$). However, stress significantly accounts for 92.2% of the total variance of Performance. The null hypothesis which states that there is no relative significant influence of Anxiety and Stress on Academic Performance of 300 level students in Department of Education, Umaru Musa Yar’adua University Katsina State is therefore rejected.

Discussion

In terms of the influence of academic anxiety and stress on academic Performance of the undergraduate, is clear that there is relative influence of anxiety and stress on 300 level student’s Performance, the study found relative influence among the variables. The finding is in line with that of [Esther and Augustina, \(2017\)](#) findings show a positive and significant relationship was found between test anxiety, trait anxiety, and depression. Similarly, [Dorcias](#)

(2017) reported that anxiety is significantly correlated to academic performance and that workload, choice of coping with stress, future prospect, and change in the system of education are the major types of anxiety affecting the participants. Dorcas (2017) viewed Anxiety as a tool to explain academic performance concluding that that anxiety has a great effect on students' academic performance, especially among international students. Shafiq's, (2021) findings of the study indicated a negative relationship between test anxiety and academic Performance which is similar to the present study. More so, Okogu, Osah and Umudjere, (2016) concluded that examination anxiety is a common phenomenon among higher institutions students that result to poor academic performance.

The findings of this study also revealed that stress significantly influences students' Performance, this finding agreed with that of Danlami, (2019) whose study came up with the finding that Significant relationship was found between academic stress and academic Performance ($r=-0.954$, $P=0.000$) and concluded that non-cognitive variables are responsible for the enormous variation in academic Performance and execution. According to Laura, (2016), although the researcher found that the correlation between students' cumulative average and academic were relatively significant the stress the surveyed students were under was not significantly correlated with the students GPA, ($r= -0.03$, $P= .885$). The result also indicated that the three factors (physical, social and academic) were explained (0.47) of the university students stress. In the words of Reka, (2018) a weak negative correlation of 0.012 thus a negative linear relationship and from the regression analysis it is evident that an increase in stress leads to a decrease in academic performance.

Conclusion

The following conclusions were drawn from the result of this study.

Academic anxiety has significant influence on academic Performance of students. Therefore, by implication the study discovered that academic anxiety can predict the academic Performance of students and therefore significantly accounts for a great percentage of the students' Performance.

Academic stress can predict the academic Performance of students and therefore significantly accounts for a great percentage of the students' Performance.

Academic anxiety and stress can significantly influence students' academic Performance when combined together

Recommendations

Based on the findings of the study the following recommendations were made;

1. The university management should introduce anxiety management training as a therapeutic technique suitable for treating students with academic anxiety.
2. Students should be very hardworking, attend lectures regularly and prepare very well before any test or examination in order to avoid the risk of academic stress.
3. A separate counselling office should be established in the department that would handle and counsel students who are identified to have signs of stress or anxiety.

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