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Relationship among Test Anxiety, Academic Motivation and Academic Achievement of Universities Students in North – West Zone, Nigeria

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Abstract:

This study examined the Relationship among Test Anxiety, Motivation and Academic Achievement of Universities Students in North-West Zone, Nigeria. The study adopted a correlational research design. The target population of the study were sixteen thousand eight hundred and fifty-five (16,855) undergraduate students. The samples of the study were 378 participants drawn from 300 level students across the three selected university in the north-west zone. Data was collected using Test Anxiety Inventory (TAI), Motivation Inventory (MI) faced and content were validated and had reliability for test anxiety .804 also motivation has a reliability of .821 respectively after pilot testing. The data collected was processed and analyzed using descriptive (frequencies, mean and standard deviation) and inferential statistics (Pearson product moment correlation). All tests were done at 0.05 alpha level of significance. The finding shows that relationship exist between test anxiety and academic motivation, academic motivation and academic achievement, the finding revealed that there is no significant relationship between test anxiety and academic achievement. Test anxiety and academic motivation $p = 0.000$, test anxiety and academic achievement $p = 0.108$, academic motivation and academic achievement $p = 0.000$. From the results it was recommended that students should be well motivated academically through support from parents, lecturers and co students as this have proportional relationship with their academic achievement; universities authority should provide functional psychological testing and counselling centers so that test anxiety should be controlled and managed with the help of professional psychologist and councilors as this have inverse relationship on students' academic achievement; universities students should see test and examinations as a normal routine of educational pursuit and not a do or die affair and be less stressful about it.

Keywords: Test anxiety, academic motivation and academic achievement of universities students

1. Introduction

Test anxiety is basically a strong emotional reaction that an individual experiences before, during and after an examination (Akca, 2011). Usually, situations where individuals are allowed personal evaluation is termed an evaluative situation, which will potentially result in performance efforts geared towards high standards that lead to high levels of performance. Test anxiety can be defined as a significantly unpleasant experience of worry and emotionality during situations where an individual feels he or she is being assessed. Test anxiety is an important factor which has been shown to reduce psychological well-being as well as seriously hinders students' academic achievement (Putman, 2012). It is considered to be a common educational problem whereby many students experience nervousness before, during or after an examination, do not feel confident about their abilities. Anxiety although, may be a powerful motivator if it is moderate otherwise may lead to poor performance and interfere with their learning, lowered self-esteem, reduced effort and loss of motivation for school tasks.

Test anxiety is an overwhelming feeling of disturbance and distress among the students around the world. It is a type of performance problem just like when some people get nervous speaking to large crowds or trying something new. Test anxiety can be a devastating problem for many college and university students, because it may impair their academic achievement and well-being in the long run. According to (Porto 2013), test anxiety produces psychological symptoms that build up in students before a test which include restlessness, unusual body movements, difficulty in concentration, insomnia, fatigue, muscles contraction, abdominal pain and tremor (Parviz&Alemi 2010). A certain amount of test anxiety keeps us energized, motivated, alert and focused but too much of test anxiety can result in emotional or physical distress, difficulty in concentration and emotional worry, which may influence the academic achievements and professional growth

negatively. Test anxiety is a psychological, and behavioural responses that accompany concern about possible negative consequences or failure on an exam or similar evaluative situations. (Takahashi, 2015) defined test anxiety as the 'reaction to stimuli that are associated with an individual's experience of testing or evaluative situations'. Roy (2013) views test anxiety as a trait, relatively stable personality characteristics that prompt an individual to react to threatening situations with sometimes debilitating psychological, physiological and behavioural responses. According to him, among these responses, the psychological effects on attention and memory have received much attention.

Academic motivation is a student's desire (as reflected in approach, persistence, and level of interest) regarding academic subjects when the student's competence is judged against a standard of performance or excellence (Wigfield & Eccles, 2002). Academic motivation is a general construct of effectance motivation, which is defined as the need to be successful or effective in dealing with one's environment (Gresham, 1988). Motivation is a state in which one is excited from 'within' by needs, motivations, aspirations, desires or motives for a particular behaviour directed toward achieving a goal, which acts as an external stimulus to the behaviour (Petz, 2005). Motivation directly or indirectly affects the process of learning and teaching, and is one of the important elements in the development of students' achievement and education.

Intrinsic (internal) motivation is a need arisen from internal impulses which are not caused by external influences, and the only reward inherent to intrinsic motivation is the pleasure of learning, cognition, development of knowledge and skills, encouraged by personal interests. Strengthening the intrinsic motivation leads to higher student achievement, greater creativity and flexibility of thinking and better long-term memory. Variable intrinsic motivation can be encouraged by certain social atmosphere. There are three basic psychological needs associated with intrinsic motivation: the need for autonomy, defined as the self-regulation of personal behaviour (Soenens & Vansteenkiste, 2007) the need for competence as a necessity the success and the control of our own environment and the need for coherence, that is, a sense of belonging to a particular social group. On the other hand, the negative impact on the intrinsic motivation has all expected material rewards and all forms of external control, such as deadlines, surveillance, threats, which are invasive of the personal autonomy, the primary curiosity and desire for challenge (Deci & Ryan, 2000).

Extrinsic (external) motivation is influenced by external factors, various forms of incentives, such as awards, praises, reviews, progress in work and others for example, which impact the development of motivation (Rheinberg, 2004). The social responsibility context encourages not only intrinsically motivated activities, and the question of the degree of personal satisfaction in completing these activities is explained by the concept of internalization. Internalization is an active natural process within socialization through which an individual transforms social rules and expectations of self-worth. There are four basic stages to extrinsic motivations: external regulation (avoidance of sanctions), introjected regulation (discomfort with the environment), identified regulation (acceptance of environmental rules as one's own) and integrated regulation (activity for a particular purpose). The division implies a certain degree of internalization: pure extrinsic motivation is the external regulation, and the integrated regulation implies that a certain external goal is recognized as important for personal growth and adopted as an internal goal. The integrated regulation is the closest to the intrinsic motivation, but it is considered to be a form of extrinsic motivation, because the actions are aimed at achieving a particular goal, and not arising from the inner satisfaction. A motivation is strongly and negatively related to educational outcomes (Vallerand & Bissonnette, 1992). A motivation involves not having a motive to act (Williams & Deci, 1996). A motivation takes the lack of motivation and the observation of the individual's inability to sense the conditions between his or her actions and consequences as reference. A motivation occurs when individual students cannot get positive feedback regarding their performance or believe that they have failed on a repetitive basis. According to the revised theory of helplessness, non-contingent environments lead to a motivation. A motivation results when one perceives oneself as incompetent to reach intended outcomes (Deci & Ryan, 1985).

Cohen and Garcia (2006) define academic achievement as 'Knowledge attaining ability or degree of competence in school. Task usually measured by standardized test and expressed in a grade or unit based on students' performance/achievement'. (Cohen and Apfel 2009) Define academic performance as 'the knowledge obtained or skill developed in the school subjects usually designed by the test scores or marks assigned by the teacher. (Pekrun and Elliot 2009) defined academic achievement as both curricular and co-curricular performance of student. It indicates the learning outcome of the student. The university student performs their potential efficiently; as a result of it learning takes place: the learning outcome changes the behaviour pattern of University Students through different courses and subjects.

Academic achievement is the attainment obtained by a child in the lesson taught, which may include experience, knowledge, skill and the likes. The knowledge and skill are measured in student's CGPA, the child good or poor performance does not depend solely on attribute the child is born with, but his family background, social contacts, teachers and over role climate in his school and assessment procedure. Academic achievement may be defined as excellence in all academic disciplines, in class as well as co-curricular activities. However, excellence in sport activities, communication skills, punctuality, arts, culture, and the likes, which can be regarded as good performance only when an individual is well adjusted and motivated.

Achievement of student in the classroom and university takes a central role in the academic development of the students. Parents, teachers and school administrators alike take cognizance of the academic well - being of the students. Yardsticks are set by school authorities to measure performance, the standard set by the university will determine whether a student is performing well or not. In the assessment of performance, (Pekrun & Elliot 2006) argued that achievement is the behaviour of an individual that can be directly observed by another individual. Therefore, academic achievement has been seen as a term used for student based on how well they are doing in studies and classes. This definition tends to see academic achievement as the culmination of all the activities of the student in the school. Academic achievement for university student is also seen as the extent to which a student has achieved his educational goals. This

means that, the student academic performance is measured by the extent to which he/she has reached the educational goal he has set for himself. The university measures academic achievement in several ways which include continuous assessment test C.A.T. and a number of standardize test and examination. By this method, areas of strengths and weaknesses are in students' academic performance determined and evaluated in order to improve on the learning process of the student (Pekrun& Perry, 2007).

2. Statement of Problem

Test anxiety among university students can be a function of many factors which include fear, worry of not performing well VIS – VIS expectation of parents, teachers, counselors and peer groups among others. Consequently, the goals of university can be jeopardized. However, teaching staff and other stakeholders are known to strive hard in providing enabling school atmosphere to stimulate good academic achievement of students. Several factors have been identified as contributory to students' academic achievements which include test anxiety, academic motivation, home background, personality and intelligence, parents' socio – economic standing, social environments and societal norms, while poor physical, psychological and social aspect of school environments may have effects on academic achievements of students.

Therefore, there is the need to establish a qualitative social and motivating environment, where there is collective responsibility and effective interpersonal relationship in the schools. However, test anxiety and academic motivation measures such student academic achievement, teacher-student relationship, and students' relationship amongst themselves are becoming poorer by the day which can be as a result of level of anxiety, tension created by insecurity state of the nation and the university in particular. This situation can in turn have effect on students' academic achievement especially at universities where level of collectiveness and cordial academic relationship are to be created so as to enhance learning among students. Therefore, the paper intends to find out the Relationship of among Test Anxiety, Academic Motivation with Academic Achievement of universities Students in North – West zone, Nigeria.

3. Objectives of the Study

The following objectives are formulated to guide the study:

- To determine the relationship between test anxiety and academic motivation of universities students in North – West Zone, Nigeria.
- To determine the relationship between test anxiety and academic achievement of universities students in North – West Zone, Nigeria.
- To determine the relationship between academic motivation and academic achievement of universities students in North – West Zone, Nigeria.

4. Research Questions

The following research questions are formulated to guide the study:

- What is the relationship between test anxiety and academic motivation of universities students in North –West Zone, Nigeria?
- What is the relationship between test anxiety and academic achievement of universities students in North – West Zone, Nigeria?
- What is the relationship between academic motivation and academic achievement of universities students in North – West Zone, Nigeria?

5. Research Hypotheses

The following research hypotheses are formulated to guide the study:

- There is no significant relationship between test anxiety and academic motivation of universities students in North –West Zone, Nigeria.
- There is no significant relationship between test anxiety and academic achievement of universities students in North – West Zone, Nigeria.
- There is no significant relationship between academic motivation and academic achievement of universities students in North – West Zone, Nigeria.

6. Methodology

This research employed correlational design to determine the Relationships among test anxiety, academic motivation and academic achievement of universities students in North-west zone, Nigeria. This design according to Statt (2000), is a form of descriptive research undertaken when dealing with systematic collection of data or information from a population through the use of personal interview, opinion, scale, questionnaire and observation.

The population of this study is made up of sixteen thousand eight hundred and fifty-five (16,855) 300 level students of the three universities, namely: Ahmadu Bello University, Zaria, Federal University Duste Jigawa State and Usmanu Danfodiyo University, Sokoto. The sample of this study is 378 male and female students of the three selected Universities, namely: Ahmadu Bello University Zaria, Federal University DusteJigawa, and Usmanu Danfodiyo University, Sokoto. This sample is drawn from the entire population of all 300 levels students. The selection conforms to the Research Advisors (2010) prescription as attached in the appendices of this research.

Two main instruments were used for this study. The instruments are test anxiety and academic motivation inventory. The instrument is comprised of three sections. Section (A) Biographic Data of the Students, section (B) test anxiety, section (C) academic motivation Inventory, were used to correlate with academic achievement (CGPA) of students respectively. Both test anxiety and academic motivation inventory are adapted from Taylor (2002) test anxiety inventory And Heater, (1981) academic motivation inventory. Test Anxiety Inventory consists of 15 items. It has five points scale ranging from strongly agreed (SA), Agreed (A), Not Sure (NS), Disagreed (D), Strongly Disagreed (SD) which represent students' feelings. The scoring guide for test anxiety are <29 -mild test anxiety, 30-59- moderate test anxiety and 60-100 severe test anxiety. Academic Motivation Inventory also consists of 15 items. It has five points scale ranging from strongly agreed (SA), Agreed (A), Not Sure (NS), Disagreed (D), Strongly Disagreed (SD) which represent students' feelings.

In order to ascertain the validity of the instrument, the researcher submitted the copies to the supervisors for validation. The instruments were validated by expert in the Department of Educational Psychology and Counseling, Ahmadu Bello University, Zaria. All the two instruments were validated (by Prof. M. Balarabe, Prof. A. I. Mohammed, Prof. R. M. Bello and Dr. L. K. Maude) to determine the face and content validity, their relevance and appropriateness in the study.

The instruments are reliable as both have an appreciable internal consistency. Test anxiety has the internal consistency of .804, motivation inventory has the internal consistency of .821, respectively. These reliability measures were determined by the use of Cronbach's Alpha. These reliabilities show that the instruments are reliable to collect data for the research.

The data collected were analyzed using descriptive and inferential statistics. Pearson Product Moment Correlation PPMC(r) was used to test the hypotheses. The hypotheses were tested at 0.05 alpha level of significance. SPSS version 25.0 was used for data analysis and storage.

7. Results

- Hypothesis one 1: There is no significant relationship between Test Anxiety and academic motivation of universities students in North-West Zone, Nigeria

Variable	N	Mean	SD	Correlation index r	Df	Correlation r	p
Test Anxiety	373	59.5952	4.53537				
				-0.388**	371	0.098	0.000
Academic Motivation	373	58.0241	5.83205				

Table 1: Pearson Product Moment Correlation Statistics on Relationship between Tests Anxiety and Academic Motivation of Universities Students in North-West Zone, Nigeria

** Correlation Is Significant at the 0.01 Level (2-Tailed). $P < 0.05$

Outcome of the Pearson Product Moment Correlation (PPMC) statistics above revealed that significant relationship exist between Test Anxiety and academic motivation of universities students in North – West Zone, Nigeria. Reasons being that the calculated p value of 0.000 is lower than the 0.05 alpha level of significance, at a correlation index r level of - 0.388 and at df 371. This shows that inverse relationship exists between Test Anxiety and academic motivation of universities students in north-west zone, Nigeria. Therefore, the null hypothesis which state there is no significant relationship between Test Anxiety and motivation of universities students in North – West Zone, Nigeria, is hereby rejected.

- Hypothesis Two: There is no significant relationship between test anxiety and academic achievement of universities students in North-West Zone, Nigeria

Variable	N	Mean	SD	Correlation index r	Df	Correlation r	p
Test Anxiety	373	59.59	4.53				
				0.083	371	0.098	0.108
Academic Achievement	373	2.9101	0.737				

Table 2: Pearson Product Moment Correlation Statistics on Relationship between Tests Anxiety and Academic Achievement of Universities Students in North-West Zone, Nigeria

** Correlation Is Significant at the 0.01 Level (2-Tailed). $P < 0.05$

Outcome of the Pearson Product Moment Correlation (PPMC) statistics above revealed that there is no significant relationship between test anxiety and academic achievement of universities students in North –West Zone, Nigeria. Reasons being that the calculated p value of 0.108 is greater than the 0.05 alpha level of significance, at a correlation index r level of 0.083 and at df 371. This result shows that the level or presence of test anxiety among students does not significantly influence their academic achievement. Therefore, the null hypothesis which states that there is no significant relationship between test anxiety and academic achievement of universities students in North –West Zone, Nigeria, is hereby accepted and retained.

- Hypothesis Three: There is no significant relationship between Academic Motivation and academic achievement of students in North-West Zone universities, Nigeria

Variable	N	Mean	SD	Correlation index r	Df	Correlation r	p
Academic Motivation	373	57.9088	5.90309				
				0.203**	371	0.098	0.000
Academic Achievement	373	2.9101	0.737				

Table 3: Pearson Product Moment Correlation Statistics on Relationship between Academic Motivation and Academic Achievement of Students in North-West Zone Universities, Nigeria

** Correlation Is Significant at the 0.01 Level (2-Tailed). $P < 0.05$

Outcome of the Pearson Product Moment Correlation (PPMC) statistics above revealed that significant relationship exist between Motivation and academic achievement of universities students in North-West Zone, Nigeria. Reasons being that the calculated p value of 0.000 is lower than the 0.05 alpha level of significance, at a correlation index r level of 0.203 and at df 371. This shows that relationship exist between Motivation and Academic achievement. Therefore, the null hypothesis which states that there is no significant relationship between Motivation and academic achievement of students in North – West Zone universities, Nigeria, is hereby rejected.

8. Discussions

The finding of this research indicates that significant relationship exists between test anxiety and academic motivation of universities students in the north-west zone. The finding agrees with (Ogbu 2007) who examined the relationship between students test anxiety levels and Motivation in secondary schools. The results showed that test anxiety increases with increase in class level. The result also revealed that the relationship between test anxiety and academic achievement was inversed. That is, the inverse relationship between test anxiety and academic achievement means that as test anxiety increases, the academic achievement decreases.

The finding of this research shows that significant relationship exists between test anxiety and academic achievement among undergraduate students in North West Zone universities in Nigeria. The finding agrees with (Guptali & Rashmi 2016) who examined the Impact of Test Anxiety on Academic Achievement: A Study on High Schools Students in North-Eastern Hill University, Shillong, Meghalaya, India. The findings of the study revealed a significant positive relationship between Test Anxiety and academic achievement. There is a significant difference in Test Anxiety between high and low achievers.

The finding of this research shows that significant relationship exists between academic motivation and academic achievement of undergraduate students in North West Zone universities in Nigeria. The finding agrees with Afolayan (2013) investigated the relationship between Motivation and academic achievement of nursing students, Niger Delta University, Bayelsa State, Nigeria. Finding indicated that anxiety is a common cause of poor academic achievement during examination among few students. This Motivation is often expressed as psychological, physiological and behavioural abnormalities during examination.

9. Conclusion

Based on the findings, it was concluded that test anxiety has inverse relationship with academic achievement of universities students, academic motivation has direct relationship with academic achievement of universities students and test anxiety has inverse relationship with academic achievement of universities students.

10. Recommendations

On the basis of the findings from the study, it is therefore recommended that:

- Students should be well motivated academically through support from parents, lecturers and co students as this have proportional relationship with their academic achievement
- Universities authority should provide functional psychological testing and counselling centers so that test anxiety should be controlled and managed with the help of professional psychologist and councilors as this have inverse relationship on students' academic achievement
- Universities students should see test and examinations as a normal routine of educational pursuit and not a do or die affair and be less stressful about it.

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