An Appraisal of Test Anxiety on Students' Academic Performance in Federal University Dutsin-Ma, Katsina State

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Abstract
This study investigated an Appraisal of test anxiety on students' academic performance in Federal University Dutsin-ma. A descriptive survey research design was adopted for the study. The population comprised of all undergraduate students in Federal University Dutsin-Ma, Katsina State. Two hundred and twenty (220) participants were sampled for the study through Simple random sampling technique, which consist of one hundred and seventeen (117) males and one hundred and three (103) females. Two departments were selected from Federal University Dutsin-ma, Katsina State, Nigeria using random sampling technique. Test Anxiety Questionnaire (TAQ) was used to collect data from the respondents. The questionnaire was adopted from the original source; the reliability of the instrument was determined through a pilot testing. The questionnaire consist of two (2) sections: section "A" contains personal data of respondents; section "B" contained information on students test anxiety. Mean, ranking order, percentage and range were used to answer the research questions while Pearson product moment correlation statistic was used for the testing of the hypotheses at 0.05 level of significance. Findings revealed that test anxiety has no significant relative influence on students' academic performance, In addition, there is no significant influence of test anxiety on students' academic performance based on gender and that there is significant relationship between the academic performance of students based on faculty. Based on these findings, it was recommended that Orientation programmes and seminars be organized by stake-holders in tertiary institutions in order to educate students on the methods of reducing anxiety.

Key Word: Anxiety, Academic Performance, Students, Gender.

Introduction

Anxiety is an unpleasant feeling characterized by fear or feeling apprehensive. It is evident when the person is worried and has some concern over an issue. It is one of the human emotions and is a feeling which all of us undergo at some point in our lives. Test anxiety is the unwanted response to the evaluation which is the problem faced by the students all over the world (Khosravi Bigdeli, 2008). Little anxiety is beneficial as it helps the students to become motivated and thus learn new material effectively but greater anxiety negatively affects the academic achievement of the students. (Coon et al, 2009). Greater anxiety is

associated with certain psychological symptoms before or during test such as restlessness, difficulty in concentration, muscle contraction, and abdominal pain (Porto, 2103). These symptoms have negative effects on the general life and professional growth of the students. (Ferreira et al, 2009)

There are number of researches reporting text anxiety as one of the major cause for students' underachievement and low performances at different levels of their educational life (Oludipe, 2009) and has been shown to affect students' ability to profit from instruction (Schonwetler, 1995). Chapell, Blanding, Takahashi, Silverstein, Newman, Gubi, & McCann (2005) conducted a research study to explore the relationship between test anxiety and academic performance. They collected data from a large sample of graduate and undergraduate students and found a significant and negative relationship between test anxiety and academic achievement. Cassady & Johnson (2002) investigated the effect of cognitive test anxiety on students' academic performance and found that cognitive test anxiety exerts a significant stable and negative impact on academic performance measures. Oludipe, (2009) conducted a study to explore how test anxiety affects students' performance levels in the sciences, especially in Physics, and concluded that —low test anxious students performed better than high test-anxious students on both numerical and non-numerical tasks in Physics.

It has been noted that between 25 to 40 percent of students experience test anxiety (Cassady, 2010). Students who experience high level of test anxiety are more likely to perform poorly academically (Jing, 2007; Mondal, Ghosh, & Das, 2013). For example, studies (Cassady& Johnson, 2002; Chapell et al., 2005; Khalaila, 2015) have shown that test anxiety is associated with low academic performance. Conducting the study amongst undergraduates in Nigeria is warranted, because studies in Nigeria (e.g., Akpan&Umobong, 2013; Ogungbamila, 2011; Olanipekun, Garuba, Kio, &Ohiemi, 2014) have noted that there is high rate of poor academic performance of students in public schools.

Ogungbamila (2011), traced students' poor academic performance to teacher's specific factors, school-related problems (Adeyemi, 2005a; b) and home front (Akpan & Umobong, 2013). Yet, students' academic performance in Nigeria has not improved to expectations (Olanipekun*et.al*, 2014), suggesting the need for further studies. However, it is worthy of note that while there is ample studies on test anxiety-academic performance link in developed countries (e.g., America and Europe), few studies (Adewuyi, Taiwo, &Olley, 2012; Akanbi 2010; Akinsola&Nwajei, 2013; Olatoye, 2009; Onyeizugbo, 2010) have examined the role of test anxiety on academic performance in Nigeria.

The difference in performance of a high test-anxious student and a low test-anxious student is largely due to the difference in their ability to focus and pay attention on the test (Ossai, 2011). While a low test-anxious student is able to focus and pay greater attention on test, a high test-anxious student focused on internal self and the anxiety they are feeling. Therefore, high test-anxious students would perform poorly academically on a test because their attention is usually divided between themselves and the test. There is broad agreement in the literature that test anxiety is associated with lower academic performance. For example, Chapell et.al (2005) found an inverse relationship between test anxiety and academic performance. Syokwaa, Aloka, & Ndunge (2014) reported that high test anxiety decreases students' academic achievement in Kenya. Barrows et.al (2013) reported a negative relationship between test anxiety and academic achievement. It was found that a significant

negative relationship exists between test anxiety and students' achievement scores in Pakistan (Rana & Mahmood, 2010).

Cassady and Johnson (2002) explained that one explanation for differences in test anxiety on the basis of students' gender is that males and females feel same levels of test worry, but females have higher levels of emotionality. Zeidner (1990) on the basis of his research, concluded that difference in test anxiety scores of male and female is due to gender difference in scholastic ability. Previous researches have also shown that males typically score lower on measurements of test anxiety than females (Lashkaripour, 2006; Berger & Schecter, 1996; Mehregan, Najjarian & Ahmadi 2001; Ferrando et.al 1999; Chang, 1997; Feingold, 1994). Test anxiety was detected in 48.0% of students (n=208) out of 436 students (girls=220, boys=216) in a study conducted by Kavakciet et.al (2014), among students who will take the University Entrance Examination in Sivas city Centre in Turkey. Exam anxiety was found in 40.3% of the males (n=87) and in 55.8% of the girls (n=121) and the difference between them was statistically significant (p<0.001).

Statement of the Problem

Nevertheless, literature review in this area showed that test anxiety on students' and their academic performance has not been given adequate empirical attention. Parents, teachers, school administrators, and government are showing serious concern over students' poor academic performance (Akpan&Umobong, 2013; Ogungbamila, 2011). Their worries are becoming more intense as they realize that students' performance in school may connect with their performance in real life (i.e., outside school).

Besides, the few available studies focused more on secondary school students. This sample may limit generalization of their results to students in the universities. Currently, enhancing students' academic performance is an explicit goal of Nigerian school reform. Therefore, in order to aid this reform, it would be crucial to understand psychological factors that influence students' academic performance. Hence, this study examined an Appraisal of test anxiety on students' academic performance in Federal University Dutsin-ma. Findings of the study might have implication for theoretical extension and suggest interventions strategies that would improve the academic performance of undergraduates.

Purpose of the Study

1. To determine the level of test anxiety among students of Science and Education Departments in Federal University Dutsin-Ma.
2. To examine if there is any significant relationship between test anxiety and academic performance of Federal University Dutsin-Ma students.
3. To find out if there is any significant relationship in the test anxiety level of students based on gender.
4. Is there any significant relationship in the academic performance of students based on Faculty.

Research Questions

1. What is the level of test anxiety among students in Federal University Dutsin-Ma?
2. Is there any significant relationship between test anxiety and academic performance of Federal University Dutsin-Ma students?
3. Is there any significant relationship in the test anxiety level of students based on gender?

4. Is there any significant relationship in the academic performance of students based on Faculty?

Research Hypothesis

H$_{O1}$: There is no significant relationship between test anxiety and academic performance of Federal University Dutsin-Ma students.

H$_{O2}$: There is no significant relationship in the test anxiety level of FUDMA students based on gender.

H$_{O3}$: There is no significant relationship in the academic performance of FUDMA students based on Faculty.

Scope of the Study

The study focuses on the appraisal of test anxiety on students' academic performance in Federal University Dutsin-Ma. The research covered all departments in the institution. However, two departments were selected through simple random sampling technique. One hundred and ten students from science and education departments each were selected and their CGPA were used in determining their academic performance. The aspect of school variables covered in the study include test anxiety and academic performance.

Methodology

The research design used in this study is descriptive survey. The research intends to find out an appraisal of test anxiety on students' academic performance in federal university Dutsin-ma, Katsina State. The study population comprised two departments in the institution; Science and Education Departments in Federal University Dutsin-Ma. Out of these Departments, simple random sampling technique was used to select students from the two Departments. 110 students were selected from each of the Departments through simple random sampling technique and the total sample is two hundred and twenty (220) students.

The instrument used in this study was questionnaire to elicit information from the respondent on the appraisal of test anxiety on students' academic performance in the study areas. The questionnaire is entitled Test Anxiety Scale to elicit the information from the respondents. This consist of two (2) sections: section "A" contains personal data of respondents, section "B" consist of twenty items which were analyzed using moderated Likert 4 points rating scale weighted as follows: SA – Strongly Agree (4 points), A – Agree (3 points), D – Disagree (2 points), SD – Strongly Disagree (1 point).The instrument was face and content validated by experts in Educational Psychology. The instrument was considered valid. To test the reliability of the study, test-retest method of reliability was employed using Pearson Product Moment Correlation Coefficient statistic, a reliability coefficient of 0.68 was obtained for test anxiety scale and this showed that the instrument was found reliable for the study. The researcher employed descriptive statistics of frequency counts and percentages for analyzing student's demographic data while inferential statistics of t-test and Pearson r methods were used to test for the acceptance or rejection of the study hypothesis at 0.05 alpha level of significance.

Results

Research Question1: What are the levels of test anxiety among students in Federal University Dutsin-Ma

Table 1: Percentages showing the level of test anxiety exhibited among students in FUDMA

S/N	ITEMS	SA	A	D	SD	Std
1	Before an important examination, I find my hands or arms trembling	150 (68.2%)	35 (15.9%)	25 (11.4%)	10 (4.5%)	64.16
2	If I know I was going to take a test, I would feel confident and relax.	142 (19.1%)	43 (19.5%)	20 (9.1%)	15 (6.8%)	59.27
3	When the teacher says that she is going to give the class a Test, I do become afraid that I will do poorly.	148 (67.3%)	34 (15.5%)	24 (10.9%)	14 (6.4%)	62.53
4	While taking an important examination, I find myself thinking of how much the other students are than I am.	145 (65.9%)	52 (23.6%)	13 (5.9%)	10 (4.5%)	62.98
5	If I were to take a test I would worry a great deal before taking it.	106 (48.2%)	57 (25.9%)	35 (15.9%)	22 (10.0%)	36.94
6	I don't enjoy eating before an important test	138 (62.7%)	49 (22.3%)	22 (10.0%)	11 (5.0%)	57.59
7	If I did very poorly when the teacher called on me, I probably feel like crying.	147 (66.8%)	48 (21.8%)	15 (6.8%)	10 (4.5%)	63.61
8	While taking an important examination, I perspire a great deal.	12 (5.5%)	10 (4.5%)	46 (20.9%)	152 (69.1%)	66.74
9	During the course of the examination, I find myself thinking of things unrelated to the course material.	118 (53.6%)	38 (17.3%)	21 (9.5%)	43 (19.3%)	43.04
10	I think I could do much better on tests if I could take them alone and not feel pressed by a time limit.	146 (66.4%)	31 (14.1%)	19 (8.6%)	24 (10.9%)	60.87
11	During tests I find myself thinking of consequences of failing.	121 (55.0%)	59 (26.8%)	23 (10.5%)	17 (7.7%)	47.75
12	While taking a test, my emotional feelings interfere with my performance.	11 (5.0%)	25 (11.4%)	38 (17.3%)	146 (66.4%)	61.66
13	I freeze upon things like final examinations.	139 (63.2%)	41 (18.6%)	25 (11.4%)	15 (6.8%)	57.02
14	Getting a good grade in one test does not seem to increasing my confidence on the second.	143 (65.0%)	47 (21.4%)	18 (8.2%)	12 (5.5%)	60.63
15	I sometimes feel my heart beating very fast during important test.	112 (50.9%)	51 (23.2%)	38 (17.3%)	19 (8.6%)	40.21
16	After taking a test, I always feel I could have done better than I actually did.	125 (56.8%)	46 (20.9%)	31 (14.1%)	18 (8.2%)	48.05
17	I have an uneasy upset feeling	142	51	17	10	60.70

	before taking a final examination.	(19.1%)	(23.2%)	(7.7%)	(4.5%)	
18	The harder I work at taking a test or studying for one the more confused I get	136 (61.8%)	47 (21.4%)	19 (8.6%)	18 (8.2%)	55.65
19	As soon as an examination is over, I try to stop worrying about it but just I can't.	144 (65.5%)	38 (17.3%)	22 (10.0%)	16 (7.3%)	60.06
20	I get to feel very panicky when I have	44 (20.0%)	19 (8.6%)	54 (24.5%)	117 (53.3%)	41.69

N = 220

Item 8 on the questionnaire administered revealed that 69.1% of the students strongly disagree, therefore the calculated Standard deviation was 66.74.

Hypothesis Testing

Null Hypothesis 1: There is no significant relationship between test anxiety and academic performance of FUDMA students.

Table 2 Showing relationship of test anxiety on academic performance among students in FUDMA

Variable	N	Mean	SD	SD error	DF	t-value	Sig.	Dec
Test Anxiety	220	4.62	66.74					
					218	0.27	0.624	
Academic Performance	220	3.84	58.06					

Note: significant (p<0.05)

Table 2 shows that t-value is 0.27 which is greater than 0.05 level of significance. Based on the result, the null hypothesis was accepted, it was revealed that there is no significant relationship between test anxiety and the academic performance of students in FUDMA.

Null Hypothesis 2: There is no significant relationship in the test anxiety level of students based on gender in FUDMA.

Table 3: t-test Summary of Test Anxiety on Students' Academic Performance based on gender

Gender	N	Mean	SD	SD Error	df	t-value	Sig.	Dec
Male	117	20.27	3.830	.299				
					218	0.11	1.46	
Female	103	19.1569	3.93218	.31790				

Table 3 shows that there is no significant influence of test anxiety on the academic performance of students in FUDMA based on gender (t= 0.110, p > 0.05). Hence, hypothesis

two was retained. This implies that, male students don't have significant level of anxiety than their female counterparts.

Null Hypothesis 3: There is no significant relationship in the academic performance of students based on faculty level.

Table 4: t-test summary of significant relationship in the academic performance of students based on faculty level.

Faculty	N	Mean	SD	SD Error	DF	t-Value	Sig.	Dec.
Science	117	59.47	20.35	1.57				
					218	4.90	0.00	
Education	103	49.52	15.33	1.23				

Table 4 shows that there is no significant relationship in the academic performance of students based on faculty in FUDMA (t= 4.90), p< 0.05). Thus, hypothesis three is rejected. This implies that, there is significant relationship between the academic performance of students based on faculty (Science and Education).

Summary of Findings

The findings of the study revealed that:

1. There is no significant relationship between test anxieties on academic performance among FUDMA students.
2. There is no significant relationship between in the test anxiety level among students based on gender.
3. There is significant relationship between the academic performance of students based on faculty (Science and Education).

Discussion of Findings

This empirical study examined the influence of test anxiety on students' academic performance in FUDMA. Arising from the findings of this study, three null hypotheses were formulated and tested.

In addition, the study revealed that there is no significant relationship in the test anxiety level based on gender among FUDMA students (t = 0.27, p<0.05). This finding contradicted the result of Test anxiety conducted by Kavakciet et al (2014), which detected in the 48.0% of students (n=208) out of 436 students (girls=220, boys=216) in a study among students who took the University Entrance Examination in Sivas city Centre in Turkey. Examination anxiety was found in 40.3% of the males (n=87) and in 55.8% of the girls (n=121) and the difference between them was statistically significant (p<0.001).

However, hypothesis 2 states that, there is a significant relationship in the academic performance of students based on gender in FUDMA (t = 0.110, p<0.05). The finding is in agreement with the findings of Cassady and Johnson (2002) which explained that one explanation for differences in test anxiety on the basis of students' gender is that male and female students feel same levels of test worry, but female students have higher levels of emotionality. Also, Zeidner (1990), on the basis of his research, concluded that difference in test anxiety scores of male and female is due to gender difference in scholastic ability.

Conclusion

The study examined appraisal of test anxiety on students' academic performance in FUDMA. The findings of the study revealed that test anxiety has no significant influence on students' academic performance; it also revealed no significant influence of test anxiety based on gender. In addition, there is significant influence in the academic performance of students based on faculty (Science and Education). This implies that test anxiety is a strong variable that influence students' academic performance within faculties in Federal University Dutsin-Ma.

Recommendations

On the bases of this study, the following recommendations were made:

1. Orientation programmes and seminars should be organized by stake-holders in tertiary institutions in order to educate students on the methods of reducing anxiety during test or examinations.
2. Since the teacher is given lots of academic time to teach students on a particular course, likewise much study time should be given to students as well as lack of adequate study time contributes to a feeling of nervousness and panic especially before and while preparing for the examination.
3. The course schedules for the students should be planned in a way that students have time to study after each lesson hour or periods.

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