

Gender Difference in Test Anxiety among Psychology Students at the University of Cape Coast

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Abstract: Most learners live in a test-conscious, test-giving culture and their lives are in part determined by their test performance. It is anticipated that test anxiety is a universal problem for many students who are troubled by stress associated with taking tests that they experience substantial decrements in performance in evaluative situations. This study investigated the gender difference in test anxiety among Psychology students at the University of Cape Coast. Using a descriptive survey design and a proportionate simple random sampling technique, 157 students were sampled for the study. A questionnaire was administered to the participants. The data collected were analyzed using frequencies, percentages, and the students' independent samples t-test. The result revealed no significant gender difference in the levels of test anxiety as well as how they cope with test anxiety. Testing schedules and inadequate preparation by students were identified as the two leading causes of test anxiety. It was recommended to the management of the university to ensure compliance with the implementation of the structured testing schedule by lecturers and the counseling center should engage in an intermittent educational program of their services to make students more aware and patronize their services when they become test anxious.

Keywords: test anxiety, gender, University students, motivated forgetting

I. INTRODUCTION

Anxiety is a powerful construct that has a significant impact on one's life. Test anxiety, or nervousness over academic evaluation, is one of these fears (Mohsen & Mansoor, 2009). Exam anxiety is a term used to describe excessive nervousness for a test. When preparing for and taking an exam, it is natural to have some anxiety. Among tertiary students, test anxiety is extremely frequent. It is very normal to be nervous about future exams, papers, or presentations but examination stress and test anxiety are widespread issues in today's society. The significance of test anxiety in determining the sources of student stress in evaluative situations and poor test performance is now well understood. The nature, origins, correlates, and effects of test anxiety have been studied by hundreds of researchers.

Test anxiety generally, is the uneasiness, apprehension, or nervousness felt by students during examinations or tests. Examination, on the other hand, is one of the main methods of assessment in schools at all levels. However, some individuals are so fearful of the test or other forms of examination that their performance is impaired. The level of test anxiety can fluctuate over time in response to both internal and external stimulation. In testing anxious

individuals, some observable behaviors such as perspiration, excessive movement and questioning of instructions, sweaty palms, and muscle tension are common during testing situations. Also, there may be disruption or disorganization of effective problem solving and cognitive control, including difficulty in thinking clearly (Freidman & Bendas-Jacob, 1997).

Test anxiety, according to Ringeisen and Buchwald (2010), is defined as a feeling of inability to learn or remember, a fear of failing a test, and difficulty reading and understanding simple words or instructions on an examination. Lack of confidence, fear, emotional disturbance, and mental obstruction are all symptoms of exam anxiety, according to Zeidner (1998) and Whitaker et al. (2007).

Regardless of race or cultural background, test anxiety is a typical occurrence in everyone's life (Garrett, 2001). Gender differences in test anxiety and their negative impact on academic performance have been the subject of much research over the last few decades (Dziegielewski, Turnage & RoestMarti, 2004). Furthermore, tertiary students have been demonstrated to have a distinct set of stressors that might lead to test anxiety and have an impact on their daily lives (Garrett, 2001). Tertiary students have lofty goals of landing a decent job, making their families proud of their academic achievements, and earning acceptance into second-degree programs, but none of these goals can be realized without a strong academic achievement.

Gender could predict differences in levels of test anxiety. Zeidner (1990), and Kessler et al., (1995) found that girls significantly have higher test anxiety than boys. However, Mwamwenda (1993) found no significant gender differences in test anxiety among the South African sample. In the present study, gender was also examined to see if it contributed to any variability in test anxiety. Anxiety generally is a physiological and psychological state characterized by cognitive, somatic, emotional, and behavioral components (Seligman, Walker & Rosenhan, 2001). Although anxiety is often detrimental, it may be beneficial if it is not extreme. An optimal amount of anxiety (Simpson, Parker & Harrison, 1995) can mobilize human beings to respond rapidly and efficiently, while excessive amounts of anxiety may foster poor response and sometimes inhibit the response. Most of the test anxiety studies that focused on gender disparities revealed that female students usually have higher levels of test anxiety

than male students (Bandalos, Yates, & Thorndike-Christ, 1995; Everson, Millsap, & Rodriguez, 1991). Hembree (1988), in a meta-analysis published a few years ago, discovered that females' greater levels of test anxiety are not always accompanied by poorer performance scores. When it came to anxiety assessments, female students reported higher levels of test, math, and trait anxiety than their male counterparts in several studies. These findings are in line with earlier studies on test anxiety variations between men and women (e.g., Bandalos et al., 1995). Although such differences have not always been detected, they have been observed in math anxiety (e.g., Hembree, 1988) and trait anxiety (e.g., Zalta & Chambless, 2012). Research has shown that the elderly have higher levels of debilitating test anxiety than younger adults. A large proportion of older persons showed behavioral manifestations of test anxiety either refusing to participate in the study or by their reactions during the testing (Putwain, 2007). According to Chapell et al (2005), female undergraduates have higher test anxiety and higher GPAs than male undergraduates, and female graduate students have significantly higher test anxiety and higher GPAs than male graduate students. This study, therefore, hypothesized that variability in the participants' test anxiety will be predicted by the independent variables (level, gender, and age).

Cognitive Behavioral Theory

The term "cognitive-behavioral theory" refers to a hybrid that combines the principles of behavioral and cognitive theory (Dobson, 2010). Aaron Beck and Albert Ellis are widely recognized for the invention of cognitive-behavioral theory, as well as the cognitive-behavioral interventions and techniques that have been influenced by it (Dobson, 2010). In the context of test anxiety, the cognitive-behavioral theory posits that tests trigger long-term schemata, implying that failure is a foregone conclusion. When a highly test nervous student perceives the testing scenario as frightening and performs poorly, the high-test anxious student's maladaptive cognitions are reinforced (Ellis, 1997; Von Der Embse, Berterian & Segool, 2013). Maladaptive cognitions can maintain emotional distress and behavioral issues (Hofmann, Asnaani, Vonk, Sawyer & Fang, 2012). Maladaptive cognitions can be characterized as disturbances in the thought process, such as fear, and behavioral difficulties can be defined as poor academic skills and performance in the context of test anxiety (Kondo, 1997).

Trait State Anxiety Theory

Anxiety, according to Spielberger (1966), is an emotional condition that can be divided into two categories: trait anxiety (A-Trait) and state anxiety (A-State). According to Spielberger, people with a high A-Trait are more likely to experience anxiety symptoms when they assess a scenario as one in which their fear of failure is activated. "Failure or ego-involving instructions generate higher levels of A-State intensity in high A-Trait subjects than in low A-Trait subjects," according to Spielberger (1989, p. 40), and the A-

State condition is influenced by the threat level connected with the level of threat experienced.

In the context of test anxiety, trait state anxiety theory assumes that individuals who have higher trait test anxiety might experience higher state test anxiety (Hong, 1998). State test anxiety refers to test anxiety in a specific evaluative situation (like during oral exams only, for example) whereas trait test anxiety refers to test anxiety in all evaluative situations (during oral 7 exams, essay exams, multiple-choice tests, etc.). The State-Trait Anxiety Inventory (STAI) helps to quantify varying levels of trait and state anxiety, therefore, providing context for meaningful interventions related to reducing test anxiety

II. METHODS AND MATERIALS

The study adopted the descriptive survey design. The population of this study constituted 257 levels 200 and 300 undergraduate students pursuing Bachelor of Science in Psychology at the University of Cape Coast. Out of the 257 population, a proportionate simple random technique was used to select a sample size of 157, based on the table for the sample size of a population (Krejcie & Morgan, 1970). To assess the level of test anxiety, the study adopted the "Westside test anxiety scale" produced by Driscoll (2006).

III. RESULTS AND DISCUSSION

Analyses of Respondents' Background Information

The researchers were interested in finding out the gender distribution of respondents. The statistics in Table 1 depict the results.

Table 1: Gender Distribution of Participants

Gender	Frequency	Percentage (%)
Males	68	43.3
Female	89	56.7
Total	157	100

Source: Field data, October 2021.

Table 1 reveals that the male students who participated in the study were 68 (43.3%), while their female counterparts numbered 89 (56.7%). By implication, more female than male students participated in the study. This, however, means that more female students had enrolled in the Bachelor of Science (Psychology) program than males.

Analysis of Main Research Questions

In analyzing the main research questions, means and standard deviations, as well as the independent samples t-test, were used.

Research Question 1: What is the gender difference in the level of test anxiety?

Table 2 shows the mean and standard deviation of male and female students in terms of their level of test anxiety.

Table 2: Gender Distribution of the Levels of Test Anxiety

Gender	N	Mean	Std. Deviation	Std. Error Mean
Level Male	68	19.21	6.862	.83218
Female	89	18.56	6.218	.65906

Table 2 shows the means and standard deviations of male and female students' levels of test anxiety while Table 3 indicates the results of the difference between anxiety levels of male and female students' test anxiety levels.

		Levene's Test for Equality of Variances				
		F	Sig.	t	df	Sig. (2-tailed)
level	Equal variances assumed	2.378	.125	.615	155	.540
	Equal variances not assumed			.607	136.516	.545

The results from Table 3 depict that there is no statistically significant gender difference in the test anxiety levels of students. The difference male students (Mean = 19.21; SD = 6.862) and female students (Mean = 18.56; SD = 6.218) was not significant ($t(155) = .615; p = .540$). These results, however, contradict the finding that female students have higher levels of test anxiety than male students (Baxter et al., 2014; von der Embse et al., 2018). The current study did not find any difference in the levels of test anxiety between male and female students possibly because of the recent rise in female empowerment (girl-child education) or the kind of encouragement the girl-child receive in the Ghanaian society which is likely to boost their confidence level and increase their enthusiasm to achieve higher in education.

Research Question 2: What are the causes of test anxiety among students?

Table 4. The causes of test anxiety among the student participants.

Causes	Mean	Std. Deviation
Inadequate Preparation	4.54	1.457
Testing schedules	4.40	1.414
Difficulty Test Material	4.07	1.335
Limited Test Duration	4.06	1.497
Procrastination of studies	4.02	1.510
Poor Study Habits	3.86	1.443
High Expectations from Stakeholders	3.78	1.400

Causes of Test Anxiety

From Table 4 it can be inferred that inadequate preparation and testing schedules by students were the two leading causes of test anxiety. On the other hand, poor study habits and high expectations from stakeholders were considered the least causal factors of test anxiety among the

students. This result is no different from the findings that, the period and place of testing, as well as inadequate test preparation by students, were the leading causes of test anxiety among students (Putwain, Woods & Symes, 2010). This could be the result of testing situations (number of instructions given by invigilators during the test, sitting arrangement of students in the exam halls, the behavior of some invigilators, and the construction of questions by some lecturers), irregularities, inconsistencies, or unfixed testing schedule, and unannounced quizzes conducted by some lecturers on UCC campus make students anxious when going to take the test. It is also not surprising that inadequate preparation of students was found as one of the leading causes of test anxiety because academic tasks are too compact on campus which prevents students to have more time to study. Most students also engage in social and church activities rather than spending more time on their books. The findings are in line with Fehm and Fydrich, (2011) study which found that students who suffer from test anxiety frequently experience distraction in exams and problems in preparing for exams

Research Question 3: What are the Coping strategies that students adopt in managing test anxiety?

Table 5 shows the mean and standard deviation of male and female students in terms of their coping strategies to test anxiety.

Table 5. Coping Strategies Adopted in Managing Test Anxiety

Coping Strategies	Mean	Std. Deviation
Motivated Forgetting	4.25	1.413
Exercise a relaxation technique like deep breathing, closing your eyes, and imagining a positive outcome.	4.15	1.334
Establish a consistent pretest learning routine	4.02	1.500
Get enough sleep after a test	3.97	1.713
Speak to a professional counselor	3.69	1.547
Ignore the situation	3.47	1.712

From Table 5, it can be observed that students usually cope with test anxiety through motivated forgetting and exercising as a form of relaxation technique. The finding is in line with studies conducted by Conway and Pleydell-Pearce, (2000), who found that motivated forgetting help to enhance one's well-being and mental health by protecting individuals against unpleasant memories of test anxiety.

Hypothesis: There is no statistically significant difference in how male and female students cope with test anxiety.

Results from an independent samples t-test showed that there is no statistically significant difference in the scores of males (M=20.41, SD= 5.470) and females (M= 19.43, SD= 4.885) in terms of the strategies employed to cope with test anxiety; $t(155) = 1.175, p = .242$. This result depicts that there is no statistically significant difference in the strategies male and female students adapt in coping with test anxiety. This result

is in congruence with the literature by Stöber and Pekrun, (2004), that male and female students employ almost the same strategies in coping with stress, anxiety, and depression. There was no difference possibly because, the strategies used like denial, mental disengagement, and going to sleep after a difficult test adopted by both students are natural ways of coping with test anxiety.

IV. CONCLUSIONS

Based on the findings of the study, it was concluded that both male and female students do not differ in the level of test anxiety possibly due to the kind of encouragement given to females in recent times. It can also be concluded that students' inadequate preparation and testing schedules are possibly due to students' busy schedules as a result of their engagement in social and religious activities in addition to their academic work. It can also be concluded that there was no difference in the strategies used possibly because those strategies used were instinctual/natural means of coping with test anxiety.

V. RECOMMENDATION

Based on the findings that the level of test anxiety between the genders was the same, any attempt to educate/sensitize students on how to control test anxiety should meet the needs of both male and female students. Also important is the need for the management of the university to ensure compliance with the implementation of the structured/fixed testing schedule by lecturers. This is to ensure that lecturers do not schedule their quizzes and test habitually/haphazardly. It is also recommended that the counseling center in the university should engage in intermittent educational programs of their services to make students more aware and patronize their services when they become test anxious. This would provide the student with the opportunity to deal with test anxiety in both natural/instinctual and professional ways.

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