

# A Psychological Appraisal of Examination Anxiety among Some Selected Undergraduates in Ogun State, Nigeria

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**Abstract** The study addresses the issue of examination anxiety among undergraduates from the psychological perspectives, focusing on the predictive roles of personality traits. A survey method was adopted and two hundred (200) participants with mean age of seventeen (17) were randomly selected from among undergraduates in Ogun State, South West, Nigeria. Data were collected using Big Five Personality Inventory (BFI) and Test Anxiety Inventory (TAI). The data were analyzed by Statistic Package for Social Science (SPSS) and the results show that participants' personality traits contributed significantly to variance in the participants' manifestation of examination anxiety. Thus, it was concluded that individual's personality traits plays significant role in explaining and managing examination anxiety. The implications of the study in terms of behavioural and cognitive protocol in modifying the students' examination anxiety were discussed.

**Keywords** Psychological Appraisal, Examination Anxiety, Undergraduates

## 1. Introduction

Students are subjected to an increasing number of tests and assessments right from the kindergarten to tertiary institutions. In general, the outcomes of the examinations are used to measure students' knowledge and skills in important academic subject areas. Based on students' performance on the examinations, important decisions are taken regarding educational opportunities, scholarships and promotion. However, the outcomes of some of these examinations may not a clear picture of the student's knowledge because of examination anxiety. While some students face these examinations with average degree of nervousness, some students find it difficult to adjust very well to the examination conditions and as a result experiences moderate to severe uneasiness, apprehension, or nervousness, which could be detrimental to their performances in such examination. According to Yerkes-Dodson law, an optimal level of arousal is necessary for a candidate to best complete a task such as an examination, performance, or competitive event. However, when the anxiety or level of arousal exceeds that optimum, the result is a decline in performance. Thus, Students who have consistent examination anxiety may likely perform poorly in their examinations.

Examination anxiety is a fairly common phenomenon that involves feelings of tension or uneasiness that occur before, during, or after an exam (Glendale Community College

Counseling Center, 2000). It is usually characterized by fears of: inadequate preparation; forgetting important information necessary for passing the examination; alienation from parents or friends; feelings a loss of control; inadequate time and other related fears. Birenbaum, (2007) proposed two models in explaining the causes of test anxiety, namely the interference model and the skills deficit model. The interference model states that high test anxious students are plagued by worry and distracting thoughts that interfere with their ability to retrieve information during a test while the skill deficit model states that high test anxious students' problems occur before the test; in the form of inadequate learning that results in poor performance. Thus, test anxiety is simply an emotion that results from an awareness of being unprepared for the test. Sharma, (2002) noted that individual with high test anxieties experiences threat, loss perception in higher degree, poor study skills, and negative nonproductive attitude toward academic work as compared to the low test anxious student, and as a result, the formal students tend to fail more than succeed in examination.

Mealey & Host (1992) identified three main categories of exam-anxious students: Those who (1) do not have adequate study and test preparation strategies, realize that deficiency, know they are not well prepared for testing situations, and are worried; (2) have adequate strategies in their repertoire and use them but become distracted during examination; or (3) mistakenly believe they have adequate strategies, do poorly on tests, and anxiously wonder why.

This study reviews relevant literature on examination anxiety among undergraduates and the general findings indicate that high levels of examination anxiety among undergraduate students are manifested by reduced levels of

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academic performance (Hagtvet, & Sipos, 2004; El-Zahhar, & Hovecar, 1991; Sud 1991; Sharma and Sud, 1990). While some researchers contend that examination anxiety is a manifestation of academic performance, most researchers contend that academic performance is affected by examination anxiety (Hagtvet, & Sipos, 2004). All researchers however agree that a strong relationship exists between test anxiety and academic performance, regardless of the causal direction of the relationship, or whether or not such a causal relationship exists. Sharma and Sud (1990) found that female students experience higher levels of exam anxiety than do males irrespective of cultural background. The study involved students from four Asian cultures. The conclusion drawn from these findings was that a major causal factor involved in the gender-related differences in test anxiety among students was a greater role expectation conflict among females than among males. Sud (1991) examined test anxiety among students in India and the United States. This study found no differences in levels of test anxiety experienced by female and male students; however, the study did find that, in the United States, levels of test anxiety were higher among high school students of both genders than among college students. El-Zahhar and Hovecar (1991) examined test anxiety among students in Brazil, Egypt, and the United States and found that test anxiety in all three cultures was higher among female students than among male students.

Although the reviewed study examined the issue of examination anxiety across some countries other than Nigeria, as well as focusing only on from gender perspectives, this study aims at examining in addition to gender, the contributory roles of personality types on examination anxiety.

The following research questions were examined;

1. Will male students report more examination anxiety compared to female students?
2. Will personality types predict examination anxiety?
3. Will there be any relationships between personality types and examination anxiety?

In order to answer the questions stated above, the following hypotheses are being tested;

1. Male participants will report higher examination anxiety compared with their female counterparts.
2. Personality types will jointly predict examination anxiety.
3. Participants' personality types will have positive relationship with examination anxiety.

## 2. Method

### Participants

The study was carried out in Ogun State. Specifically, participants were drawn from among undergraduates in Redeemer' University, Mowe, Ogun State. Random sampling technique was used to select the two hundred (200)

participants in the age range of 15 -30 ( $\bar{X}$ =18, SD=8.5) years. The sample comprised 100 (50%) males and 100 (50%) females who were full time undergraduates of the university.

### Instruments

Two instruments were used for collecting the data. a) The Big Five Inventory (BFI) and b) Test Anxiety Scale (TAS).

a) The Big five inventory (BFI) was developed by John, Donahue and Kentle (1991) to measure personality from a five-dimensional perspective namely-Extroversion, Agreeableness, Conscientiousness, Neuroticism and Openness.

➤ **Extroversion** is marked by pronounced engagement with external world. Extraverts enjoy being with people and full of energy and often experience positive emotions while introverts lack the exuberance, energy and activity; they tend to be quiet, low-key, deliberate and disengaged from the social world.

➤ **Agreeableness** reflects individual differences in respect with cooperation and social harmony. Agreeable individuals value harmonious relationship with others. They are therefore considerate, friendly, generous helpful and willing to compromise their interest with others. Agreeable people also have an optimistic view of human nature. Disagreeable individuals place self-interest above getting along and they are generally unconcerned with other people, likely to be suspicious, unfriendly and uncooperative.

➤ **Conscientiousness** refers to the way in which individuals control, regulate and direct their impulses. Impulses are not inherently bad; conscientiousness individuals are likely to avoid trouble and achieve high levels of success through purposeful planning and persistence. The unconscientiously individuals are characterized by negligence, carelessness, laziness and lack of ambition as well as failure to stay within the lines.

➤ **Neuroticism** refers to the tendency to experience express feelings. Neuroticism individuals are likely to have negative feelings such as anxiety, anger or depression and are likely to interpret ordinary situations as threatening and minor frustrations as hopeless difficult while the emotionally stable individuals on the other hand demonstrate direct opposite emotions of the neuroticism individuals (i.e. they are stable emotionally).

➤ **Openness** refers to experience that describes a dimension of personality that distinguishes imaginative and creative people from down to earth, conventional people. Open individuals are intellectually curious appreciative of art and sensitive to beauty while closed people (Low scorer on openness scale), tend to have narrow, common interest, prefer familiarity to novelty, conservative and resistant to change.

The Big Five Inventory (BFI) has test retest reliability coefficients of 0.85 and constructs validity of 0.75 respectively while Umeh (2004) provided the psychometric properties for Nigerian samples.

b) The Test Anxiety Inventory (TAI), a self-report psychometric scale was developed by Spielberger (1980) to

measure individual differences in test anxiety as a situation-specific trait. The test is one page and contains twenty items. Based on a Likert Scale, the respondents are asked to report how frequently they experience specific symptoms of anxiety before, during and after examinations. In addition to measuring individual differences in anxiety proneness in test situations, the TAI subscales assess worry and emotionality as major components of test anxiety.

The original psychometrics properties of Test Anxiety Inventory (TAI) were provided by Spielberger (1980) for American Samples while Omoluabi (1993) provided the properties for Nigerian Samples.

### Procedure

The psychological tests were administered to the participants in groups by the researcher after establishing rapport with them. The respondents followed the instruction on the tests to answer the questions.

## 3. Data Analysis

Responses to the battery of psychological test were entered accordingly into the Statistical Package for the Social Sciences (SPSS) version 16 on a personal computer. Data were appropriately coded and analysed with t-test, One-way Analysis of Variance, Pearson Product Moment Correlation and Multiple Regression Analysis. Thus, hypotheses were tested.

## 4. Results

### Descriptive Statistics

In order to determine the predictors of examination anxiety, means and standard deviation were computed for all measures used in this study as presented in Table 1.

**Table 1.** Mean and Standard deviation for all measures

Measures	N	Mean ( $\bar{X}$ )	Std Dev.
Worry	200	15.02	4.272
Emotionality	200	16.13	5.308
Test Anxiety	200	39.95	9.13
Extroversion	200	28.12	4.06
Agreeableness	200	29.85	3.792
Conscientiousness	200	30.23	3.91
Neuroticism	200	26.22	5.99
Openness	200	36.57	6.25

To find out if there is a gender differences in examination anxiety of participants, the mean and standard deviation for males and females on examination anxiety scores were computed and the result is presented in Tables 2 below:

**Table 2.** Mean and Standard deviation of TAI scores according to gender

Gender	N	( $\bar{X}$ )	SD.	t	p
Male	100	40.04	8.58	0.02	> 0.05
Female	100	40.02	9.61		

The results in Table 2 showed that males had a higher mean ( $\bar{X}$ ) of 40.04 and Standard Deviation (S.D) of 8.58 while females had a lower mean ( $\bar{X}$ ) of 40.02 and standard deviation (S.D) of 9.61. The t analysis confirmed that differences between male and female participants was not significant, thus the first hypothesis was rejected.

Finally, to find out if personality types will jointly predict examination anxiety, a regression analysis model was computed. The results are shown on Table 3.

**Table 3.** Model of regression analysis of predictors of examination anxiety

Variable	B	T	R	R <sup>2</sup>	t	P
Extroversion	0.04					
Agreeableness	0.10					
Conscientiousness	0.04	5.22	0.42	0.17	8.74	0.05
Neuroticism	0.64	15.35				
Openness	0.07					

The result in Table 3 showed that personality types jointly predicted seventeen percent (17%) variance in examination anxiety in the participants. It must be noted that neuroticism contributed 64% while agreeableness contributed 10% to the variance in examination anxiety. By this result the second hypothesis which stated that personality types will jointly predict examination anxiety is supported.

Furthermore, to find out the kind of relationships between personality types and examination anxiety, a Pearson Product Moment correlation was computed and the results are shown in Table 4.

**Table 4.** Matrix of Correlation between personality types and exam anxiety

Measures	1	2	3	4	5	6
1.Examination Anxiety	-					
2. Extroversion	0.09	-				
3. Agreeableness	0.26	0.24	-			
4. Conscientiousness	0.06	0.20	0.34	-		
5. Neuroticism	0.42	0.32	0.42	0.25	-	
6. Openness	0.04	0.24	0.08	0.32	0.28	-

The result in Table 4 above indicated that only agreeableness and neuroticism were significantly correlated with examination anxiety at  $p < 0.05$ . However, other personality types had positive relationship with examination anxiety. Thus, the third hypothesis which stated that there will be significant positive relationship between personality types and examination anxiety was accepted.

## 5. Discussion

The research study examined the influence of gender and personality types on examination anxiety among some selected undergraduate in Ogun State. The study found that there was no difference between males and female participants in their report of examination anxiety. This finding was not agreement with the findings of Sharma and Sud (1990) who found that female students experience higher levels of exam anxiety than do males irrespective of

cultural background. Although this might be the situation in Asian cultures but not in some parts of Nigeria where both male and female are given equal opportunity and similar examination condition to proof their competencies.

Secondly, the study found that personality types were reported to be significant predictor of examination anxiety. They accounted for 17% variance in examination anxiety. In addition neuroticism personality type contributed the most to the variance. The result of the study was supported by the propositions of the Trait theorists who noted that personality trait of neuroticism is synonymous with emotional instability as shown in anxiety behaviours.

Finally, the study found that there were positive relationships between personality types and examination anxiety and this was in agreement with other research findings that indicated that modest levels of anxiety is experienced by most students before and during the examination and such can actually motivate students to work harder and perform well. However, when heightened levels of anxiety become evident, they may interfere with the student's ability to think clearly and perform well on tests, resulting in an underestimate of the student's knowledge.

In conclusion, this study has shown that individual's personality traits plays significant role in explaining the cause of examination anxiety among other possible variables. However, to effectively manage the excesses of examination anxiety, behavioural and cognitive protocol should be combined together. This involves providing systematic information on study skills, test taking skills, offering relaxation techniques; controlled breathing and cognitive restructuring information to reduce examination anxiety. Thus, the Interventions that provide training in effective study and test taking skills combined with reducing the emotionality of the testing situation are likely to be more successful in facilitating examination performance.

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