

Influence of gender and mode of study on examination anxiety among University undergraduates of Ogun State

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ABSTRACT: Tests and examinations at all stages of education, especially at higher education level have been considered an important and powerful tool for decision making in competitive society, with people of all ages being evaluated with respect to their achievement, skills and abilities. The purpose of this study was to investigate the influence of gender and mode of study on examination anxiety among university undergraduates of Ogun State, Nigeria. Descriptive research design of ex-post-facto type was used in the study. One hundred and forty-nine (149) respondents were selected randomly from Olabisi Onabanjo University, Ogun State, Nigeria. The respondents were measured with adapted validated instruments and the data obtained was analyzed using t-test and multiple regression statistical analysis. Three (3) research questions were raised and answered in the study. The result showed that there was significant difference in the examination anxiety of male and female undergraduate students with male students having higher examination anxiety than their female counterpart, the independent when pulled together have significant effect on examination anxiety of undergraduate students with 58.2% of the variance was accounted for by the predictor variables when taken together and each of the independent variables made a significant contribution to the prediction of examination anxiety of undergraduate students. In term of magnitude of contribution, gender made the most significant contribution to the prediction follow by study mode. In view of these findings, the study recommended that counselling psychologists should intensify their effort in organizing workshops for educational stakeholders on the implications of mode of study and gender on examination anxiety of students in the school and that students should be enlightened on the need to improve their study mode so as to reduce the examination anxiety as proved in the study.

Keywords: Examination anxiety, gender, mode of study, University undergraduates.

INTRODUCTION

Tests and examinations at all stages of education, especially at higher education level have been considered an important and powerful tool for decision making in competitive society, with people of all ages being evaluated with respect to their achievement, skills and abilities. Zollar and Ben-chain (1990) have the opinion that the era in which people live is a test-conscious age in which the lives of many people are not only greatly

influenced, but are also determined by their test performance. Examination anxiety is thought to prevent some individuals from reaching their academic potential. It has been found that students consistently perceive examination as a source of increase in anxiety and a situation engulfed with uncertainty/unfairness in letting them demonstrate their true achievements (Zollar and Ben-chain, 1990; Spielberger, 1985). Such feelings among

students limit their potential performance during the test situation, resulting in higher examination anxiety which directly affect the student achievement (Hill and Wigfield, 1984).

All over the world and at all levels of academic pursuit, academic examinations and tests are inevitable and unavoidable for any student who desires to progress in his studies. Mwamwenda (1994) showed that the rate of poor academic performance of many University students is alarming. This is not to say that all the students involved are dull or mentally unfit for study, however, it may be due to one major problem known as examination anxiety which has made many of them to perform below expectation in their various tests and examinations irrespective of their levels and faculties. Examination anxiety is an experience which expresses itself in a candidates' mind and behaviour in form of fear of failure, negative self-evaluation which might be related to previously established standard (by self or other institutions), self-blame for perceived shortcomings, social evaluation in relation to student's estimate of how others are doing and negative prediction of what would be the outcome of a test (Olatoye, 2009).

It is characterized by feeling of tension and fear, increased physiological arousal, perceptions of danger and risk, decreased cognitive and behavioral performance, and/or avoidance and escape (Oludipe, 2009). In a nutshell, examination anxiety has to do with the feeling of uneasiness or apprehension that a student experiences before, during or after a test because of worry or fear of failure. Some of the behavioral manifestations of examination anxiety among students includes but not limited to the followings: feelings of wanting to cry; leaving the test-taking room in order not take the test; feeling of anger or helpless and shaky hands. If this experience persists, it can constitute a serious problem that can affect academic performance of the individuals involved, hence the need to pay attention to it. It is upon this premise that the present study investigated the influence of gender and mode of study on examination anxiety among University undergraduates of Ogun State, Nigeria.

Gender refers to the difference of undergraduate students in term of being male and female. Several researchers explored gender differences with respect to examination anxiety and found that females have higher levels of overall examination anxiety than males (Mwamwenda, 1994). Cassady and Johnson (2002) posited that explanation for differences in examination 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 examination anxiety scores of male and female is due to gender difference in scholastic ability. It is quite evident from the arguments given above and results of the studies reported that tests anxiety affects achievement along with other variables such as motivation to learn, ability to benefit from

formal instruction and gender. This diversification of effects of examination anxiety leads researchers to think of examination anxiety as at least bi-dimensional construct of affective and cognitive components (Berk and Nanda, 2006; Cassady and Johnson, 2002).

According to Umoh (2003), more difficult tasks are usually reserved for males while less difficult ones are considered feminine in a natural setting. Example of this is breaking of firewood, which is often seen as manly task while washing of plates could be seen as a female task at home. Thus, at school males are more likely to take to difficult subject areas and challenging problem-solving situations while female on the other hand prefer simple subjects and often shy away from difficult tasks and problem-solving situation. Ekeh (2003) discovered that male junior secondary school students performed better than females in science and mathematics. These differences in performance can be attributed to gender which encourages male and female students to show interest in subjects relevant and related to the roles expected of them in the society. Studies have shown that gender has negative impact on examination anxiety of students as girls experience anxiety greater than the boys (Okon, 2003).

Mode of study as used in this study refers to the reading style adopted by the undergraduate students to read and studying in the school. Carlsson (2002) found that mode of study provided a defense mechanism to anxiety and this was later supported by Henderson et al. (2007) who indicated that mode of study provided a calming effect on post-traumatic stress disorder patients. On the other hand, Mitchell et al. (2008) also showed effective mode of study as a therapeutic key that significantly decreased anxiety. Earlier (1966) stated that mode of study obtained through education in a person's life when growing up could be a safeguard against mental health disorders. Potur and Barkul (2010) also suggest that mode of study is important in the solution of everyday problems of planning and decision making. Significant decisions in life, such as planning careers, choosing employment, spouses, and places of residence, and making large important commitments, all require particular relevance to mode of study (Oludipe, 2009). These life experiences involve situations that are open-ended, ambiguous, and that have no clearly visible external sources of correctness or truth.

Mode of study is the ability to monitor and manage emotions, thoughts, and behaviours (McClelland et al., 2010). It is what helps students to focus their attention on learning when they might be distracted by others, upset by a problem, or excited about an upcoming event. The ability to study effectively helps student get along better with teachers and their peers (McKown et al., 2009). Mode of study is a key to school readiness that supports student's ability to be successful in both academic and social situations (Raver, 2003). It plays important role in building social-emotional competence another essential ingredient

for a successful transition to school (Denham, 2006).

Several studies conducted on examination anxiety have identified various factors such as gender, age and study habits (Ergene, 2011) and course load (Sansgiry and Kavita, 2006) as major factors influencing examination anxiety among undergraduates. Little researches have examined factors like gender and mode of study as predictors of examination anxiety in Nigeria (Oludipe, 2009; Okon, 2003). Also, Sansgiry and Kavita (2006) worked on the prevalence of examination anxiety among pharmaceutical undergraduates at the University of Houston (Texas) rather than the predicting variables. Ferdous (2012) researched on the effect of examination anxiety on academic performance. It is on this basis that the presents study concentrates on the influence of gender and mode of study on examination anxiety among university undergraduates of Ogun State, Nigeria.

Statement of the problem

Symptoms of examination anxiety have been documented since the existence of mankind. It is one of the problems encountered by many Nigerian adolescents. Prolonged examination anxiety when not corrected can be harmful and cause physical and psychological disorders like depression, digestive problems, schizophrenia and academic failure. It has been suggested that examination anxiety is prevalent among 10% of Nigerian adolescents who experience psychic and social pressure. Nevertheless, there is a slow but growing interest in the subject in Nigeria as there is a rapid increase of reported examination anxiety cases among undergraduate students. Examination anxiety can also hinder development of the adolescents' life-skills. Thus, this study is therefore timely and necessary in determining the influence of gender and mode of study on examination anxiety among University undergraduates of Ogun State, Nigeria.

Purpose of the study

The main purpose of this study is to investigate the influence of gender and mode of study on examination anxiety among University undergraduates of Ogun State, Nigeria. Specifically, other purposes of the study include to examine:

1. The significant difference in the examination anxiety of male and female undergraduate students.
2. The joint contribution of gender and mode of study on examination anxiety of undergraduate students.
3. The relative contribution of gender and mode of study on examination anxiety of undergraduate students.

Research questions

1. What is the significant difference in the examination anxiety of male and female undergraduate students?
2. What is the joint contribution of gender and mode of study on examination anxiety of undergraduate students?
3. What is the relative contribution of gender and mode of study on examination anxiety of undergraduate students?

METHODOLOGY

The research design used in this study was descriptive research design of *ex-post facto*. It was employed to ascertain the roles of the independent variables (gender and mode of study) on the dependent variable (examination anxiety) without manipulations. However, it carefully observed and recorded information as it naturally occurred at the time the study was conducted. The population for this study comprises of all University undergraduate students of Olabisi Onabanjo University (OOU), Ogun State, Nigeria. The sample for this study comprises of 149 participants which were randomly selected from university undergraduate students of OOU, Ogun State, Nigeria. Simple random sampling technique was used to select five (5) Departments at OOU, Ogun State, Nigeria. In each randomly selected Department, 30 students were selected through balloting. On the whole, 149 university undergraduate students were selected for the study.

Instrumentations

Examination anxiety scale

Examination anxiety scale developed by Spielberg (1980) was used as a measure of examination anxiety of the participants. It is twenty (20) items scale with responses anchored base on four points strongly agreed, agreed, disagreed and strongly disagreed. The scale had Cronbach's alpha of 0.80 on different samples of students at different times (Spielberg, 1980). A score of 41 to 80 indicates high examination anxiety while a score of 0 to 40 indicates low examination anxiety.

Mode of study scale

The mode of study scale developed by Ergene (2011) was adopted to be used as a measure of peers' role to career of participants. It is eleven (11) items scale with responses anchored base on the four points strongly agreed, agreed, disagreed and strongly disagreed. The scale had Cronbach's alpha of 0.89.

Validity and reliability of the instrument

In order to measure the extent to which the instrument have been able to achieve their aims, the process of content validity was employed by cross-examination and verification. The knowledge gained from other investigation, literature review, theoretical framework and research method helped immediately to validate contents of the instruments. In addition, a more practical avenue of validity explored included consultation within and outside the Department of the researcher. This provided the opportunity to check and test the items as the work progressed.

The test re-test reliability co-efficient was used for the study. The instruments were pre-test on 30 respondents which were not included in the scope of the study to ascertain the reliability of the instrument. After the pre-test, the instruments were scrutinized and necessary modifications were made before final administration. The reliability co-efficient of the instrument was 0.76.

The instruments were administered to the participants on the day approved by the school authorities for the exercise. Three research assistants were employed in the administration and collection of the instruments. In each of selected Department, the administration and collection of instruments was done on the same day of administration. On the whole data collection lasted for approximately five (5) weeks.

T-test and multiple regression statistical analysis were used to analyse the data. The t-test was used to establish the differences in the examination anxiety of male and female students while multiple regression was used to establish the joint and relative contributions of the independent variables on the dependent variable.

RESULTS

Research question 1: What is the significant difference in the examination anxiety of male and female undergraduate students? Table 1 showed that there was significant difference in the examination anxiety of male and female undergraduate students ($t = 27.81$; $p < 0.05$). The mean value of the Table 1 further revealed that the male students had higher examination anxiety than their female counterpart. This further means that gender of the students has significant influence on examination anxiety of undergraduate students.

Research question 2: What is the joint contribution of gender and mode of study on examination anxiety of undergraduate students? The Table 2 shows that the independent variables (gender and mode of study) when pulled together have significant effect on examination anxiety of undergraduate students. The value of R (adjusted) = 0.767 and R^2 (adjusted) = 0.582. The analysis

of variance performed on the multiple regressions yielded an F- ratio value of 104.06 and was found to be significant at 0.05 level. This means that 58.2% of the variance was accounted for by the predictor variables when taken together. The significance of the composite contribution was tested at $p < 0.05$.

Research question 3: What is the relative contribution of gender and mode of study on examination anxiety of undergraduate students? The Table 3 shows that each of the independent variables (gender and mode of study) made a significant contribution to the prediction of examination anxiety of undergraduate students. In term of magnitude of contribution, gender made the most significant contribution (Beta = 0.617; $t = 5.948$; $p < 0.05$) to the prediction follow by study mode (Beta = 0.369; $t = 2.631$; $p < 0.05$).

DISCUSSION

The result of the first research question indicated that there was significant difference in the examination anxiety of male and female undergraduate students. The mean value revealed that the male students had higher examination anxiety than their female counterpart. This further means that gender of the students has significant influence on examination anxiety of undergraduate students. This is in contradiction with the study of Cassady and Johnson (2002) who posited that explanation for differences in examination 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) also found that difference in examination anxiety scores of male and female is due to gender difference in scholastic ability.

The result of the second research question showed that the independent variables (gender and mode of study) when pulled together have significant effect on examination anxiety of undergraduate students. The analysis of variance performed on the multiple regressions yielded an F- ratio value of 104.06 and was found to be significant at 0.05 level. This means that 58.2% of the variance was accounted for by the predictor variables when taken together. In collaboration with this study, Henderson et al. (2007) indicated that mode of study provided a calming effect on students with examination anxiety. On the other hand, Mitchell et al. (2008) also showed effective mode of study as a therapeutic key that significantly decreased examination anxiety in the students.

The result of the third research question indicated that each of the independent variables (gender and mode of study) made a significant contribution to the prediction of examination anxiety of undergraduate students. In term of magnitude of contribution, gender made the most

Table 1. Difference in the examination anxiety of male and female undergraduate students.

Gender	N	Mean	SD	Std. Error	DF	t	p	Remark
Male	54	16.67	3.59	0.49	147	27.81	0.000	S
Female	95	8.83	3.00	0.31				
Total	149	11.67	4.96	0.41				

Table 2. Multiple regression analysis on examination anxiety of students' data.

Analysis of variance	Sum of square (SS)	DF	Mean square	F
Regression	2140.96	2	1070.48	104.06
Residual	1501.93	146	10.29	
Total	3642.89	148		

R(adjusted)=.767; $R^2 = 0.588$; R^2 (adjusted)= 0.582; Standard error of estimate= 3.21.

Table 3. Relative contribution of independent variables to the prediction.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	20.208	2.792		7.237	0.000
Gender	6.342	1.066	0.617	5.948	0.000
Study Mode	0.870	0.704	0.369	2.631	0.002

significant contribution to the prediction follows by study mode. This is consistent with the study of Potur and Barkul (2010) who found that mode of study and gender is important in the solution of everyday problems of decision making towards examination anxiety. McClelland et al. (2010) however found that significant decisions in life, such as planning careers, choosing employment, spouses, and places of residence, and making large important commitments, all require particular relevance to mode of study and gender equality.

Conclusion

This research work has been able to examine the influence of gender and mode of study on examination anxiety among University undergraduates, and the result showed a positive influence of gender and mode of study having significant influence on examination anxiety of undergraduate students. It is therefore concluded that both the parents, teachers, students and even the government should as a matter of urgency should rise to put programmes in place on effective study mode so as to improve on the examination anxiety of the students; tackle the menace of ineffective study mode which is about to rampage the educational system; find subtle ways of imparting knowledge and conducting examination in more acceptable ways and standards. Examination anxiety is

one of the most important problems among moderate and low average students. In the time of examination, many students and parents approach counselors and psychologists which show the existence of the severity of this problem. It prompted the researcher to make an in-depth study of this subject. Besides examination anxiety, students are facing problems like loneliness, learning disabilities, physical changes, emotional problems, peer group pressures and rebellious behaviours among others. Base on the findings of this study, persistent examination anxiety among Nigerian undergraduate students needs not to continue indefinitely. There is hope that with the improvement of some factors (e.g. gender and mode of study among others) the situation can be changed for the better. The study discovered that gender and mode of study are related with examination anxiety in the school.

Recommendations

Having gone through the study, the following recommendations are therefore highlighted for consideration by counselling psychologists, teachers, parent/guardian, curriculum planners, NGO, and the government:

1. School activities should always be organized in a way to stimulate the interesting and motivation of

undergraduate students irrespective of the gender make up. This will help the students across gender to be more engaged in the school life.

2. Parents should be enlightened on the effects of study mode. This will help the parents to enforce effective study mode on the students at home.
3. Government should employ qualified counselling psychologist to schools who will be saddled with the responsibilities of helping students in resolving likely problems especially related to mode of study and examination anxiety.
4. Undergraduate students should be enlightened on the need to improve their study mode so as to reduce the examination anxiety as proved in the study.
5. Counselling psychologists should intensify their effort in organizing workshops for educational stakeholders on the implications of mode of study and gender on examination anxiety of students in the school.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest.

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