

# Influence of Study Skills on Test Anxiety of Secondary School Students in Nsukka Urban, Enugu State, Nigeria

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## Abstract

The study investigated the influence of study skills on test anxiety levels of senior secondary school students. Two research questions and two null hypotheses guided the study. A structured study skills inventory (SSI) consisting of 29 items, a test anxiety scale (TAS) consisting of 32 items developed by the researchers and validated were administered to 400 senior secondary school class III students (200 boys and 200 girls) in Nsukka Education Zone of Enugu State, Nigeria. The data collected were presented using mean scores and standard deviations. The t-test statistics was used to test the null hypotheses at 0.05 probability level. Findings indicated that study skills had no significant influence on students' test-anxiety levels; students' test-anxiety levels were significantly influenced by gender; the female students showed higher test-anxiety than their male counterparts. The following recommendations were made: School guidance counsellors are invited to provide gender sensitive learning environment to reduce academic anxiety. There is need to educate parents and teachers on how to handle their wards bearing in mind individual differences in gender orientation.

**Key Words:** Study Skills, Anxiety, Test Anxiety, Cognitive Performance

## 1. Introduction

Anxiety is one of the emotional components of human life. Every task performance to an extent is accomplished by some measures of anxiety. Anxiety is regarded as a common psychological problem among human beings with its physical, emotional, and social manifestations. In the view of Patel cited in Nwimo (2006), anxiety is the sensation of feelings, fear, or nervousness. To Okeke (1990), anxiety refers to a state of being uneasy, tensed, or troubled in mind about some uncertain events. The uncertainty of examinations and test taking situations induces test anxiety in students.

### 1.2 Test Anxiety Defined

According to Sieber (1980) test anxiety has been defined as the reaction to stimuli that are associated with an individual's experience of test taking or evaluating situations. It manifests in an individual when an unpleasant present or past experience registers in the memory system. Test anxiety may also be inferred from many cognitive and perceptual processes. Woolfork (2009) reported that an anxious person may report sensory-perceptual distortions of non-psychotic proportions which may reflect in attention processes. Cognitive performance and information processing may be critically affected by anxiety.

### 1.3 Test and Test Anxiety

Mueller (1980) reported that anxious individuals show greater difficulty in learning and memory encoding. Generally, there is a popular agreement that test anxiety has a detrimental effect. When individuals are pressurized to make high scores in a test, their anxiety is bound to increase (Deffenbacher, 2004). Individuals with high test anxiety worry about not doing as well as they would like to do on a test. Most people find examinations stressful and many focus on expectations of failure and the undesirable consequences of personal inadequacy (Soffer, 2005).

Test anxiety may be influenced by a wide range of factors such as environmental factors (Aremu and Sokan, 2003); teacher factor and psychological factors within the students, (Ngwoke, 2010). Such psychological factors encompass the individual's cognitive variables such as motivation, adjustment, study skills, gender and others. Dunn (1991) viewed study skills as the way in which each learner begins to concentrate on process and retain difficult information. It is a combination of many biologically and experientially imposed characteristics that contribute to effective learning. Broadly, any skill which boosts a person's ability to study and pass examinations can be applied to all fields of study (Hills and Benlow, 2008). There are ways a student can study to increase their ability to retain information and to think critically. They include mnemonics, effective note taking, effective time management, summarising, use of key words, and others. There are also several other methods of studying, such as memorization, communication skills, flash card training, condensing information, summarizing, use of key words, acronyms, organizations and life style changes (Parker, 2010). For the purpose of this study, study skills describe those activities carried out by learners during learning process which may have influence on their test anxiety levels.

### 1.4 Empirical Studies on Study Skills and Test Anxiety

Misra (1992) reported a significant and negative correlation between study skills and test anxiety levels. This

means that the subjects that had good study skills were discovered to have low test anxiety scores. Agarwal (1983) reported that males had a greater predisposition to better study skills than females. Withmaier (2002) found that students with high facilitating anxiety test scores have effective study skills while those with high debilitating anxiety test scores have less effective study skills. The finding of the study reveals that the students with good study skills are more likely to have lower test anxiety scores.

A number of studies have reported declines in the achievement of students as a result of test anxiety (Aluede and Onolemhemen, 2001; Patel, 1997; Mehta, Malhorta and Jerath, 1989.). The focus of these studies had been on the influence of study skills on academic achievement. However, student's strategies and approaches to learning also can be expected to influence their test anxiety levels. Equally, gender a culturally ascribed cognitive variable may differentially impact on test anxiety of male and female students especially in a predominantly male dominant culture as found in Nigeria. Not much can be found in literature on the cognitive variables that impact on students' test anxiety levels, especially Nigerian students.

## 2. Problem of the Study

It has been observed that many Nigerian students at all levels exhibit high test anxiety especially in public and national examinations. This in many occasions has been blamed on their lack of preparedness for such tests or inadequate learning skills. This anomaly often resulted in debilitating anxiety, high proneness to cheating in examinations and consequently low academic achievement. It is not quite clear how study skills and gender have mediated test anxiety among secondary school students in Nigeria.

### Research Questions

The following research questions guided the study.

1. What is the influence of study skills on test anxiety levels of secondary school students?
2. What is the influence of gender on test anxiety levels of secondary school students?

### Hypotheses

H<sub>01</sub>: Study skills as measured by a study skills inventory (SSI) have no significant influence on secondary school students test anxiety levels.

H<sub>02</sub>: The influence of gender on secondary school students test anxiety is not significant.

## 3. Methodology

The study was executed using an ex-post facto research design. The population of the study was all the senior secondary school class III students in Nsukka urban, Nsukka local government area of Enugu state, Nigeria. The sample was 400 students (200 boys and 200 girls) drawn from five schools within the Nsukka urban. Two sampling techniques were employed in composing the sample. First, five (5) secondary schools were sampled from the twelve (12) secondary schools in the area, using simple random sampling technique. Second, stratified random sampling technique was used to stratify the students into males and females. From each of the schools sampled for the study, 80 students were composed (40 males and 40 females).

The instrument used for the study was a 29-item study skills inventory (SSI) developed by the researchers. The items sought information on study skills of the subjects. The second instrument was a test anxiety scale (TAS) adapted from Sarason (1980) and used to measure the test anxiety levels of the subjects. Items on the questionnaires were rated on a four point response option of: Always (4); Sometimes (3); Rarely (2); Never (1). The rating was reversed for negatively skewed items. The internal consistency estimate obtained for SSI using Cronbach alpha was 0.72 while that of TAS was 0.85. Data were presented using means and standard deviation while t-test statistics was used to test the null hypotheses.

## 4. Results

Table 1: Mean ratings and standard deviation of the respondents on test anxiety scale

Study skills	Mean	S D	N
Good Study skills	2.42	0.40	184
Poor Study skills	2.45	0.39	216

t-cal=0.48; t-crit=1.96 ;df=398

Data in Table 1 show that students with good study skills had a mean score of 2.42 and a standard deviation of 0.40 while their counterparts with poor study skills had mean score of 2.45 and a standard deviation of 0.39. The results are subjected to t-test analysis.

The t-test result indicates that there is no significant difference in the mean test anxiety scores of students that have good study skills and those that have poor study skills. The null hypothesis of no significant influence of study skills on students test anxiety levels was therefore not rejected.

Table 2: Mean ratings and standard deviations on the influence of students' gender on test anxiety levels.

Gender	Mean	SD	N
Male	2.39	0.38	200
Female	2.55	0.42	200

$t_{cal}=2.54$ ;  $t_{crit}=1.96$ ;  $df=398$

Data in Table 2 show the mean ratings of the male and female students on test anxiety levels. The male students had a mean score of 2.39 and a standard deviation of 0.38 while their female counterparts had a mean score of 2.55 and a standard deviation of 0.42.

Data in Table 2 show that there is a significant influence of gender on students test anxiety levels. The female students showed significantly higher test anxiety levels than their male counterparts. The null hypothesis of no significant influence of gender on test anxiety was therefore rejected.

#### 4.1 Discussion

It has been shown in this study that study skills had no significant influence on the students' test anxiety. The finding of this study did not support the findings of Withnaier (2002) that students with good study skills showed low test anxiety. The finding supports the findings of Misra (1992) who reported a negative correlation between study skills and students' test anxiety levels.

It has also been shown in this study that gender had a significant influence on students' test anxiety levels. The females showed a higher test anxiety level than their male counterparts. This finding is in line with the findings of Zeidner and Safir(2001) who found that there are significant gender differences in mean levels of test anxiety, with females scoring higher across the categories. The researchers' finding is also in agreement with the study by Everson and Mislap (1991) that females have higher worry as well as high level of emotionality. This finding is in tandem with observed higher emotional sensitivity of females to environmental issues. The differences in the test anxiety levels in gender do not establish any form of gender stereotype among the students. The findings however draws the attention of stakeholders to an earlier conclusion (Ngwoke, 2010:269) that the "school system as a key educational agency has continued to elaborate and sustain gender schema that diminish need achievement motivation in females". What this means is that the school learning environment may have differentially encouraged the development of heightened test anxiety among female students.

The implication of this study is that teachers should take into cognisance the differences in the psychological components of the different sexes and adequately address the issue of gender sensitivity in classroom and learning environments. Testing and test results constitute a critical part in the value system of young persons. Therefore, testing should be regarded as a very sensitive issue in the life of students and should be managed with utmost concern for general growth and health of students.

#### 4.2. Conclusion

It was shown in this study that study skills had no influence on students test anxiety levels. Test anxiety is more of an emotional issue than cognitive and psychomotor. Gender significantly influenced test anxiety. Therefore gender sensitivity is to be observed as a conscious classroom management skill.

It is recommended that learning environment conditions be made to optimize emotional health and general well being of students irrespective of perceived gender differences in other critical school learning activities that impact on students' academic readiness and performance. Parents are also invited to show an increased awareness and concern for testing and testing conditions that their wards are subjected to in school. There is need for continued cultural conversation globally about gender to reaffirm that gender differences ought indeed to be a source of individual and collective enrichment rather than a source heightened anxiety about life chances for different sexes.

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