

Assessing the Level of Test-Anxiety Manifestation among Junior Secondary School Students in Ebonyi State

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Abstract

This study focused on the assessing the level of test-anxiety manifestation among junior secondary school students in Ebonyi State. The study looked at basic concepts and some literatures in the areas of anxiety, assessment, test, test-anxiety, factor influencing test-anxiety. For this, the researcher constructed a twenty-item (questionnaire, statements) on how people generally feel and how they feel after taking a test. Nine hundred and sixty questionnaire forms were administered to junior secondary school students in the eight sampled schools in the selected rural and urban areas. A 100% return rate of the instrument was recorded and the instrument was validated by experts in the field of psychology. Data was analyzed using simple standard deviation and t-test statistics. The results among others revealed that sex is presumed not to be a strong indicator of test-anxiety in boys and girls; it was found that those in the rural schools manifested high level of test-anxiety more than their urban counterparts. Recommendations were made on the findings of the study.

Keywords: Test-Anxiety, Anxiety, Assessment, Junior Secondary Schools

Introduction

There has been considerable interest in the level of manifestation of test-anxiety as it relates to such topics as verbal or motor learning, stimulus generalization, form discrimination and size estimation. It is against this background that Sarason had assumed that “Investigations concerned with these correlations has often times been of “shortgun” variety – Do you suppose test anxiety is related to the scores students get on tests X, Y and Z?” (1960). Assessment means the evaluation of something. Before one talks of measuring, evaluating or assessing the level of anything, it means that that particular construct exists, but the extent of its existence or presence is not known. Level has to do with quantity or degree of the presence of a particular trait or construct. Cronbach (1960) defines a test as a systematic procedure for comparing behaviour of two or more persons. Bearing in mind that test is a method of assessing an individual in order to know his strengths and weakness, it is therefore a method of ascertaining the presence or absence, or the degree of existence of certain traits or qualities in an individual.

The construct being looked into here is that of test-anxiety. Anxiety has to do with curiosity, apprehension, fear, anxiousness, worry, tension, etc. It transcends and encompasses all the afore-listed. Anxiety is brought about in an individual by different factors such as fear of the unknown, fear of being a failure in life, anxiousness to excel in life endeavours and lack of self confidence. Most people tend to see themselves as being capable of doing whatever they lay their hands upon. They want to prove beyond reasonable doubt to others, that they are capable of achieving their life goals. In the sphere of Education also, they want to be seen as achievers, and since test, is one of the major instruments of assessing and measuring one’s achievement or ability in school, it tends to generate some level of anxiety in the testees, whenever it is being administered. Many reasons could account for this situation. For instance, when any

student has not read to his satisfaction for a given test, the level of test anxiety in such an individual will be high, as a result of his state of unpreparedness.

On the other hand, when the testee has studied very well in preparation for the test, though there would be an element of anxiety in him, it will be low or mild, and it is a healthy situation which would spur him into academic excellence. Another factor that could bring about test-anxiety manifestation in the testee could be, if he is preparing to cheat in the hall. He might be on his nerves thinking, that all eyes are on him and as such, he may be caught while trying to cheat during the test. Repeated experiences of failure which stem from poor learning skills may lead to subsequent patterns of anxiety or withdrawal in the face of threatening (test) situation. Sometimes, the testee is made to feel he must earn his parents' attention and respect through outstanding achievement (test result), especially in school. Such a child tends to be over-critical of him/herself and feels intensively anxious and devaluated when he perceives him/herself as failing in spite of all his efforts.

Furthermore, tests which lack both content and face validities tend to make students panic and subsequently develop some level of test anxiety for fear of writing out of point. In the light of the above postulations, the researchers have decided to investigate the level of test-anxiety manifestation among students, using junior secondary school students in Benue State, since test-anxiety levels can affect students' academic achievement.

Statement of the Problem

The inherent position occupied by test in determining the academic progress of students make it inevitable for a study in assessing the level of test-anxiety among Junior Secondary School students. There is a popular saying, that "Examination is not a true test of one's ability". This is with the knowledge of the fact, that there are many extraneous factors or variables that could affect the students' performance in a test. Test-anxiety is one of such variables. It is an internalized process within the student which might not be easily identifiable to teachers or other authorities concerned. The problem of this study therefore posed as a question is; to what extent do the students manifest this internalized process known as test-anxiety in Junior Secondary Schools in Ebonyi State.

Purpose of the Study

The purpose of this study was to investigate the level of test-anxiety manifestation among Junior Secondary School I, II and III students in Ebonyi State.

Significance of the Study

It is necessary to carry out this study, to create awareness in teachers, counsellors and other test-administrators of the presence of test anxiety manifestation in Junior Secondary School students, despite the new method of continuous assessment. The teacher when aware of the level of test anxiety present in the students finds out whether, that is created by his method of teaching, instructions while examination or test is going on, or classroom atmosphere. If the anxiety is created from his own part, he will then find more favourable ways of administering the test on the students to remove the high tension by modifying his teaching methods and instructions. To the counsellor, when intimated of the presence of test-anxiety in the students, this would enable him to find out the causes and its effect on the students, and this in turn will help him in counselling the students concerned on how to overcome or reduce their level of test anxiety for maximum performance in their test result.

Test administrators when talking about standardization of test, take cognizance of the objectivity of the test, which include validity, reliability, administration and scoring procedures of the test. Also, they consider the physical health of the students, without recognizing the test anxiety level of the students. Test

administrators when made aware of the presence of test anxiety in students could study and adopt other ways of administering test in order to eliminate high tension in students during test, and inculcate a relaxed test situation. A student may be grouped into a wrong vocation by school administrators not because of his (testee's) low intelligence, but because it was not discovered, that he suffers from test anxiety, which could be treated early through psycho-therapy. To avoid this ugly situation, the school administrator has to be kept abreast of the impact of test-anxiety, so that it could be taken into consideration when classifying students into different vocations. If in this study it is found that our students in Junior Secondary Schools have high anxiety for test, then counsellors, teachers, test administrators and school administrators will be able to look into the remedy of the problem in order to achieve the laudable national goals on education.

Hypotheses

1. There is no significant difference between the level of test-anxiety manifestation in girls and boys in J.S.S. in Ebonyi State as measured by their mean test-anxiety scores.
2. There is no significant difference in the level of anxiety manifestation of J.S.S. students in rural and urban areas as measured by their mean trait anxiety scores.
3. There is no significant difference in the level of trait test anxiety manifestation of boys and girls in J.S.S. as measured by their mean trait anxiety scores.
4. There is no significant difference in the level of state test anxiety manifestation of boys and girls in J.S.S. as measured by their mean state-anxiety scores.

Nature and Meaning of Assessment

Assessment is seen as a process whereby one person (usually a teacher or examiner) attempts to find out the knowledge, attitudes or skills posed by another (the learner). It is in the light of this statement that Rowntree (1981) argued that assessment may involve mere observation of the student, as he sets about his normal learning activities or creation of special assessment activities eg. quizzes, examination, oral test, etc. In some countries like USA, evaluation is used instead of assessment. Assessment describes the development and utilization of a number of tools such as observational techniques, interviews, tests in their varying forms, Denga (1983). From all indications, assessment encompasses and transcends measurement, evaluation, examination, test, assignments, etc though a times measurement and evaluation can be used in place of assessment. Anagbogu (1988:109) defined assessment as a method of obtaining information on what a pupil gains from schooling in terms of knowledge, industry and character development. This takes into account pupil's performance in tests, assignments, projects and other educational activities during a given period.

Meaning and Nature of Test

The importance of test in education cannot be over-stressed. Most of the evaluations carried out in schools are done by the teachers. For teachers to teach effectively they must plan their teaching in order to achieve the desired results. And this cannot be without an effective teaching system – teaching. Test may serve to corrode the relationship between teacher and student. The atmosphere surrounding tests is often charged with fear. Learning does not occur where fear of failure is constant. According to Anastasi (1968), when put in summary terms, a test essentially, refers to an objective and standardized sample of behaviour. A test is said to be a sample of behaviour because, from the test performance, an inference is made regarding the testee's overall behaviour in relation to the issue tested.

A test is therefore an instrument for making predictions regarding what a person can do or cannot do, can like or can dislike, can value or reject. It is against this background that Makinde has assumed that “a test is generally a set of questions, problems, puzzles, symbols, and exercises used to determine a person's ability, aptitude, knowledge, qualifications, interests, and level of social adjustment” (1983:146)”. Indeed,

a test is a set of stimuli presented to an individual in order to elicit responses, on the basis of which a numerical score can be assigned. In agreement with the afore-said, Rowntree (1981) defined test as any means by which the absence or presence or amount or nature of some quality or ability in a student can be observed, inferred, appraised or even measured. Also, Ali (1988) defined test as an instrument administered to someone or something to determine the presence or absence of a phenomenon being measured. Test consists of a series of questions to be answered or exercised of some sort to be done, and a pupil's performance is based on the number of those he was able to do within the time allotted, (Ross, 1947).

Similarly, Anagbogu (1988) sees test as a simple collection of questions or tasks arranged in a systematic manner in such a way that the scores are used in appraising individual differences. Looking into the above definitions of test by different authors, one can deduce that test is made up of questions or tasks, works which are meant to be attended to or answered. These could be in form of exercises, which are arranged in a systematic manner or way, and which elicit responses from the testees. The responses of the testees are to be scored and graded. The responses must be emitted within the time allotted for its emission. And numerical scores are to be used in appraising or evaluating individual differences. Test is an attempt to measure units of behaviour pattern (Akinboboye, 1987). So testing according to him is the pattern of systematic assignment of numbers to characteristics and attributes. In continuation, the idea of testing does not connote paper and pencil only. It could also be oral. Tests could be:

1. Teacher-made tests which are often referred to as informal or non-standardized tests – this include various essay or objective forms of test constructed by class teachers.
2. Standardized tests: These are achievement, aptitude, intelligent, personality tests, etc. Made by people trained in testing to measure achievements and predict future performance.

Carter V. Good (1959) viewed test from three different perspectives:

- (i) Subjection to conditions that purport to show the true value of nature of a statistic with reference to some theoretical standard,
- (ii) An examination or quiz; any kind of device or procedure for measuring ability, achievement, interest, etc.
- (iii) (Logic) any procedure or criterion used to determine the truth or falsity of a hypothesis.

From Carter's first perspective of test, for anything to qualify as a test, it must be a condition which aims at showing the true value or nature of a figure in relation to some theoretical standard. His second definition of test has to do with examination or quiz no matter the kind of instrument or method used in evaluating and assessing capability, achievement, likes and dislikes, etc. provided it achieves or measures what it was intended to measure. Thirdly, test according to Carter has to do with logic. It is the strategy, paraphernalia used to find out the truth or wrongness of a hypothesis.

Anxiety

Psychologists believe that any situation that threatens the well-being of the organism is assumed to produce a state of anxiety. Conflicts and other types of frustration are some of the sources of anxiety. Anxiety is a diffuse feeling of dread apprehension and impending catastrophe (Goldenson, 1970). He further sees anxiety as an internalized feeling of inadequacy, fear of uncertainty and anticipated trouble situation. But he attempted at differentiating fear from anxiety. Although both are reactions to danger, in case of fear, the danger is external and directly perceived. While in anxiety its source is primarily internal and largely unrecognized. As stated in Encyclopaedia Americana (1968), anxiety is a state of emotional and physical disturbance induced in a person seeks to avoid, that is phobia. And the person experiences a persistent feeling of dread.

Any study on anxiety will be quite incomplete without the mention of Sigmund Freud. His theory on anxiety is based on the assumption that whenever the mental apparatus is subjected to an influx of stimuli which exceeds the capacity of the apparatus either to discharge or to build the energies of the stimuli, a

traumatic state develops. The effect which accompanies this traumatic state is anxiety. Anxiety is simply a product of libidinal drive blocked from discharge, an overflow of libidinal energy which induced a passive reaction of inchoate restlessness and diffuse feelings of fearfulness (International Encyclopedia of Social sciences, vol. 13). Epstein sees anxiety as an acutely unpleasant state of diffuse arousal following the perception of threat (Spielberger, 1972). He further stressed that anxiety states are evoked by three basic conditions: primary over-stimulation; cognitive incongruity and response unavailability. And that a basic parameter in determining anxiety level of arousal is expectancy. Theories and evidence agree that anxiety is an inevitable by-product of the process by which a person learns to become a member of a society, Eugene, 1968) that anxiety arises as a result of what Whiting and Child (1953) called "Socialization anxiety". Eugene also believed that anxiety proneness is the conglomerate result of a natural human capacity and the need for social conformity.

Anxiety is an unpleasant emotion characterized by terms like "worry", "apprehension", "dread" and "fear" that we all experienced a times in varying degree (Atkinson, 1981). In general, anxiety is indicative of a state of mind in which a person is preoccupied with preserving rather than with gratifying himself. Anxiety is linked to internal representation of danger situations, these pattern dangers differ at the various stages of psychosexual development producing different anxiety. Atkinson (1981)'s write-up on anxiety classified the theories of anxiety under three headings:

- (a) Anxiety as an unconscious conflict: according to Freud, he believed that neurotic anxiety was the result of an unconscious conflict between id impulses (mainly sexual and aggressive) and the constraints imposed by the ego and the superego. Many impulses pose a threat to the individual because they are contradictory to personal and social values.
- (b) Anxiety as a learning response: Social learning theory focuses not on internal conflicts, but on ways in which anxiety becomes associated with certain situation via learning. Sometimes, fears learned in childhood are difficult to extinguish. If a child's first reaction is to avoid or escape the anxiety producing situation, he or she may not be able to determine when the situation is no longer dangerous.
- (c) Anxiety as lack of control: A third approach suggests that people experience anxiety whenever they encounter a situation that seems beyond their control. It might be a new situation that we somehow, must organize and integrate into our view of the world and of ourselves.

The feeling of helpless and not in control of what is happening seems central to most theories of anxiety. The degree of anxiety we experience in stressful situations is largely dependent on how much control we feel we have over the situation. In addition to the a forestated, the behaviourist theory (Encyclopaedia Americana, 1968; stressed that anxiety is learned reaction that develops when emotion evoked by a frightening event is generalized or attached to surrounding circumstances.

Test-anxiety:

Test anxiety is a multidimensional construct; which could be as a result of "Trait-anxiety". Trait anxiety is dispositional in nature, and is construed to be process of being anxious, it is a primarily function of past experience and has an internalized i.e. (intra-psychoic) locus, (Spielberger, 1972:412).

Test anxiety could equally be viewed from A – State perspective which sees anxiety as being situational in nature and is directly a function of stressful conditions, and has a contemporary locus. State anxiety refers to the complex emotional reactions that are evoked in individuals who interpret specific situation as personally threatening, sarason continued.

Test anxiety could also be approached through the cognitive perspective (Spielberger, 1972). This deals with one's perception of a stimulus situation which generates anxiety that leads to somatic disorder. Sarason (1980) sees test anxiety as a special case of general anxiety. In a nutshell according to him, test anxiety refers to those phenomenological and behavioural responses that accompany concern about

possible failure. Test anxiety has been viewed by a number of writers as proneness to emit self-centred, interfering responses when confronted with evaluative conditions (Spielberger, 1972). Liebert, et al (1967) sees test anxiety as internal processes that have facilitating and deliberating effect on achievement. Spielberger (1968) noted that test-anxiety is an apprehension and worry over a test situation. Such anxiety leads to inappropriate actions like nausea, blocking and need to urinate frequently among others. He further maintained that high test-anxious persons are characterized by acquired habits and attitudes that involve negative self-perception and expectation.

According to the state-trait model of test-anxiety (Spielberger, 1966) Sarason noted that the components of anxiety area:

1. Test stimuli are those which the individual associates with evaluation. These may be immediate events, or they may be related to the future... Their meaning to the individual depends on prior experience...
2. Interpretation of test stimuli depends on the nature of one's prior experience with these stimuli. They may be perceived as having interesting or positive meaning, as threatening, or as neutral...
3. A state reaction varies depending on persons' interpretations of their experience and on the nature of the test stimulus. The A – State reaction may consist of heightened arousal,... or it may include fear and worry...
4. Cognitive reappraisal refers to the way in which an individual responds to his or her A – State. These responses may be constructive, defensive, avoidant, or a combination of these kinds of responses.
5. Coping, avoidance, and defensiveness refer to the nature of the feelings, approaches, and actions in which one engages... the task may be successfully or unsuccessfully completed.

Effects of Test-Anxiety

Once behaviour is exaggerated, it tends to move into realms of abnormality. Mild anxiety is normal for the well-functioning of anyone, but when anxiety-level is exaggerated, it becomes dysfunctional to the individual concerned and he may likely perform below his ability. Test-anxiety has interfering effects upon intellectual performance under some conditions, while it may have facilitating effects under other conditions (Ruebush, 1960). Test-anxiety could be facilitating when a stimulus situation contains elements which specifically arouse test or achievement anxiety. This increase in anxiety drive will lead to poorer performance in individual who have test-irrelevant anxiety responses in their repertory. For individuals without such response tendencies, these stimulus elements will raise their general level, resulting in improved performance. Personal evaluation of threat leads to decrements in the performance of high test-anxious students according to Sarason (Spielberger, 1972). Whereas assurance facilitates their performance he further noted. Moderately intense anxiety however energizes the organism and improves performance. And anxiety is the mother of the drive to know he concluded.

Factors Influencing Test Anxiety

Sarason (1957) postulated that personal evaluation of threat leads to decrements in the performance of high test-anxious students, whereas reassurance facilitates their performance. He is of the view that achievement-oriented instructions impair the performance of high test-anxious subjects but seem to have a good effect on low test-anxious subjects. Observing models who fail results in poorer performance, Sarason (1957) concluded by saying: Persons who differ in assessed test-anxiety differ with regard to their attentiveness to environmental stimuli and how they interpret and employ these cues in problem solving. In essence, high test-anxious persons are characterized by acquired habits and attitudes that involve negative self-perceptions and expectations. These self-deprecating habits and attitudes dispose test-anxious persons to experience fear and heightened physiological activity in situations such as examinations in which they are being evaluated. And influence the manner in which they interpret and respond to events in the environment.

In a 1950 review, Hanfmann pointed out that many recent studies on various aspects of personality involved emotion in particular anxiety. She mentioned that there are two patterns typical for anxiety – either a disorganization of behaviour or tight and rigid performance. A disorganization of behaviour occurs when motor imagination is interfered with, no matter what the reason. Tight and rigid performance on the other hand seems to indicate efficient motor imagination which inhibits impulsive expression and action. Hanfmann concluded that a man's emotional reaction (anxiety) absolutely depends on his interpretation and appraisal of the situation (Hanfmann, 1950). Mandler (1952) provides a theoretical analysis of the relationship between helplessness and anxiety which eventually lead to test anxiety in students. He assumes that stressful circumstances initially produce distress and arousal, and that helplessness which is cognitively interpreted as anxiety results when an organism has no behaviour available to him that will relieve his distress. According to Mandler, the interruption of organized plans or sequences of behaviour is a fundamental condition that leads to states of distress and arousal. When no appropriate behaviour is available as an alternate for the original plan, helplessness and anxiety result. Thus helplessness and anxiety are defined, not by the objective situation, but by the individual and his repertory of behaviour.

Separation distress has been identified as one of the causes of anxiety. In psycho-analytic theory, separation from a significant order or environment (e.g the home, mother) has often been regarded as the source of anxiety (Freud, 1926). There seems to be some confusion however, over whether separation per se is meant, or whether the reaction depends on anticipated consequences of separation. But there can be little doubt that the actual loss of, or separation from a valued object can be potent source of disturbance. Students most especially J.S.S. one leaving home for the first time might experience this separation distress which can cumulate into heightened test anxiety in examination hall. Beck (1970) delved into the interaction of cognition and anxiety in the development of psycho-physiological symptoms. He opined that if cues associated with the anxiety reaction either cognitive or physiological are themselves interpreted as danger signals, then additional anxiety is evoked. Psychosomatic symptoms develop when an anxiety – prone individual who is disposed to excessive reactions in one or more physiological systems is continually exposed, over a long period of time, to situations be interpreted as threatening. Some people develop examination fever or even peptic ulcer as a result of this.

Fright was established as one of the sources of anxiety by Averil et al (1969). They conceived fright as a relatively concrete and stimulus bound variety of fear-related emotion. Rats show signs of fright when placed in a strange open space (Denenberg, 1969). The stimuli in these examples indicate danger, but the response of the animal is not necessarily one of anticipated future harm. Rather it is the stimulus itself which is frightening. They also opined that man is predisposed to fears. Cognitive mediation becomes more and more complex and important and we deal increasingly with anxiety. That man carries within his genes some of the primordial tendencies to react to certain situations as highly frightening this is in addition to the more highly developed symbolic capacity which disposes him to anxiety. Wine's (1971) review of test anxiety literature reflected the growing emphasis on cognitive-intentional interpretations of the effect of debilitating anxiety on test-performance. She cited evidence that high test-anxious individuals are prone to intense self-awareness and carry with them a habitual set of negative self-related thoughts. These thoughts according to her are set off by the threat of evaluation, and the individual responds to testing condition with self evaluative worry and fails to direct enough attention to task-related variables. Wine went further to state that test anxious people may browbeat themselves for preparation, worry about how other people are doing, and think about how tense and upset they feel. Self-pre-occupation i.e. a cognitive style characterized by heightened concern over one's inadequacies and shortcomings and the judgment of evaluative situations as containing a personal degree of personal threat as essence of test-anxiety (Benjamin and Morris, 1971).

Summary

Anxiety is an elaboration of fear. It arises as a result of the difference between expectation and reality. Anxiety is an abnormal behaviour which must be fought by everybody to be erased. It is natural, but when it is excessive, it becomes unhealthy for the effective and efficient being of the individual concerned. Anxiety is normal in the sense that it is in every human being but it can cripple the individual emotionally. Test-anxiety is viewed as proneness to emit self-centred, interfering responses when confronted with evaluative conditions. It is equally an apprehension and worry over a test situation. The construct of test-anxiety is seen as unresolved fear, or, alternatively, as a state of undirected arousal following the perception of threat (Test). Furthermore, it is seen as a state in which the individual experiences diffuse arousal, but is unable to direct that arousal into purposive action for any of a variety of reasons, including repression, failure in discrimination, a waiting period between percept of the test situation (threat) and possible action, indecision, conflict between opposing response tendencies, and external restraint.

Partial commitment to a course of action (poor studying habit) with the hero believing the action is probably the best one, but entertaining some doubt is one of the basic sources of test anxiety. An inability to channel the arousal produced by the test into directed action is also a factor to be reckoned with in considering the causes of test anxiety in an individual. Personal evaluation of threat leads to decrements in the performance of high test anxious students, whereas reassurances facilitate their performance. In addition to the aforementioned causes of test anxiety, self disapproval habits and attitudes dispose test-anxious persons to experience fear and heightened physiological activity in situations such as test or examinations in which they are being evaluated.

A times, students' emotional reaction (anxiety) absolutely depend on their interpretation and appraisal of the test situation. Fright, separation from loved ones or objects, interruption of organized plans or sequences of behaviour (either to cheat in the examination hall) are fundamental conditions that could lead to states of distress and arousal in test situation. Test anxiety is an internal process having facilitating and deliberating effect on achievement. Being a hydra-headed creature, test anxiety is capable of impelling man to self-improvement, achievement and competence as well as distorting and impoverishing his existence and that of his fellows. The distinction in the Janus-headed creature (anxiety) appears to be a sheer matter of degree, of intensity, as it is with many other phenomena of human life. The urgent need is to acquire the knowledge to utilize anxiety constructively, to be its master and not its slave. The person who is overwhelmed by test anxiety is in a state of psychological disequilibrium. All or any of his behaviour may be adversely affected. His functioning is disrupted, impaired, and, in extreme instances, comes to a complete halt. The prevention of these dire effects – the maintenance of emotional test stability – is a function of psychological homeostasis. Psychological homeostasis refers to the capacity of the human "Psyche, the 'mental apparatus' as Freud (1923) called it, to keep the feeling of anxiety from coming into consciousness, or to preclude awareness of thoughts or impulses that would be anxiety-evoking". The 'mental apparatus' maintains homeostasis through various processes which Frued called defences against anxiety, or defence mechanisms. Other theorists refer to them as mental dynamics, security operations or characters defences.

Methodology

The study covered all government owned secondary schools in Ayigbo, Gboko, Makurdi, and Oturkpo educational zones of Ebonyi State. The population for this study consists of Junior Secondary School students in Ebonyi State. Each of the junior secondary schools has an average of two hundred and forty students, giving and estimated figure of twenty-eight thousand junior secondary school students in the state. Since it is not possible to use all the J.S.S students in Ebonyi State, as a result of time and financial constraints, the researchers decided to adopt stratified random sampling technique in study and

generalization of results, two junior secondary schools were selected from secondary schools in Ebonyi state. One school from rural and urban locations respectively per educational zones were sampled. Fifty percent of the estimated grand population of one thousand, nine hundred and twenty JSS students in Ebonyi state constitutes the sample. From each school chosen, a total of sixty girls and sixty boys were sampled and forty from JSS I, II, III respectively.

Table 3.1: Selection of Students Per School

JSS	GIRLS	BOYS	TOTAL
III	20	20	40
II	20	20	40
I	20	20	40
TOTAL	60	60	120

Instrument Used for the Study

The instrument used for the study was the questionnaire. It has three sections. Section A was designed to elicit information on the personal data of the respondents. Section B consisted of ten items intended to indicate how respondents feel presently about testing situations; these are of state-anxiety origin. Section C consisted of ten items to bring out how students normally feel (worry) about examinations. The responses under this section will indicate the pre-disposition of individual to be anxious. A four-point rating scale was used to determine the extent of manifestation of test-anxiety in JSS students.

- Never – 1
- Sometime – 2
- Often – 3
- Always – 4

The respondents were instructed to tick (√) whichever option they considered most applicable to them.

Validity and Reliability of Questionnaire

In order to establish the validity of the instrument used for the study, the researchers subjected the items of the instrument to the scrutiny of research experts. Their constructive criticisms were used in correcting the errors in the structuring of the instrument. To obtain the reliability of the instrument, some were administered to ten percent of the sample (ninety-six students). Using the split-half method and Spearman Brown formular, the reliability of the instrument is estimated at 0.91 percent. Questionnaire forms were administered to the respondents in persons. They were filled and returned on the spot. A grand total of nine hundred and sixty questionnaire forms were administered in all.

Method of Data Analysis

The responses were organized in frequency tables. They were then analysed using the student t-test at 0.05 level of significance so as to find out the extent to which the hypotheses were true.

Presentation of Results

Data related to the research hypotheses formulated to guide this study were presented. The data was presented on the bases of research hypotheses. A brief description of the data presented in each case was made.

Research Hypotheses I

HO: There is no significant difference between the level of test-anxiety manifestation in boys and girls in J.S.S in Benue State as measured by their mean test anxiety scores.

Table 1: Showing T-Test of the Difference Between the Mean Scores of Girls and Boys as Measured by Test-Anxiety Scale.

Sex	Mean	Standard Deviation	N	Df	Standard Error	T Calculated	't' Critical
Girls	60.48	14.61	480	958	0.68	1.44	1.9960
Boys	59.5	11.96	480				

Table 1 shows mean and standard deviations of responses of boys and girls to sections B and C of the questionnaire comprising of twenty items. The girls have higher mean and standard deviations of 60.48 and 14.61 respectively. Boys had a mean of 59.5 and standard deviation of 11.96. The standard error is 0.68. The standard is 0.05 are 1.44 and 1.960 respectively. For the calculation of t obtained see Appendix C.I.

Decision: - Do not reject the null hypothesis since the t calculated is less than the table or critical 't'. Sex therefore has no significant influence on test anxiety level of JSS students in Benue State.

Research Hypothesis Ii

H₀: There is no significant difference in the level of test anxiety manifestation of JSS students in rural and urban areas as measured by their test anxiety scores.

TABLE 2: Table Showing T-Test of Difference between the Mean Scores for Rural and Urban Students.

Mean		Standard Deviation	N	df	Standard Error	t Calculated	't' Critical
Rural	68.13	12.93	480	958	0.62	17.10	1.960
Urban	54.79	11.78	480				

From that data present in Table 4.2.1 above, we see that calculated t is 16.88, while the critical 't' value is 1.960 at a probability level of 0.05.

Decision: Reject the null hypothesis since the t calculated is greater than 't' critical. Location therefore has significant effect on test anxiety in JSS students.

Research Hypothesis Iii

H₀: There is no significant difference in the level of trait test-anxiety manifestation of boys and girls in JSS as measured by their mean trait-anxiety scores.

Table 3: Table Showing T-Test of Difference between the Mean Scores of Boys and Girls on Trait Anxiety Scale.

Sex	Mean	Standard Deviation	N	df	Standard	t Calculated	't' Critical
Girls	60.4	12.28	480	958	0.77	5.45	1.960
Boys	56.2	11.92	480				

Table 3: shows the means and standard deviations of the responses of boys and girls to Section C of the questionnaire consisting of ten deviations of 60.4 and 56.2 respectively. As against the boys have mean of

56.2 and standard deviation of 11.92. The standard error is 0.60. the 't' calculated and 't' critical at α equal to 5.45 and 1.960 respectively. For the calculation of t obtained, see Appendix C III.

Decision: Reject H_0 since the t-calculated is greater than 't' critical at 0.05 level of significance.
 This shows that girls are more prone to trait test-anxiety than boys.

Research Hypothesis Iv

H_0 : There is no significant difference in the level of state test anxiety by manifestation of boys and girls in JSS as measured by their mean state-anxiety scores.

Table 4: Table Showing T-Test of Difference between the Mean Scores of Boys and Girls on State Anxiety Scale; Two-Tailed T-Test Difference between Two Mean.

Sex	Mean	Standard Deviation	N	df	Standard	t Calculated	't' Critical
Girls	55.64	10.41	480	958	0.74	3.24	1.960
Boys	53.2	12.50	480				

Table 4 shows girls and boys means and standard deviations of responses to Section B of the questionnaire comprising of ten questions. The girls have higher mean but lower standard deviation than boys. They are 55.64 and 10.41 respectively whereas the boys have a lower mean of 53.2 but a higher standard deviation of 12.50. The standard error is 0.74. The t-cal is 3.24 and 't'-critical is 1.960 at 0.5 significance level. For the calculation of t-test obtained, See Appendix C. IV.

Decision: Reject null hypothesis, since data presented in Table 4.4.1 above shows that t-calculated of 3.24 is higher than the 't'-critical 1.960 at a probability level of 0.05. Girls show more of emotionality than boys in testing situations.

Discussion

Many students in the JSS manifested test-anxiety. The extent of this manifestation could be seen in the mean test-anxiety scores for boys and girls, which stand at 59.5 and 60.48 respectively. One could have thought that with the introduction of continuous assessment program in our school system, that test anxiety will be reduced to the barest minimum. But from our findings, it is not so. Students test anxiety varies as a function of evaluative stress which elicits heightened autonomic arousal and a tendency to ruminate about possible failure. So it is ever present but level of it determines whether it will be facilitatory or debilitating. The researchers looked into location as a variable that influence the level of test anxiety in boys and girls. The results of hypothesis II as shown in Table 4.2.1 indicates that location is one of the factors that affect level of test-anxiety in Junior Secondary School students. The table shows a calculated t-value of 17.10 as against a critical value of 1.960 at a probability level of 0.05.

This great magnitude of difference between rural and urban students could be attributed to environmental deprivation of social and educational amenities such as Television, Radio, Physical and Human resources in the school, with concurrent effect on the cognition process of the students, which is outside the scope of this study. Test anxious student's response to the teacher's instructional, disciplinary and social cues may be a function of the student's knowledge and expectations about the way teachers tend to respond to particular kinds of anxiety-related classroom behaviour (Parke, 1976).

The researchers investigated further into level of state and trait anxiety manifestation in boys and girls. The results of hypotheses III and IV as shown in tables 3 and 4 indicate that girls exhibit higher levels for emotion and worry than boys. Table 3 shows a calculated t-value of 5.45 as against a critical value of

1.960. The results of these two hypotheses may seem at variance per se with hypothesis number one. But what they indicate is that there are still some extraneous variables that affect the level of test anxiety in students apart from the ones investigated. Cognition is one of such variable.

Conclusion

From results obtained in this study, sex is presumed not to be a strong indicator of test anxiety in boys and girls. That there is no significant difference between the level of test-anxiety manifestation in boys and girls in JSS as measured by their mean test anxiety manifestation difference between the level of test-anxiety scores. Location was found to be significant factor that influences the level of test anxiety manifestation. The rural students recorded higher test-anxiety level than their urban counterparts. Basing our conclusion on the research findings, although boys and girls do not differ significantly in test-anxiety, when the state and trait dimensions are considered, girls are found to be higher in test anxiety manifestation as shown by their mean scores.

Educational Implications of the Findings:

- i. Having found out through this research that test-anxiety is elicited by evaluative stress, it is necessary therefore, that the teachers who administer these tests try as much as possible to make the evaluation situations less tensed up in order to alleviate test anxiety.
- ii. Equally, the teachers should endeavour to ensure, that all tests administered to students have their validity in all its ramifications.
- iii. The testing environment should be ideal. There should be good seating arrangement.
- iv. Instructions should be clear, precise, concise and unambiguous.
- v. When students are motivated, anxiety is reduced, hence the authorities should as a matter of necessity try to help students develop intrinsic motivation.
- vi. Efforts should be made by the government to adequately supervise the implementation of continuous assessment programme in the rural schools in order to ensure that teachers implement continuous assessment the way and manner it is expected to be carried out, not just sitting down and manipulating figures.
- vii. The school counsellors should be up and doing in giving both group and individual counselling to the students, exposing the students to anxiety coping skills.
- viii. The educational implication of this finding is that programmes concerning cognitive restructuring of worrisome thoughts and training in task-oriented self-instruction should be properly carried out by the counsellor to enhance reduction of test-anxiety.
- ix. Interventions which add self-managed relaxation to cognitive restructuring may improve treatment effectiveness as skills for the reduction of heightened emotionality.

Recommendations

The following recommendations were made based on the findings of the study. The continuous Assessment programme should be monitored and supervised to make sure that school practices, interpersonal relations, test and testing conditions, and other evaluative practices are handled appropriately and moderately to minimize the development of test-anxiety, and/or to ameliorate its deliberating and interfering effects. In other words, fundamental changes in school organization should be made. When this is well supervised, external evaluation would be de-emphasized in upholding of a teaching grading system which enhances intrinsic interests in school achievement activities. The teacher's response to inadequate performance, especially those imbedded in the evaluation of student's performance is a situational condition that needs to be taken into account. Systematic reprogramming of the school learning environment should be preferred to the teacher's use of disciplinary techniques. To be

specific, in working with test-anxious children, teachers and counsellors will need to emphasise general cognitive, affective, and behavioural re-socialization, attending to modes of thinking, feeling, and acting that are incompatible with school expectations and achievement demands.

School stress conditions that contribute to test anxiety and its interfering consequences should be eliminated or modified. For instance, test-anxious prone children should be isolated from such stress conditions, at least temporarily. Attempts should be made to build up such children's resistance to the deliberating effects of stress and test anxiety. This includes building up the child's self-esteem through psycho-therapy, reducing test-anxiety-related conflicts and increasing the child's tolerance for test-induced stress and anxiety. Supervision should be more intensified in the rural area schools so that teachers may be more conscientious in the implementation of the continuous assessment programme. Government and parents should come to the aid of the rural schools so as to provide them with adequate learning facilities which enhances learning with ease and reduces the "chunky" learning.

Suggestions for Further Research

This study has revealed areas for further study:

- i. It has just treated state and trait dimensions to test-anxiety leaving behind the cognitive dimension of test anxiety. So similar research work should be carried out in the area of cognitive dimension of test-anxiety.
- ii. Further study should be undertaken on general anxiety, its interventions, and the culture of the school.
- iii. Similar research work should equally be carried out in other states of the federation.

The Limitations of the Study

- (i) A study of this study nature would come out with more satisfactory findings if it were possible for the researchers to extend their studies to cover all the states in the federation. The choice of Benue State in general and JSS students in particular is a limitation imposed by financial constraint and time.
- (ii) The researchers also had a very rough time in distributing their questionnaire forms round all the sampled JSS in the state. The same problem ensured at the time of collecting them back.
- (iii) Some of the respondents at the sight of the researcher thought an examination was being administered to them, hence they decided to "pick-race", especially those in the rural areas, if not for the intervention and recalling from their senior staff.
- (iv) Some principals found it difficult to cooperate especially as their students were already preparing for their final term examination.

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