The influence of Test Anxiety on Test scores Among Form one students in Dadaab Refugee Camp, Kenya.

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Abstract

The purpose of the study was to determine the relationship between test anxiety and test scores among form ones students in Dadaab Refugee Camp, Kenya. The study was guided by the following two theories: Social cognitive learning by Albert Bandura and Psychoanalytic theory of anxiety by Sigmund Freud. The study adopted a correlational design in order to be able to investigate and analyze the relationship between test anxiety and form one test scores. It also used simple regression to find out whether the various variables would predict test scores. The study wasconducted in four public schools of Dadaab refugee camps in the North-Easternpart of Kenya. The target population consisted of students and teachers. Thesampling technique was that of convenient, purposive and systematic sampling inthat order, where thirty five participants were selected from each school, to sumup to one hundred and thirty eight form one students and a total of thirty fourteachers. Research instruments included questionnaires for teachers and students,while interview schedule was for teachers. The results revealed thattest anxietysignificantly predicted testscores.

Key Words: Test anxiety, test scores,Dadaab Refugee Camps, form ones.

Introduction

Overview

In most education systems especially that of developing countries low achievers have been labeled as failures in life. Due to this, the disquietude that is associated with the national examinations in Kenya makes student go to whatever extent to see to it that they succeed. The candidates who do not prepare adequately for these examinations experience distress. To those candidates that have been consistent in their studies, exams do not pose a major threat .In addition, in most instances; low academic achievement has been irrationally attributed to low intellectualdevelopment. However, research has shown that, other than the intellectual development, a factor like test anxiety is related to low test scores among students.

The transition from elementary to junior high school is an important step in astudent's school experience and can come with a lot of anxiety too. Consequently, this phase has also long been, associated with a decline in academic performance (Barber & Olsen, 2004),and student perceptions of academic competence and self-esteem.

The perceived change in student-teacher relations and student support inhigh schoolsignificantly explained changes in levels of academic, personal,and inter-personal functioning achievement

(Barber & Olsen, 2004) could be a source of anxiety. Teachersbelieve themselves to be less effective, especially with students who arestruggling academically. Student-teacher relationships are a critical part of thelearning experience. Many studies have shown that shifts in this relationshipduring the transition can create risks for students. In general, the principles ofcare and control are seen as the core of elementary school culture whileacademics, student polarization, and fragmented individualism have beenfound to pervade secondary school cultures.Regarding the social front, secondary schools are seen as a place to gain socialstatus and to begin to set the norms of what it means to be "grown up".However, it is also a cultural institution with a more hegemonic frame inwhich the older students "own it" and the newcomers "inherit it" (Kvalsund,2000). However, it is not exactly known what factors may be held responsible in explaining thedifferences, consistencies and inconsistencies in performance at primary andsecondary school levels amongst form one students It was therefore imperativethat, test anxietybe examined in entirety to determine its effects on test scores.

1.1.1 Biodata Demographics

a) Distribution of student respondents by age

Table 1.1 shows the distribution of respondents by age group. Majority of form one respondents were between eighteen to twenty years of age

Table 1.1 Distribution of student respondents by age

Age	F	%
Below 18 years	40	29
18-20 years	70	50.72
Over 20 years	28	20.28
Total	**n=138**	**100**

The results in table1.1 reportthat, 50.72% of the form one respondents who participated in this study were between 18 and 20 years of age, compared to 29% of the respondents who were below the age of eighteen years. Further, 20.28% of form one respondents were over 20 years of age. Age is considered an extraneous variable that is likely to affect the academic performance of students. Cognitive development and maturity (which are associated with age) are necessary for worthwhile performance of students. As the age of an individual increases, it usually affects the various developmental changes. It also affects every area of human performance (Ukueze, 2007).

b) Distributions of student respondents by gender

Student gender was considered in this study. Gender relates to the difference in sex (that is, either male or female) and how this quality affects their dispositions and perception toward life and academic activities (Okoh, 2007).

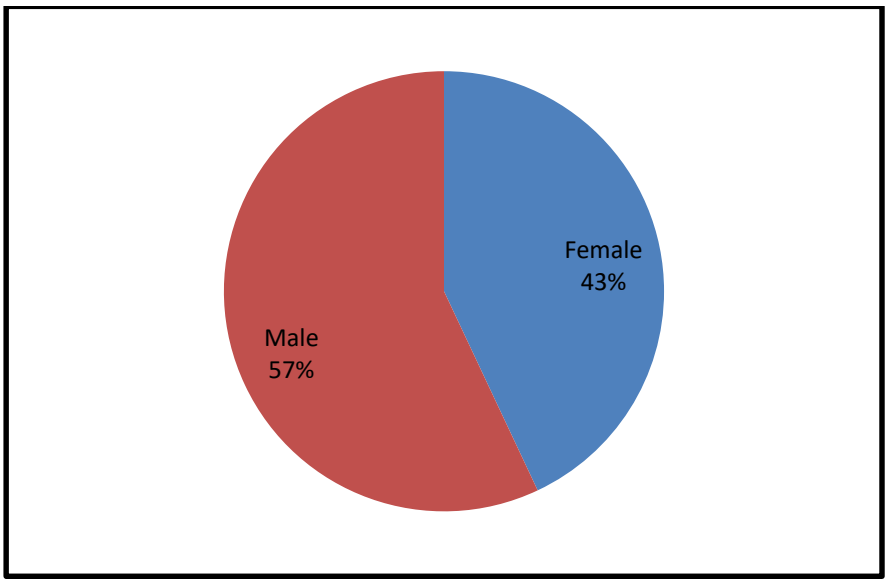

Figure 1.1 Distributions of student respondents by sex

Majority of the student respondents were male who formed 57% of the form one students who responded to the study. Female student respondents consisted 43% of the total form one students who responded to the study. Buadi (2000) underscores that, difference in gender as it affects students' and academic performance is inconclusive. This has necessitated the need to explore any significant difference between male and female form one students as reflected in their academic performance and in test scores in particular.

c) Distribution of student respondents by academic performances

Student respondent's academic performance was considered for the study. The distribution of respondents by academic performance is shown in figure 4.2.

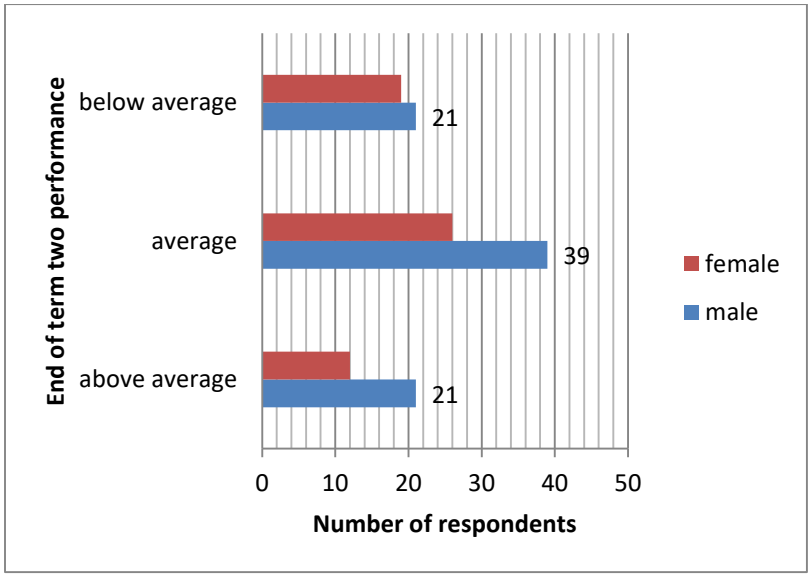

Figure 1.2 Distribution of student respondents by academic performance

Figure 1.2 reports that, majority of boys performed better than their female counterparts. More girls than boys fall below the average category given that the number of girls who participated in the study was less than that of the number of boys. Buadi notes that difference in gender as it affects students' and academic performance is inconclusive. This has necessitated the need to explore any significant difference between male and female form one students as reflected in their academic performance and in test scores in particular

Relationship between test anxiety and test scores

The study found out that, 41.85% of the form one students were in strong agreement with this measure and 27.87% in agreement, 15.94% strongly disagreed and 10.65% agreed, 3.68% were unsure.

Table 1.2 Tally for various test anxiety predictors

Statements	SA		A		D		SD		Not Sure	
	F	%	F	%	F	%	F	%	F	%
Do you feel upset when you commit errors in a test?	31	27	40	34.8	20	17.4	15	13	9	7.8
Are you worried what your parents would think if you score low in a test?	68	59.1	22	19.1	17	14.8	6	5.2	2	1.7
Are you worried what other students will think if you fail a test?	37	32.2	33	28.7	18	15.7	23	20	4	3.5
Are you worried what your subject t teacher would think if you score low in a test?	56	48.7	34	29.6	18	15.7	5	4.3	2	1.7
Totals	19	167	12	111.2	73	63.6	49	42.5	17	14

Regarding committing errors in a test; perception of other peers'; parents'; and teachers' have on a student's test scores, the following was the outcome. 78.3% of form ones are worried of what their subject teachers would think of them if they failed in an exam.

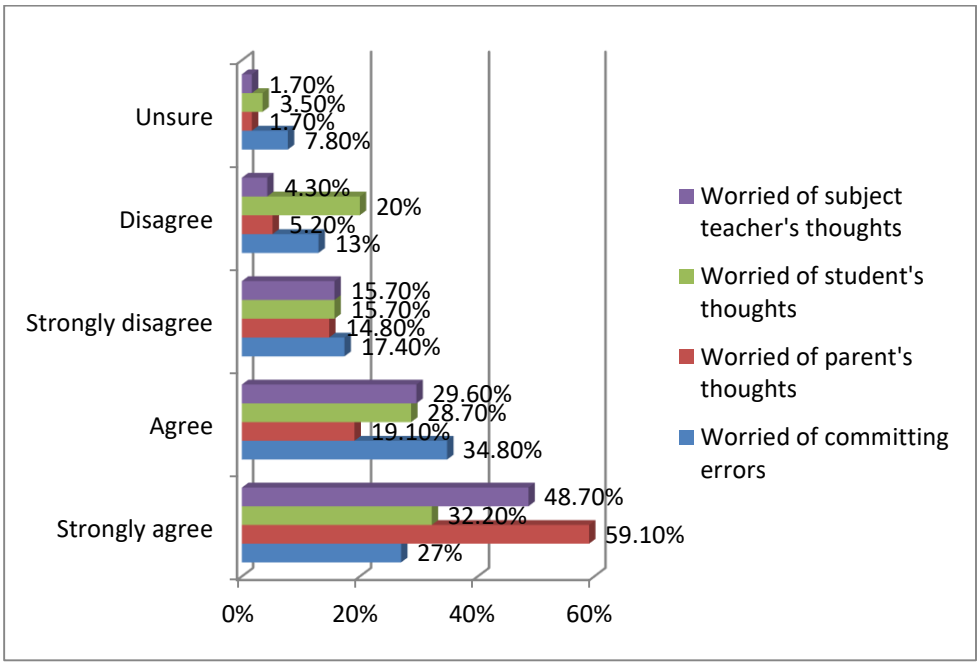

Figure 1.2 Student's response on test anxiety predictors

The figure above points out that, 78.2 % of students are worried of what their parents would think if they failed, 60.9% are worried of what other students would think of them if they failed while 55.7% are worried of committing errors. This reveals that most of the anxiety in form one students emanate from without factors and the perception of those who matter to them most.

Table 1.3 Relationship between students' test scores and scores on test anxiety scale

Aspect	N	Rx	Significance
Total scale scores and test scores	138	-0.653	0.001
Worry scale scores and test scores	138	-0.694	0.001
Emotional scale scores and test scores	138	- 0.663	0.001

A simple regression analysis was run to explore the possibility of test anxiety as a predictor of test scores and the results were as follows.

Table 1.4 Regression analysis of test anxiety and test scores

Simple regression analysis Model		β	t-value	Significance	Model R square
Total anxiety scale scores	-0.251	-0 6.700	0.01	0.537	
Worry scale scores		-0.697	-0 4.160	0.01	0.635
Emotional scale scores	-0.140	-0.890	0.01	0.374	

It is evident from table 1.4 that a strong negative and significant relationship exists between students' test scores and total scale scores as well as on subscales scores. In addition, test score is significantly inversely related to both emotional and worry scales as well. The magnitude of the relationship is slightly higher on worry scale as compared to emotionality scale and total scale scores. The range of relationship of each scale is more than 65% which is quite strong in magnitude.

This strong relationship encouraged further analysis to explore the possibility of test anxiety as a predictor of students' test score. Therefore, a simple regression analysis was run to explore the cause- effect relationship between test scores and test anxiety scale scores. The results showed that 53.7 % of variance in students' tests scores can be attributed to test anxiety. It is further evident from the table that the worry scales scores are the major contributor with respect to the difference in students' test scores. It is further evident from the table 1.4, that, the worry scales scores are the major contributor with respect to the difference in students' test scores.

Theoretical Framework

a. Social cognitive learning theory

Bandura (1977) defined learning as an internal mental process that may or may not be reflected in immediate behavioral change and postulated that human behaviour is as a result of interplay of factors both inside and outside the individual. He suggested that personal factors like cognition, biological variables and other internal events like a person's beliefs and expectations relevant to ability are related to behaviour which affects the external environment. In the same way, the environment can influence the person's feeling and cognition.

According to Bandura(1986), one of the basic principles of learning is that learning is as a result of reciprocal causation or determination. This implies that learning involves the interaction of several factors, such as behavior, environment, storing information in memory and personal factors.

This theory will be of great significance to the study, because it concurs that personal and socio-contextual factors affect learning. The personal factors such as test anxiety, test wiseness, penmanship and student engagement; socio-contextual factors such as the school climate(environment) therefore, affect learning. In addition to that, success on a first attempt on a

task may change internal events such as feelings about the circumstance involved with the success.

b. Psychoanalytic theory of anxiety

Freud (1926) postulated that, repression occurs as a result of the experience of anxiety .Here, anxiety is a signal from the ego about real or potential dangers. The unpleasantness of a threat causes anxiety which actually leads to repression as a way of getting the person out of danger. He regards the source of generalized anxiety as unconscious conflict between the ego and id impulses. The impulses usually sexual or aggressive in nature are struggling for expression but the ego cannot allow this because it unconsciously fears that punishment will follow.

Sarason's (1984) conception is influenced by psychoanalytic theory which suggests that the development of anxiety takes place in the family setting from the earliest years of life. Therefore, a child's behavior is constantly being evaluated by his parents. Since the child is dependent on parents he cannot be hostile to parents upon reprimand and they instead develop a sense of guilt and anxiety arousal.

This theory is relevant to the study, as it relates to anxiety in students in the sense that a test anxious learner pays more attention to his own anxiety responses in test taking situations than the task. School situations arouse test anxiety because of the stimulus similarities between parents and teachers as both are adult authority symbols with powers to perform evaluative functions and to give rewards and punishments. The emphasis placed on good performance on tests by schools or parents generate high levels of anxiety which affects academic performance.

Wrightsman(1962)posits that, stressful instructions by authority generate state anxiety that impairs performance. He argues that high anxiety students face interference with memory facts and reduction in their level of performance that it results in a short term tension such as in a specific situation like testing. In addition, with increased expectations regarding the complexity of work to be mastered at earlier developmental age, test –anxious students feel overwhelmed and they self-doubt their abilities to perform. Students with high test anxiety feel tensed, fearful and worried in evaluative situations; they perceive testing situations as threatening. Students who experience test anxiety display lower self-esteem and negative self-concept. Often, feelings of helplessness and uncertainty prevail during testing situations.

Methodology

The study adopted a correlational design because it is appropriate indiscovering the existence of relationships between variables and the degree towhich the variables relate and simple regression to examine whether eachindependent variable would predict the dependent variable (Mugenda andMugenda, 1999). Here, the relationship determined was the degree to whichpersonal and socio-contextual factors affected the test scores of form onestudents. The study was conducted in four public schools of Dadaab refugee camps inthe North-Eastern part of Kenya. The location of

the study was chosen owing to the researcher's familiarity with the area, and because of available existenceof the characteristics that the researcher was interested in.

The population of study consisted of four hundred form one students, bothboys and girls in equal numbers, and of mean age fifteen and also thirty-fourform one teachers of four secondary schools. The rest of the classes, fromform two to four were not chosen, as the study was interested only inform ones because they are the first class immediately from primary schooland these factors are directly unique to them.From the seven secondary schools, one hundred and thirty eight form one students and thirty four form one teachers were sampled. A total of thirty-five form one students and nine teachers from each of the four schools formed the sample. In addition, out of the eleven subjects studied by form ones only three subjects were examined .The researcher administered questionnaires and the respondents filled them in immediately. The responses of the questionnaires were recorded on a four-point Likert scale.
One hundred and thirty eight form one students and thirty four form oneteachers were selected in the study. In addition out of the eleven subjectsstudied, they were grouped into three categories, in terms of languages,humanities and Maths& sciences. Convenient sampling was used to select four schools out of the eightsecondary schools based on the accessibility of the schools due to securityimpediments as movement from one camp to another is enabled only bymeans of police escort. Stratified random sampling was used to ensure thatform one students both female and male students were selected and at equalnumbers to ensure representativeness. Systematic random sampling was usedto select students from each class based on the class register to come up withfifty students. Purposive sampling was used to select the subject areas onwhose test scores were examined so as to ensure that each group of subjects isadequately represented. They were grouped into languages, sciences andhumanities. To select the teachers, purposive sampling was used to selectteachers based on their subject areas, so that the three categories of subjectsare represented. Convenient sampling was used to select four schools to beused in the study.

The study employed a close-ended questionnaire and interview schedules asthe most convenient instruments for collecting data on the students andteachers as it can reach a large number of students who are able to read and write independently (Orodho, 2008).Student academic engagement was measured using the High school survey of student' s engagement developed by Center for Evaluation and EducationPolicy (CEEP, 2009) in the Indiana University. The questionnaire wassubdivided into two sections, where Section A contained an introduction to thequestionnaire and biographical data of the respondent, while section Bcontained the statements. Each of the statements were scored on a four-point Likert-type scale, ranging from 4 (Strongly agree) to 1 (Strongly disagree).Thepositively and negatively worded questions were randomly arranged in thequestionnaire. The data was processed, coded and analyzed using the computer basedStatistic Package for Social Sciences (SPSS 17.0) and this facilitated thetesting of the null hypotheses.

Results

Results have shown that, there exists a significant relationship between test anxiety and test scores. These findings corroborated with the researches of Agba&Lopokoiyot (1992) who hypothesized that, the seriousness with which the exams are regarded causes anxiety in the students, Tobias (1979); Sarason (1980); Tyron (1980) who reported that, excessive anxiety may have a detrimental effect on an individual's performance andHembree (1988) who observed that, test anxiety reduced the performance of students at every level of education.

However, the results conflicted with the researches of Ndirangu, Muola, kithuka, Nassiuma (2009) and Seip (1999), who found an insignificant (r==0.06) and negative correlation(r=0.21) respectively ,in their studies. The difference in the results may be explained by the sample of study and characteristics of respondents, whereas the former study focused on form four students, this study laid emphasis on form one students only. The latter cut across American and European students only, while this study was carried out in Kenya and involved African students. Although test anxiety may lead to positive results, test- anxious students are more self-critical and are more likely to experience task-irrelevant worry responses that interfere with their performance during examination. It is evident from the study that, feelings (affective) and worry (cognitive) related anxiety are sources of drop in student test scores. Student test scores can be improved by training or educating students about handling stressful situations in tests. If students can manage their emotional anxiety, it can assist in improving test scores. Academic programmes in institution of higher education should also focus on grooming students in skills to stabilize their emotional response to potentially difficult situations like tests.

However, Erbe (2007), Berk& Nanda (2006), Stober (2004), Haris& Coy (2003), Foster, Paulk, &Dastoor (1999), Kondo (1996), and Serok (1991) discussed various measures and strategies which can be applied by teachers and parents to reduce test anxiety among their students. The strategies which can be contextually relevant and useful for teachers in Dadaab refugee camp can be; task orientation and preparation, positive thinking, seeking social support, avoidance, relaxation training, coaching or guided imagery, self-instructional training, establishing purpose, affirmation, modalities, positive anchors, mental simulations, use of humor, preparation of cheat sheet and study skills training. To effectively manage test anxiety, students can be helped by teachers, parents and educational administrators through use of cognitive, affective and behavioral strategies.

Conclusion

To identify the relationship between test anxiety and test scores, the results established that a strong negative and significant relationship exists between students' test scores and total scale scores as well as on subscales scores. It also found that test score is significantly inversely related to both emotional and worry scales as well. Form one students are generally worried of what their teachers would say if they failed in exams, more than parents or their colleagues they fear their parent's comments more than their peers. This implies that, to these students, teachers influence their performance a great deal. Majority of form one students are also worried of

committing errors in a test. The findings reported that there is a relationship between test anxiety and students' test score. It was further established that, worry scales scores are the major contributor with respect to the difference in students' test scores.

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