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Perspectives and Implications of Anxiety among Pupils

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ABSTRACT
The study had the following objectives: to find out the relationship between anxiety and classroom performance of pupils, to identify the factors leading to social anxiety among pupils, to examine the differences in the levels of anxiety in science and art subjects, to find out if there is a significant difference in anxiety level of boys and girls. The research used both descriptive survey and correlation design. The researcher used district list of schools to sample pupils. Using stratified sampling techniques, the district was divided into divisions and zones. From each zone, schools were listed in alphabetical order and numbered from one to last. Pieces of papers numbered one to the last were folded, put in a box, shuffled and then picked. Picked numbers represented schools that were then sampled. A random selection of 507 pupils both males and females in class four in selected eighteen schools of Rachuonyo North District were used. The district has a child population of 6,646 in class four. This class has middle childhood years which the research focused on. Questionnaires were used to identify factors leading to social anxiety in children, they included; Revised Children Manifest Anxiety Scale (RCMAS) specifically adapted for Kenya conditions, was administered to measure the level of anxiety as brought by social situations. To identify the level of test anxiety of pupils in science and art subjects, Test Anxiety Scale for Children (TASC) was modified to fit Kenyan conditions and administered to the subjects. Both science and art tests were administered to all the subjects. Research instruments were pretested at Pier Got and Otok primary schools to establish their reliability and validity. The two pilot schools did not take part in the actual research. Ambiguities detected in the instruments were corrected according to the advice of the university supervisors before field administration. The results of the study are presented in tables, percentages, and bar graphs. The data were analyzed using SPSS. The results showed that high anxiety facilitated performance in the classroom.(r=0.76) in sciences and(r=0.41) in art. The study also found that there were sex differences in performance with high anxiety girls performing better than boys.It also found that some factors that led to social anxiety among pupils were: poor self-image, fear of darkness, insecurity, fear of accidents, starvation, parental sickness and separation anxiety while parental divorce was insignificant cause of worry. The study concluded by suggesting that a similar study be replicated in urban primary schools to give more accurate generalizations of the findings. The research recommends that school managers should establish the department of guidance and counseling in primary schools to identify children anxiety levels and put early interventions to elevate test anxiety(their ego) which leads to better performance and counteract high social anxiety that hinder classroom performance. It was also recommended that a similar research be carried out with a class seven or in private schools.

1.1 Background to the Study

Kenya development blue print vision 2030 is dependent on quality education for its realization. There is need for children to be healthy psychologically, socially and physically to perform well in classroom.

Bellamy (2005) points out that childhood is the foundation of the world's hope for a better future. Any problem that affects children breaks this solid foundation and should be addressed. While anxiety to some level is part of our daily functioning, high anxiety will impair daily functioning of an individual (Ndirangu,Muola,Kithuka&Nassium, 2009).

Among the major developmental tasks facing the children during the middle childhood years are the development of various intellectual and academic skills and the motivation to master them. Academic or scholastic achievement has become an index of a child's future in this highly competitive world. It is only a drop in the vast sea of education and great many pupils would appear not to give themselves credit commensurate with their known or rated abilities. Many times students of undoubted average or abilities excel (Mokashi, 2007).

The outcome of education determines the level of life, progress and status of the people living anywhere in the world and it is the vital force for the development of human life and society at large. In Kenya, with the compulsory free education at primary and secondary tiers different view of the scope and responsibility of educators has emerged. This goal is envisaged in maximizing the achievement of all children. Early research on

the prediction of academic performance primarily focused on intelligence and ability factors as predictors (Eyesenck, 1992; Martin et al., 2006). Recent researches (Opuodho, 2010; Amadi, Role &Makewa, 2013) shows there are major shifts in emphasis and in the conceptualization of the problem, due to the gradual recognition that some students perform worse than predicted by ability test. So, the environment created in the school as well as home either accelerates or retards the development of any pupil (Opudho, 2010).

The development of human resources and maximum utilization of the resources are necessary for the growth and prosperity of any society (Ndirangu,Muola,Kithuka&Nassium, 2009) more so, for a developing nation like ours. The institutions of learning especially the schools are the principal means of socialization to develop children to be useful citizens so that they fit into adult roles and also different occupational roles. It is only children who are high in their academic performance who can be molded to occupy strategic positions in society and thereby determine the destiny of society (Mokashi, 2007). Hence, scholastic achievement occupies a very important place in education as well as in the learning process. High achievement in school creates self-esteem and self-confidence in the child(Mangu'la,2010).
Success is ego-inflating and failure is ego-deflating. Failure not only damages the self-concept but it encourages the development of patterns of behaviour that are harmful to personal and social adjustments. By contrast, success leads to favourable self-concepts which in turn, lead to good personal adjustments and favourable social evaluations. These heavily contribute to good future adjustments (Mokashi, 2007).
In the present time, societies and parents emphasize on effective education because it forms the main basis for admission, promotion into a class or getting a degree and obtaining a job. Thus, the academic performance that has the highest prestige in the eyes of the members of the group with which the child is identified has the greatest influence on his personality development or vice versa.The trend in the academic performance, rate of drop outs, failures and low percentage of pupils in the examinations was a question for the researcher to probe into the psychological factors that leads to poor academic performance.

Many pupils fail in exams in Rachuonyo North district (Ojwang, 2005). The cause of such waste may be in the intellectual as well as in non-intellectual factors of the student's personality like academic motivation, family and school environment, family and school environment has a predominant and governing influence on the development of the child (Otieno, 2002; Mwadimu, 2005; Ogutu, 2011). If the child is not encouraged to develop his cognitive abilities and talents to the fullest extent, his academic activities will be impaired (Mokashi, 2007; Mangu'la, 2010).
Anxious children display poorer recall than less anxious children, and it is believed that the anxiety creates distracting stimulation that deflects attention from relevant incoming information and therefore, impairs memory and intellectual abilities. The degree of anxiety associated with intellectual mastery occurs under two conditions – when expectancy of success or failure is moderate and when motivation is high but expectancy of success is low. In the first instance, the child is maximally uncertain about how he will perform on a test and the uncertainty generates anxiety. The child would be much anxious if he/she knew definitely he would pass or fail. In the second instance, the child values competence on a particular intellectual task but expects to fail. When there is discrepancy between a valued goal and the expectancy of obtaining that goal, anxiety is likely to be generated.

Factors like difficult family situation, restricted school environment, occupational and financial difficulties without adequate support can also cause anxiety which in turn affects the academic performance of the children in the school. Hence, an imperative need was felt to study the relationship between anxiety and classroom performance.

The relationship between anxiety and impaired academic performance has been well-documented by a number of investigators (Onwuegbuzie& Wilson, 2003; Sud&Sujata, 2006;Mokashi, 2007; Gamble, 2009).

The worry component of test anxiety has been consistently shown to have an inverse relationship with performance; a relationship that has been observed in children as well as adults (Cassady et al., 2002; King etal., 2000; McIlroy et al., 2002; Seipp, 1991).Furthermore, Lyneham (2009) notes that early anxiety disorders predict adult anxiety disorders, depression, suicide, substance abuse and conduct problems. A few studies have found curvilinear relationship between anxiety and academic performance (Bodas,2003;Keeley, 2008).Some studies reported that there are no relationships between anxiety and academic performance(Vogel & Collins, 2009; Ndirangu, Muola, Kithuka&Nassiiuma, 2009).

Research studies in Rachuonyo North indicates falling academic standards, increase students' unrest (Ojwang, 2005; Okeno, 2011). These are indicators of anxiety (Ndirangu, Muola, Kithuka&Nassiiuma, 2009). Opuodho

(2010) research found that school environmental factors such as unconducive learning conditions, inadequate teaching and learning, learning resources and inadequate teaching staff influenced performance of students in KCSE. She also found that home environment influences performance of students as a result of the following factors: peer group influence, high poverty levels, unconducive study environments, family problems, orphanhood among others. These factors are potent to cause anxiety hence need to research on some factors that leads to anxiety among pupils in Rachuonyo North District.

Rachuonyo North District has some of the least developed school learning structures. For instance, learning still occurs in temporary structures, sometimes under trees. There is adverse shortage of furniture and electricity is yet to be fixed in over 80% of the schools (Okeno, 2011). These factors can lead to anxiety among learners.

1.2 Statement of the Problem

The strength of the relationship between anxiety and performance varies from study to study, with correlations from extreme negative to positive values Seipp (1991). Some studies have indicated that anxiety is negatively related to classroom performance (Onwuegbuzie& Wilson, 2003; Mokashi, 2007; Gamble, 2009).

A few studies have found curvilinear relationship between anxiety and academic performance (Bodas,2003;Keeley, 2008).Some studies reported that there are no relationships between anxiety and academic performance(Vogel & Collins, 2009; Ndirangu, Muola, Kithuka&Nassiiuma, 2009).

Rachuonyo North District, has increased cases of student unrest and falling academic standard as pointed out by Ojwang' (2005). The district learning index was also noted to be low of 56.4%, and position 50 out of 74 districts surveyed by Uwezo Kenya (2010). The research also pointed out that 20% (1 out of 5) of Kenyan children in class four cannot read a simple class two paragraph. Rachuonyo North also has high cases of orphaned pupils due to HIV and AIDS, child labour, hunger and flooding factors that could precipitate anxiety.In addition, Amade et al., (2013) reports research by KNEC that standard three pupils in Nyanza province had the highest number of repeaters at 69% and that class repeating usually leads to dropout. They continue to assert that 60% of children have repeated a class by the time they reach standard three. This they attribute to poverty in the region.

The researcher having reviewed literature on the relationship between anxiety and classroom performance observed that none of these studies had specifically investigated the relationship between anxiety and classroom performance in middle childhood among pupils in Rachuonyo North District. Therefore, this study investigated relationship between anxiety and classroom performance of pupils in class four in public primary schools in Rachuonyo North District to fill this gap of knowledge. Most studies (Ndirangu, Muola, Kithuka&Nassiiuma, 2009; Opuodho, 2010; Okeno, 2011) have been done on adolescent, adults and early childhood anxieties, but none in middle childhood anxieties and classroom performance; which this study focused on. Research has been done on other factors that influence academic performance in Kenya (Otieno, 2002, Ndirangu, Muola, Kithuka&Nassiiuma, 2009)Opuodho, 2010, Ndege, 10909; Okeno, 2011) but there is no research known to the researcher that has attempted to look at the relationship between anxiety and academic performance among children in their middle childhood hence, the need to investigate the relationship between anxiety and academic performance in the district.

i. To examine the difference in levels of anxiety in science and art subjects.
ii. To examine the difference in anxiety levels of boys and girls.
iii. What are some of the factors that lead to social anxiety among pupils

1.7.2 Limitations

Due to limitation of time and funds, the study only focused on 507 pupils in class four in eighteen public primary schools in Rachuonyo North District.

1.8 Assumptions

i. By answering questionsin the questionnaire, pupils were projecting what they are anxious about.
ii. Pupils selected in the sample were representative of the pupils in the district.

1.9 Theoretical Framework

This research was based on two theories: the social-learning by Bandura and cognitive –behavioural by Silverman.

Learning theory posits that anxiety is a learned instruction (Bandura, 1977; Feldman, 1996; Silver Man, 2001). Bandura asserts that major part of human learning consists of observational learning which is important in acquiring skills in which shaping is inappropriate. Therefore, maladaptive anxiety may occur as a learned behaviour following an exposure to a frightening situation. The child learns that avoiding situations that evoke distress results in anxiety reduction thus serving to reward the avoidance behaviour and so perpetuating it. For instance, a child who has been exposed to instances of kidnapping, ritualized killings, fire outbreaks and many others may avoid situations that evoke distress like going to school leading to absenteeism. This social-learning theory emphasizes the role of environmental actors in the development of anxiety disorder. For example, pupils' who see teachers punish those who have failed in exams or who are ranked last may avoid doing the exams to avoid ranking and subsequent punishment. This they may do by absenting from school or developing anxiety symptoms leading to failure to do exams. Such pupils' are motivated to avoid engaging in tasks that require communication or involve potential peer or teacher evaluation. They consequently miss the benefit of interactive learning experiences.

Bandura (1969) demonstrates that virtually all learning phenomena resulting from direct experiences can occur on vicarious basis through observations of other person's behaviours' and their consequences. The initial school experience is characterized by novelty and uncertainty andinitial experience of academic evaluation with its subsequent successes and failures. It is a situation in which the behaviour and verbalization of parents, teachers, and peer serve as important informational cues to the child.

Cognitive- Behavioural Theory by Silverman

Silverman (2001) proposed cognitive-behavioural theory. The cognitive- behavioural theory emphasizes the role played by negative or maladaptive belief systems in the onset and course of anxiety disorders. They identified four elements of cognition for the purpose of understanding the development of childhood anxiety. Each or all of these components may precipitate the expression of psychopathology. These are dysfunctional schemas, information in schemas, distorted cognitive operations and cognitive products such as negative thoughts. In the flow chart (Fig 1.1), situational stimuli (stimulus situation) from home or school will arouse anxiety. These are dependent on each other, for instance, a pupil who is constantly reminded at home that a teacher is to be feared (that teachers are bullies, defilers) will have it instilled in the expectancy system that something wrong is going to happen. If there are negative cognitive representations, then the stimuli may be evaluated as a threat hence worry will develop. This research hold that distorted cognitive representation lead to development of high anxiety which affects performance of children in classroom tasks.

LITERATURE REVIEW

2.1 Level of Anxiety in Science and Art Subjects

Anxiety levels in students in regard to different subjects may be different. Some subjects may elicit higher levels of anxiety than others. Subjects that are perceived by students to be difficult such as mathematics will trigger anxiety in the individual student and consequently interfere with their performance (Ndirangu,Muola,Kithuka and Nassiuma(2009). Mathematics more than any other subject, engenders anxiety and avoidance in students (Shore, 2005).Languages are expected to elicit lower anxieties than any science subject (Kyozaire, 1974).The researcher, therefore, tried to find out if science and Art subjects elicit different levels of anxiety.

2.2 Gender Difference in Anxiety.

Zoller and Bencham (1990) found the anxiety of females to be higher than that of male students in science examinations. Gender differences on anxiety; primarily have been studied by self-report measures. Studies by Chatterjeeet al.,(1976), Durette (1965), Sharma and Gandhi (1971) and Nijhawan (1972) reported females to be more anxious than males. The overall picture seems that either females are more anxious or there are no sex differences. Lewinsohnet al.,(1998) conducted a study to find out the gender differences in anxiety disorders and anxiety symptoms in adolescents. The sample consisted of 1079 adolescents with the mean age of 16 years from Oregon City. Participants were examined on a wide array of psychosocial measures. Psychosocial variables were correlated with both anxiety and gender. Results showed that female adolescents obtained significantly higher anxiety symptom scores than male adolescents.

Muriset al.,(2001) conducted a study on anxiety and depression as correlates of self-reported behavioural inhibition in normal adolescents where they examined the relationship between self-reported behavioural inhibition, anxiety and depression symptoms in a large sample of adolescents aged 12-18 years. Subjects completed a measure of behavioural inhibition and questionnaires of anxiety and depression. Correlation analysis reported higher levels of behavioural inhibition, depression and anxiety symptoms were observed among girls than boys.

Locker et al.,(2004) conducted a study on anxiety, depression and self-esteem insecondary school children. The sample consisted of 520 participants, from 4 different schools in 2 school years. Participants completed self-reported questionnaires at 2 time points – first, during regular term time and the second, in the week immediately prior to the examinations.Gender differences were found in the majority of measures with females displaying greater levels of anxiety and negative effect immediately before the examinations, whereas males reported higher positive affect and self-esteem, lower depression and anxiety within the week prior to the examinations.

Devi et al.,(2006) conducted a study to find out the anxiety level among college going students. One hundred and twenty boys and girls from Imphal and Jorhat town were selected for the study. Manifest anxiety scale was administered. Results showed that maximum of the college going students had low anxiety level and there were significant sex differences in the anxiety level, with girls obtaining more mean anxiety scores than boys. Thus studies discussed have pointed out that girls are having more anxiety levels than boys.

RESEARCH METHODOLOGY

3.1 Research Design

The study employed both descriptive and correlation designs. The descriptive method allowed collection of data from a large sample while correlation design enabled collection of data of two or more variables on the same group of subjects and computing correlation coefficient.

3.2 Variables

3.2.1. Independent Variable

For the present study, age, gender, level of anxiety and social anxiety were selected as independent variables.

3.2.2 Dependent Variables

The dependent variable was classroom performance. It was argued that increased anxiety increased classroom performance.

3.3 Location of the Study

The study was done in Rachuonyo North District in Homa-Bay County. The area was chosen as it has low learning rating (position 50 out of 74, with learning index 56.4%) according to research carried by Uwezo Kenya (2011). The area also annually experiences flooding, suffer food shortage and the researcher, therefore, tried to find out if there is a relationship between these factors arousing anxiety and academic performance. Singleton (1993) observes that the ideal setting for any study is one that is directly related to the researcher's interest, one which is easily accessible and one that allows the researcher immediate rapport with the respondents. The area was ideal for the researcher because of the reasons above.

3.4 Target Population

The researcher studied the relationship between anxiety and classroom performance among pupils in selected schools in Rachuonyo North District in Homa-Bay County. The study targeted class four pupils in public primary schools within Rachuonyo North District. The district pupil population is 6,646 in class four out of which 507 were sampled. These pupils were suitable for a number of reasons; for example, this group falls in the age bracket (9-12yrs) hence were in a position to fill in a questionnaire unlike children younger than them.

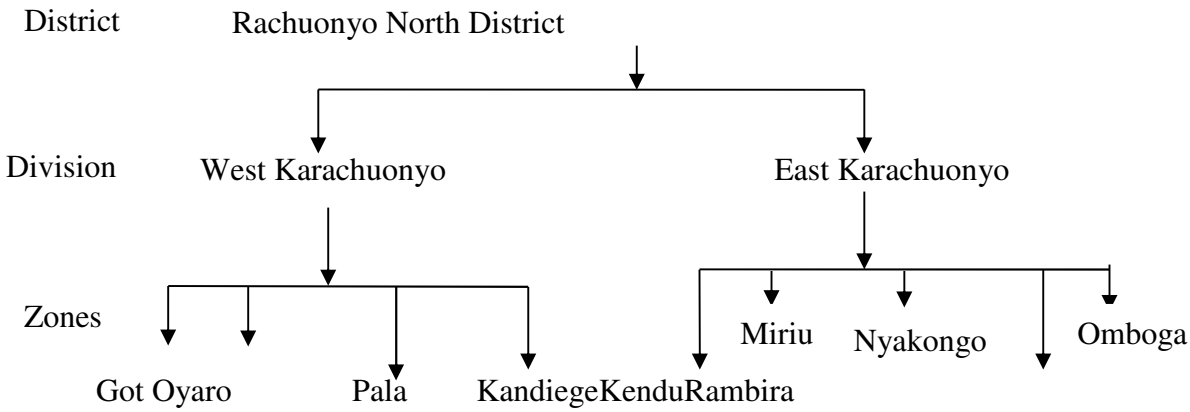
Class four was chosen because there was a possibility of franker response to anxiety scale by pupils than adults. Most studies have been done on adolescent, adults and early childhood anxieties, but not in middle childhood anxieties and classroom performance; which this study focused on. Middle childhood is a stage in which a child starts to conceptualize ideas in abstract ways, that is, it is a stage of concrete operations and children can perform many tasks of much higher level than they could in pre-operational stage. The researcher, therefore, considered this as the best stage in which early prevention intervention can be carried out.

3.5 Sampling Techniques and Sample Sizes

3.5.1 Sampling Technique

The researcher used district list of schools. The schools were sampled out using stratified sampling. The district has two divisions which were sampled as East Karachuonyo and West Karachuonyo. The divisions were divided into zones and from each zone, two schools were sampled. This is illustrated as below:

Figure.3.1: Sampling procedure for schools in Rachuonyo North District.



To get the specific school for the study per category, proportionate random sampling was used. Schools in each zone were listed in alphabetical order and numbered one to the last. Pieces of papers numbered one to the last were folded, put in a box, shuffled and then picked. The numbers picked represented the schools to be surveyed. Sample balloting for each school gave the population equal chance of inclusion in the study sample (Orodho, 2003). Because of limitation of funds and time, the study only involved eighteen schools. Slavin (1984) observes that due to time limitation, funds and energy, study can be carried out from a carefully selected sample to represent the entire population.

3.5.2 Sample Size

Sample size of 507 pupils was used; this was to obtain the desired precision as Orodho (2009) indicates that most social researches would probably recommend at least 100 cases. This is 7.6% of the total population of the pupils in class four in the district. The researcher, therefore, considered this sample size as appropriate. Each school considered had a class four to which Revised Children Manifest Anxiety Scale (RCMAS) and Test Anxiety Scale for Children (TASC) specifically adapted for Kenyan conditions were administered to gauge the level of anxiety and discover the effect of anxiety on pupil's performance in science and art respectively

3.6 Research Instruments

The research used research instruments to collect data for the study. The instruments addressed the research questions and research objectives. They included:

3.6.1 Revised Children Manifest Anxiety Scale (RCMAS).

The Manifest Anxiety Scale (MAS)

MAS were developed by Taylor (Gaudry, 1957); it consisted of fifty questions like "I worry more than other people". The subject is asked to indicate whether each statement is true or false about him/her, and his /her score is based on the total number of items marked in such a way as to indicate the presence of anxiety as a personality trait. MAS is a measure of a general trait or disposition to experience Anxiety Scale (CMAS) was developed by Castaneda, Mc Candles and Palermo.

3.6.2. Revised Children Manifest Anxiety Scale

The Revised Children's Manifest Anxiety Scale was developed by Reynolds and Richmond (1978) to assess "the degree and quality of anxiety experienced by children and adolescents" (Gerald & Reynolds, 1999). It is based on the Children's Manifest Anxiety Scale (CMAS), which was devised by Castaneda, Mc Candles and Palermo (1956). The revised version of the CMAS deletes, adds and reorders items from the CMAS to meet psychometric standards. Reynolds and Richmond (1978) also renamed the instrument, "What I Think and Feel", although subsequent papers primarily refer to it as the Revised Children's Manifest Anxiety Scale (RCMAS).

The RCMAS is a self-report instrument designed to measure anxiety for children and adolescents aged 6-9 years. For children over 9 and half years of age, it can be administered in a group situation. For first and second graders, the examiner should read the items to the child. There are 37 items each of which requires a yes or no answer. The RCMAS was developed in 1978 to address criticisms of the original CMAS. Goals for revision of the scale were to create an objective measure of children's anxiety suitable for group administration; keep

administration time to the minimum required for accurate, valid assessment; make the reading level of items suitable for elementary school students but yet allow for use throughout the school years; cover new areas of anxiety and determine whether anxiety would best be treated as one-dimensional or multidimensional; increase norms and information for diverse groups of children; and ensure that all items are good test items.

The Total Anxiety Score is based upon 28 items with 9 items comprising the Lie Scale. The Total Anxiety Score and the Anxiety sub-scale scores are determined by the number of "yes" responses to the anxiety items. The Lie Score is determined by "yes" responses to the Lie sub-scale items and is used to determine if the child was making a valid attempt to respond. The three anxiety sub-scales should be interpreted cautiously and should be used only as an aid in hypothesis generation due to limited reliability levels. The Total Anxiety Score is expressed as a T score (M=50, SD=10) and the sub-scales are expressed as scale scores (M=10, sd = 3). Percentile ranks are provided for each of the RCMAS scores. The Lie Scale is a positive feature of the instrument and is designed to detect acquiescence, social desirability, or faking of responses.

This had eleven questions. The purpose was to determine the source and level of anxiety in the pupils as might be brought by social problems in the pupils' environment. The questions were closed-ended with Yes/No responses at the end. Children Manifest Anxiety Scale (CMAS) was developed by Castaneda, Mc candles and Palerno: It is a measure of general "traits" or predisposition to experience anxiety. Anxiety scale enjoys the following advantages; simplicity in administration and scoring. The instrument was labelled appendix 1.

3.6.3. Test Anxiety Scale for Children (TASC)

TASC was developed by Sarason et al., (1960) as a measure of the anxiety that is aroused in children by test or test-like situations. Their focus on test anxiety was determined; in part, by the fact that test situations are frequently encountered by almost all members of our society. Most persons perceive the testing situations to have an evaluative or assessment purpose, and feel that is important to do well because in our culture, the lives of people are very frequently affected by their test performance (Gaudry, 1971). This consisted of eleven closed-ended questions which require Yes/No response. It was administered prior to test (science and art). The instrument was labelled appendix III. Test Anxiety Scales.

The Test Anxiety Questionnaire (TAQ) was constructed by Mandler and Sarason in 1952 to measure the anxiety reactions of the adults taking course examinations or intelligence tests. Test Anxiety Scale for Children (TASC) was developed by Sarason et al., (1960) as a measure of anxiety that is aroused in children by test or test-like situations. The TASC contains 30 questions about test situations to which the child answers "yes" or "no".

Spielberger and Sarason (1989) define test anxiety as a situation-specific trait that refers to the anxiety states and worry conditions that are experienced during examinations. The level of anxiety can fluctuate over time in response to both internal and external stimulation. Observable behaviours of anxiety can be noticed during the completion process of a quiz. Some of those behaviours might include perspiration, excessive movement and questioning of instructions. Those behaviours are often compatible with the classification of high and low test anxiety groups (Smith, 1965). There are also stable individual differences in the degree to which anxiety is manifested in any given situation. A disruption or disorganization of effective problem-solving and cognitive control, including difficulty in thinking clearly, can also lead to test anxiety (Freidman &Bendas-Jacob, 1997).

There are different factors that contribute to the development of test anxiety. One factor is self-concept, which is the overall sum of self-referent information that an individual has processed, stored and organized in a systematic manner (Spielberger&Sarason, 1989). The self-concept can be viewed as an image of oneself. Worry of suffering a reduction of the self-image, particularly in the eyes of peers, leads to higher test anxiety levels (Freidman &Bendas-Jacob, 1997). Another factor that contributes to the development of test anxiety is self-awareness. It is defined as the feeling of being observed or evaluated by others. Other people's perception of the individual may have an impact on performance (Levitt, 1980).

Bodas (2003) noted that although the TASC has continued to appear in studies through the 1990s, its continued use has been questioned over the past four decades due to three major factors: outdated and/or overly complex wording of some items, outdated domain definition, and dimensionality issues. Because of changes in teaching styles since the 1960s, some of the original items are rendered obsolete. One example of an outdated item is "When the teacher asks you to write on the blackboard in front of the class, does the hand you write with sometimes shake a little?" Today, it is uncommon for teachers to ask children to go to the board to work problems for the class. In addition, are being replaced in classrooms by dry erase boards. Several items appear to

be too complicated for young children. An example is, "If you are sick and miss school, do you worry that you will do more poorly in your schoolwork than other children when you return to school?" The wordiness of the TASC items is evident by the fact that nearly two-thirds of the items contain 20 or more words reducing the validity of the TASC scores.

This research used TASC modified by shortening the words and phrases in TASC items and only picking the items that fitted Kenyan situation and addressed the construct anxiety as worry (See appendix III).

Modified Test Anxiety Scale for Children (TASC) was used to determine the level of anxiety among pupils in Rachuonyo North District. The scale had 11 items of which one was a Lie Scale. Scoring was done by considering every Yes response as a sign of anxiety except for the Lie Scale. This was then converted into percentages. Based on the percentages scored, groupings were done as follows:
70% and above: High Anxiety (HA)
40-69% : Medium Anxiety (MA)
0-39% : Low Anxiety (LA)

3.6.4. Science Test
This was a standardized test for class four since the questions were drawn from class four science textbooks by Macmillan and aimed to gauge their performance in science. It consisted of five questions which were answered in five minutes. The pretest showed reliability index of 0.7. The questions were few considering the age of the pupils. This instrument was labelled II in the appendix.
3.6.5. Arts Test
This was a standardized test for class four since the questions were drawn from class four social study books by Longman (2011). It aimed to gauge their performance in art. It consisted of five closed-ended questions which were answered in five minutes (See appendix labelled II b).

3.7. Pilot Study
The pilot, Kanake (1998) observes helps in ensuring a satisfactory level of instruments functionality (validity, reliability) and in obtaining new insights in instruments development. A pilot study was carried in 2 schools to determine validity and reliability of items in the anxiety scales and to indigenize them to fit the Kenyans situations. For the convenience, the following 2 schools were used:
Pier Got Primary School and Otok Primary School to which both CMAS and TASC were administered. A total of 29 pupils were randomly selected. This represents 3.6%. Orodho (2009) says pretest sample is normally between 1% and 10% depending on sample size. The pilot schools were excluded from the pilot study.

3.7.1 Validity
Validity was classified as a construct validity that measured the degree to which data obtained from the instruments meaningfully and accurately reflected the theoretical concept that low/high anxiety leads to poor classroom performance. Because this research used correlation design, internal validity was obtained by assuming the numerous extraneous variables to classroom performance like self-image, motivation and availability of learning materials only to anxiety from home and those in school environment. Those from home included; familial conflict, divorce, bereavement, starvation, parenting style, while those from schools included teachers' behaviour and learning situations. Random sampling was used to increase internal validity. And to check on validity of the instruments, on each, L (lie) score was included. Ecological validity 7.6 % as the sample involved 507 class four pupils in the district with 6,646 pupils in class four.

As Gaudry (1971) notes, the use of CMAS has high construct validity because there is a possibility of franker response to an anxiety scale with young children, who are more inclined to accept questions at face value and may be less aware of the cultural stereotypes about certain types of undesirable self-referent statements.

Face validity of the instruments were determined by consulting the two advisors from the department of educational psychology who evaluated and critiqued the instruments to establish their soundness in collecting data for the proposed study. This is in line with the proposal made by Frankael and Wallen (1993).

3.7.2 Reliability
Pre-testing study (pilot study) was carried out to enhance reliability of the instrument. Since RCMAS and TASC are standardized scales, with reliabilities of 0.86 and 0.86 respectively, the reliability of items was got by carrying out a pilot study to determine that items measured the construct the researcher was looking for. Split-

half reliability coefficient was used to measure internal consistency of the test items in the questionnaire. This helped to designate pupils as LA and HA respectively.

Hence $r_{xx} = \frac{2r\,½\,½}{1 + r\,½\,½}$

Alongside split-half technique, inter-item reliability was used as it measured the degree to which different types measuring the same variable attain consistent results. This was chosen since the anxiety scale had two options YES/NO and multiple choices on science and art test.

3.8 Data Collections Procedures

The headteachers of the schools visited were contacted and permission was taken for the study. I then administered the questionnaires myself to ensure there was maximum return of the questionnaires and this enabled me also to answer questions that arose from the questionnaire. To establish a good rapport with the pupils, introduction was given about the objectives of the study, importance of their cooperation and their sincere responses just before the administration of questionnaire. Then both the tests were administered on the pupil of the class. The necessary instructions were given to the pupils' on the mode of answering the questions and clarifications were made when they raised doubts while answering the questionnaire. They were given twenty minutes time to answer all the questions on the questionnaires.

3.9 Data Analysis

The research was both correlation design (a measure of relationship) and descriptive survey. Ingule and Gatumu (1996) note that correlations are of two distinctions; that is, correlation which merely describes presence or absence of relation, and correlation which shows the degree or the magnitude of the relationship between two measures.

This particular research showed both. Pearson product-moment correlation coefficient (r_{xy}) was used along with other methods like mean, and percentages. Qualitative data were used in describing the various aspects of the study and in drawing conclusions and recommendations. Quantitative data were however, analyzed using both descriptive and inferential statistics. Descriptive statistics involved calculating frequencies, means, and percentages. Purposively, this was to enable the researcher to describe a distribution of scores of measurements using a few indices or statistics. The purpose of inferential statistics was to enable the researcher to generalize the results from the sample to the population.

To identify the relationship between anxiety and classroom performance of pupils in science and art subjects, the average of anxiety scores were calculated per class and a correlation index determined using SPSS (Statistical Package for Social Sciences) program. In order to identify factors leading to social anxiety among pupils in Rachuonyo North District, percentage scores per items in RCMAS scale were calculated for all the pupils. The research examined the level of anxiety aroused in pupils in science and art subjects by comparing percentages of three anxiety groups (LA, MA, and HA) who passed each subject. Percentages of boys and girls who passed each subject were compared to find out if there was a significant difference between boys and girls on the levels of anxiety on classroom performance.

3.10 Logistical and Ethical Considerations

The Department of Education, Psychology provided introductory letter which I used to obtain research permit from the Ministry of Science and Technology. The district commissioner and the district education office provided introductory letter which I used in schools and district list of schools respectively. The researcher administered anxiety scale questionnaires to pupils after getting permission from the head teachers' and after briefing them on the aim of the research. To ensure confidentiality, the questionnaires were not having names or any identification clue.

DATA ANALYSIS, RESULTS AND DISCUSSIONS

Table 4.1: Those who passed sciences from the RCMAS

RCMAS scale	Boys	Girls	Total	Percentages
Low Anxiety	29	31	60	12%
Medium Anxiety	102	90	192	38%
High Anxiety	122	133	255	50%
Percentage	48%	52%	507	100.00%

Table 4.1 shows that most pupils 255 (50%) were highly anxious on social issues while 60 (12%) had low anxiety. High anxiety facilitated performance in science. More girls 133 (52%) than boys 122 (48%) passed science exams.

Table 4.2: Those who passed science on TASC anxiety scale

TASC anxiety scale	Boys	Girls	Total	Percentages
Low Anxiety	29	12	41	8%
Medium Anxiety	88	64	152	30%
High Anxiety	143	171	314	62%
Percentage	46%	54%	507	100%

Table 4.2 shows that most pupils 314 (62%) were highly anxious for class test. As anxiety increased so was the performance. More girls 171 (54 %) than boys 143 (46%) passed science.

4.1.2 Relationship between Anxiety and Classroom Performance of Pupils in Art Subject

The data on self-reported anxiety scales, RCMAS and TASC were collected from 507 pupils from 18 schools in Rachuonyo North District. Of these, 253 were males and 254 were females. The table below shows the percentages of performance in Art (social studies).

Table 4. 3: Those who passed social studies on RCMAS anxiety test

RCMAS anxiety test	Boys	Girls	Total	Percentages
Low Anxiety	15	8	23	05%
Medium Anxiety	55	43	95	19%
High Anxiety	55	64	119	23%
Total	122	115	237	47%

In Table 4.3, more than a half of the pupil population failed social studies as only 237 (47%) passed. However, high anxiety favoured performance compared to low anxiety despite the low percentages.

Table 4.4: Those who passed social studies on TASC anxiety scale

TASC anxiety test	Boys	Girls	Total	Percentages
Low Anxiety	18	04	22	04%
Medium Anxiety	43	37	80	15%
High Anxiety	73	87	160	32%

Table 4.4 above; indicate that more of the high anxiety group 32% than low anxiety group 04% passed social studies.

Table 4.5: Relationship of scores in TASC to science classroom performance

School Marks	TASC SCORES			
	Low Anxiety	Medium Anxiety	High Anxiety	Total
Above Medium	25	91	177	293(58%)
Below Medium	16	61	137	214(42%)
Total	41	152	193	386

From Table 4.5, it can be noted that about 60% of all the groups were on the top half of the class, HA who passed science were 58 %. This is considerable when it is remembered that the groups were split at the medium. Hence, high anxiety correlates positively to classroom performance in science though the difference was insignificant when compared with the LA. This is parallel to Naron, 1990 and Sud and Sujata, 2006 researches.

4.1.3 Factors leading to social anxiety among Pupils in Rachuonyo North District

The Revised Children Manifest Anxiety Scale (RCMAS) was used to identify factors that lead to social anxiety among pupils in Rachuonyo North District. The scale had 11 items of which one was a Lie (L) scale hence only ten were valid items (See appendix I). The table below shows the frequency and percentage distribution.

Table 4.6: Distribution of pupils' responses to RCMAS items

Item No.	Factor	Frequency	Mean Percentages
1.	Stereo-type worrying	329	65%
2.	Parental divorce	231	46%
3.	Worry about accidents	314	62%
4.	Worry about security	357	70%
5.	Fear of darkness	311	61%
6.	Worry about sickness	350	69%
7.	Worry about death	338	77%
8.	Separation anxiety	368	73%
9.	Parental sickness	308	61%
10.	-	419	83%
11.	Worry of starvation	286	56%

Item number 10 was a Lie-scale and had the 419 out of 507 marking it false. This gives 82.64% ability to falsify. Analysis (scoring) of the questionnaire was done in the table above indicating the number of responses for each case.

4.1.3.1 Test Anxiety

The table below shows the mean distribution per item in the TASC (See appendix II).

Table 4.7: Distributions of pupils' responses to TASC items

Item No.	Frequency	Mean Percentages
1.	459	90.53%
2.	440	86.79%
3.	392	77.32%
4.	420	82.84%
5.	404	79.68%
6.	377	74.36%
7.	383	75.54
8.	-	-
9.	212	41.81%
10.	150	29.59%
11.	329	64.89%

Item number 8 was a Lie- scale and had 363 marking it false out of 507, this gives 71.60% ability to falsify.

4.1.4 Levels of Anxiety in Art and Science subjects

The mean score for performance by anxiety interaction is presented below.

Table 4.8: Mean score performance in Science and Art by Anxiety interaction

Anxiety on RCMAS	Mean % in science	Mean % in Art.
Low Anxiety	47%	38%
High Anxiety	58%	47%

Table 4.9: Mean score performance in Science and Art by Anxiety interaction

Anxiety on TASC	Mean% in science	Mean % in Art
Low Anxiety	61%	54%
High Anxiety	56%	51%

The results shows that high social anxiety (HA) led to high performance in Science (58%) while high social anxiety (HA) led to low performance in Art subject (47%).

4.1.5 Gender differences in Classroom Anxiety

Gender of students was considered in the study because males and females have different perspectives on environmental influence at school and at home which are significant in the development of worry. In the research, the result shows that the number of boys and girls used were equal at 253 and 254 respectively. The following bar graphs represent percentages of boys and girls who passed science and social studies in both RCMAS and TASC in both HA and LA. Figure4.1 below shows that boys perform better than girls irrespective of the anxiety level in sciences.

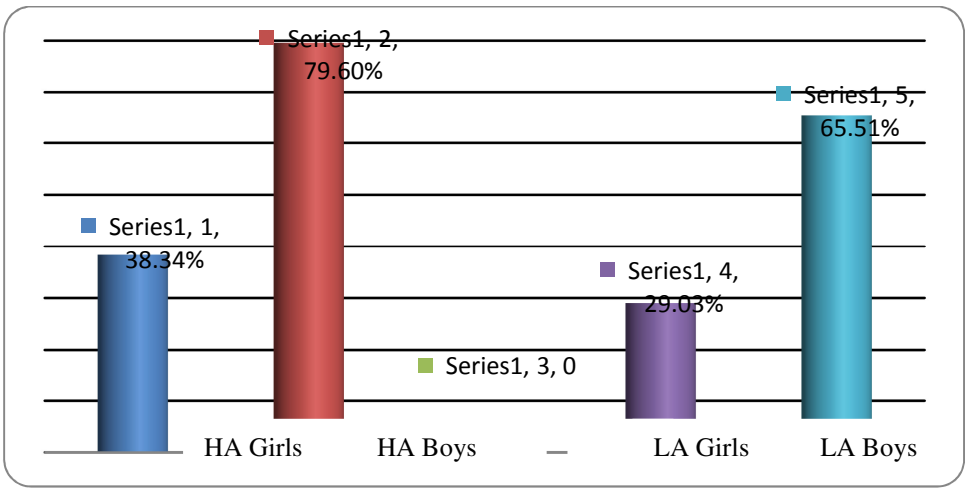


Figure 4.1: Percentage pass for science in RCMAS

Key
HA - 75% and above score on anxiety scale
LA - 39% and below score on anxiety scale

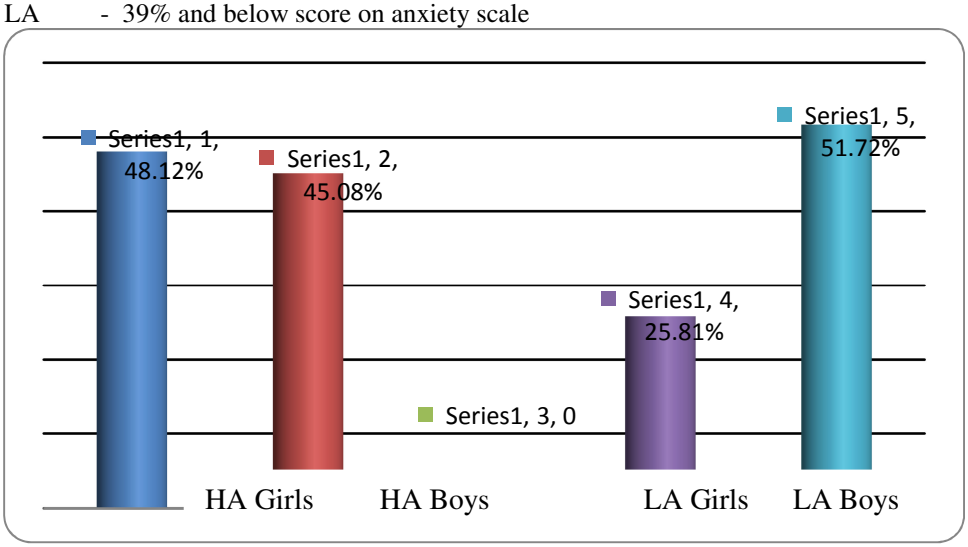


Figure 4.2: Percentage pass in SST using RCMAS

Key
HA - 75% and above score on anxiety scale
LA - 39% and below score on anxiety scale

Figure 4.2 shows that high anxiety girls (HA) performed better than boys in social studies though among the LA group boys were performing better than girls. High anxiety led to better performance in girls may be because of negative evaluation associated with failure hence they worked harder to avoid embarrassment.

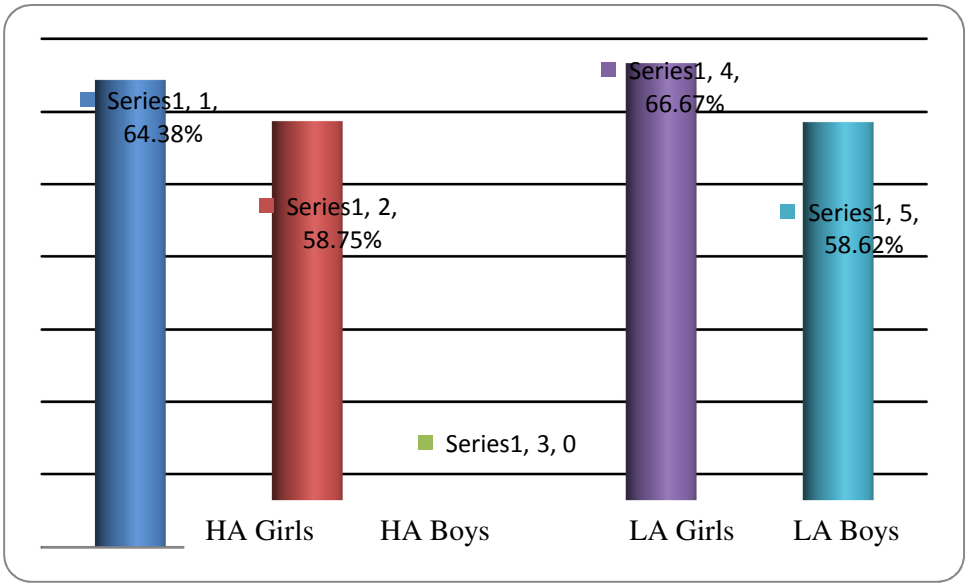


Figure 4.3: Percentage pass in TASC

In figure 4.3, it shows that there was no significant difference between the LA and the HA groups. However, girls were performing better than boys and were less affected by anxiety. Boys who had high test anxiety had lower performance in science while girls with low test anxiety recorded high performance in science than those with high test anxiety.

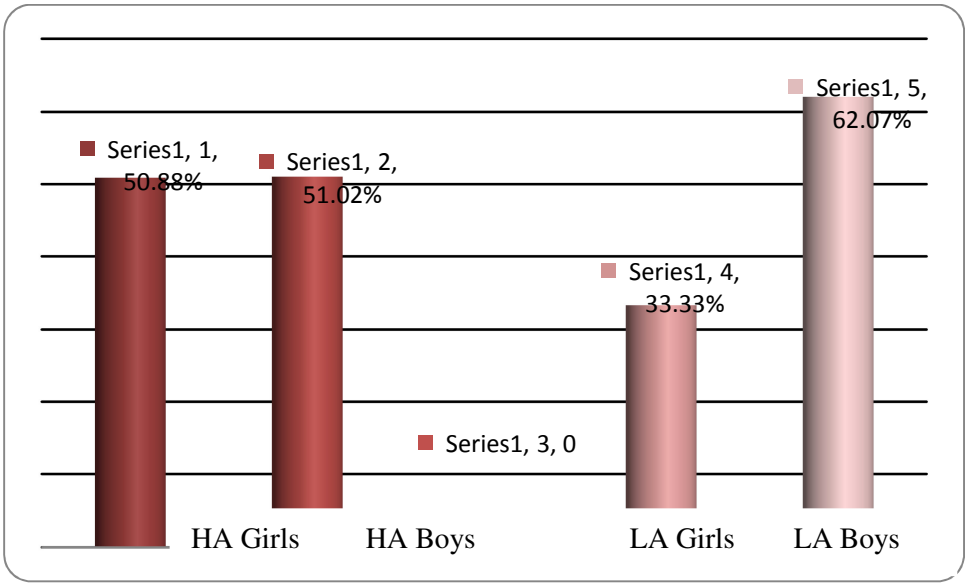


Figure 4.4: Percentage on TASC pass in SST

Figure 4.4 indicates that high test anxiety in girls led to better performance than boys. LA boys performed better than HA boys.

4.2 Statistical Analysis

The inferential statistics used in this study was Pearson-Product Moment Correlation. Means, frequencies and percentages were also used to analyze all the variables of anxiety and performance to meet the objectives of the study.

A correlation analysis was done to test for relationship between anxiety and classroom performance. The tables below show the various correlation coefficient for High Anxiety (HA) and Low Anxiety (LA) in RCMAS and TASC.

Table 4.10: Relationship between RCMAS and classroom performance

RCMAS scale	Pass Percentage
High Anxiety – Science	+ 0. 59 (positive correlation)
High Anxiety – SST	- 0.14 (Negative correlation)
Low Anxiety – Science	+ 0. 24 (Positive correlation)
Low Anxiety – SST	+ 0.10 (Positive correlation)

Table 4.11: Relationship between TASC and classroom performance

TASC scale	Performance correlation
High Anxiety – Science	+ 0. 41(Positive correlation)
High Anxiety – SST	r = + 0.76 (Strong positive correlation)
Low Anxiety – Science	r = - 0. 31(Negative correlation)
Low Anxiety – SST	r= - 0.32 (Negative correlation)

The researcher interpreted the coefficients as +0.6 to +1.0 as strong positive association, +0.1 to +0.5 as weak positive association, 0.0 as no association,-0.1 to -0.5 as weak negative association and -0.5 to -1.0 as strong negative association. According to Gay (1976), a positive correlation is implied by a correlation coefficient that is greater than +0.5 while a negative correlation is implied if absolute value of the coefficient is less than 0.2. Ingule and Gatumu (1996) says that +1.00 is a perfect positive relationship ,0.0 as no relationship and -1.00 as perfect negative relationship. They note that values in between are judged low to high depending on the size. While there is no statistical basis for concluding what constitutes a strong relationship, tradition tells us that social sciences, r's ranging from 0.6 to 0.8 is strong linear relationship.

REFFRENCES

Amadi, M. A., Role, E. and Makewa, L. N. (2013). Girl child dropout: experiential teacher and student perception. *International Journal of Humanities and Social Science,* Vol. 3(5), 124-130.

Bandura, A., (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ, Prentice Hall.

Bellamy, C. (2005). *The state of world's children 2005: Childhood under threat*. UNCEF Publication.

Bodas (2003).*The moderating role of anxiety in predicting academic achievement in children.* Unpublished thesis: Virginia Polytechnic Institute and State University.

Cassady, J.C., & Johnson, R. E. (2002).Cognitive test anxiety and academic performance.*Contemporary Educational Psychology*, 27, 270-295.

Castaneda, A.; McCandless, B.R.; and Palermo, D.S. (1956).The children's form of the manifest anxiety scale.*Child Development, vol. 27(3), pp.317-326*, cited in Reynolds and Richmond (1978).

Chapell, M. S.; Blanding, Z. B.; Silvestein, M.E.; Takahashi, M. N. B.; Newman,

Chatterjee, S., Mukerjee, M., Chakraborty, S.M. and Hassan M.K. (1976).Effect of sex, urbanization and caste on anxiety.*J. Psy. Res.,* 20: 56-58.

Chaudhary, V. (2004).A comparative study of intelligence and academic achievement of the secondary school students.*Indian Psy. Rev.,* 62(4): 177-81.

David, G. (1977). *Worrying.Chichester:* John Wiley and Sons.

Devi, P. and Ahmed, J. (2006).Anxiety level among college going students. *Indian Psy. Rev.,* 66(1): 21-24.

Dollard, J. and Miller, N.E. (1950).*Personality and psychotherapy*. McGraw- Hill, New York.

Durrette, M. (1965). Normative data on manifest scale for different income levels. *Indian J. Psy.,* 40: 1-6.

Eysenck, M. And Nazanin, D. (2009).Economic and Social Research Council.

Anxiety hidden cost in academic performance.*Science Daily.Journal of Psychology.*

Feldman, R. S. (1996). *Understating psychology*.New York McGraw Hill.(4th Ed.).

Finch, A.J., Jr., Blount, R.L., Saylor, C.F., Wolfe, V.V., McIntosh, J.A., Griffin, J.M., &Carek, D.J. (1988).Intelligence and emotional / behavioural factors as correlates of achievement in child psychiatric inpatients. *Psychological Reports*, 63, 163. 170.

Fincham, F.D., (1989). Learned helplessness, test anxiety and academic achievement: A longitudinal analysis.*J. Chi. Dev.,* 60(1): 138-145.

Frankael, J.R &Wallen, N.E (1993).*How to design and evaluate research in education.*New York: McGraw-Hill.

Friedman, I.A., &Bedas-Jacob, O. (1997). Measuring perceived test anxiety in adolescents: A self-report scale. *Educational and Psychological Measurement*, 57, 1035-1047.

Gamble. A. (2009).*Anxiety and education: Impact, recognition and management strategies.* Sydney: Woolcock Publishing House.

Gaudry, E. (1971). *Anxiety and educational achievement.* New York: John Wiley and Sons.

Gay, R. (1976). *Educational research competencies.For analysis and application*. Ohio Bell & Howell Company.

Government of Kenya, 2003.*Education in Kenya*. Nairobi: Ministry of Education, Science and Technology.

Gubi, A. and McCain, N. (2005). Test anxiety and academic performance in undergraduate and graduate students. *Journal of Educational Psychology*, 97 (2): 268-274.

Hembree, R. (1988). Correlates, causes, effects, and treatment of test anxiety. *Review of Educational Research,* 58, 47-77.

Hornby, A. S. (2000). *Oxford advanced learners dictionary of current English* (6th Ed.). New York: Oxford University Press.

Ingule .F &Gatumu .H (1996).*Essentials of Educational Statistics*.Nairobi : East Africa Educational Publishers.

Kamau, D. (2004).*A study of the factors responsible for poor performance in the chemistry among secondary schools in Maragwa District*.Unpublished Project Report Kenyatta University.

Kanake, L. (1998). *Gender disparities among the academics in Kenyan public universities.*Unpublished M.edthesis :Kenyatta University.

Kassahun, A. (1996). *English language classroom anxiety, performance and classroom tasks and in test: A study of some Ethiopian Civil College 1st year students*. Unpublished Thesis: Addis Ababa University.

Keeley, J. Zayac, R &Correla, C. (2008). Curvilinear relationship between statistics and performance among undergraduate students: Evidence for optimal anxiety. *Journal of Statistical Education Research,* 7(1)4-15.

KIE, (2005).*Macmillan primary science pupils book four*. Nairobi: Macmillan Publishers Limited.

KIE, (2009).*Social studies standard four: Living together in the Province, Nyanza*. Nairobi: KIE.

Kinai, T. (2004).*EGC 504 Modules: School guidance practice*. Kenyatta University.

Kinai, T. (2004).*EGC 510 Modules: Issues in abnormal and clinical psychology*. Kenyatta University.

King, N.J., Ollendick, T. H., &Prins, P. J. M. (2000). Test-anxious children and adolescents: psychopathology, cognition, and psychophysiological reactivity. B*ehaviour Change,* 17, 134-142.

Krishnamurthy, S., (2003). Study of achievement as related to academic achievement motivation and history interests. *Indian Psy. Rev.,* **60**(2): 105-112.

Kyozaire, A. (1974). *Levels of anxiety among Kampala versus Ankole secondary school adolescents.*Unpublished thesis: Makerere University.

Lasks, B. (2003). *Practical child psychiatry.The clinician guide*. London: Bmj Books.

Levitt, E.E. (1980). *The psychology of anxiety* (2nd ed.). New Jersey: Lawrence Erlbau.

Lewinsohn, P.M., Gotlib, I.H. and Lewinsohn, M. (1998).Gender differences in anxiety disorders and anxiety symptoms in adolescents.*Journal of Abn. Psy.,*107(1).

Locker, J. and Cropley, M. (2004).Anxiety, depression and self-esteem in secondary school children.*Sch. Psy. Intern.,*25(3): 333-345.109-117.

Lyneham, H. (2009). *The impact of anxiety on student's performance*. Sydney: Centre for emotional Health, acquire University.

Mandler, G., &Sarason, S.G. (1952).A study of anxiety and learning.*Journal of Abnormal and Social Psychology*, 47, 166-173.

Mang'ula, N. E. (2010). *Factors affecting the performance of mathematics by girls with visual impairments at Thika High School for the Blind*. Kenya. Thesis.Kenyatta University.

Martin, L., Kubzansky, L.O., Lewinn, K.Z. and Lipsitt, L.P., (2006). Childhood cognitive performance and risk generalized anxiety disorder. *American J. Psy.,*28: 131-141.

Mishra, K.N., (1992). Adjustment, self-concept, test anxiety and desirable study habits: as predictors of academic achievement. *The Asian J. Psy.Edu.,* 25(7-8): 21-26.

Mokashi (2007).*Correlates of anxiety and scholastic achievement of residential school students.*Unpublished thesis.University of Agricultural sciences, Dharward.

Mugenda, O. M and Mugenda, A.G. (1999).*Research methods*. Nairobi: ACTS Press.

Muris, P., Merckelbach, Harald and Gadet, B., (2001). Anxiety and depression as correlates of self-reported behavioural inhibition in normal adolescents. *Beh. Res. Ther*., 39: 1051-1061.

Mwadimu, M. (2005).*Single parenthood: An examination of the effects on behaviour and education of students in selected secondary schools in Nairobi.* Unpublished Project Report.Kenyatta University.

Naron, F. (1990).*Family environment and adolescent anxiety profile of secondary school student in Plateau State*. Unpublished Thesis, University of Jos.

Ndege, W. M. (2010). *Factors influencing academic performance in day secondary schools in ESISE division, Borabu District, Kenya.Project*, Kenyatta University.

Ndirangu, G.W; Muola, J. M; Kithuka, M.R. and Nassiuma, D.K. (2009).An investigation of the relationship between test anxiety and academic performance in secondary schools in Nyeri District, Kenya.*Global journal of educational research, 8*(2) 1-7.

Nijhawan, H.K. (1972). *Book-anxiety in school children.*Wiley-Kastern, New Delhi.

Ogutu, M.T (2011). *Factors affecting access and retention of children with special needs in selected primary schools in Nairobi Province*. Unpublished Thesis.Kenyatta University.

Ojwang', J.A. (2005). *Causes and effects of student's unrest in Rachuonyo District.*Unpublished Thesis.Kenyatta University.

Okeno, J.O. (2011). *Influence of school infrastructure on students performance achievement in public secondary schools in Rachuonyo North district, Nyanza province.*Unpublished thesis.University of Nairobi.

Onwuegbuzie, A. J., & Wilson, V. A. (2003). Statistics anxiety: Nature, etiology antecedents, effects, and treatments – a comprehensive review of the literature. *Teaching in Higher Education*, *8* (2), 195-209.

Opuodho, S.F. (2010) *Factors influencing performance in Kenya certificate of Secondary education in Rachuonyo North District, Kenya*. Unpublished thesis university of Nairobi.

Orodho (2003).*Techniques of writing research proposal and reports in Education and Social Sciences*. Maseno: KanezjaHp Enterprises.

Orodho, (2009).*Elements of educational and social research methods.2nd edition.*Maseno: Kanezja Publishers.

Osterweis, Solomon and Green (1984).*Bereavement reactions and consequences.* Washington DC: National Academy.

Otieno, E. N. (2002). *Factors influencing performance in Kenya Certificate of Secondary Education: a case of Homa-Bay District, Kenya*. Unpublished Thesis.Kenyatta University.

Owano, D. (2010): *Perception of secondary schools students on the effects of parenting styles on their academic performance. A case of Rongo division, Rongo District, Kenya*. Unpublished project report, Egerton University.

Papalia, D. E. (1999).*A child's world: Infancy through adolescence*. (8thE.d.). New York: McGraw Hill.

Phares, V. (2008).*Understanding abnormal child psychology*.(2nd Ed.). New York: John Wiley and Sons.

Pomerantz, E.M., Saxon, J.L. and Altermatt, E.R., (2002). Making the grade but feeling distressed: gender differences in academic performance in internal distress. *J. Edu. Psy*.,94(2): 396-404.

Reynolds C.R., & Paget, K.D. (1981).Factor analysis of the revised children's manifest anxiety scale for blacks, whites, males, and females with a national normative sample.*Journal of Consulting and Clincial Psychology*, 49, 352-359.

Reynolds, C.R., & Richmond, B. O. (1985).*Manual, Revised Children's Manifest Anxiety Scale. Los Angeles, CA*: Western Psychological Services.

Reynolds, C.R., & Richmond, B. O. (1985).*Manual, Revised Children's Manifest Anxiety Scale. Los Angeles, CA:* Western Psychological Services.

Reynolds, C.R., (1980). Concurrent validity of what I think and feel: the Revised Children Manifest Anxiety Scale. *Journal of Consulting and Clinical Psychology*, 48, 774-775.

Rubin, S.I. (1999). The role of culture and other predictors in test anxiety. *Humanities and Social Sciences,* 60, 1452.

Rutter, M. (1998).*Anti-social behaviours by young people*. London: Cambridge University Press.

Sarason, I. A., Sarason, R. (1996). *Abnormal psychology: The problem of maladaptive behaviour.* New Jersey: Prentice Hall.

Sarason, S., &Mandler, G. (1952). Some correlates of test anxiety. *Journal of Abnormal and Social Psychology,* 47, 810. 817.

Seipp, B. (1991). Anxiety and academic performance: A meta-analysis of findings. *Anxiety Research*, 4, 27-41.

Sharma, K.L. and Gandhi, N., (1971). Hierarchies and amount of fear in low and high anxious groups of students.*Indian Psy. Rev.,* 8: 29-30.

Sharma, S. and Rao, U. (1984). Test anxiety research in India: A review of research. *Adv. Test Anx. Res.,* Netherlands, 3: 255-264.

Shore, K. (2005).*Dr. Ken Shore's classroom problemsolvermath anxiety*. Retrieved April 9, 2006, from http://www.educationworld.com.

Silverman, W. K. (2001). *Anxiety disorders in children and adolescents*. New York: Cambridge University Press.

Singh and Asha, 1984, Neuroticism, anxiety and academic achievement.*Indian Psy. Rev.,* 26(3): 15-19.

Singleton, R.A. (1993).*Approaches to social research*. New York: Oxford University Press.

Slavin, R. E. (1984).*Research methods in education*: *Practical guide. Engle Cliff*. NJ: Prentice Hall.

Smith, C.P. (1964). Relationships between achievement-related motives and intelligence, performance level and persistence.*Journal of Abnormal and Social Psychology*, 68, 523-532.

Smith, C.P. (1965). The influence on test anxiety score of stressful versus neutral conditions of test administration. *Educational and Psychological Measurement*, 25, 135-141.

Soffer, M. E. (2008). *Elementary students' test anxiety in relation to the Florida Comprehensive Assessment Test (FCAT).* Retrieved February 23, 2009 Fromhttp://etd.lib.fsu.edu/theses/available/etd-06092008-111004/unrestricted/SofferMThesis.pdf.

Sowa, C. J., &LaFleur, N. K. (1986).Gender differences in test anxiety.*Journal of Instructional Psychology,* 13, 75-80.

Spielberger, C. D. (1966). *Anxiety and behaviour.* New York: Academic Press.

Spielberger, C. D. (1977). *Stress and anxiety*. Vol.4. London: John Wiley and Sons.

Spielberger, C.D., &Sarason, I.G. (Ed.).(1985). *Stress and anxiety* (Vol. 9).Washington: Hemisphere Publishing Corporation.

Spielberger, C.D., &Sarason, I.G. (Ed.).(1989). *Stress and Anxiety* (Vol. 12). Washington: Hemisphere Publishing Corporation.

Sud, A. and Prabha, C. (2003). Academic performance in relation to perfectionism, test procrastination and test anxiety of high school children. *Psy.Stu.,*48(3): 77-81.

Sud, A. and Sujata, (2006). Academic performance in relation to self- handicapping, test anxiety and study habits of high school children. *Psy. Stu.,*51(4): 304-309.

Sudhir, M.A., (1989). A study of achievement motivation in relation to select personality and socio-educational factors.*J. Edu. Res. Extn.,* **25**(4): 198- 208.

Taylor and Francis et al., (1991).*Anxiety, stress and coping*. London: Routledge Vol. 4.

Uwezo Kenya (2010).Learning Assessment District Ranking -2010. www.uwezokenya.

Varma, D. V. (1993). *Coping with unhappy children.* London: Cassel, Villas House.

Varma, V. P. (1984). *Anxiety in children.* New York: Methuen, Inc.

Vendal, N., (1994).Academic achievement and semantic relationships.*Psy.Stu.,* 39(1): 25-27.

Verma, B.P. (1990). A study of relationship of cognitive style with anxiety and academic achievement.*The J. EduPsy.,* 48(3-4): 156-161.

Vogel, H & Collins A. (2009).*The relationship between test anxiety and academic performance*.Journal, Missouri Western State University.

Warren, M. K., Ollendick, T. H., & King, N.J. (1996). Test anxiety in girls and boys: A clinical - developmental Analysis. *Behaviour Change*, 13, 157- 170.

Wawira, P. (2008). *Psychosocial and educational needs and their implication for guidance and counseling in selected primary schools in Kasarani Division in Nairobi*. Unpublished project report: Kenyatta University.

Zoller, L. and Bencham, D. (1990).*Gender differences in exam type, preferences, test anxiety and academic achievement in college science education*. New York: John Wiley and Sons.