

**SOURCES AND EFFECTS OF ANXIETY ON ACADEMIC PERFORMANCE  
AMONG GRADE SEVEN PUPILS: A CASE OF LUANSHYA DISTRICT.**

**BY**

**PETER CHANDA SAMPA**

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**A DISSERTATION SUBMITTED TO THE UNIVERSITY OF ZAMBIA IN PARTIAL  
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## **DEDICATION**


This study is dedicated to my mother, Nakataba Mwango Musweswe.

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## AUTHOR'S DECLARATION

I, Peter Chanda Sampa do solemnly declare that this dissertation represents my own work and that it has not previously been submitted for a degree at this or another University.

Signature: .....  .....

Date: ..... 19/09/2005 .....

**APPROVAL**

The University of Zambia approves this dissertation of Peter Chanda Sampa as fulfilling part of the requirements for the Award of the Degree of Master of Education in Educational Psychology.

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## ABSTRACT

The seventh grade is one of the most important grades in the Zambian education system. It is at this grade that all pupils who have continued with primary school sit for their first national examinations whose results are used to select them to grade eight, either at a basic or high school. Government, teachers, and parents are all concerned about the performance of pupils at this grade. The seventh grade therefore, has high publicity and attracts attention of all stakeholders. Pupils are expected to work very hard for them to be selected to grade eight. Therefore, some grade seven pupils find the grade, the learning environment, and other activities associated with school as being stressful, challenging, and anxiety arousing. They tend to experience prolonged and disabling anxiety, which affects their academic performance.

Anxiety has been defined as an emotional response characterised by apprehension, tension, physiological arousal and restlessness, which has an effect on performance. It has been observed that high and low levels of anxiety affect academic performance of pupils, while moderate levels of anxiety provides drive energy that pupils can utilize to enhance their academic performance.

The study examined the sources and effects of anxiety among grade seven pupils in Luanshya District. A randomly selected sample of 200 pupils drawn from 10 primary schools in Luanshya participated in the study. The study also collected information from 50 serving teachers from the same schools. The main instruments used in the study were the pupils' questionnaire and the teachers' questionnaire. The pupils' questionnaire was used to provide information on the sources of anxiety. The teachers' questionnaire was used to find out the effects of anxiety on pupils' academic performance.

It was found that anxiety was pervasive among grade seven pupils and that it affected their academic performance. The findings showed that anxiety among grade seven pupils was elicited by external stimuli found in the school environment. The main sources of anxiety among pupils revolved around the three following categories: threats to the self-esteem needs, security

needs, and social or affiliation needs, which were usually not addressed in schools in Zambia. Sources of anxiety in the self-esteem category included: knowledge about leaked examination papers, fear to present in class because other pupils would laugh at them, fear of speaking in class, worry about grades or marks, worry about not being selected to grade eight, and finding difficult to solve mathematics questions. In the security category, the following were the sources of anxiety: fear when teachers go on strike, covering long distances to and from school, meeting with the head teachers, and fear of bullies at school. The social or affiliation needs category-comprised fear of being rejected by friends as a source of anxiety among pupils. Most importantly, the study identified that knowledge about leaked examination papers and teachers' strikes were important sources of anxiety among pupils, but only peculiar to Zambia. It was also observed that girls had more sources of anxiety than boys. This could be attributed to the cultural background, which conditions girls to be dependant, unlike boys who are taught to be independent and to persevere in difficult situations.

The study also revealed that anxiety had negative impact on pupils' academic performance. The impact of anxiety was seen in the pupils' inability to concentrate in class. They also adopted maladaptive behaviour such as absconding from school. It was noted that anxiety affected both the cognitive functioning and behavioural responses, which are important in academic performance. The findings of the study were in agreement with the theoretical framework grounded on the cognitive-behavioural theory, which stresses that anxiety is associated with lack of concentration and leads to maladaptive responses.

## TABLE OF CONTENTS

	Page
Declaration.....	i
Copyright Declaration.....	ii
Author’s Declaration.....	iii
Approval.....	iv
Acknowledgement.....	v
Abstract.....	vii
Table of Contents.....	viii
List of Tables.....	xi
List of Figures.....	viii
<b>CHAPTER ONE</b>	
<b>INTRODUCTION.....</b>	<b>1</b>
Background.....	1
Statement of the problem.....	5
The purpose of the study.....	5
Objectives of the study.....	5
Research questions.....	6
Significance of the study.....	6
Limitations of the study.....	6
Operational definitions.....	7
Theoretical framework.....	8
Organisation of the study.....	10

<b>CHAPTER TWO</b>	<b>Page</b>
LITERATURE REVIEW.....	11
Definitions and explanations of anxiety.....	11
Sources of anxiety.....	14
Effects of anxiety on performance.....	20
Summary of reviewed literature.. ..	26
 <b>CHAPTER THREE</b>	
DATA COLLECTION.....	29
Study design.....	29
Study population.....	29
Sample and sampling procedure.....	29
Data collection instruments.....	30
The pilot study.....	32
The main study.....	33
Data collection procedure.....	33
Data analysis.....	34
Problems encountered in the process of data collection.....	34
 <b>CHAPTER FOUR</b>	
FINDINGS OF THE STUDY.....	36
Sources of anxiety.....	36
Sources of anxiety by gender.....	38
Effects of anxiety on academic performance.....	41
 <b>CHAPTER FIVE</b>	
DISCUSSION.....	44
Sources of anxiety.....	44
Effects of anxiety on academic performance.....	55
Implications of the findings to the cognitive-behavioural perspective...	62

<b>CHAPTER SIX</b>	<b>Page</b>
SUMMARY, CONCLUSION, RECOMMENDATIONS, AND SUGGETIONS FOR FUTURE RESEARCH.....	64
Summary.....	64
Conclusions.....	66
Recommendations.....	67
Suggestions for future research.....	69
Bibliography.....	71
Appendices.....	74

## LIST OF TABLES

	<b>Page</b>
Table 1: Grade Seven pupils selected to grade eight in Luanshya District for 2003 and 2002.....	2
Table 2: Highest ranked sources of anxiety.....	37
Table 3: Needs categories and sources of anxiety.....	37
Table 4: Sources of Anxiety by Gender.....	39
Table 5: Cognitive effects of anxiety on performance.....	42
Table 6: Behavioural Effects of anxiety on performance.....	42

## **CHAPTER ONE**

### **INTRODUCTION**

#### **BACKGROUND**

The seventh grade at the primary school level in Zambia is very important for every school-going child because it is at this level that the child's future academic progression is determined. At grade seven all children are expected to prepare adequately for the composite examination whose results are used for selecting them to proceed to grade eight. Selection to grade eight is a cherished desire of every child, parent, and grade teacher. Grade seven, therefore, is a landmark level in every child's academic life in Zambia.

Although there are termly and annual examinations every year at the primary school level, one cannot be sure that the child will be able to obtain the marks or grades required to be selected to grade eight. Kelly (1999: 94) has observed that, "admission to Government Secondary Schools is determined by an examination taken in grade seven by pupils who have continued on into the final primary year." He further emphasises the point that, the next and largest output from the school system occurs on completion of grade seven of primary school, when 70 to 75% of the pupils fail to obtain places in secondary schools.

Currently, about one-quarter of the grade seven pupils qualify to progress into grade eight at high schools while half of them enter the newly introduced basic schools. However, statistics obtained from the District Education Secretary Officer (DESO) in Luanshya District show that the trend has slightly shifted from having a larger group of grade seven pupils not selected, to that of having more children selected to grade eight.

This is due to the introduction of basic schools, which run from grade one to grade nine. The only problem cited was that many pupils did not want to attend basic schools, mainly because of lack of adequately qualified staff found in basic schools as compared to those found in high schools. Most pupils therefore, opted to attend high schools and were worried about whether they would meet the cut-off point for high school selection.

Table 1 below shows the number of pupils by gender that sat for the Grade Seven examinations, who were selected to grade eight, and those who were not selected for the years 2003 and 2002 in Luanshya District.

**Table 1: Grade seven pupils selected to grade eight for 2003 and 2002 in Luanshya District**

YEAR		Number sat for examination	Number selected to Grade eight	Number not selected	Percentage selected	Percentage not selected
2003	GIRLS	1773	1365	408	76.99	23.01
	BOYS	1963	1373	590	69.94	30.06
	<b>TOTAL</b>	<b>3736</b>	<b>2738</b>	<b>998</b>	<b>73.29</b>	<b>26.71</b>
2002	GIRLS	1898	1379	519	72.66	27.34
	BOYS	1871	1469	402	78.51	21.49
	<b>TOTAL</b>	<b>3769</b>	<b>2848</b>	<b>921</b>	<b>75.56</b>	<b>24.44</b>

Despite the shift in the trend, teachers and parents try their best to prepare the children for the examinations so as to get the best results. But teachers' and parents' efforts to prepare children are in most cases thwarted by intense pressure that children undergo in grade seven. Some pupils tend to develop fear, worry, and anxiety that affect their performance as they get to the seventh grade. When a child enters grade seven, he/she is faced with a number of challenges that may affect academic performance. According to Arnold (1990:224), "schools have become so product-oriented that they hurry children by emphasizing achievement and test scores." Emphasis on achievement and test scores pose challenges to the children, in turn creating tension and anxiety. Arnold

further explains that it is not surprising that so many child stresses relate to success and failure in school. Serpell (1993) has observed that the seventh grade has high level of publicity and anxiety attached to it due to the secondary school selection examinations.

It should be noted that most grade seven pupils in Zambia are about 12 years old, which, in most children, may mark the onset of adolescence period. According to Erikson, in Arnold (1990:224), “this is the period of industry versus inferiority, designated for the developmental stage when children begin to acquire the fundamentals of technology that will enable them to become productive citizens.” Arnold (1990) argues that; the danger for children at this stage is that they may develop a sense of inadequacy and inferiority if they fail to master the necessary tools and skills. Failure to master necessary tools and skills creates tension in the children and arouse anxiety, which later affects their academic performance. Having reached grade seven, pupils are expected to develop competences in many ways, not only in the ‘3Rs,’ but also in work habits, cooperative relationships (teamwork and team spirit), sense of confidence and athletic competence. These reinforce the child’s impulse control and drive towards more mature socialisation, (Arnold 1990). Failure to develop these competences renders the child hopeless, and triggers anxiety.

According to Bootzin (1991), almost all of us experience anxiety at one time or another. Moderate level of anxiety may act as a motivator for us to attain set goals, while high or low levels of anxiety may hinder attainment of set goals. Holmes (1991) points out that prolonged and disabling anxiety for some people takes more of their time and attention, affecting their performance. In schools, some pupils manifest poor academic performance not because they have low abilities, but because they may suffer continuous and disabling anxiety.

Middleton (1999:274) defines anxiety as, “a feeling of uneasiness and apprehension about some undefined threat. The threat is often physical with intimations of bodily harm or death or psychological with threats to self-esteem and well-being.” In

addition, Holmes (1991:558) has defined anxiety “as an emotional response characterised by apprehension, tension, physiological arousal and restlessness.”

Anxiety disorders are the most common mental disorders in the United States. In any given year between 15 and 17 percent of the adult population suffer from anxiety disorders (Kessler et al., 1994; Regier et al., 1993). Collectively, the anxiety disorders are also society’s most expensive mental disorders, costing an estimated total of \$46.6 billion in 1990 alone, a third of all mental health costs in America (Ravner, in Comer, 1995). No wonder Krug et al. (1976) have recorded that our era has been called the ‘age of anxiety,’ and anxiety manifestations are certainly widespread.

Most of the studies on anxiety and its effect on performance have been done in the Western world. Scholars in Africa and Zambia in particular, seem to have ignored this important factor that affects directly or indirectly pupils’ academic performance. It is important to state that, though ignored, anxiety contributes greatly to pupils’ academic performance. Zambian pupils, for example, are subjected to very poor learning environment such as “inadequate classroom space, inadequate school furniture, and inadequate supply of textbooks, poor water sanitation, class boycotts by teachers, unqualified teachers, and physical punishment” that predispose them to stress, tension and anxiety (Ministry of Education Choma District Profile Magazine 2003:9).

By and large, high drop-out rates, absenteeism, drug abuse, bullying, and many other forms of indiscipline among pupils reported in Zambian schools may be manifestations of excessive and prolonged anxiety.

There is every reason therefore, to get concerned about extreme anxiety in our schools because it may lead to poor academic performance among pupils. Most of the Zambian children attend public schools, and as reported by Dembo (1994), public schools are among the most anxiety-producing institutions, and primary school pupils are reported to be more prone to anxiety than students at high schools and tertiary institutions.

## **STATEMENT OF THE PROBLEM**

A Ministry of Education Choma Profile Magazine of 2003 highlighted inadequate classroom space, inadequate school furniture, and inadequate supply of textbooks, poor sanitation, unqualified teachers, and physical punishment as potential sources of prolonged anxiety in schools, which contribute to pupils' poor performance. Existence of sources of anxiety in schools is a problem that affects pupils' academic performance.

This study therefore, sought to investigate sources and effects of anxiety on academic performance among grade seven pupils in Luanshya District of Zambia.

## **PURPOSE OF THE STUDY**

The purpose of the study was to investigate the sources and effects of anxiety in the schools, particularly among grade seven pupils in Luanshya District. As already stated in the background of the study, this grade was targeted for study because grade seven is the grade at which all children in schools in Zambia sit for their first national examinations, whose results are used for selection to both high and basic schools. Due to these examinations, grade seven has potential sources of anxiety, which affect pupils' academic performance.

## **OBJECTIVES**

The objectives of the study were:

1. To determine sources of anxiety among grade seven pupils.
2. To investigate effects of anxiety on academic performance of grade seven pupils.

## **RESEARCH QUESTIONS**

The research questions were:

1. What are the major sources of anxiety among grade seven pupils?
2. What are the effects of anxiety on academic performance of grade seven pupils in Luanshya District?

## **SIGNIFICANCE OF THE STUDY**

This study is important because it is hoped that its findings will provide a basis for teachers, school administrators and parents to implement suitable strategies that would help to reduce the sources and the effects of anxiety on academic performance of pupils. Reduction of the sources, and mitigation of the effects of anxiety could improve academic performance of pupils in grade seven in particular, and in the whole school system in general. Lastly, it is hoped that the findings of this study would contribute to the general body of knowledge and might assist in generating research interest in the area of sources and effects of anxiety on academic performance of pupils.

## **LIMITATIONS OF THE STUDY**

This study faced two limitations. The first limitation was a small sample size of two hundred grade seven pupils used in the study. The views of the small sample size may not be representative of all grade seven pupils in Luanshya District. As a result of the small sample size, the findings may not be generalized to all Zambian grade seven pupils. The study should probably have been more meaningful had more schools and pupils participated. The second limitation was that old and experienced teachers refused to take part in the study. Missing valuable information from experienced teachers might have affected the outcome of the study. For these two reasons, the findings of the study should be

applied with caution to the problem on the sources and effects of anxiety on pupils' academic performance.

## **OPERATIONAL DEFINITIONS**

**Academic performance** is used in this study to denote pupils' involvement in the learning process, concentration, and academic competence such as reading and writing, and attending to school tasks, and the marks they obtain in class.

**Anxiety** means a feeling of dread, apprehension, worry or fear, accompanied by heightened physiological arousal, which distract attention on the part of the person experiencing it.

**Cognitive anxiety** is used to mean symptoms such as worry, feelings of pressure, frustration, and concerns about failure that affect mental functioning of individuals.

**Fear:** anxiousness about undertaking certain kinds of tasks, often leading to choice of tasks that are too easy or too difficult, so as to maximise success or avoid personal responsibility for failure.

**Response to anxiety** refers to behavioural patterns such as absenteeism, trembling, lack of concentration, out bursts and sweating exhibited by pupils when they feel anxious and nervous about some stimuli in the school/learning environment.

**Somatic anxiety** means symptoms such as feeling physically "tight" and restless and having a rapid heart palpitation and upset stomach.

**State anxiety** refers to anxiety evoked by the prevailing situation in the environment.

**Stress:** a pattern of disruptive physiological and psychological reactions to events that threaten the ability to cope. It is a condition causing hardship.

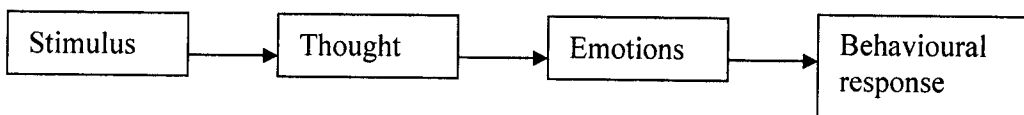
**Trait anxiety** is a relative stable manifestation of anxiety by an individual in most situations.

## THEORETICAL FRAMEWORK

This study is grounded on the cognitive-behavioural theoretical framework of understanding anxiety. According to Wine (1980), under certain stimuli, students with high levels of anxiety tend to divide their attention between task demand and personal concerns principally composed of negative self-preoccupations that interfere with their performance; and those with low levels of anxiety tend to devote a great proportion of their attention to task demands thereby interfering with thought processes. It is important to note that both high levels and low levels of anxiety negatively affect performance. Moderate level of anxiety on the other hand, is seen to have no effect on performance as it acts as a motivator (Child, 2001).

The central argument of cognitive-behavioural perspective is that thoughts mediate between stimuli such as external events, and behavioural responses. As in the figure below, a stimulus elicits a thought, which might be an evaluative judgement of some kind, which in turn gives rise to an emotion and behavioural response.

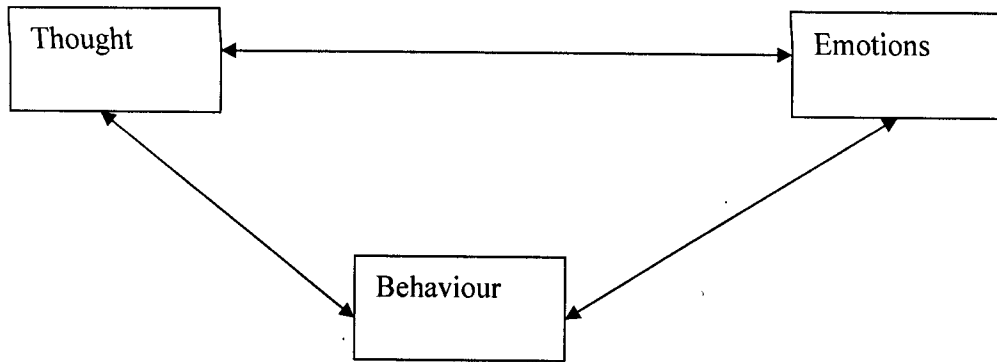
Figure 1. Cognitive-behavioural process



In other words, it is not the stimulus itself, which somehow elicits an emotion or behavioural response directly, but our evaluation of or thought about that stimulus (<http://counsellingresource.com/types/cognitive.therapy/>).

Cognitive-behavioural approach seeks to understand how the three components of emotions, behaviours and thoughts interrelate, and how they may be influenced by external stimuli.

Figure 2. Thought, emotions, and behaviour interrelationship.



Cognitive-behavioural approach aims at identifying thought distortions, which cause psychological distress, and of behavioural patterns which reinforce it.

The cognitive-behavioural theory stresses that; anxiety is associated with lack of concentration, lower ability and low academic performance. Lower academic performance by anxious pupils can occur either by inadequate acquisition and lack of basic domain-specific skills, or by interference in the retrieval of prior learning, or the combination of these (British Journal of Educational Psychology, 1999).

The theoretical framework emphasizes that anxious pupils manifest the following cognitive symptoms that interfere with performance:

- (1) Sensory perception becomes hazy, cloudy, foggy, dazed, and objects seem blurred and the environment seems different and unreal.
- (2) Thought impairment: an anxious pupil cannot recall important things, becomes confused, is unable to control thinking, finds it difficult to concentrate, experiences distractibility, and finds difficulties in reasoning.
- (3) Content of thought: an anxious pupil experiences cognitive distortion, fears to lose control of the situation, and fears negative evaluation.

As for behavioural responses, most anxious pupils adopt maladaptive behaviour of avoiding confronting the anxiety-evoking stimulus. By avoiding the stimulus they do not

solve the problem, but it leads to more anxiety when a similar situation arises and this eventually affects performance.

## **ORGANISATION OF THE STUDY**

The study is organized into six chapters. Chapter One comprises the introduction, statement of the problem, purpose, objectives, research questions, significance of the study, limitations of the study, operational definitions of concepts used in the study, and the theoretical framework. Chapter Two consists of the literature review, presented under the following sub-headings: definition and explanation of anxiety, sources of anxiety, and effects of anxiety on academic performance among pupils. Chapter Three contains data gathering methods. It describes the pilot study, the main study consisting of the study design, the study population, sample and sampling procedure, and data collection techniques. Chapter Four presents the findings of the study, while Chapter Five discusses the findings of the study. Chapter Six constitutes a summary, conclusion, recommendations and suggestions for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

This chapter reviews relevant literature on the subject of anxiety. The literature review will be presented according to the following sub-headings: definition and explanation of anxiety, sources of anxiety among pupils, and effects of anxiety on academic performance of pupils.

#### **DEFINITIONS AND EXPLANATIONS OF ANXIETY**

According to Berliner et al. (1988:165) “anxiety is both a trait (a relatively stable characteristic) and a state (a temporary characteristic).” As a trait, anxiety is a general disposition to feel threatened by a wide range of conditions. As a state, anxiety is related to particular situations.

Anxiety is an emotional state characterised by fear, apprehension, and physiological arousal. It is a state in which an individual worries, feels nervous and becomes uneasy, sometimes of being menaced by unspecified threat to one’s personality (Comer, 1995).

Taylor et al. (1988) define anxiety as a feeling of uneasiness and apprehension about some undefined threats. The threat is often physical with intimations of bodily harm or death or it is psychological with threats to self-esteem and well-being. The feeling is diffuse and ineffable, and the indefinable nature of the feeling gives it its peculiarly unpleasant and intolerable quality. Most definitions agree that anxiety occurs in response to a stimulus, which individuals perceive as threatening to their physical, social or psychological integrity. This means that anxiety is directly aroused by threats to security, social and esteem deficiency needs.

According to Moran (1996), anxiety has both the affective and cognitive changes that affect performance. The affective changes include feelings of apprehension and panic whereas the cognitive factors involve persistent worrying about the future together with an inability to sustain a focus on task-relevant activities.

Common to most definitions of anxiety are the following six characteristics as postulated by Middleton (1999:274).

- It is an emotional state characterised by the subjectively experienced quality of fear or a closely related emotion.
- The emotion is unpleasant.
- It is directed towards the future.
- Either there is no recognisable threat or the threat is, by reasonable standards, quite out of proportion to the emotion it seemingly evokes.
- There are subjective bodily discomforts during the period of anxiety.
- There are manifest bodily disturbances.

A report by Middleton (1999) reveals that, anxiety is a universal human emotion. Everyone, in mild form, experiences it at some time or another, in a more extreme form it leads to fears of impending death or catastrophe. He further explains that anxiety shapes and directs human behaviour and has important implications. Implications have been shown to lie in the impact anxiety has on human functioning, the greater the anxiety, the greater the degree of disorganised functioning; and the lower the anxiety, the more complacent the individuals become. Only moderate anxiety produces motivation to perform.

Bootzin (1991) and Comer (1995) established that although everyday experiences of fear and anxiety are not pleasant, they have an adaptive function: they prepare us for action-for 'fight or flight'-when danger threatens. They may, for example, motivate us to drive more cautiously at night, keep up with our reading assignments, treat our

appointments more sensitively, and work harder at our job. Studies have shown that the kind of anxiety that produces motivation is mild anxiety, which generally does not interfere with our lives.

Comer (1995:183) has demonstrated that, “unfortunately, some people suffer such continuous and disabling fear and anxiety that they cannot lead a normal life. Their discomfort is too severe or too frequent, it lasts too long; it is triggered too readily by what the sufferers recognise as minimal, unspecified, or non-existent threats.”

Findings by Bootzin and Comer have proved that, for some people, anxiety over some situation takes up more and more of their time and attention. It becomes severe or so persistent that it interferes with family life, social activities, and work.

According to the Anxiety Disorders Association of America (2003), children and teens have anxiety disorders in their lives, just as adults do, and they can suffer from anxiety disorder in much the same way. Stressful life events, such as starting school, moving, or loss of a parent, and examinations in school can trigger the onset of prolonged and debilitating anxiety among children. It has been established that if untreated, children with anxiety disorders are at higher risk to perform poorly in school, to have less developed social skills and to be more vulnerable to substance abuse (Anxiety Disorder Association of America, 2003).

Studies that have been conducted in schools have shown that some pupils fail their examinations and fail to perform tasks due to being anxious. The type and degree of anxiety differ widely among students. For some, anxiety is a generalized fear of the total school situation and, for others, a fear of specific aspects of the school environment such as teachers, peers, particular subject areas, or tests. In extreme cases (as in school phobia), the fear is so great that the child may refuse to go to school (Dembo, 1994).

Other studies have also shown that anxiety affects cognition, throwing some people into a state of confusion and making it difficult for them to think clearly and solve problems (Bootzin, 1991).

Middleton (1999) has found that anxious people have negative view of themselves. They see themselves as vulnerable in the face of potential harmful situations. Because of this, they believe that they do not possess the necessary resources to cope with unfavourable events and therefore live in a constant state of anticipation of physical and or psychological harm. Fear of loss of control leading to feelings of humiliation, embarrassment and sadness is common among pupils with anxiety; this may include fear of losing control of one's faculties or mental functioning.

Hall et al. (1988:76) observed that "anxiety in the individual is usually generated by a threat to self-esteem, though sometimes there is real threat of physical attack. Sometimes the threat seems to be irrational." Smail in Hall et al. (1988) has stated that, the threat and the anxiety are both real for the person concerned, irrespective of what an external observer might think.

## **SOURCES OF ANXIETY**

Anxiety among pupils emanates from a number of situations in the learning and social environment. The school, being learning and social environment, predisposes pupils to stress and anxiety. A variety of factors exist in schools that evoke anxiety among pupils. Some forms of anxiety are more specific to individuals and situations. Anxiety state among pupils in some schools is exacerbated by lack of school counsellors, school psychologists, social workers and referral systems to mitigate its impact. Some sources of anxiety from the literature reviewed are discussed below.

Hall et al. (1988) argued that some pupils might become anxious every time the head teacher comes into the classroom, even though he/she has not done anything to

threaten them. These feelings may come up every time they are in the presence of an authority figure. They have further established that, some pupils may find a group of mature adolescents threatening, even though they have always been friendly and cooperative. Being threatened by the presence of the head teacher and mature adolescents creates tension leading to anxiety among pupils. Actually, some adults have vague feelings of anxieties, which they do not understand, and which probably relate to events that happened in early childhood. Sometimes these feelings of anxiety become so strong that the person concerned is unable to go to work or concentrate on work, and this may affect his/her performance.

Hall et al. (1988) highlighted that the experience of school is an affront to the self-esteem of a high proportion of pupils. Teachers tend to come from more successful proportion of the school population, and it is difficult for them to understand the lives of pupils who are having a continuous experience of failure and the threat that this might impose. Pupils who have a continuous experience of failure develop prolonged anxiety. The more successful pupils also have their own problems of pressure to succeed and to live up to the expectations of both parents and teachers. The pressure to remain successful creates tension and anxiety among pupils.

Elkind, in Arnold (1990:224), pointed out that "today's parents are hurrying the growing-up process by treating children as adults and by burdening them with worry and anxiety, expecting them to aid adults in carrying life's load." It is a well-established fact that teachers too, burden pupils with worry and anxiety by expecting too much from them in terms of academic performance. Elkind continued and suggested that today's schools reflected the current bias towards having children grow up too fast. Schools have become so product-oriented that they hurry children by emphasizing achievement and test scores. Emphasis on achievement and high-test scores by teachers causes prolonged and disabling anxiety in some pupils.

Studies have established that relations within the peer group pose further threats with problems of being rejected, ridiculed and even bullied physically. Some pupils are so excruciatingly shy that they spend all their free time standing on their own in a corner of the playground. Some children are worried about the appearance of their bodies. Related to physical problems are the problems of burgeoning sexuality and sexual attraction. Being ridiculed by peers creates tension and anxiety in some pupils, which affect their self-esteem (Hall et al., 1988).

Anxiety Disorders Association of America (2003) identified the following stressors as some of the sources of anxiety among school going children: Separation anxiety, concern about academic performance, anxieties about making friends and fear of a teacher or bully. Gage and Berliner (1988) found that the extent to which academic programmes were structured in various classrooms and schools had been shown to interact with anxiety levels. It has been established that unstructured learning environments and teaching methods may induce prolonged anxiety and create difficulties for children with high anxiety levels.

A case study about Sebastian, in Blagg (1990) has revealed that long distance to school is a source of anxiety. The case study revealed that the transition from a small, familiar school close to home to a larger, alien school a long journey away was threatening for Sebastian. He was unable to come home for lunch and found lunch hours very distressing. He felt sick in the mornings and the long journey to school was unpleasant. The long distance to school and missing lunch made Sebastian anxious every time he thought about school.

Thoughts about grades or marks is yet another source of anxiety among learners. Grade anxiety describes feelings of uneasiness, nervousness, and great concern regarding measures of academic performance. It manifests itself as an obsessive concern for one's

marks in a test, assignment, or examination. The main symptoms of anxiety related to marks as recorded by Santos (2003) are:

- ◇ Physical stress symptoms such as increased heart rate, sweating, loss of appetite and knots in stomach, and muscle tension.
- ◇ Cognitive symptoms, which include inability to concentrate or focus on work, worry, ruminations-constant thoughts of performance, evaluation and grades.

Marks or grades are considered as a source of anxiety among school going children because the main symptoms discussed above reduce pupils' concentration on the tasks.

Child (2001) has reported that examinations, especially public examinations on which one's future career might hinge, is a regular source of anxiety among pupils. This points out that the seventh grade in Zambia, which receives so much publicity and threats about the selection examinations to high and basic schools induces prolonged anxiety in pupils.

Wine's (1980) findings have shown that under evaluative stress, pupils with high levels of Test Anxiety tend to divide their attention between task demands and personal concerns principally composed of negative self-preoccupations. On the other hand, students with low levels of Test Anxiety tend to devote a greater proportion of their attention to task demands. Students with high levels of anxiety are faced with interference to their work while those with lower anxiety lack the drive to engage in work. Kleijn, Van der Ploeg and Topaman (1994) found that, highly test-anxious students had less effective study habits than those lower in anxiety. This demonstrates that tests are a source of anxiety among pupils.

McCraty et al. (2000) designed improving Test-taking Skills and Academic Performance enhancement tools and conducted a study in order to reduce student anxiety during test taking. They highlighted that each year, a percentage of students do not receive their high school diploma because they fail to pass Minnesota Basic Standards

Test (MBST). In some cases, the Basic Standards Tests represent a seemingly insurmountable challenge, with students having to re-take the tests up to seven or eight times in order to obtain a passing grade. Thus, these tests represent a significant source of stress and anxiety for many high school seniors.

Some teachers and school counsellors in the Minneapolis Public School District had noted that test-taking anxiety appeared to be a major factor in keeping students from passing the Basic Standards Tests. Many students were so worried about passing particularly in cases where they had already failed the tests that they were unable to perform effectively, even if they were extremely well prepared academically. Thus the study focused on Heartmath Self-management Techniques which were implemented as part of Spring Training Camp designed to reduce test-taking anxiety and prepare students mentally and emotionally, as well as academically, for the state tests. McCraty et al. (2000:1) stressed that, "students had the knowledge, but were unable to perform well on the tests because of anxiety and stress." The results of the study indicated that students who underwent Test taking training demonstrated significant improvement in test taking performance following the programme.

Another established source of anxiety is fear of failure by some learners. Observations by Santrock (1984) have pointed out that adolescents in the United States grew up in an achievement-oriented culture. They have been reared to be competitive, to win, and to do well in whatever they attempt. Some psychologists believe that over emphasis on striving for success make adolescents uptight about school and other activities, even to the point of avoiding challenges for fear of failure. Ironically, adolescents who experience such tension may not perform up to their abilities. Santrock (1984) has stated that, fear of failure refers to the adolescent's anxiety about not doing well. If the thought about failing persists, learners remain worried, tensed up and anxious for a long period of time.

According to Hackett, in Dembo (1994:162), “some school subjects evoke more anxiety than others.” For example Tobias (1980) has written about Math anxiety, pointing out that, “Math-anxious” and “Math-avoiding” individuals do not trust their problem solving abilities and experience a high level of stress when asked to use them. These anxious feelings about Math can lead to lower grades and to the avoidance of Math and Math courses.

A study conducted in Zambia by Makubalo (1985:36) revealed that “numerical anxiety was found to be present in the sample tested. The study showed that there were progressively higher levels of numerical anxiety from third through fifth to seventh grade.” The general trend observed was that from third grade, numerical anxiety was fairly low or non-existent but tended to increase by seventh grade level. The study found that numerical computation aroused more anxiety than other subjects.

According to the Anxiety Disorder Association of America (2003), social phobia is characterized by intense fear of situations, usually social or performance situations, where embarrassment may occur. Individuals with such anxiety are acutely aware of the physical signs of their anxiety and fear that others will notice, judge them, and think poorly of them. The most common fears associated with social anxiety are fear of speaking in public or to strangers, fear of meeting new people, and performance fears. Children who experience social anxiety are usually shy and manifest a marked decline in school performance. They also often try to avoid going to school or taking part in age appropriate social activities. Their fears are centred on peer settings rather than social activities involving adults, with whom they may feel more comfortable.

In a case study about John, in Blagg (1990), it was found that, John feared to speak in class because he was usually anxious and felt that he would be laughed at especially that he could not read very well. Blagg further discovered that schools that suffer from rowdy behaviour and major discipline problems might also induce considerable high

levels of anxiety among pupils. The highly anxious child who complains of persistent bullying may have particular difficulties of readjustment in this kind of environment and may require placement in a more sheltered controlled system.

### **EFFECTS OF ANXIETY ON PUPILS' ACADEMIC PERFORMANCE**

Anxiety affects people's performance in many ways. It affects intellectual functioning and leads to maladaptive behaviour. People respond differently to anxiety. Hall et al. (1988) have suggested that the natural response to anxiety is to defend oneself. This can be done by either attacking the source of anxiety or trying to neutralize it, or by escaping from it. Some pupils respond to anxiety by breaking out in violent verbal outburst and simply break into tears and cry. Some escape by dodging from classrooms just as teachers escape from the classroom to the staff room.

Lors-Marphy, in Santrock (1988), has described the complex nature of the coping process used by adolescents as follows: Adolescents may attempt to reduce the threat, postpone it, by-pass it, create distance between themselves and the threat, or divide their attention. They may attempt to control it by setting limits, or by changing or transforming the situation. They might even try to eliminate or destroy the threat, or they may balance the threat with security measures, changing the relation of themselves to the threat or to the environment, which contains it, but which also, includes sources of reassurance. Instead of dealing with the actual threat itself, they may deal primarily with the tension aroused by the threat. Sometimes they may attempt to contain the tension via insight, conscious formulation of the nature of the threat, defence manoeuvres such as being brave, or reassuring themselves that they would be able to deal with it.

According to Kuppuswamy (2003:428), "fearful and frightening situations from the beginning produce in the children the withdrawing attitude and a sense of fear and anxiety." The fearful situation persisting in their lives for long make children recessive

and reserved and they are likely to feel nervous or shaky in presence of superiors or when called upon to participate in-group activities. Even when they are required to do work, they become anxious and withdraw from the work.

Donald et al. (2000) observed that often emotional conflicts and developmental issues cause more stress and anxiety than the children can cope with. This may result in a range of behaviours and difficulties, which are the result of their attempts to ward off anxiety. They are generally defensive in nature. Children who are consistently made to feel inadequate will feel anxious in most situations where they have to engage themselves socially, emotionally, or scholastically. One way of trying to escape anxiety might be to avoid engaging in anxiety arousing situations. The need to cover up or tell 'lies' is often the result of such patterns of avoidance. The cost is that, in one way or another, a child's ability to adjust and to cope with reality is reduced, causing further long-term anxiety.

Findings by Krug (1976) indicated that beyond the fairly frequent indications of tension, worry, and being high-strung and emotionally aroused, the anxious individual reports greater restlessness, phobic reactivity, and are suspicious of the motives of others. They are unmindful of details, though apparently not when it comes to their physical well-being, for they are more sensitive to, or at least more concerned about somatic disorders. They are unsure of themselves and tend to be less satisfied with life than the less anxious, better-adjusted individuals.

Child (2001) has observed that whenever there is a threat to one's self-esteem, anxiety is inevitable. In turn, anxiety states will have some influence on learning and performance. Child further observed that in some circumstances moderate level of anxiety might provide drive energy that can be harnessed to good effect. In other cases, the level of anxiety may be so high or so low as to be disruptive. High levels of anxiety and stress are debilitating and affect performance. He further stressed that those who were highly anxious, might experience disruptive influences from the very outset of task performance.

In other words, as the stress in a situation mounts, our performance deteriorates immediately.

Derville (1992:21) emphasised the point that “a little anxiety will act as a stimulus to effort, but too much anxiety interferes with the learner’s powers of concentration and memory.” If a learner is made over anxious, he/she is not likely to produce good work and he/she may develop a dislike for the subject he/she is learning.

Moran (1996:255) has argued that “anxiety affects people’s information processing activities in several ways. Specifically, it reduces their memory resources, sometimes restricts their attentional focus and usually increases their tendency to encode emotionally threatening information in a selective fashion.” Fox, in Moran (1996), explains that a deficit in cognitive inhibition explains why anxious people tend to be more distractible than control subjects. Moran further argues that anxiety tends to disrupt our concentration in a number of ways. To begin with, it depletes working memory resources by inducing “worry”—a conscious cognitive activity involving task-irrelevant thinking. Specifically, anxiety tends to make us self-conscious. In this state, we tend to dwell on real or imagined personal weaknesses (self-focused attention) and also potential threats in the environment (‘hyper vigilance’).

Aushel, in Moran (1996), pointed out that anxiety is associated with self-preoccupation in sport when the athlete interprets an actual or potential event as threatening and is distracted from the task at hand by those non-productive thoughts. Another outcome of anxiety is that our attention may be re-focused on the results of what we are doing. This state induces a state of ‘evaluation apprehension’ that is also likely to impair task performance and increase anxiety.

Test anxiety is among the most common forms of anxiety in childhood that affects academic performance (Beidel and Turner, 1988, and Wigfield and Eccles, 1990). In the case of low-test-anxious people, attention is presumed to be focussed narrowly on the task

at hand while attention to other stimuli is minimised. In contrast, test-anxious people are presumed to divide their attention between the task and stimuli related to the potential inadequacy of their performance (Wine, 1982).

Santrock (1984) explained that fear of failure leads to anxiety, and when the anxiety about the test is so high, it can counteract the motivation of pupils leading to poor performance.

Effects of Test Anxiety on academic performance have been thoroughly investigated. Hembree (1988) and Seipp (1991) have shown that in most studies, Test Anxiety is accompanied by lower test performance. In the Test Anxiety literature, this apparent detrimental effect of Test Anxiety is almost exclusively interpreted within the so-called interference model (Sarason, 1988 and Wine, 1980). Basically, the interference model describes the test-anxious student as one who knows the course material, but freezes up during task performance or examinations and, therefore, is unable to recall prior learning. The model thus refers to Test Anxiety as an interfering agent (British Journal of Educational Psychology, 1999). Interference affects the learners' concentration hence affecting performance.

Holmes (1991:75) reported that "taking a difficult examination increases both cognitive and somatic anxiety, but only the cognitive anxiety hinders performance on the examination." The cognitive anxiety has its deleterious effect on test performance because the worry and concerns about failure interfere with the effective problem solving. If a learner gets to the item on a test that he/she does not know and begins to worry about failing, he/she would not be able to concentrate on the rest of the test.

According to Santrock (1984), the relation between state anxiety and performance is a curvilinear one for most tasks-that is, moderate levels of anxiety maximize achievement behaviour. Either high or low levels of anxiety result in less than maximum efficiency. At the low end of the anxiety continuum, the adolescent may be too lethargic

to attend to the cues necessary to efficiently perform the task. At extremely high levels of anxiety, irrelevant responses often appear to compete with task-oriented behaviour. At high level of anxiety, discrimination between appropriate and inappropriate cues also breaks down, resulting in behavioural inefficiency.

Santos (2003) in his paper entitled "Grade anxiety" numerated the following as some of the effects of grade anxiety:

- ◇ It leads to loss of pleasure of learning: When the pupils concentrate more and worry about the marks or grades they would get, then the process of learning loses its joy.
- ◇ It is also associated with less efficient cognitive functioning: Anxiety reduces pupils' ability to concentrate. If pupils are obsessed with their performance, they have fewer cognitive resources to allocate to legitimate studying.
- ◇ As a mental health problem, it induces physical and psychological stress. Prolonged anxiety can lead to stress. Stress overtime can cause ulcers, headaches, high blood pressure, digestive problems, and depression that affect cognitive functioning.

A pupil menaced by desire for high marks or grade fails to concentrate, therefore, has problems with academic performance.

Selective attention may also play a role in childhood anxiety. Evidence suggests that even young children and infants use attention disengagement in response to threatening stimuli as a means of regulating fear (Cortez and Bugental, 1994). By virtue of their excessive vigilance for threat cues, anxious people may experience the world as unusually threatening. Such perceptions in turn may contribute to constant high levels of arousal and unnecessary avoidance (Logan and Goetsch, 1993).

Recent evidence suggests that anxious children, like their adult counterparts, show an attentional bias toward threat stimuli. Martin, Horder, and Jones (1992) compared

children who reported a fear of spiders to children who reported no fear. Subjects completed a version of the Stroop colour-naming task (Stroop, 1935) that included spider-relevant and non-relevant words. Results show that colour-naming responses among anxious subjects are delayed by presence of threat-relevant words while non-anxious subjects show no interferences. One explanation for this effect is that anxious subjects' attention is drawn to the content of threat-relevant words more than neutral words, leaving less attention available for colour naming.

Consistent with adult findings, Martin et al. (1992) found that spider-relevant words disproportionately disrupted the colour-naming performance of spider-fearful children. In contrast, non-fearful children performed equally well for both types of words.

It is generally found that, both induced normal anxiety or neurotic anxiety facilitate rote and less difficult kinds of meaningful reception learning, but have an inhibitory effect on complex learning tasks that are more dependant upon improving skill than upon persistence (Ausubel et al, 1953a).

Neurotically anxious pupils bring a surplus of anxiety into the learning situation particularly when it is truly novel and, therefore, potentially threatening to their self-esteem. For such pupils, the combined effect of the problem induced arousal and the neurotic anxiety-induced arousal results in a drive level, which is much too high for the improvisation necessary in the problem concerned (Ausubel, 1972).

The reaction of the anxious pupils is that initially the pupils' anxiety may cause their attention to be deflected from the problems to the cause of their anxiety, that is, their feelings of inadequacy. The high anxious pupils have a different orientation. They lack normal self-esteem; and they lack confidence in their ability to cope with new adjustive situations. High anxious pupils panic and fluster, making a significantly greater number of errors than the moderate-anxious pupils. The findings suggest that the debilitating effects

of high anxiety will occur in genuinely novel learning situations with a given kind or class of problems (Ausubel, 1972).

Recent research by Cortez and Bugental (1994) supports the view that anxious children may quickly engage in avoidance once they detect threatening information. The study established that the debilitating effects of high anxiety occur in genuinely novel learning situations.

The findings from Makubelo's study (1985) in Zambia have shown that, numerical anxiety interferes with mathematics performance (perhaps as a cognitive disorganizer) and that higher levels of this anxiety state will tend to have a greater negative effect on mathematics performance. The rationale underlying this expectation was that up to an optimum level, numerical anxiety would tend to enhance performance. However, as numerical anxiety continues to increase, it will soon begin to act as an inhibitor to learning.

## **SUMMARY OF THE REVIEWED LITERATURE**

Anxiety has both the affective and cognitive changes. The affective changes induce feelings of dread and panic, whereas the cognitive changes involve persistent worry about the future and loss of concentration.

The reviewed literature has identified the following major areas of concern as sources of anxiety among pupils: Fear of authority figure in the school such as the head teacher who is associated with meting disciplinary measures to the pupils, teacher-parent high expectations about pupils' performance, pupils' relationships with their peers, and unconduceive school environment. Other factors identified as sources of anxiety included covering long distances to school, concern about the marks or grade one would get, worry about writing tests and examinations, and fear of failure. Also identified, as sources of

anxiety were fear of mathematics, and fear to speak and present in public places such as the class and in novel situations.

The literature reviewed has also shown accumulation of evidence that anxiety affects performance among pupils. Anxiety reduces the cognitive resources available for task-relevant information processing activities. In particular, it appears to involve a heightened degree of self-preoccupation together with a concern about the consequences of evaluation. Anxiety entails rumination about issues that lie outside one's control. Because anxiety is a conscious, effortful process, it draws upon the processing resources of working memory. Therefore, anxiety causes worry which in turn, depletes working memory resources and drains the mind of attentional resources (Eysenck, 1992).

Further more, literature shows that anxiety is consistently associated with decrements in the performance of cognitive tasks, especially under evaluative conditions. The literature strongly suggests that anxiety interferes with attention mainly through its depletion of working memory resources. According to Moran (1996), these resources are important to pupils who rely on working memory as a transient store for perceptual information which triggers associated procedural knowledge. Moran further argued that, if working memory resources were depleted by anxiety, then less storage space was available for pattern recognition activities. Pupils' task and academic performance tend to deteriorate under anxiety provoking circumstances. Anxious pupils tend to lose concentration, avoid the anxious arousing situations, have low self-esteem, and lack confidence in their ability to cope with learning, hence they make more mistakes. They also lose pleasure in learning and have fewer cognitive resources allocated to legitimate studying. Some anxious pupils resort to counter productive behaviour such as bullying, absenteeism, sneaking from class, shunning groups and avoiding facing the teachers on one to one basis. The end result is that anxious pupils develop both physical and psychological stress that affects their performance. It is commonly said that an individual

with mental health problems such as anxiety, does manifest physical mental problems as well. Combinations of mental and physical health problems therefore, affect performance either through lack of concentration or avoidance of the anxiety-arousing situation.

It is important to note that the reviewed literature might have had its limitations. It may have revealed only some sources of anxiety common in the Western culture, leaving out what may be other important sources of anxiety among grade seven pupils in Zambia. For example, the reviewed literature did not include teachers' strikes and knowledge about leaked examination papers as sources of anxiety. However, though the reviewed literature might have not included what may be other important sources of anxiety among pupils in Zambia, the findings from other countries are applicable in the Zambian context too. Though some sources of anxiety may be unique to particular countries, the effect of anxiety on academic performance is similar world over.

## **CHAPTER THREE**

### **DATA COLLECTION**

This chapter describes how the pilot study and the main study were conducted. It also explains the methods and instruments used to collect data.

#### **STUDY DESIGN**

A survey research design was used in the study. Pupils' questionnaire was used to determine the perceived sources of anxiety among seventh graders, while the teachers' questionnaire was used to capture the perceived effects of anxiety on academic performance among grade seven pupils in Luanshya District. The teachers' questionnaire also reflected pupils' response to anxiety-arousing stimuli in the learning environment. Both qualitative and quantitative methodologies were employed in the study. The quantitative methods were used in analysing responses from questionnaires.

#### **STUDY POPULATION**

The study population comprised all the grade seven pupils in all the thirty basic schools with grade seven classes in Luanshya District. The population included both boys and girls. The age range for the study sample was from twelve to fifteen years. The study population also included all the primary school teachers in Luanshya District who had more than five years in-service.

#### **SAMPLE SIZE AND SAMPLING PROCEDURE**

The sample size comprised two hundred grade seven pupils drawn from ten schools randomly selected. To draw a sample of twenty pupils from each of the

participating school, one class was randomly selected using stratified sampling technique. Pupils in the drawn class were given papers onto which “Yes” or “No” were written. The pupils who picked the papers onto which “Yes” was written were the ones selected to participate in the study. An equal number of both boys and girls were drawn. The ten schools that participated in the study were, Mpelembe, Buteko, River Cross, Fisenge, Mikomfwa, Makoma, Nkulumashiba, Mpatamatu, Roan, and Ndelela Basic Schools, all in Luanshya District.

Eighty primary school teachers randomly selected from the participating schools also took part in the study. Random sampling technique was used to select respondents because it provided each element (class) in the population an equal chance to be selected as a study sample (Cohen et al., 2000). The sample of eighty teachers comprised mainly young teachers who had work experience of between five years and ten years. The sample distribution by gender for teachers was forty females and forty males.

## **DATA COLLECTION INSTRUMENTS**

The following instruments were used to collect data for the study:

- (a) Pupils’ questionnaire.
- (b) Teachers’ questionnaire.

### **Pupils’ questionnaire**

This questionnaire was the main research tool used in the study. The choice of the items included in the questionnaire was arrived at after reviewing relevant literature on the sources and effects of anxiety among pupils in schools. The questionnaire comprised twenty-five (25) items on the sources of anxiety.

In section A of the questionnaire, respondents were required to fill their demographic data such as sex, age, and information about the school. In section B,

respondents were provided with an inventory of some possible factors in the school that may cause prolonged anxiety, fear, frustration or tension among pupils. Respondents were required to indicate the extent to which they thought the item produced anxiety by circling one of the four numbers against each item calibrated as follows: 4= Often, 3= Sometimes, 2= Rarely, and 1= Never as in appendix 1.

### **Teachers' questionnaire**

Teachers' questionnaire was used to collect data on what teachers perceived as effects of anxiety on academic performance of pupils. The questionnaire also captured the affective, cognitive and behavioural changes among pupils that affect task and academic performance of pupils. The questionnaire comprised fifteen statements followed by two options. The teachers were required to tick the option they thought displayed the affective, cognitive or behavioural changes that affect performance of pupils.

Section A of the questionnaire required participating teachers to fill in personal data items such as gender, years in service, age, and name of the school. In section B, participants were required to indicate by circling the option they felt affected academic performance of anxious pupils. The last part required participants to outline any other effects of anxiety they thought affected academic performance of pupils.

The teachers' questionnaire was used to collect data on the effects of anxiety on pupils' performance because teachers are the ones who assess and observe the pupils' academic performance. It was felt that pupils would not give correct data on how anxiety affected their performance as this required self-disclosure. Self-disclosure involves sharing personal information with others that they would normally not know or discover. According to Lindsley (2000), self-disclosure involves risk and vulnerability on the part of the person sharing the information. The risks involved include being taken advantage of, getting hurt, embarrassment and manipulation. As such, many people do not disclose

negative information about themselves for fear of embarrassments. It was felt that pupils would have also not disclosed the effects of anxiety on their academic performance to the researcher for fear of embarrassment.

## **THE PILOT STUDY**

The pilot study required visits by the researcher to basic schools in Luanshya District. Before any visits to schools were made, the researcher obtained authority letter from the District Education Standards Officer. This letter was later taken to the participating schools in the main study. With permission, the researcher then went to Muchinshi basic school where a pilot study was conducted. Study instruments (questionnaires) were administered to forty grade seven pupils. The return rates of the questionnaires were very good at one hundred percent. The high return rates for questionnaires could be attributed to the fact that grade teachers administered questionnaires to their pupils in class. The pupils were required to fill in the questionnaires while in class and handed the filled questionnaire to the grade teacher.

The pilot study was conducted to ensure that items included in the questionnaire were well understood and interpreted by the wide range of the seventh graders. On the basis of the responses from the pilot study, it was assumed that a sample of the seventh graders would easily understand and interpret the items in the questionnaire. One school was used for the pilot study because it was envisaged that all pupils in grade seven at all schools in Luanshya District would have similar characteristics in terms of age, year they started school and the school environment.

The other reason why a pilot study was conducted was to establish the most convenient and suitable way to administer the study instruments to ensure maximum return. The items in the questionnaire were found to be clear and easily understood by the participants. The method of administering the questionnaire by teachers in class was found

to be suitable, for it provided guarantee on maximum return rate on questionnaires. The copy of the final questionnaire is appended as Appendix 1.

## **THE MAIN STUDY**

The main study was commenced in May 2004 and data collection was completed in August 2004. Grade teachers were used as research assistants to administer the questionnaires to the pupils. The researcher first discussed with the teachers on the requirements and administrative procedures of the questionnaire.

## **DATA COLLECTION PROCEDURE**

After distributing the questionnaire to the pupils who were randomly selected, the teacher read out the instructions to the pupils and explained how to proceed filling in the questionnaire. To foster confidentiality, pupils used numbers only on the questionnaire. Pupils were also asked to willingly participate in the study and that they were free to drop from the study at any time if they felt so. This was done in a bid to ensure that all participants in the study willingly took part. The return rate on pupils' questionnaire was one hundred percent and all the returned questionnaires were valid.

As for the teachers' questionnaire, the researcher personally distributed and administered the questionnaire to the selected teachers. The researcher requested the teachers to carefully read the instructions and answer the items in the questionnaire by ticking what each one considered the best option out of the two that were given. The researcher waited in the school as the teachers answered the questionnaire. Once the teachers had filled in the questionnaire, the researcher collected them and left that school. Teachers too, did not write names on the questionnaire as a way of ensuring confidentiality. The return rate on the teachers' questionnaire was at 62.5%. This means

that only fifty completed questionnaires out of eighty questionnaires that were distributed to teachers were returned.

## **DATA ANALYSIS**

The SPSS package was the main statistical tool used in the analysis of quantitative data while qualitative data was analysed by forming categories and themes that emerged.

## **PROBLEMS FACED DURING THE PROCESS OF DATA COLLECTION**

The following were problems faced during the process of data collection. Firstly, it was difficult to get permission from the District Education Board Secretary (DEBS) in Luanshya District to conduct research in the schools. Most of the time, the senior officers at the district were out of the station on official duties. It took the researcher two months from February to April 2004 to get permission to conduct research in schools. Permission was given in April when schools had closed and it was not possible to proceed with data collection until schools opened in May, 2004.

The second problem faced was that of gaining access to the grade seven classes. In some schools, the head teachers refused to have the study conducted there, as they saw no direct personal benefit. They claimed that research works were funded and demanded to be paid and payment be given to the class teachers and participating pupils. Some head teachers claimed that the study would disturb the learning process. However, after fully explaining that the study was purely academic, head teachers co-operated and research was conducted in such schools. The researcher also met resistance from old teachers who refused to take part in the study. Only young teachers with work experience from five to ten years willingly accepted to participate in the study.

Lastly, lack of locally generated literature in Zambia on the “sources and effects of anxiety on performance among pupils” created a problem in comparison and verification of the trends in Luanshya District with other parts of the country.

## **CHAPTER FOUR**

### **FINDINGS OF THE STUDY**

This chapter deals with the findings of the study on the sources and effects of anxiety on academic performance among grade seven pupils in Luanshya District. It will be remembered that the objectives of this study were: “to determine sources of anxiety among grade seven pupils” and “to investigate effects of anxiety on academic performance of grade seven pupils” in Luanshya District.

#### **SOURCES OF ANXIETY**

One of the objectives of the study was to determine sources of anxiety among the grade seven pupils in Luanshya District. From the responses provided, the grade seven pupils identified eleven sources of anxiety. These were ranked from the highest to the lowest. To arrive at these sources, an analogous study by Namangala (2002) on “stress,” provided valuable information. Namangala cited Gmelch et al. (1984), Keinan and Perlberg (1987), and Nhundu (1999) who had selected an arbitrary number of individual stress factors with the highest stress value. This study selected and focused on eleven highest sources of anxiety identified by grade seven pupils in Luanshya District. For all the responses on the pupil’s questionnaire, refer to Appendix 3.

The findings in Table 2 below show eleven sources of anxiety ranked from the highest to the lowest by the respondents, while Table 3 gives a summary of the findings on the sources of anxiety when grouped under the self-esteem needs, security needs, and social or affiliation needs categories.

**Table 2: Highest Ranked Sources of Anxiety**

SOURCES OF ANXIETY	Frequency	Percentage	Rank
Fear of being rejected by friends	160	80	1
Knowledge about leaked exam/ test papers	156	78	2
Fear to present in class	148	74	3
Anxious when teachers go on strike	140	70	4
Fear of speaking in class	137	68.5	5
Worry about the marks/grade	124	62	6
Covering long distance to and from school	115	57.5	7
Worry about not being selected to grade eight	112	56	8
Meeting with the head teacher	111	55.5	9
Find it difficult to solve mathematics questions	104	52	10
Fear of bullies at school	103	51.5	11

**Table 3: Needs categories and sources of anxiety**

Category	No. of responses In each category	Percent	Sources of anxiety
Self-Esteem needs	781	55.4	Knowledge about leaked examination papers Fear of presenting in class Fear of speaking in class Worry about grades or marks Worry about not being selected to grade eight Finding difficult to solve mathematics questions
Security needs	469	33.3	Anxious when teachers go on strike Covering long distance to and from school Meeting with the head teacher Fear of bullies at school
Social or Affiliation needs	160	11.3	Fear of being rejected by friends

When grouped under the needs categories, it was found that the self-esteem needs had the highest number (6) of sources of anxiety among the sample studied. These were followed by sources of anxiety associated with the security needs category, which had four. The social or affiliation needs category had one source of anxiety. It is, however, important to note that though the social or affiliation needs category had only one source of anxiety, it ranked as the highest source of anxiety among pupils with 80% of the respondents indicating that, fear of being rejected by friends often aroused more anxiety.

The findings show that the major sources of anxiety among grade seven pupils mainly emanated from factors in the learning environment that presented threats to esteem needs, the security needs, and social or affiliation needs of the pupils. The findings show that 55.5% of the sources of anxiety were linked to threats to the self-esteem needs, 33.3% of the sources of anxiety were associated to threats to the security needs, while 11.3% of the sources of anxiety were associated with threats to the affiliation needs (Table 3, page 37).

### **Sources of anxiety by gender**

It is important to consider that what might seem to be sources of anxiety to the boys might not necessarily be so to the girls. The findings clearly show that girls appeared to have more sources of anxiety than boys. The following were the sources of anxiety among the girls: Covering long distance to school (72.17%), fear to speak in class (56.20%), fear to present in class (52.70%), and fear of being rejected by friends (52.50%), fear of bullies at school (52.43%), finding difficult to solve mathematics questions (50.96%), and knowledge about leaked examination papers (50.64%). On the other hand, boys were anxious about teachers going on strike (62.90%), about not being selected to grade eight (58.03%), about marks (56.45%), and about meeting with the head teacher (53.15%). A pattern that emerged worth noting was that some of the sources that

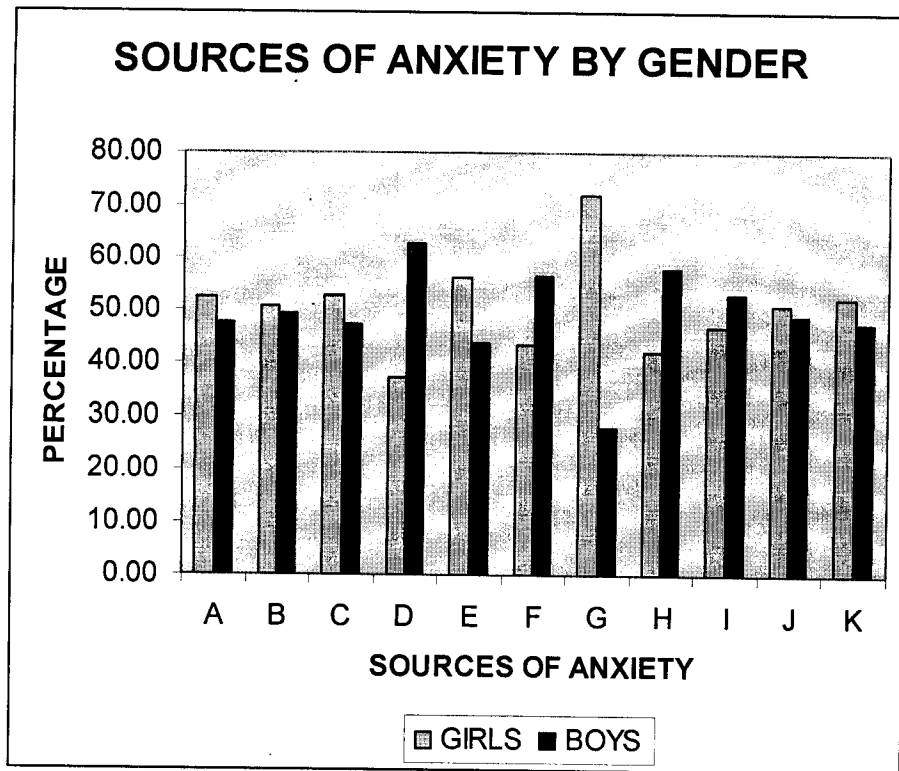
evoked anxiety in the majority of the girls, also to a greater extent evoked anxiety in some boys. On the following two sources of anxiety i.e. knowledge about leaked examination papers and finding it difficult to solve mathematics, the differences in percentages between boys and girls are almost negligible, suggesting that these sources do affect both boys and girls. Table 4 below shows sources of anxiety by gender.

**Table 4: Sources of Anxiety by Gender**

SOURCES OF ANXIETY	GIRLS		BOYS		Total No of Responses
	No	%	No	%	
Fear of being rejected by friends	84	52.50	76	47.50	160
Knowledge about leaked exam papers	79	50.64	77	49.36	156
Fear to present in class	78	52.70	70	47.30	148
Anxious when teachers go on strike	52	37.14	88	62.90	140
Fear of speaking in class	77	56.20	60	43.80	137
Worry about the marks/grade	54	43.54	70	56.45	124
Covering long distance to school	83	72.17	32	27.83	115
Worry about not being selected to grade 8	47	41.96	65	58.03	112
Meeting with the head teacher	52	46.84	59	53.15	111
Find it difficult to solve math questions	53	50.96	51	49.04	104
Fear of bullies at school	54	52.43	49	47.57	103

Figure 3 below shows summary of data on gender differences on the sources of anxiety among grade seven pupils in the study.

Figure 3:



**KEY**

- A = Fear of being rejected by friends
- B = Knowledge about leaked exam papers
- C = Fear to present in class
- D = Anxious when teachers go on strike
- E = Fear of speaking in class
- F = Worry about the marks/grade
- G = Covering long distance to school
- H = Worry about not being selected to grade 8
- I = Meeting with the head teacher
- J = Find it difficult to solve math questions
- K = Fear of bullies at school

A pattern worth mentioning from the findings was that, more girls felt threatened and anxious to all the three category sources of anxiety i.e. affiliation needs, self-esteem needs, and security needs, while boys felt threatened and anxious about the security needs and the esteem needs.

## **EFFECTS OF ANXIETY ON ACADEMIC PERFORMANCE**

It will be recalled that the second objective of this study was, "to investigate effects of anxiety on academic performance of grade seven pupils." The findings presented in this section are based on the responses from the teachers' experiences on what they have observed as effects of anxiety on performance among pupils. The findings are from teachers because they (teachers) are the ones who monitor, assess and observe the pupils' performance, therefore, are in a better position to tell the effects of anxiety on pupils' performance. It was felt that pupils would not give correct data on how anxiety affected their performance as this required self-disclosure. Self-disclosure involves sharing personal information with others that they would not normally know or discover, hence creating risk and vulnerability on the part of the person sharing the information. The risks involved include being taken advantage of, getting hurt, embarrassment and manipulation. As such, many people do not disclose negative information about themselves for fear of embarrassment. Pupils therefore, would have not disclosed the negative effects of anxiety on their performance to the researcher who was a stranger to them for fear of embarrassment.

The findings of the study on the effects of anxiety on performance were delineated into two categories. The two categories were: the effects of anxiety on cognitive functioning, and the effects of anxiety on behavioural responses. It is important to state that the effects of anxiety on performance are due to interference of thought processes, while the behavioural effects of anxiety on performance mainly involve coping strategies that are either adaptive or maladaptive. Table 5 presents results on the cognitive effects of anxiety on pupils' academic performance.

**Table 5: Cognitive Effects of Anxiety on Performance**

Rank	Effects of anxiety on performance	No. of Teachers	%	Category
1	Anxious pupils lose concentration	50	100	Cognitive
2	Pupils who are anxious fail to finish tasks in time	47	94	Cognitive
3	Anxious pupils make a lot of mistakes in their work	42	84	Cognitive
4	Anxious pupils stammer when asked to present in class	41	82	Cognitive
5	Anxious pupils easily forget what they want to say	28	56	Cognitive

From the findings in table 5, five effects of anxiety on academic performance were as a result of cognitive interference. It was noted by 92% of the teachers who participated in the study that the effects of anxiety on cognitive functioning was common and real. The effects of anxiety on pupils' academic performance identified by teachers under the cognitive category seem to manifest mainly through lose of concentration, failure to finish tasks in time, making a lot of mistakes, stammering, and easily forgetting what they want to say.

**Table 6: Behavioural Effects of Anxiety on Performance**

1	Anxious pupils like giving excuses for not doing work	49	98	Behavioural
2	Anxious pupils show signs of discomfort in class	48	96	Behavioural
3	Pupils who are anxious like sitting at the back in class	43	86	Behavioural
4	Pupils who are anxious spend most time in solitude	40	80	Behavioural
5	Anxious pupils usually report being sick	39	78	Behavioural
6	Anxious pupils are fond of going out of class	38	76	Behavioural
7	Anxious pupils do not get assistance from teachers	36	72	Behavioural
8	Anxious pupils like copying from others	35	70	Behavioural
9	Pupils who are anxious avoid meeting with teachers	30	60	Behavioural
10	Anxious pupils stay away from tests when tests are Announced	20	40	Behavioural

Table 6 above gives a summary of the behavioural effects of anxiety on pupils' academic performance. It is worth noting that ten effects of anxiety on pupils academic performance identified by teachers fall under the behavioural category. The findings show that anxious pupils mainly adopted maladaptive coping behaviours that affected their academic performance. Out of the total responses in the behavioural category, 82.4% of the respondents indicated that anxious pupils engaged in maladaptive behaviour. The maladaptive behaviours employed by anxious pupils were mainly the avoidance modes such as giving excuses, sitting at the back in class, being alone most of the time, reporting to be sick, and going out of class most of the times. They also avoided meeting with the teachers.

The only finding that yielded different results was item 6, which was about whether anxious pupils stayed away from school when teachers announced in advance the administration of a test. Only 20 (40%) of the respondents acknowledged that anxious pupils stayed away from school on the day of the test when teachers announced in advance. This indicated that when anxious pupils knew when the test would be administered, they easily prepared and controlled their anxieties.

## **CHAPTER FIVE**

### **DISCUSSION**

This chapter discusses the findings of the study. The discussion is divided into three parts. The first part of the discussion addresses the first objective of the study “to determine sources of anxiety among grade seven pupils.” The second part of the discussion focuses on the second objective of the study “to investigate effects of anxiety on academic performance among grade seven pupils.” The third part of the discussion explains the implications of the findings in light of the theoretical framework, which was the “cognitive-behavioural perspective.”

#### **SOURCES OF ANXIETY**

The findings of the research indicated that pupils in Zambian schools were exposed to quite a substantial number of stress factors that most often evoked anxiety. Some of the notable sources of anxiety which were identified among pupils in Luanshya District include: fear of being rejected by friends, having knowledge that other pupils had leaked examination papers prior to the examinations, fear to present or talk in class, and having teachers going on strike or any kind of work stoppage. Other sources of anxiety numerated in the study include: worry about the grades or marks one would get in tests and examinations, covering long distances to and from school, worry about not being selected to grade eight, meeting with the head teacher, solving mathematics questions, and lastly, fear of bullies in the school.

Most sources of anxiety among grade seven pupils in Luanshya District were associated with those factors that pose threat to the self-esteem needs category. Self-esteem deals with the feeling of worthy and importance by an individual. The feeling of

self-worthy is paramount to any human being. Any threat to the self-esteem therefore, induces anxiety.

Equally important as sources of anxiety identified in the study were those factors associated with the safety or security needs category. Human beings at all times strive to be safe and secure from any threat to their existence. Any form of insecurity in the environment triggers anxiety. This could be the more reason why respondents indicated more sources of anxiety in the safety or security needs category.

Threat to the affiliation or social needs category also aroused anxiety among grade seven pupils. Human beings, by nature, are gregarious and sociable; therefore, any threat to their affiliation or social needs seriously evokes high anxiety.

The results of the study suggest that “fear of being rejected by friends” was a major source of anxiety chosen by the majority of the pupils (80%). Some pupils are usually preoccupied with thoughts about losing their friends, and entertaining such thoughts leave pupils anxious for a prolonged period of time. Most pupils, who have much concern about the affiliation or social needs, equally feel insecure and manifest low self-esteem. A combination of deficiencies in the social, security and esteem needs heightens the feeling of anxiety. The findings of the study is in agreement with Hall et al. (1988) who established that, relations within the peer group pose threats with problems of being rejected, ridiculed and even bullied physically. The current finding is also consistent with the Anxiety Disorder Association of America article (2003), which reported that, thought about making or losing friends created anxiety among school going children.

It is interesting to note that the findings show that more girls than boys felt threatened by losing friends. This could be attributed to the fact that girls feel more insecure when alone and would always want to be in company of friends. Being in company with others also builds their confidence and boosts their self-esteem. Those pupils who felt that friends might reject them became anxious.

The study has established that “knowledge about leaked examination papers” created tension, worry and anxiety among those pupils in grade seven who had no prior knowledge of the examination questions. This is probably so because grade seven examinations are mainly used to select pupils to grade eight. It is at this grade level that a big number of pupils drop out. This echoes Kelly’s findings (1999) that the largest output from the school system occurs on completion of grade seven of primary school. Pupils’ anxiety about leaked examination papers could be attributed to the limited number of grade eight school places. Though the current trend contradicts Kelly’s earlier findings and shows that more pupils were being selected to grade eight as statistics for Luanshya District for the years 2003 and 2002 in table 1 on page 2 shows, some pupils still were anxious. Pupils were still anxious due to other factors. For example, some pupils indicated knowledge about leaked examination papers as a source of anxiety because they felt that those pupils with leaked examination papers might have undue advantage to score high marks and be selected to high schools that are more prestigious to attend than basic schools. An official at the District Education Board Secretary’s (DEBS) office in Luanshya stated that pupils do not like to be selected to basic schools. Most of them prefer to go to high schools where there were trained secondary school teachers as compared to basic schools that were manned by teachers trained to handle primary schools. As such, grade eight places at high schools are competitive and only those pupils who score high marks would be selected.

Realizing that the cut off point is not fixed but fluctuates depending on the average score in a particular year, pupils become anxious when they hear that some pupils have leaked examination papers that would give them undue advantage over others. With leaked examination papers in circulation, the group average selection cut off point for the year is pushed upwards. The findings are supported by Child (2001) who wrote that

examinations, especially public examinations on which one's future career might hinge, were sources of trouble and anxiety arousing to individuals.

It is worth mentioning that from the findings, it was established that girls were more anxious than boys when they heard that some pupils were in possession of examination papers prior to the examination. Traditionally, it is believed that parents take very little interest in the education of girls, especially those who do not seem to be performing well. This is so because it is believed that those girls who do not perform well academically can be married off. A similar situation where parents withdrew girls aged between 12 and 15 years from schools to marry them off in Syria was reported in the Zambia Daily Mail of January, 13<sup>th</sup> 2005. This assertion could be true for Luanshya because at the time the study was being conducted, families experienced financial pressure due to the collapse in the economy of the district following the closure of the mine and subsidiary companies that provided employment to the majority of the residents. This scenario forced parents to take their daughters out of school. The traditional conviction of parents that education is irrelevant for girls' traditional role in life as wives and mothers induced tension and anxiety in girls who did not seem to perform well academically. Due to the neglect by parents to send girl children to school, the girls therefore, felt anxious when they got information that some of their colleagues had leaked examination papers that would necessitate the rise in the cut off point. It is also important to point out that, leaked examination papers as a source of anxiety, seems to be peculiar to Zambia as not any literature reviewed has highlighted this phenomenon elsewhere. It may be peculiar to Zambia because of high reported incidences of poverty and low salaries, which have forced people to engage in under-hand methods such as corruption and bribery to make ends meet.

Pupils who are not very brilliant in class experience intense anxiety when speaking or when asked to present in class by teachers. The findings of the study show that "fear to

“speak and present in class” were a source of anxiety to some pupils. This is consistent with Anxiety Disorder Association of America (2003) report that the most common fears associated with social anxiety are fear of speaking or presenting in public or to strangers. This is also supported by a case study about John in Blagg (1990). Blagg reported that John feared to speak or present in class because he was usually anxious and felt that he would be laughed at, especially that he could not read very well. Some teachers are fond of shouting at, and castigating pupils who do not provide correct responses to their questions, and some pupils ridiculed their colleagues who did not seem to be brilliant in class. As a result of castigations and ridicules, some pupils feel humiliated and embarrassed, hence are usually anxious when they are asked to speak or present in class. Humiliation and embarrassment threaten one’s ego and lowers self-esteem. As stated earlier, any threat to one’s self-esteem is a source of anxiety. To some pupils therefore, a class represents a public place associated with humiliation and embarrassment that threatens their self-esteem. When asked to speak or present in such situation, some pupils experience extreme tension and feel anxious. Referring to anxieties experienced by some teachers during staff meetings, Longwe (1999:28) has reported that “during staff meetings, teachers are expected to seize the opportunity to make their contributions. But it is not always easy for all the teachers to take part in the staff meetings because some teachers feel shy to speak during staff meetings. They are usually inhibited by the large gatherings.” Longwe agrees that a public place like a classroom is a source of anxiety.

More girls than boys expressed that speaking or presenting in class was a source of anxiety. Having more girls being anxious about speaking or presenting in class could be attributed to cultural conditioning, where girls right from childhood, are socialized to remain quiet in public places. Girls also are known to be more sensitive and react emotionally to criticism, humiliation and embarrassment. They believe that they would be

laughed at when they make mistakes in public. That could be the reason some girls find speaking and presenting in class to be a source of anxiety.

Strikes among teachers are a common feature in most government schools in Zambia. It has now become a ritual that at the beginning of every school term, teachers will boycott classes for one reason or another. Nearly every term, Teachers' Unions declare disputes with the government and resort to strike actions. Teachers' strikes were identified as a source of anxiety among pupils. Strikes mean that teachers have to abandon teaching for an unspecified period of time. With these strikes, which have become a permanent feature of the school calendar, the major losers are the pupils. Pupils therefore, miss learning for as long as the teachers were on strike. Though teachers go on strike, pupils are still expected to sit for composite grade seven examinations centrally set by the Examinations Council of Zambia (E.C.Z). The examinations are set by E.C.Z without due consideration on the time lost during teachers' strikes. It is important to note that even at the time this dissertation was being written (September, 2004), some parts of the country experienced strikes by teachers who refused to teach, demanding to be paid housing allowance arrears, salary readjustments and the implementation of the collective agreement by government. Since grade seven examinations are centrally set, pupils develop anxiety on whether what would be contained in the examination papers would have been covered in full, due to strikes by teachers.

The findings of the study have shown that some pupils 'grew cold feet' when teachers went on strike. This may be so because some pupils have extreme fear that they may not score high marks to reach the selection cut-off point because of the teachers strike. What probably increases anxiety among some grade seven pupils could be the fact that, when teachers are on strike, they (teachers) do conduct what they call "private tuition" to only those pupils who can afford to pay to them as a private arrangement. Those other pupils who cannot afford to pay tuition fees to teachers on a private

arrangement are left in the cold without being attended to. In most cases pupils coming from poor families, and other under-privileged households, even those children who are orphans fail to pay tuition fees demanded by the teachers privately. In such a situation, those pupils who do not receive private tuition feel unaccepted, insecure and develop low self-esteem. They also develop anxieties and fear that they may not reach the selection cut-off point as compared with those pupils who receive private tuition from teachers when they are on strike. Strikes lead to desperation among pupils who can do anything, including resorting to examination leakages just to qualify to the next grade. Teachers' strikes as a source of anxiety seems unique to Zambia, because the literature reviewed do not make any mention of teachers' strikes as a source of anxiety in other countries especially the West, which was the source of most literature. It may be that teachers' strikes are not as common elsewhere as they are in Zambia.

Boys in Luanshya District were more anxious when teachers went on strike than girls. Boys appeared to consider teachers' strikes as sources of anxiety because they were probably more concerned with selection to grade eight than girls were. It is also culturally inculcated in the boys that they must always aspire for high achievement. Even educationists and policy makers seem to enforce the notion that boys are high achievers, as is evidenced by the high cut-off point for boys as compared to that of girls, which is usually low. Therefore, boys had every reason to consider teachers' strikes as a source of anxiety.

Worry about marks or grades pupils would get in the examination was yet another source of anxiety. Some grade seven pupils were worried about whether they would obtain marks or grades that would make them reach the selection cut-off point to grade eight. Some pupils are nervous, and have great concern regarding the marks or grades they would get after the composite examination. Parents who expect too much from their children sometimes induce anxiety about the marks or grades. Parents set very high

expectations from their children, which in some cases are unattainable. Teachers too, have their own expectations that induce undue pressure and anxiety on pupils. Continuous thought about marks or grades threaten the esteem needs of some pupils leaving them anxious for a long period of time. This finding is in consonant with Santos (2003) report that, pupils who are anxious about the marks or grades develop such symptoms as physical stress, and cognitive symptoms. Both the physical and cognitive symptoms affect academic performance.

The findings, further suggested that more boys than girls were more concerned about the marks or grades they obtained in an examination. This could be attributed to the fact that most boys would want to be selected to the few Technical High Schools that provide a limited number of places. Selection to a technical school raises the boys' self-esteem and improves their self-concept. Boys' anxiety about marks or grades could also be attributed to the assertion that boys are conditioned during socialization to be more competitive and as high achievers than girls. Boys also set very high goals, which may be as a result of peer pressure trying to out do each other. This competitive spirit in the long run created tension and anxiety in some children. As such, worry about marks or grades were seen as source of anxiety among some boys in grade seven.

Some grade seven pupils were preoccupied about not being selected to grade eight, especially to the schools of their choice. Such thoughts create anxiety in some pupils. It is a well-established fact that, a child's future is determined by the type of school he/she attends. Some schools have high reputation, and being at such schools increased a child's self-esteem. In Zambia, and Luanshya District in particular, most grade seven pupils prefer to be selected to high schools than basic schools as already alluded to. As a result, selection to a high school is so competitive that most pupils are anxious as to whether they would be selected to grade eight at a high school or not. This is supported by Wine (1980) who found that most people were persistently concerned principally with negative self-

preoccupations whether they would achieve their goals or not. As for the grade seven pupils, the persistent negative pre-occupation could be the thought about whether they would be selected to grade eight at a high school. The thought about not being selected to grade eight induces prolonged anxiety among some pupils.

According to the findings, more boys indicated feeling anxious about not being selected to grade eight at a high school. Being selected to grade eight at a high school is seen to be prestigious and contributes to high self-esteem. It may seem that more boys are preoccupied with the thought about not being selected to grade eight at a high school because, boys tend to set immediate and long term goals about who they would want to be in future. On the other hand, girls preoccupy themselves with the thoughts about getting married as their primary goal even at as early age as those pupils in grade seven who are between 12 and 15 years of age.

It was established that “meeting with the head teacher” in school was a source of anxiety among some pupils. Head teachers in schools are discharged with the responsibility of ensuring that discipline and order prevail. However, most pupils perceive the head teacher as having the primary responsibility of meting disciplinary measures to pupils. Even though physical punishment has been abolished in Zambian schools, some head teachers have still continued using it as the only way to instil discipline among pupils. Other head teachers simply chase pupils from classes. As such, pupils develop fear and are anxious when they meet with the head teacher because he/she is usually associated with meting corporal punishment and other disciplinary measures such as chasing pupils from school. This finding is in consonant with Hall et al. (1988) who found out that pupils become anxious every time the head teacher entered their classroom even if he/she has never harmed them before. So meeting the head teacher was identified as a source of anxiety among some grade seven pupils.

Boys showed more anxiety meeting with the head teacher than girls. The explanation could be that boys engaged themselves more in mischievous activities than girls; hence they felt more threatened and insecure when they met with the head teacher.

Mathematics is said to be one of the subjects in the school that evokes more anxiety among pupils than any other subject. The study conducted by Makubalo (1985) in Zambian primary schools confirmed earlier findings about mathematics as a source of anxiety among pupils. The current study too, has confirmed the earlier findings that mathematics as a subject evoked anxiety among pupils. It is evident in some schools that anxiety about mathematics among pupils could be attributed to the negative views portrayed about mathematics as a difficult subject by teachers.

More girls felt anxious than boys about solving mathematics and as such, they found it difficult to solve mathematics questions. It is generally said that girls feel anxious when confronted with any type of computation work. Dembo (1994) wrote that though girls have the ability to solve mathematics, they easily feel intimidated by it and easily give up. This could be the more reason why more girls' felt solving mathematics was a source of anxiety.

The data collected on "bullying" as a source of anxiety yielded interesting findings. Bullying is quite common among pupils in schools. Bullying takes many different forms such as threatening, molesting, intimidating, oppressing physically or morally, and beating, grabbing of items from some one and many more oppressive acts. The finding is in agreement with Hall et al. (1988) who stated that relations within the peer group pose threat and arouses anxiety due to fear of being rejected, ridiculed and even bullied physically. Bullying in schools could have been perpetuated due to high numbers of pupils in schools that have made it difficult for teachers to monitor the activities of the pupils. Also it could be as a result of the negative attitudes that teachers have adopted

since the abolition of corporal punishment, which they thought was the only option available to instil discipline among pupils.

Girls demonstrated to be menaced more by bullying as a source of anxiety than boys did. The possible explanation could be that girls are more insecure and vulnerable to bullying due to their feminine nature and the traditional conditioning they pass through that they have to be submissive to men.

Covering long distance to school was also identified as a source of anxiety among grade seven pupils in Luanshya District. This could be attributed to long distances pupils had to cover on foot every day to get to the nearest school. The long distances to school are as a result of both planned and unplanned settlements that have recently been established but have not been provided with necessary social amenities such as schools. Some examples of such areas are Kamirenda and Minestone that were planned settlement areas but have not been provided with schools. Pupils from these settlements cover an average of six kilometres to get to the nearest schools, which are all located in town. Other settlements serviced by schools in Mikomfwa and Kalala are: Zambia City, Walale, and D, which were unplanned shanty compounds. Pupils in these shanty compounds also cover an average of about six kilometres to get to the nearest school. These new settlements depend on already established schools situated long distances away. As a result of the long distances to schools, pupils have to wake up very early in the morning and walk to school. Those pupils who arrive late at school are punished either by being given corporal punishment or simply sent away from classes for that particular day. Since by law corporal punishment has been abolished in Zambia, most teachers have resorted to sending offending pupils away from lessons for that day when they report late to school. Covering long distance to school also meant that pupils had to stay at school even through lunch hour when they were required to attend afternoon lessons and any other school activities that are conducted in the afternoon. This finding is in agreement with a case study about

Sebastian in Blagg (1990), which revealed that long distance to school was a source of anxiety to Sebastian and missing lunch caused him distress. The thought about covering long distances to school created tension and anxiety in some pupils in Luanshya District.

The study has established that girls worry more about covering long distance to school than boys do. Out of one hundred and fifteen respondents who acknowledged that long distance to school was a source of anxiety; 83 (72.17%) were girls. Girls seemed to worry more about long distance to school probably because they are more molested and bullied on the way than boys. It could also be that there are more defiling cases on young girls reported nowadays, and the thought about covering long distances to school therefore, evokes anxiety among girls. The other reason could be attributed to the fear that girls have towards punishment. Girls fear any form of punishment than boys. Girls feel more insecure, humiliated and embarrassed when they are punished. Boys tend to take punishment just as one of their many adventures in school.

Due to anxiety associated with long distances to and from school, more girls find it difficult to access schools located far away from their areas of residence. As such, the usual pattern of having more girls drop out off school is perpetuated. Unless the Ministry of Education takes the initiative of opening and supporting more community schools, which are close to the children, we shall continue seeing reduction in the number of girls accessing and continuing with schooling. Having fewer girls accessing basic education due to long distances to school, has negative effect on the number of girls participating at tertiary level and in decision making in the world of work.

## **EFFECTS OF ANXIETY ON ACADEMIC PERFORMANCE**

It will be recalled that the second objective of the study was “to investigate effects of anxiety on performance among grade seven pupils.” The discussion is based on what serving teachers have perceived as effects of anxiety on pupils’ performance. Serving and

experienced teachers have regular contacts with the pupils. Through observation, testing, invigilating and interacting with pupils, they have established how anxieties negatively affect some pupils' academic performance. Teachers believe that some pupils who perform poorly on tests or examinations are brilliant in class, but when it comes to be evaluated they panic and become anxious. As a result of panic and anxiety, they lose concentration and do not perform well. The findings of the study suggest that anxiety has a negative effect on academic performance.

All the fifty respondents (teachers) agreed that pupils who are anxious lose concentration in class and when doing class activities. Derville's findings (1992), support teachers' responses and stated that moderate anxiety would act as a stimulus to effort, but too much anxiety interferes with the learner's powers of concentration and memory. Moran (1996) also states that anxiety reduces people's memory resources, sometimes restricting their attentional focus on the task at hand. When pupils are anxious, their concentration is disrupted depleting working memory resources by inducing worry. This is supported by Santos (2003) who wrote that anxiety reduces pupils' ability to concentrate. Lack of concentration in class or in school negatively affects pupils' academic performance. It is safer to conclude that since anxiety disrupts concentration; it also affects academic performance of some anxious pupils.

Anxious pupils, as observed in the study like to get permission to go to the toilet or simply to go outside. Thirty-eight teachers (76%) acknowledged that they had observed a tendency by anxious pupils to frequently get permission to go to the toilet or simply to go outside. Frequent permission can be perceived as a strategy by anxious pupils to avoid the classroom and class work, which they might perceive as a source of anxiety. This is supported by Kuppuswamy (2003), who argued that fearful and frightening situations produce in the children the withdrawing attitude and a sense of fear and anxiety. Donald et

al. (2000) have also argued that one way of trying to escape anxiety might be to avoid engaging in anxiety-arousing situations.

When pupils frequently get permission to go to the toilet or outside, they miss what the teachers are teaching at that time. Such pupils would also be behind in completing their work. When pupils miss what the teachers are teaching and are behind with their work due to frequent permission to go outside, their academic performance would also be affected negatively.

It has generally been observed from the literature reviewed that pupils who worry about grades or marks usually make a lot of mistakes in their work. In this study, forty-two out of fifty teachers (84%) observed that those pupils who were worried about the marks or grades they would get made a lot of mistakes. This finding is supported by Santos (2003) who observed that when pupils concentrate more and worry about the marks or grades they would get, then the process of learning loses its joy. This finding of the study is also in consonant with Ausubel's finding (1972) that anxious pupils lack normal self-esteem; they lack confidence in their ability to cope with new adjustive situations. High anxious pupils panic and fluster, making a significantly greater number of errors than the low-anxiety pupils. Due to lack of self-esteem, lack of confidence, and greater number of errors committed by anxious pupils, their academic performance is affected.

Though teachers are the custodians of knowledge in the learning environment, they are also a source of anxiety among some pupils. As such, some pupils tend to avoid meeting teachers on one-to-one, except only in classroom where there are other pupils. As the findings show, forty-six teachers (96%) revealed that anxious pupils try by all means to avoid meeting with teachers. Since anxious pupils avoid meeting with the teachers, they probably also avoid to consult with teachers. Lack of consultation with teachers may negatively affect some pupils' academic performance. Vygotsky, cited by Berliner et al. (1988), stated that learners learn better when they interact and co-operate with teachers.

Pupils who avoid meeting with teachers do not freely interact with teachers, hence are not supported by teachers when they face academic problems.

According to Eysenck (1992), anxiety is a conscious, effortful process that draws upon the processing resources of working memory. It causes worry, which depletes working memory resources and drains the mind of attentional resources. This is the more reason pupils who are anxious stammer when asked to speak or present in public. Forty-one out of fifty teachers (80%) indicated that anxious pupils stammered when asked to present in class. Stammering induces more fear, anxiety, and embarrassment, further depleting the resources of the working memory, in turn affecting the pupils' academic performance.

To the contrary, when anxious pupils knew about the administration of the tests well in advance, they did not stay away. As the findings show, only twenty out of fifty teachers (40%) indicated that pupils with anxiety avoided tests when they had information about the administration in advance. This indicates that when anxious pupils had full information, they seemed to quickly adjust and face the anxiety-arousing stimulus. Advance knowledge positively affects the anxious pupils' preparedness to face the anxiety-arousing situation.

In order to avoid embarrassment, anxious pupils find solace in copying from other pupils when work is difficult. Copying is one way of trying to defend oneself from the anxiety-producing stimulus. The finding is in line with Hall et al. (1988) who observed that the natural response to threat is to defend oneself. Out of fifty teachers, thirty-five teachers (70%) revealed that anxious pupils copied from others when work was difficult. Copying as a way of defending oneself from anxiety has a detrimental effect on academic performance. Pupils who copy lack self-esteem and confidence. They also feel inadequate in performing tasks in class. Since such pupils simply copy from others, they lack the necessary practice and exercises that help consolidate learned material. When they are

required to produce or reproduce learned material, they fail if they have no one to copy from. The findings strongly confirm that anxious pupils' academic performance is affected due to copying from others.

It was found in the study that pupils who sat at the back of the class were mostly anxious pupils. The main reason they sat at the back could be that they try to avoid being asked questions by the teachers. Sitting at the back may also be an attempt to reduce the threat. This finding is similar to what Lorsch-Marphy, in Santrock (1988) wrote about adolescents attempting to reduce anxiety threat through avoiding confronting the situation directly. Sitting at the back appears to be a sure way of creating distance between the pupils and the anxiety-arousing situation.

It was observed from the findings that anxious pupils like giving excuses for not doing work. In an attempt to ward off anxiety, pupils tended to engage in maladaptive behaviour of escaping anxiety-arousing stimulus by giving excuses for not doing the work. The excuses they gave could usually be fabricated. The findings of the study correspond well with Donald et al. (2000), who discovered that one way of trying to escape anxiety might be to avoid engaging in anxiety-arousing situations. Pupils, according to Donald et al. (2000), cover up for not doing work by telling a lie as a way of escaping from anxiety-evoking situation. The interesting part was that most pupils who were not so good academically were also prone to telling a lie as a way of reducing anxiety.

The nature of the learning process requires that pupils pay attention and concentrate while in class. Interestingly, pupils who seem restless in class may also lose attention and concentration. The finding of the study indicate that some pupils who are anxious manifest discomfort while in class, and as such they normally lose attention and concentration on the tasks at hand. Krug (1976) also argued that anxious individuals manifested greater restlessness in the presence of anxiety-arousing environment. Discomfort displayed by some anxious pupils in class could be as a result of fearing to

confront the anxiety-arousing situation. Such pupils may experience cognitive interference, which may impede on their academic performance.

The reviewed literature and observations of this study suggest that some pupils who were anxious failed to finish tasks in time. According to Moran (1996), anxiety affects people's information processing activities in several ways. Specifically, it reduces the memory resources rendering them slow in performance. The finding is also supported by Fox, in Moran (1996), who found out that anxious people tended to be more distractible than those who were stable. Anxiety depletes working memory resources by inducing 'worry' which directs the individual's thoughts to task-irrelevant thinking, which in turn affects performance.

Anxious pupils interpret anxiety-evoking situations as fearful and frightening. For fear of being noticed by others that they are anxious, they adopt maladaptive behaviour of withdrawing from others as the finding of the study has established. In this respect, Kuppuswamy (2003) found that fearful and frightening situations from the beginning produce in the children the withdrawing attitude. It has been observed that children who withdraw from others miss to learn from their colleagues, and may usually show signs of maladaptive behaviours, which hinder academic performance.

An interesting phenomenon of reporting to be sick is usually common among anxious pupils as a behavioural response. This behavioural response of reporting to be sick manifests itself in situations where anxious pupils fail to cope with the task demands. This behaviour is equally an attempt to escape or avoid anxiety-arousing situations. It would appear that instead of confronting and dealing with the actual threat, anxious pupils withdraw from the threat. According to Kuppuswamy (2003), persistent use of withdrawal from school and schoolwork, which some pupils perceive as anxiety-arousing situations, lead to some anxious pupils becoming recessive and reserved and are likely to perform poorly at school. An interesting point to note is what Santos (2003) suggested about the

relationship between anxiety as a mental health problem, and how it induces both physical and psychological stress. It is common to find that pupils who are anxious also report being physically sick. Such pupils' academic performance could be affected because they miss classes.

It was observed in the study that some anxious pupils avoid meeting with the teachers and do not get assistance from them. The reason some anxious pupils avoid meeting with the teachers could be because of the reactions of some teachers towards pupils. Some teachers are bullies and fond of castigating pupils, especially low achievers. Such teachers are disliked and are a source of anxiety and tension among some pupils. The only behavioural response to ward off anxiety by some pupils then is to avoid meeting with the teachers and avoid asking questions to such teachers. In the end, anxious pupils do not get attention from the teachers. Lack of attention and assistance from the teachers deprives pupils chance to have their doubts clarified. Derville (1992) also observed that if learners are made over anxious by teachers, they are not likely to produce good work and may develop a dislike for the teacher and the subject the teacher teaches. Donald et al. (2000) observed that the cost to children who avoid meeting with teachers is that in one way or another, such children ability to adjust and cope with reality is reduced, causing further long-term anxiety. As explained earlier, long-term anxiety is debilitating and interferes with cognitive functioning of the person experiencing it.

It is common to find anxious pupils easily forgetting what they want to say as the finding of the study suggests. This is consistent with what Middleton (1999) reported about anxious people's thought impairment. His report points out that an anxious person cannot recall important things, becomes confused, is unable to control thinking, finds it difficult to concentrate, experiences distractibility and finds difficulties in reasoning. As a result, such person's content of thought also experience distortion, and easily lose control of the situation. The end product of these mentioned experiences is trembling which

exposes the person to negative evaluation. From the findings of the study, it comes out clear that experience of thought impairment by some anxious pupils may hinder them from performing well on school tasks and other school related activities.

Observations have shown that pupils menaced by anxiety have deficits in mobilizing their cognitive abilities to cope with the overwhelming challenges of the anxiety-arousing situations. Anxious pupils easily lose concentration, become confused, and experience cognitive distortion and distractibility, which in turn affect their academic performance. Anxious pupils adopt maladaptive behavioural patterns especially of avoiding the anxiety-arousing situation. Avoidance of the anxiety-arousing situation leads to failure of facing and solving the problem. In the end, anxious pupils miss classes, and opportunities to seek clarifications from their teachers. These behavioural responses may contribute negatively to anxious pupils' academic performance.

## **IMPLICATION OF THE FINDINGS TO THE COGNITIVE-BEHAVIOURAL THEORETICAL FRAMEWORK**

It will be remembered that this study was grounded on the cognitive-behavioural theoretical framework, whose emphasis is on thought distortions, which cause psychological distress, and behavioural patterns that reinforce it. This current study found that anxiety among pupils in Luanshya District was aroused by a multiplicity of factors that posed threat to the self-esteem needs, to the security needs, and to the social or affiliation needs. All the three category sources of anxiety affect cognition, throwing some people into a state of confusion and making it difficult for them to concentrate. Middleton (1999) found that anxious people have a negative view of themselves. The threat and anxiety are only real to the person concerned, though some other people may not evaluate the same situation as potentially harmful to arouse anxiety. Anxiety is a conscious and effortful process, therefore, it directly affects cognition and induces cognitive symptoms

such as inability to concentrate or focus on work, worry, thought impairment and distractibility. Sources of anxiety depend on an individual's evaluation of the situation, whether it is potentially harmful or not.

Accompanying the effects of anxiety on cognition are the emotional and behavioural responses. The common behavioural symptoms aroused by anxiety are: increased heartbeat, sweating, trembling, muscle tension, and in some cases fleeing from the situation. As a result of anxiety, some people adopt maladaptive behavioural responses of avoiding the anxiety-arousing situations. In school, avoidance strategies by some pupils lead to absenteeism, dodging and many other maladaptive behaviours.

It will be recalled that the study found that anxiety affected both cognition and behavioural responses. The findings have shown that some grade seven pupils evaluated the seventh grade as stressful and anxiety-arousing. Cognitive experiences such as lack of concentration, mental distortions, distractibility, and fearing negative evaluations that the seventh graders faced, are what form the central theme of our theoretical framework. The seventh graders also engaged in maladaptive behaviours of avoiding confronting the anxiety-evoking stimuli. They adopted maladaptive behaviour such as, avoiding the learning environments and other activities associated with learning, which affected their academic performance. This is also part of the central theme of the cognitive-behavioural theoretical framework. It has been found that though the theoretical framework had western culture orientation, it is also applicable in the Zambian context. The study therefore, is in agreement with the cognitive-behavioural theoretical framework.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSION, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH.**

In this chapter a summary of the study is given. Conclusions drawn from the investigations are also outlined. In addition, recommendations based on the findings are presented. The chapter ends up with suggestions for further research.

#### **SUMMARY**

The present study investigated the sources and effects of anxiety on academic performance among grade seven pupils in Luanshya District. Anxiety in this study was defined as a feeling of dread, apprehension, or fear, accompanied by heightened physiological arousal, which distract attention on the part of the person experiencing it. It was generally observed that anxiety, which has a serious impact on both cognitive functioning and behavioural responses, was pervasive in the schools investigated.

The study focused on addressing two main questions. The questions were:

1. What are the major sources of anxiety among grade seven pupils?
2. What are the effects of anxiety on performance of grade seven pupils?

The reviewed literature highlighted that anxiety among pupils stemmed from a varied number of factors within the school environment, to which pupils were constantly exposed. High among the factors were those that directly or indirectly threaten satisfaction of pupils' security needs, social or affiliation needs, and self-esteem needs. The reviewed literature also indicated that if unchecked, anxiety affects academic performance of some pupils who experience it in high and prolonged proportion. The literature revealed that

anxiety affected both the cognitive functioning and behavioural responses of pupils who experience it.

The findings showed that some pupils found the school environment and school activities as containing anxiety-arousing factors that exposed them to prolonged anxiety. The responses from teachers showed that pupils who experienced prolonged anxiety did not perform well academically as the cognitive functioning was impaired. They also adopted maladaptive behaviour to cope with the anxiety situations. The following were the significant findings of the study:

- a. Sources of greatest anxiety among grade seven pupils in Luanshya District were delineated in three categories. The three category sources of anxiety were threat to the satisfaction of security needs, threat to the satisfaction of affiliation needs, and threat to the satisfaction of one's self-esteem needs.
- b. Girls were troubled more by anxiety in the school than boys. This was evidenced by the findings that girls had more anxiety-arousing stimuli in the school environment than boys, and were affected by all the three category sources.
- c. Anxiety affected academic performance of pupils by altering and distorting cognitive functioning and prolonging psychological distress.
- d. Anxious pupils mainly adopted maladaptive behaviour as response to anxiety-arousing stimuli. The maladaptive responses mainly took the forms of avoiding confronting the stimuli. When anxious pupils adopt avoidance coping mode, they lose concentration and miss lessons.
- e. A combination of cognitive distortion and behavioural response of avoiding the stimuli negatively affected the pupils' academic performance. Some anxious pupils focus more on the anxiety-arousing situation rendering learning meaningless.

## CONCLUSION

The findings of this study suggest that the highest ranked sources of anxiety among grade seven pupils in Luanshya District mainly emanated from those factors related to satisfaction of the security needs, affiliation needs and self-esteem needs. Under threats to the satisfaction of security needs were; anxieties created when teachers went on strike, covering long distances to and from school, fear of meeting with the head teacher because head teachers are usually associated with meting punishment on pupils, and the presence of bullies in the school. All these factors as sources of anxiety among pupils are found in our school systems and some pupils usually evaluate them as potentially harmful. On threats to the affiliation needs, what prominently came out was that; some pupils feared being rejected by friends. It is common among primary school-going pupils to frequently keep on changing those they play with on very flimsy grounds. Those pupils who are rejected feel humiliated and embarrassed; hence they feel anxious. The last category was threats to self-esteem. Stimuli that pose threat to one's feeling of worthy and lead to humiliation and embarrassment trigger extreme anxiety in some pupils. The findings of the study suggested that; knowledge about leaked examination papers, fear of speaking or presenting in class, worry about not being selected to grade eight and being menaced by mathematics elicited prolonged anxiety in some pupils. The current conditions prevailing in Zambian schools indicate the presence of the mentioned factors that pre-disposes pupils to extreme anxiety.

It should be noted that anxiety has a detrimental effect on academic performance if it goes unchecked. Most schools do not fully utilize services of school counsellors, social workers, psychologists and referral systems that can ameliorate the prolonged effects of anxiety among pupils. It has been observed that anxiety affects cognition by depriving pupils' cognitive resources to cope with the anxiety arousing factors. As anxiety deprives pupils' cognitive resources, they lose concentration, and learning is no longer enjoyable.

As coping strategies, pupils adopt maladaptive behavioural responses of avoiding coming face to face with anxiety-arousing stimuli. Some pupils therefore, abscond from classes and shun the work given by teachers. By so doing, they do not participate in tasks and the learning process; hence lose so much time, which later affect their academic performance.

All in all, the literature reviewed on the sources and effects of anxiety are in agreement with the findings of the current study. The study also fits clearly in our theoretical framework grounded on the “cognitive-behavioural perspective.” The cognitive-behavioural perspective focuses on how anxiety affects thought processes and induces behavioural responses, which are maladaptive to people experiencing prolonged anxiety. Pupils faced with prolonged anxiety experience impaired thought processes such as, lack of concentration, stammering, making mistakes on their work and interference in the retrieval of information. They also adopt behavioural patterns of avoiding confronting the anxiety-arousing stimuli. A combination of both impaired cognitive processes and maladaptive behavioural responses may affect academic performance of pupils.

## **RECOMMENDATIONS**

The major sources of anxiety identified in the study among grade seven pupils in Luanshya District, mainly centre on the threats to the three deficiency needs. The three deficiency needs associated with anxiety were: security needs, affiliation needs, and self-esteem needs. Based on the outcome of the study the following recommendations were made:

- (a) Security needs entail being concerned that tomorrow is assured, having things regular and predictable for oneself and members of the group. The fulfilment of pupil’s security needs is important. As noted in the study, pupils generally were fearful of being bullied by their peers or by older pupils, being chastised harshly by

teachers, or being subjected to humiliation and severe discipline by teachers (Mwamwenda, 1993). School administrators and teachers should therefore:

- See to it that pupils were protected against any form of security-threatening factors, which may induce anxiety.
- Establish good rapport with pupils.
- Always display schedules showing dates when tests would be written.

(b) Affiliation needs revolve around the theme of acceptance and love and knowing that others are aware of you and want you to be with them. In light of these, it would be important that:

- Each teacher should make their pupils feel that they are members of their class and should try to include as many pupils as possible when asking questions in class.
- Teachers must foster cooperation among learners and ensure mutual relationships. This can be achieved through the realisation of “togetherness” among learners by encouraging teamwork, treating all pupils equally and by involving them in decision making on all issues that concern them in the school.
- School administrators must by all means, discourage private tuition and instead promote provision of remedial work to all the pupils regardless of their status. Such approach will encourage acceptance of the pupils in the school and they will all feel belonging to the school social group.

(c) Self-esteem needs centre on being recognised as a unique person with special abilities and valuable characteristics and being special and different. Every pupil in the school wants to be recognized as a unique person mainly through demonstrating competencies in school activities such as; academic performances, games, and

social skills to mention but a few. Pupils also want to demonstrate mastery of their environment. Teachers should take it as their responsibility to:

- Help their pupils to develop positive self-concepts by treating them as persons of worth with human dignity.
- Assign work that matches pupils' intellectual ability, for when they do it well it boosts their self-esteem (Mwamwenda, 1993).
- Praise pupils who achieve success in activities and give assistance to those who find difficulties in their work.
- All schools must revamp counselling units and attach qualified counsellors to these units on a fulltime basis.

(d) Lastly, the Ministry of Education should ensure that qualified teachers are sent to basic schools so that the perception that basic schools are run by unqualified teachers can be dispelled.

## **SUGGESTIONS FOR FURTHER RESEARCH**

The Study suggests the following problems that could be considered for future research in the area of anxiety:

- (a) Currently, there is no literature comparing the causes and effects of anxiety among pupils between rural and urban schools. The study suggests that future research conducted in this area would be necessary.
- (b) The current study did not address itself to investigating individual pupils who are anxious, but instead explored some of the sources and effects of anxiety on performance. The study, therefore, proposes that a longitudinal research design could be conducted to focus on individual pupils identified as being anxious and monitor how they performed on various school activities over a period of time or at various levels of the education system.

- (c) Home factors as sources of anxiety among pupils have not been addressed in the current study. It is proposed that home factors be investigated to establish whether they have any effect on pupils' academic performance.

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## APPENDIX 1

### THE UNIVERSITY OF ZAMBIA SCHOOL OF EDUCATION P.O BOX 32379, LUSAKA

#### STUDENTS QUESTIONNAIRE.

#### SOURCES AND EFFECTS OF ANXIETY ON ACADEMIC PERFORMANCE AMONG GRADE SEVEN PUPILS: A CASE OF LUANSHYA DISTRICT.

Dear respondent (pupil),

You have randomly been selected to participate in the study. Kindly fill in the questionnaire following the instructions provided in each section. This is not a test and there is no right or wrong answer. **The information provided by you will be treated with highest confidentiality. Therefore, you are not required to write your name. Should you feel like not participating, you are free to withdraw.**

#### SECTION A. DEMOGRAPHIC DATA.

##### 1. Indicate the following:

- (a). Sex..... Boy [ ] girl [ ]
- (b). Age.....
- (c). Grade.....
- (d). Are you repeating the grade?..... Yes [ ] No [ ]
- (e). Year started school. 19\_\_

##### 2. Indicate the following about your school:

- (a) Name of the school.....
- (b) The school is ..... (i) Government [ ] (ii) Private [ ] (iii) Mission [ ]
- (c) How many grade seven classes are at your school?.....
- (d) How many pupils are in your class?.....
- (e) Is there a school counsellor at your school? Yes [ ] No [ ]

#### SECTION B

In this section you are provided with a list of some possible factors in your school that may subject you to prolonged anxiety, fear, frustration or tension as a grade seven pupil. In each case indicate the extent to which you think the item produces anxiety in you by circling one of the four numbers against each item.

4 = OFTEN

3 = SOMETIMES

2 = RARELY

1 = NEVER

1.	I tremble when I meet the head teacher	4	3	2	1
2.	I have difficult finding answers when we are given new work.	4	3	2	1
3.	I fear when teachers talk about tests.	4	3	2	1
4.	I find it difficult to solve mathematics questions.	4	3	2	1
5.	I do not think clearly when writing a test	4	3	2	1
6.	I fear when teachers go on strike.	4	3	2	1
7.	I feel sick when I hear that some students have got leaked exam papers.	4	3	2	1
8.	I do not think straight when the teacher gives us too much work.	4	3	2	1
9.	I fear to speak in class because other pupils would laugh at me	4	3	2	1
10.	I fear that I will not be selected to grade eight	4	3	2	1
11.	I worry about the grade/marks I will have in a test	4	3	2	1
12.	I worry about bullies at school	4	3	2	1
13.	I do not like to be taught by new teachers	4	3	2	1
14.	I think teachers and parents who talk about failing are bad	4	3	2	1
15.	I like teachers who give us simple tasks that we know	4	3	2	1
16.	I fear to be rejected by my friends	4	3	2	1
17.	I tremble when the teacher asks me to say something in class.	4	3	2	1
18.	I feel like going to the toilet when new work is introduced	4	3	2	1
19.	I worry when writing a test.	4	3	2	1
20.	I do not like school during the final weeks.	4	3	2	1

21.	I have difficult reasoning when there are many people	4	3	2	1
22.	When class work is difficult, I feel like staying at home	4	3	2	1
23.	I get low marks after teachers go on strike.	4	3	2	1
24.	I find myself restless when am about to go to school	4	3	2	1
25.	I worry about long distance to school.	4	3	2	1

**Thank you very much for having filled in this questionnaire.**

## APPENDIX 2

### THE UNIVERSITY OF ZAMBIA SCHOOL OF EDUCATION P.O BOX 32379, LUSAKA.

#### TEACHERS' QUESTIONNAIRE

#### SOURCES AND EFFECTS OF ANXIETY ON ACADEMIC PERFORMANCE AMONG GRADE SEVEN PUPILS

Dear respondent,

I am carrying out a study on the sources and effects of anxiety on academic performance among grade seven pupils in Luanshya. You have been randomly selected to participate in this study. Kindly fill in this questionnaire.

#### SECTION A. PERSONAL DATA

- (i) Sex .....
- (ii) Age .....
- (iii) Job title .....
- (iv) Years in service .....
- (v) Name of school .....

#### SECTION B

The following statements are focusing on the cognitive distortion and behaviour of anxious pupils when they are confronted with specific mentioned anxiety arousing stimuli. Two options are provided under each statement. Choose by circling the option you feel affect academic performance of anxious pupils.

1. When writing a test/ examination, anxious pupils .....
  - (a) concentrate well
  - (b) lose concentration
2. When work is given in class, pupils who are anxious like .....
  - (a) to get permission to go to the toilet
  - (b) to stay for a longer time in class
3. Pupils who worry about what grades/marks they will get .....
  - (a) concentrate on their work
  - (b) make a lot of mistakes in their work
4. Anxious pupils usually .....
  - (a) avoid to meet teachers
  - (b) like to meet teachers
5. When teachers ask anxious pupils to present work or answer questions in class, Such pupils .....
  - (a) are calm
  - (b) stammer
6. Teachers usually announce in advance when they will administer a test. Most anxious pupils .....
  - (a) stay away from school on that day
  - (b) attend classes on that day

7. When work is difficult, anxious pupils .....
  - (a) work on their own
  - (b) like copying from others
8. The most preferred sitting position in class by anxious pupils is .....
  - (a) in front
  - (b) at the back
9. Generally, anxious pupils are fond of .....
  - (a) staying for a longer time in class
  - (b) getting permission to go out
10. Anxious pupils like .....
  - (a) to be with other pupils
  - (b) to report that they are sick
11. Anxious pupils are usually .....
  - (a) comfortable in class
  - (b) uncomfortable in class
12. Pupils who are anxious like spending their time .....
  - (a) being alone
  - (b) in company of others
13. When anxious pupils do not do class work or home work .....
  - (a) they tend to give a lot of excuses
  - (b) they like to blame themselves
14. Anxious pupils .....
  - (a) finish the tasks quickly
  - (b) fail to finish tasks in good time
15. Pupils who are anxious .....
  - (a) do not like asking questions to the teacher
  - (b) like asking questions to the teachers

Briefly outline any other effects of anxiety on academic performance, which you might have noticed among pupils as a teacher.

- (a) .....
- (b) .....
- (c) .....
- (d) .....

**THANKYOU VERY MUCH FOR THE INFORMATION**

### APPENDIX 3

#### FREQUENCY AND PERCENTAGES ON PUPILS' QUESTIONNAIRE

ITEM No	SOURCES OF ANXIETY FACTORS	OFTEN	SOME TIMES	RARELY	NEVER
		(4)	(3)	(2)	(1)
		Freq. %	Freq. %	Freq. %	Freq. %
1	Fear meeting the head teacher	111 (55.5)	44 (22.0)	21 (10.5)	24 (12.0)
2	Doing new work	48 (24.0)	92 (46.0)	28 (14.5)	32 (16.0)
3	Information about tests to be written	54 (27.0)	53 (26.5)	61 (30.5)	32 (16.0)
4	Fear of solving mathematics problems	104 (52.0)	44 (22.0)	18 (9.0)	34 (17.0)
5	Not thinking clearly when writing test	37 (18.5)	55 (27.5)	48 (24.5)	60 (30.0)
6	Worry about teachers going on strike	140 (70.0)	36 (18.0)	11 (5.5)	13 (6.5)
7	Worry about examination leakages	156 (78.0)	14 (7.0)	8 (4.0)	22 (11.0)
8	Too much work given by the teacher	35 (17.5)	67 (33.5)	40 (20.0)	58 (29.0)
9	Fear to present in class	148 (74.0)	31 (15.5)	4 (2.0)	17 (8.5)
10	Worry about not being selected to grade 8	112 (56.5)	28 (14.0)	24 (12.0)	36 (18.0)
11	Worry about grades/marks at grade seven	124 (62.0)	33 (16.5)	6 (3.0)	37 (18.5)
12	Fear of bullies at school	103 (51.5)	30 (15.0)	16 (8.0)	51 (25.5)
13	Does not like to be taught by new teachers	60 (30.0)	44 (22.0)	33 (16.5)	63 (31.5)
14	Hates teachers/parents who talk about failing	58 (29.0)	70 (35.0)	19 (9.5)	53 (26.5)
15	Like teachers who give simple work	38 (19.0)	62 (31.0)	24 (12.0)	76 (38.0)
16	Fear of being rejected by friends	160 (80.0)	21 (10.5)	12 (6.0)	7 (3.5)
17	Fear of speaking in class	137 (68.5)	24 (12.0)	10 (5.0)	29 (14.5)
18	Feels like going to the toilet during working	50 (25.0)	40 (20.0)	42 (21.0)	68 (34.0)
19	Worry about writing tests	58 (29.0)	53 (26.5)	36 (18.0)	53 (26.5)
20	Hate school during the final weeks	42 (21.0)	46 (23.0)	26 (13.0)	86 (43.5)
21	Does not think clearly in public	52 (26.0)	36 (18.0)	25 (12.5)	87 (43.5)
22	Feels like staying home when school work is diff	36 (18.0)	84 (42.0)	38 (19.0)	42 (21.0)
23	Fear to get low marks when teachers go on strike	64 (32.0)	52 (26.0)	22 (11.0)	62 (31.0)

24	Feels restless when about going to school	46 (23.0)	34 (17.0)	50 (25.0)	70 (35.0)
25	Worry about long distance to school	115 (57.5)	28 (14.0)	17(8.5)	40 (20.0)