

**INFLUENCE OF LEARNED HELPLESSNESS AND HOME BACKGROUND ON  
ACADEMIC PERFORMANCE AMONG SENIOR SECONDARY SCHOOL  
STUDENTS' IN FEDERAL CAPITAL TERRITORY ABUJA, NIGERIA**

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ZARIA, NIGERIA**

**FEBRUARY, 2016**

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M.ED/EDUC/4440/2011-2012**

**A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE  
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**DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND COUNSELLING,  
FACULTY OF EDUCATION,  
AHMADU BELLO UNIVERSITY  
ZARIA, NIGERIA**

**FEBRUARY, 2016**

## **DECLARATION**

I declare that the work in this dissertation entitled; Influence of Learned Helplessness and Home Back Ground on Academic Performance among Secondary School Students in Federal Capital Territory, Nigeria has been carried out by me in the Department of Educational Psychology and Counselling. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma at this or any other institution.

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Sa'adatu SULEIMAN

Date

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## CERTIFICATION

This dissertation entitled; Influence of Learned helplessness and Home Background on Academic Performance among Secondary School Students in Federal Capital Territory, Nigeria, by Sa'adatu SULEIMAN meets the regulations governing the award of Master Degree of the Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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## **DEDICATION**

This dissertation is dedicated to my beloved parents; Alhaji Sule Attahiru Bazhi (Estu Bagadozhi) and Hajiya Habiba Dakumi.

## ACKNOWLEDGEMENT

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## **ABSTRACT**

The study employs correlation design in investigating the influence of learned helplessness and home background on academic performance among secondary school students in FCT, Nigeria. Three research questions and three research hypotheses guided the study. A sample of 290 students in the 2014/2015 academic session from public SSS was selected through cluster sampling techniques. 143 males and 147 females from 209 urban and 81 rural public secondary schools were used. Three sets of research instruments were used to collect data: learned helplessness scale, home background scale and academic performance test in English Language and Mathematics. The learned helplessness scale and the home background scale were both validated through content validity and had reliability of .89 and .79. Simple percentages, frequency, mean, standard deviation, Pearson Product Moment Correlation (PPMC). The findings revealed that there is a statistical significant relationship between learned helplessness and academic performance of SSS students ( $r = -0.550$ ,  $p = 0.000$ ), there is a statistical significant relationship between academic performance and home background of SSS students ( $r = 0.465$ ,  $p = 0.000$ ) and there is a statistical significant relationship between home background and learned Helplessness of SSS students ( $r = 0.540$ ,  $p = 0.000$ ). The study therefore recommends that parent's should actively support the learning of their children in such ways as monitoring children's progress and communicating with school personnel, tutor children at home to reinforce work done in school and acting as volunteer in schools as aides or in other roles. Seminars and workshops should be organized for the parents/guardians so as to equip them with necessary knowledge and skills so as to enable them play their role effectively as parents as they are the first teachers for their children and to redress problem of learned helplessness as it relates to their home background and academic performance.

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## **LIST OF ABBREVIATIONS**

|      |                                  |
|------|----------------------------------|
| FCT: | Federal Capital Territory        |
| HND: | Higher National Diploma          |
| NCE: | Nigeria Certificate in Education |
| OND: | National Diploma                 |
| SSS: | Senior Secondary School          |

## **OPERATIONAL DEFINITION OF TERMS**

**Home background:** Is the environmental setting or home where the child was brought up and where his experiences begin.

**Learned helplessness:** This means when someone feels she/ he has little or no control over an outcome. It is a behaviour exhibited when uncontrollable events leads to the expectation that future event will be uncontrollable.

**Academic Performance:** Academic performance refers to the score, performance and outcomes in English Language and Mathematics as measured by Mathematic achievement test and English language achievement test.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the study**

A key goal of education is to ensure that every student has a chance to excel, both in school and life. Increasingly, children success in school determines their success as adults, determining whether and where they go to college, what professions they enter and how much they can earn. Education is an omnipotent phenomenon and an invaluable gift to mankind which influences the survival and development of human societies and cultures. It is generally accepted as an instrument excellence for achieving national, societal and personal development. It is an effective remedy for the removal of poverty in the society. Education is needed to be able to exploit and increases the value chain of natural resources. It ensures and enhances citizens' active participation in the democratic processes and developmental activities. This implies that the level of development and prosperity attained in future by a country shall be determined by its level of educational development.

The home has a great influence on student's psychological, emotional, social and economic state in the view of Ajila and Olutola (2007), the home affects the individual since parents are the first socializing agents in an individual's life. The school is responsible for the experiences that makes up the individual's life during school periods, yet parents and individual's experiences at home play tremendous roles in building the personality of the child and making the child what she is (Uwaifo, 2008). Home background plays major role in student's life and outside of the school, is the most important influence on student learning and include factors such as socioeconomic status, two parents versus single-parent -households, divorce, parenting practice and aspirations, maternal characteristics, family size and neighbourhood (Majoribanks, 1996). The

environment at home is a primary socialization agent and influences a child's interest in school and aspirations for the future (Bali, 2003). Parental involvement has an important role in children's school performance.

A student's home environment can be seen as an agent that aid in the construction of student attitudes and school achievement. Martin (1996) posited that many studies have in fact shown that there is a relationship between family background characteristics and students' achievement. Beane and Lipka (2003) posited that some of the young peoples' difficulties at school can be due to problems caused by parents. They argue that home is the backbone for children's personality development and influences children directly through the kind of relationship the family members have among themselves as well as through helping them to get in contact with society.

In Nigerian context, Sharman (1997) contended that home environment exerts a significant influence on students' educational aspirations, which in turn influence the school-to-work transition. In other words, when parent have high expectations, youths have high occupational aspirations. Sjogren (2002) emphasized that youths from poorly educated parents are sensitive to economic incentives since they are to a greater extent attracted to occupations with high wage rates and high return in education.

An important role in students' academic performance is played by the academic level of the parents. Students who come from mono parental families or with parents who are not home owners tend to have better academic performance. Students' perceptions of teachers tend to have great significance because it has been shown that students who appreciate their teachers and say that the professors' treatment is very good one tend to have higher performance than those who say the way their teachers treat them is a bad or very bad (Engir-Demir, 2008).

Learned helplessness is more likely to result from situations where failure is uncontrollable. For example, Gernigon, Fleurance, and Reine (2000) conducted a study on failure in controlled and uncontrolled circumstances. They found that failure was more likely to occur in uncontrollable circumstances.

Three components of learned helplessness have particular pertinence for the classroom: failure to initiate action, failure to learn, and emotional problems.

1. Failure to initiate action means that students who have experienced learned helplessness tend not to try to learn new material. Passivity becomes their predominant behaviour.
2. Failure to learn means that even when new directions are given to these students, they still learn nothing from them.
3. Emotional problems seem to accompany learned helplessness. Frustration, depression, and incompetence occur frequently.

Success in an education institution is measured by academic performance over the years, the importance of students doing well in school has become the concern of parents, legislators, teachers, counsellors and psychologists. The concept of academic performance has become a source of concern to researchers. Educators want to understand all the impediments which can hinder a student's success, even if the problem only affects a small segment of the student population, educators want strategies to overcome them. Also, with the recent emphasis in education on response to intervention, the need to identify intervention practices to help students succeed and especially struggling students to recover academically is critical not only to student success, but for schools to meet annual yearly progress. Academic performance is defined or regarded as participants' examination grades (Grade point average) at the end of particular term. It could also be

seen as the level of performance in a particular field of study. Higher score indicates better academic performance (Egbule 2004). The Nigeria society places great emphasis on education because it is believed to be the only avenue for national development. However, this can only be achieved if secondary students' who are the citadel of learning get actively involved in academic activity which will enhance their academic performance. This will, in turn, lead to the technological advancement of the nation.

Evidence shows that a learned response is at the root of the problem. It is made clear that we have been neglecting the psychological reasons why students fail and refuse to learn despite the best efforts to motivate and teach. The national report by the Commission on Reading (1992)U.S. Department Education, describe these students as ‘‘listless and inattentive and sometimes disruptive. They do not complete work. They give up quickly when faced with a task that is difficult for them. They become anxious when they act as though they were helpless to do better.’’ Various reasons have been advanced to explain why students perform poorly in school subjects. Poor performance in school subjects has been of some concern to parents, teachers, educationists, psychologists, and the general public. The declining rate of the performance of senior secondary school students in all school in Nigeria is a problem of serious concern to various educators, educationist and other examination bodies. It seems obvious that various attempts have been made in order to identify the factors that or facilitate performance in school subject. Because passivity and dependence are considered to be characteristics behaviour of learned helplessness, that result to poor academic performance. Nonetheless, there is no evidence in extant literature that the effects of learned helplessness and gender have been investigated.

## **1.2 Statement of the Problem**

Over the years, the society has been recording a persistent increase in the rate of poor performance in various school examinations which include the end of term examination. If this trend is not nip in the bud, it will have grave repercussion on the lives of students, their parents and the society at large. Falling standard of education manifested in poor academic performance is equally obvious among them. Poor attitude to education, lack of seriousness in academic tasks, low level confidence, effort and ability to uncover the underlying factors and to face rigorous academic challenges have all revealed a serious need for research study in order to foster their educational aspirations and smooth transition to higher institutions.

The researcher attended PTA meeting in one of the senior secondary school in Abuja where parents are complaining of the student's poor academic performances at the end of terminal examination, this made the researcher to put interest into her research topic. This is because it is the bases for future development of the individual. The importance of education in an individual cannot be over emphasized. Education has a long lasting impact on one's life. The acquisition of knowledge and skills and all other things that is worthwhile which are transmitted to a person through formal and informal education determines his/her potential in future.

Comment from Moses Salau (2014), of the Nigeria Educational Research and Development Council (NERDC) have shown that the blame from lack of good performance has been as a result of neglect and carefree attitude towards academic work by students, and parents. He said students did not study well but engaged in activities on the internet which added no value to academic work. "Some parents are not investing in the education of their children they prefer buying clothes, shoes and make ups. Home is

the first school for a child where he/she is taught the basic norms and values by the parents before the child leaves for the formal education. Contrary to the opinion that learning and reading begins in school, the first foundation of the child begins at home. A good and conducive home environment with adequate learning facilities would help to boost the intellectual and academic capability of the child. The motivation of any intelligent child towards learning is being accelerated by the positive influence of his/her environment while others are negatively affected in terms of their non-stimulating home environment. Education enables the individuals and society to make an all-round participations in the development process by acquiring knowledge, ability, skills and attitudes.

Moreover, very scanty attention has been given to most aspects of learned helplessness and academic performance.

It is against this background the study sought to investigate the influence of learned helplessness and home background on academic performance among secondary school students in F.C.T., Nigeria.

### **1.3 Objectives to the Study**

This study intends to achieve the following objectives:

1. To determine the relationship between learned helplessness and academic performance of senior secondary school students.
2. To determine the relationship between home background and academic performance of senior secondary school students.
3. To determine the relationship between home background and learned helplessness of senior secondary school students.

#### **1.4 Research Questions**

Based on the stated objectives, the following research questions were formulated.

1. What is the relationship between learned helplessness and academic performance of senior secondary school students?
2. What is the relationship between home background and academic performance of senior secondary school students?
3. What is the relationship between home background and learned helplessness of senior secondary school students?

#### **1.5 Hypotheses**

The following hypotheses were formulated to guide the study.

1. There is no significant relationship between learned helplessness and academic performance of senior secondary school students.
2. There is no significant relationship between home background and academic performance of senior secondary school students.
3. There is no significant relationship between home background and learned helplessness of senior secondary school students.

#### **1.6 Basic Assumptions**

This study is based on the following assumptions:

1. Significant relationship may exist between learned helplessness and academic performance of secondary school students.
2. Significant relationship may exist between home background and academic Performance of secondary school students.

3. Significant relationship may exist between home background and learned helplessness of senior secondary school students.

### **1.7 Significance of the Study**

The significance of this study can be seen in the light of the following.

The study will provide empirical evidence that learned helplessness and home background influence student's academic performance. The findings of this study is hoped to bring into clearer perspective to help the teachers to establish good communication between them and their students and will also assist the teachers to have concern for the student's academic development.

It will encourage parents to contribute positively to the development of their children academic performance. Also it will be important and useful to the school psychologists/school counsellors, since they are in strategic position to help and build a wholesome relationship in learning environment. They have the legitimate access to all school participants and also have direct contact with students, and will motivate them to organise some communication skills training as they are trained to use principles of good human relations to assist others.

It will assist the teachers to give proper education to students on home environment on their academic performance. Students are the future nation builders of our nation, therefore if they are not given proper education on the effect of home environment on their academic performance; they will continue to perform poorly and as a result of the goals of education as powerful tool for nation will not be achieved. And again, parent will be aware that they have greater role to play for high academic performance of their children. It will help other researchers to undertake further research towards providing solutions to the highlighted problems of study. It is hoped that this study will highlight

the existing problems as it presents itself to Federal Capital Territory Schools. This will encourage other researchers towards providing solutions to the highlighted problems.

### **1.8 Scope and Delimitations of the Study**

The area of coverage in this study is two hundred and ninety senior secondary school students' in F.C.T. Abuja, Nigeria that are independent from junior secondary schools. The SSS that are independent here means those schools that are separated and situated differently from the junior secondary schools. The study however, covered seven schools selected in six area councils across the F.C.T. Abuja, and it is delimited to investigate the influence of learned helplessness and home background on academic performance.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This research work is designed to investigate the influence of learned helplessness and home background on academic performance among secondary school students in Federal Capital Territory, Nigeria. The need for a critical review of related literature is the purpose of this chapter. Knowledge of recent ideas and research works related to the concept of learned helplessness, home background and academic performance, and the theories for the study of these concepts have been addressed to provide greater focus for the research work.

The conceptual framework of the study goes on to the review the related literature on the following heading;

- The concept of learned helplessness.
- The concept of home background
- The concept of academic performance.
- Home environment and academic performance.
- Learned helplessness and academic performance.
- Relationship between home background and academic performance
- Theoretical framework
- Theories of learned helplessness
- Learned helplessness model
- Reformulation of learned helplessness model
- Leon Festinger theory of cognitive dissonance
- Albert Bandura Social Learning Theory

- Edward L. Deci and Richard M. Ryan Self Determinant Theory
- Maslow Hierarchy of Needs Theory
- Weiner Attributional Theory
- Review of Related /Empirical studies
- Uniqueness of the study
- Summary

## **2.2 Conceptual Frame**

### **2.2.1 Concept of Home Background**

The home has a great influence on students' psychological, emotional, social and economic state. In the view of Ajila and Olutola (2007), the state of home affects the individual since the parents are the first socializing agents in an individual's life. This is because the family background and context of a female child affect her reaction to life situations and his level of performance. Although the school is responsible for the experiences that make up the individual's life during school periods, yet parents and individual's experiences at home play tremendous roles in building the personality of the child and making the child what she is (Uwaifo, 2008).

Home background plays major role in student's life and outside of the school, is the most important influence on student learning and include factors such as socioeconomic status, two parents versus single-parent households, divorce, parenting practice and aspirations, maternal characteristics, family size and neighbourhood (Majoribanks, 1996). The environment at home is a primary socialization agent and influences a child's interest in school and aspirations for the future (Bali, 2003).

Parents can be significant contributors to the learning process. Opportunities for parents to be involved in their students' learning allows parents to show an interest in the students' work. Parent involvement helps parent to provide home encouragement, students have opportunity to apply and practice the concepts previously learned. Research indicates that the more parents are involved and exited in the learning of their children, the more successful a child can be academically. West (1985) and Weller (1999) indicate there are parent behaviours that can lead to effective schools. When parents show support, interest, and become involved the success rate of students can rise. Students in at-risk situations show an increase in grades, test scores, and academics when their parents become involved in instructional programs (Dolan, 1996).

Adekeyi (2002) observed that it is mainly through their efforts and abilities that children are socialized to become productive citizens. So, wherever parents possess the resources and skills; and apply them effectively and joyfully in raising their children, the entire society benefits. This brings joy and pride to the nation, and encourages development and peaceful co-existence. The children themselves feel good and bring happiness to their parents and the whole community.

The home is the first place of learning for the child. The quality of home environment goes a long way in determining the eventual personality and achievement of the child. Psychologists had classified the factors that affect learning into two broad categories namely, nature and nurture. It has been discovered that the two categories play complementary roles. As nature determines the level of intelligence and inherited abilities of the child, nurture helps to maximize these innate abilities. According to Ekinne (2002), nurture involves the home, the school, and the environment and peer groups to which the learner belongs. The home has far reaching influence on the child. Babara (1982) said that the child home environment influences attainment at school. Also, Touray (1982)

suggested that the home environmental variables could be manipulated to enhance students' academic performance.

The level of educational attainment of parents could influence the academic achievement of their children. According to European Union Monitoring Report (2013), those students whose parents have a tertiary level of education perform, on average, significantly better in tests of science, reading and mathematical ability than do those whose parents have only basic schooling. In a family where both the father and mother are educated, their children are always taken good care of in their academic activities. Such parents know the importance of getting educational materials for their children in school. They may go through their children's exercise books after school, or even employ a private teacher to teach them after school. By so doing, their academic performance will be improved; whereas in the case of illiterate family, the need to supervise the children's exercise books is not there, hence their children's low academic performance in school. Educated parents may also have library at home, stocked with novels, encyclopaedia and other educational books and educational audio visual tapes. When children make use of these materials, it will enhance their intellect.

Also, hereditary factor could also influence a child's academic.

### **2.2.2 Concept of Learned Helplessness**

Learned helplessness is a very different concept from what parents and educators are to dealing. However, because it centres on children's thinking as the basis for feelings and behaviour, it is nonetheless powerful. Martin P Seligman, the author of learned optimism (1991), says that "the cure for learned helplessness is not the rediscovery of positive thinking. It does not consist in just learning to say positive things to your-self. Positive statements alone without first clearing out negatives have little if any effect. What is

crucial is what you think, changing the destructive things you say to yourself when you fail or have setbacks and making these statements apart of your explanatory style.

Learned helplessness “exists when individuals believe that their own behaviour has no influence on consequent events” (Seligman, 1975). Seligman believes this phenomenon comprised of three different parts: (a) an undermining of one’s ability to learn that responds; (b) a retardation of one’s ability to learn that responding work; (c) an emotional disturbance, usually depression or anxiety. Helpless individual believe the causes of bad event that happen to them are permanent. They believe bad events will persist and will always affect their lives. Learned helplessness is a maladaptive coping mechanism that far too often leads to depression, low self-esteem, and low-efficacy. This helpless coincides with self-blame and negative self-talk. We often attribute failures to internal, stable, general, persistent, recurrent, and important causes and trying (Prapavessis and Carron, 1988). Learned helplessness is the belief that failure is inevitable. We have an intrinsic need to be competent and to explore behaviours. When we fail, our confidence diminishes and we lose desire to explore behaviours. This is when we become helpless. If you failed in a task in the past, which led you to believe that you are incapable of doing anything in order to improve your performance, you will avoid the task in future (Stipek, 1988).

Learned helplessness is a phenomenon containing three components: contingency, cognition and behaviour. Learned helplessness describes the behaviour that follows when uncontrollable events lead to the expectation that failure events will also be uncontrollable. Essentially, the child feels like there is nothing he can do change the outcome of an event, so he might not even try. For example, if a child studies for an exam and still receives a poor grade, he may feel that he has no control over his performance, so he decides to give up participating and studying all together. He may then generalize

these feelings to other aspects of his life and lose motivation to succeed, as he believes that his success is out of his control. Learned helplessness occurs when someone feels she has little or no control over an outcome (Seligman, 1975). The helpless individual will give up easily when faced with a challenge. According to Cemalcilar, Canbeyli, and Sunar (2003), learned helplessness is ‘‘when experience with uncontrollable events leads to the expectation that failure events will also be uncontrollable, disruption in motivation and learning may occur’’. Learned helplessness has also been associated with several different psychological disorders. Depression, anxiety, phobias, shyness and loneliness can be exacerbated by learned helplessness for example; a woman who feels shy in social situations may eventually begin to feel that there is nothing she can do to overcome her symptoms. This sense that her symptoms are put off her direct control may lead her to stop trying to engage herself in social situations, thus making her shyness even more pronounced. Learned helplessness refer to mental state where people feel completely powerless to improve their own situation in life this means that they become unwilling to take action to improve a situation because they have make more difference. Learned helplessness is a phenomenon containing three components: contingency, cognition, and behaviour. Contingency addresses the uncontrollability of the situation. Cognition refers to the attributions that people make regarding their situation or surroundings of which they are a part. Behaviour allows individual to decide whether they will give up or proceed with the obstacle set before them (Peterson, Maier, and Seligman, 1993). When people experiences learned helplessness, they have a tendency to give up easily or fail more often at somewhat easier tasks. Learned helplessness is more likely to result from situations where failure is uncontrollable. Informally, learned helpless can be thought of as

Giving up,

Expectation of future non contingency outcomes no longer depend on actions,

Believing: it won't matter what i do,

Believing: I have no control over the action,

The belief that your actions are futile,

Believing you are incompetent.

To qualify as learned helplessness, a phenomenon has to be meeting all three of this conditions.

The person has to become inappropriately passive,

This change has to follow exposure to prolong uncontrollable events,

There is change in the way the person thinks about their ability to control similar events.

Uncontrollable events disrupt peoples' subsequent problems solving skills. How people choose to explain the causes these bad events affect their responses in a variety of ways, including motivation, emotion, cognition, and behaviour. As seen from these above definitions, a person becomes helpless after being subject to repeated failure, traumatic event or unable to get desired rewards and show this helplessness by giving up trying and feeling powerlessness. Similar definitions are encountered when literature about learned helplessness is reviewed as well. For example, Myers (2004) defines learned helplessness as "hopelessness and resignation learned when a human or an animal perceives no control over repeated bad events" (p.56). Similarly, Güler (2006) defines helplessness as "a notion of becoming passive after being exposed to stressors like repeated punishment, failure and adverse conditions and remaining passive even after environmental conditions make change possible" (p.26). As seen from these definitions, helplessness is a learned response, which manifests itself as resignation, withdrawal and passivity as a reaction to adverse conditions.

### **2.2.3 Concept of Academic Performance**

Academic performance according to the Cambridge University Reporter (2003) is frequently defined in terms of exams of performance. Academic achievement refers to what the student has learned or what skills the student has learned and is usually measured through assessments like standard test, performance assessments and portfolio assessments (Santrock, 2006). The description assessments information will usually be translated through grading system such as Grade Point Average (GPA) and course grade.

Edbule, (2004) defined academic performance as the level of performance in a particular field of study, which highest score indicate better achievement and lower scores reveals poor achievement. Bandura, (1997) found that academic achievement consistently relates to positive identify structures, which encompass self-esteem, self-efficacy and motivation. According to Elliot and Dweck (2005), academic achievement is the individual or self-defining complete performance in the domains of school, sport and work. In line with this context Zimmerman, (2000) defined academic achievement as self-regulated learning, including excellence in sports, arts, culture, behaviour, confidence and communication skills, and how learners control their emotion, feelings and actions in order to achieve academically.

Academic performance which is measured by the examination results is one of the major goals of a school. Hoyle (1986) argued that schools are established with the aim of imparting knowledge and skills to those who go through them and behind all this is the idea of enhancing good academic performance. Academic performance is the outcome of education the extent to which a student, teacher or institution has achieved their educational goals. Academic performance is commonly measured by examination or continuous assessment but there is no general agreement on how it is best tested or which

aspects is most important -procedural knowledge such as skills or declarative knowledge such as facts. Academic performance, in this study, refers to test scores of SSS 2 students as measured in English and Mathematics Tests conducted at the selected schools by the researcher.

#### **2.2.4 Home Environment and Academic Performance**

Studies on children attitudes to education have shown that children are affected by home background, parent's socioeconomic status, level of educational achievement, marital relationships at home, school climate, sex and peer groups.

According to Hurlock (2005), the home background and parental attitude to school activities and education generally are some of the strongest and most persistent in determining a child's interest and his consequent attitudes to education. Education and occupation of parents with their income to a large extent defines the condition of the home.

Hoyle (2003) claimed that the family environment is the most powerful influence in determining a child academic performance. It is obvious that families have substantial influence on a child academic performance.

Farrant (2004) confirmed that children who grow in homes where the mind is stimulated developed mentally more than those from homes where there is no incentive for mental growth, exercise. He added that all behaviour is a response to some stimulus in the environment. Families with high socioeconomic status usually have books and educational materials around the home as part of the environment to which the growing child is exposed. Consequently, children of such families are expected to do well in school.

Research continues to link low socioeconomic status to low academic performance and slower rates of academic progress as compared with higher socioeconomic status communities. Children from lower socioeconomic status environment acquire language skills more slowly, exhibit delayed letter recognition and phonological awareness and are at risk for reading difficulties (Aikens and Barbarin, 2008). Children with high socioeconomic backgrounds were likely to be proficient on tasks of addition, subtraction, ordinal sequencing, and maths word problems than children with low socioeconomic background (Coley, 2002). Students from low socioeconomic school entered high 3.3 grade levels behind students from higher SES schools'. In addition students from low SES groups learned less over 4 years than children from higher SES groups, graduating 4, 3, grade levels behind those of higher SES group (Palardy, 2008)

The literature shows that the socioeconomic status of the family is consistently found to be the only strong predictor when it comes to educational outcomes (Zhao, 2011). To explain this phenomenon, the researcher argues that parents who come from families with low socioeconomic status are less involved in their children 's schooling and support them less compared to parents of children from families with higher socioeconomic status, resulting in performance low academic (Zhao 2011).

Studies that were done between 1918 and 1975 show an average correlation of 0.20, while Sirin (2005) shows an average correlation is 0.34. The impact of socioeconomic status on academic performance varies greatly depending on the economy, region or country Zhao, Valcke, Desoete and Verhaeghe(2011). Jennifer, (2005), highlight that the socioeconomic status is related to the home environment and he argued that the socioeconomic status dictates the quality of life of a student. The study conducted by Sandro (1987) showed that 46% of the students with socioeconomic status have medium to low and working-class parents want to pursue higher education. To reduce the dropout

rate from 29% to 11%, the teachers decided to prepare a regular report for the parents, and to make visits at the students' homes. A study conducted 2009 about the socioeconomic status, cultural status and academic performance, showed that students who have parent with low education, unemployment or jobs where wages are low, have difficulties in engaging in circular and extra-curricular activities, which leads to lower academic performance than other pupils (PISA, 2009).

Delaney, Harmon and Redmond (2010), shows that students with a low socioeconomic status underestimate themselves because of the socioeconomic status they inherited from the parents and the performance characteristics of the high school. Bowden's and Doughney's study (2011) has shown that a student is more likely to aspire to a university if he has internet at home, if he is encouraged by the teachers to pursue higher education or if he goes to a private school. A higher importance in the influence of students than the teachers' encouragement has the educational level of the parents, especially the mother's. It was discovered that even the cultural and economic variables play a crucial role in the model aspirations of the students and they increase significantly the predictive power of them to attend university.

Parent involvement has an important role in children's school performance; both constructs seem to be positively related. Also, it was noted that when children are surrounded by caring parents who are involved in their school activities and do their homework together, children are more likely to respond positively to extra-curricular activities and have higher performance (Khajepour and Ghazvini, 2011).

Students with low socioeconomic status and poor backgrounds tend to get low school performance. An important role in students' academic performance is played by the academic level of the parents, in Turkey especially the father's. Students who come from

mono parental families or with parents who are not home owners tend to have better academic performance. The results of the study conducted in Turkey revealed that the household size and the number of siblings do not affect the school performance of the students. Students' perceptions of teachers tend to have great significance because it has been shown that students who appreciate their teachers and say that the professors' treatment is very good one tend to have higher performance than those who say the way their teachers treat them is a bad or very bad (Engir-Demir, 2008).

### **2.2.5 Learned Helplessness and Academic Performance**

As explained by Seligman (1990), traditional views of achievement attribute success to a combination of talent and desire. Similarly, it can be deduced that failure results from absence of talent and desire. However, Seligman (1990) posits that the presence of a third factor- optimism or pessimism- acts as a significant contributor to measures of achievement. As postulated by Dweck (1975), the theory of Attributional determinants can be used to explain academic performance and achievement. The cognitive (attributions), behavioural (motivation) and emotional (self-esteem and depression) effects on a child, who has a cognitive processing style predisposed to learned helplessness, have been correlated with poor academic achievement. Dweck asserts that children can be categorised as “helpless” or “mastery-oriented” in their attributions to academic success or failure. “Helpless” children are those who attribute failure to lack of ability despite possible prior success. In this regard, the attribution of failure to internal and stable causes, leads to decreased persistence and increased negative feelings. Children's idea of ability becomes more differentiated with age. It is only at early adolescence that some form of formal operational thought is developed, which suggests that ability is fully differentiated from effort, and is conceptualised as an entity unaffected by effort. Furthermore, as children enter secondary school they experience systematic

changes in activities, organisation and evaluation practice, which also contribute to shifts in their ability judgements (Stipek & MacIver, 1989 as cited in Cole, D. A., Martin, J. M., Peeke, L. A., Seroczynski, A. D., & Fier, J. (1999). School becomes more formal, more evaluative and more competitive, while the focus shifts from the learning process to evaluation of the learning outcomes. Such changes are coupled with increased academic demands and pressure, and changes in motivation, expectations, and effort. Students' self-confidence in mastering tasks declines with age and experience Cole, D. A., Martin, J. M., Peeke, L. A., Seroczynski, A. D., & Fier, J. (1999).

Thus it is expected that older students will be more likely to attribute failure to internal, stable and uncontrollable factors more often than younger students, which in turn may affect helpless expectations, helplessness, self-esteem, and depression (Valas, 2001a, 2001b). Previous studies, as suggested in Valas (2001a, 2001b), showed a link between constructs of learned helplessness and academic outcomes. Research findings (Cole et al., 1999; Valas, 2001a, 2001b) suggest that past academic achievement influences the patterns of attributions. Thus, children who have a history of poor performance are more likely to attribute failure to low ability. As past academic performance may also affect attribution patterns indirectly through academic self-concept, children who experience continuous academic under-achievement, make attributions of academic incompetence, in which failure is attributed to lack of ability (Valas, 2001a, 2001b).

In a study conducted by Valas (2001a, 2001b), mathematical and verbal performance were found to be significantly related to attribution style, expected outcomes, and symptoms of helplessness. It was found that high achieving students attributed success more often to effort and more seldom to ability than low achieving students. It was also found that high achieving students had more positive expectations and showed less helplessness than low achieving classmates. Significant relations were found between

achievement and attribution style, highlighting that achievement is negatively related to attribution style, which attributes outcomes to abilities rather than effort. In another study conducted by Peterson and Barrett (1987), as cited in Martinez and Sewell (2000), university freshmen with a pessimistic explanatory style tended to achieve lower grade point averages in their first year of college.

#### **2.2.6 Relationship between Home background, Learned Helplessness and Academic Performance**

Women may receive more uncontrollable (bad) events during life time than men. Maccoby and Jacklin's (1974) review suggests that boys are trained to be more self-reliant and active; whereas girls are trained to be dependent. As adults, women also expect their action will be less successful at generating desired outcomes than men's. Farrant (2004) confirmed that children who grow in homes where the mind is stimulated developed mentally more than those from homes where there is no incentive for mental growth, exercise. He added that all behaviour is a response to some stimulus in the environment. Families with high socioeconomic status usually have books and educational materials around the home as part of the environment to which the growing child is exposed. Consequently, children of such families are expected to do well in school.

Learned helplessness occurs when experiencing uncontrollable events leads to expectations of future lack of control. It is characterized by decreased motivation, failure to learn and negative emotions such as sadness, anxiety and frustration. The learned helpless response pattern was discovered accidentally in the study of animal learning during the mid-1960s when psychologist Martin Seligman observed that after exposure to inescapable electric shock some dogs passively accepted the shock even when they could take action to turn it off. The "helpless" dog puzzle initiated decades of research and

theory on learned helplessness that covered topics ranging from passivity in laboratory rats, clinical depression, children's classroom behaviour, success in selling insurance policies, to mortality in nursing homes. Learned helplessness is formally defined as a disruption in motivation, affect and learning following exposure to non-contingent (uncontrollable) outcomes. There are three crucial elements to its definition; contingency, cognition and behaviour. Contingency refers to the objective relationship between actions and outcomes and for helplessness to occur there must be no relationship between a person's actions and the outcome he or she experiences. Cognition is involved in how the person perceives the contingency, explains it and extrapolates from this understanding. The perception of uncontrollability (non contingency) may be accurate or inaccurate but once it occurs the person attempts to explain it. From this explanation they make extrapolations about the future and, when learned helplessness occurs, they expect that their behaviour will not influence future outcomes. Behaviour refers to the observable effects of being exposed to uncontrollable outcomes. Most often it involves „giving up“ - weaker attempts to control the situation or even failure to try to do so at all – behaviour incompatible with new learning. The response is also accompanied by negative emotions such as anxiety and sadness.

## **2.3 Theoretical Framework**

### **2.3.1 Theories of Learned Helplessness**

The theory of learned helplessness was conceptualized and developed by American psychologist Martin E.P. Seligman at the University of Pennsylvania in the late 1960s and '70s. While conducting experimental research on classical conditioning, Seligman inadvertently discovered that dogs that had received unavoidable electric shocks failed to take action in subsequent situations—even those in which escape or avoidance was in fact

possible—whereas dogs that had not received the unavoidable shocks immediately took action in subsequent situations. The experiment was replicated with human subjects (using loud noise as opposed to electric shocks), yielding similar results. Seligman coined the term *learned helplessness* to describe the expectation that outcomes are uncontrollable.

Learned helplessness has since become a basic principle of behavioural theory, demonstrating that prior learning can result in a drastic change in behaviour and seeking to explain why individuals may accept and remain passive in negative situations despite their clear ability to change them. In his book *Helplessness* (1975), Seligman argued that, as a result of these negative expectations, other consequences may accompany the inability or unwillingness to act, including low self-esteem, chronic failure, sadness, and physical illness. The theory of learned helplessness also has been applied to many conditions and behaviours, including clinical depression, aging, domestic violence, poverty, discrimination, parenting, academic achievement, drug abuse, and alcoholism. Critics, however, have argued that a variety of different conclusions can be drawn from Seligman's experiments and therefore broad generalizations, most frequently found in the areas of clinical depression and academic achievement, are unwarranted. For example, the application of the theory to clinical depression is viewed as an oversimplification of the illness that fails to account for the complex cognitive processes involved in its aetiology, severity, and manifestation.

### **2.3.2 The Learned Helplessness Model**

The concept of learned helplessness was developed by Overmier and Seligman (1967), following a series of animal studies. Observation of dogs repeatedly exposed to uncontrollable negative events (inescapable shocks), showed that the dogs eventually

discontinued their efforts to escape, and even after the situation changed so that escapes was possible. The dogs learned independence between their behaviour and the aversive stimulation they received and were therefore helpless to effect change in their later circumstances (Martinko & Gardner, 1982). Maier and Seligman (1976) proposed “learned helplessness” as a cognitive model to explain the behavioural, cognitive and emotional deficits evident due to the experience of uncontrollable events.

Experiments designed to explore the learned helplessness hypothesis in humans followed the original experiments seen in animal studies. As in the animal studies, humans were found to display cognitive, behavioural, and emotional deficits following uncontrollability. These included subsequent failure to learn that responses can affect outcome, decreased response initiation, and depressed affect. It was further noted that the expected independence between response and outcome could be generalised to different situations (Abramson, N. L., Seligman, M.E.P., and Teasdale, J. D. 1978).

The phenomenon of learned helplessness was used as a possible explanation for observed behaviours in human research. Later, due to observed similarities in symptoms of learned helplessness, and symptoms of depression, learned helplessness was proposed as a model of depression in humans.(PetersonC., Maier, S.F., & Seligman, M.E.P., 1993). The model proposed that learned helplessness and depression had similar behavioural and physiological manifestations, as all essential features of the model are all clearly present in depression cases (Seligman, 1995). According to the model, depression results from a non-contingency between expected outcomes and personal responses (Peterson et al., 1993). As explained in Thompson (2002), this suggests that when a person is exposed to an experience in which outcomes are non-contingent upon responses, the perception of non-contingency results in apathy, depressed affect and a cognitive deficiency in the learning of new responses. In turn, subsequent learning, motivation, and affect are

affected by generalised perceptions of non-contingency, should this occur. Resultantly, “helpless” response patterns were purported as similar to those seen in depression cases. As such, the learned helplessness model was proposed as a model of depression (Maier & Seligman, 1976).

### **2.3.3 Reformulation of the Learned Helplessness Model**

A reformulated model of the learned helplessness theory (Abramson, Seligman and Teasdale, 1978) assumes that the expectations people give for good and bad outcomes influence their expectations about future outcomes, and thereby influence their reactions to outcomes. Both the original (Seligman, 1975) and the reformulated (Abramson N. L., Seligman, M.E.P., and Teasdale, J. D. 1978) theories of learned helplessness assert that depressed persons have learned that that outcomes are uncontrollable, and that such learning results in the manifestation of cognitive, motivational, and emotional deficits. Abramson, Garber and Seligman (1980) stressed that it is the expectation of their helplessness that is critical for depression. According to Abramson et al. (1978), individuals with a “pessimistic” explanatory style are more likely to display helplessness deficits when confronted with a bad event than individuals with an “optimistic” explanatory style. Thus, the explanations people give for good (e.g. success and bad failure) tend to influence their expectation about future outcomes. The learned helplessness construct has been used to explain deficits in the achievement-oriented behaviour) e.g., Dweck, 1975; and Worthman, 1982), and poor school achievement (e.g., Brumback and Staton, 1983). The original helplessness model was revised to include attribution theory, which focuses on the causal beliefs, or the reasons that a person attributes to behaviour. Attribution theory is a cognitive theory, which explores both internal and external attributions or causes (Abramson N. L., Seligman, M.E.P., and

Teasdale, J. D. 1978). The inclusion of attribution theory thereby focused on the habitual explanatory styles that people ascribe to events they experience (Peterson et al., 1993).

Attribution theory postulated that human behaviour is not controlled by “the schedule of reinforcement in the environment”, but rather by an internal mental state- the explanations made by people for why the environment has scheduled such reinforcements. Learned helplessness is thus inextricably linked to explanatory style.

Learned helplessness functions from the premise that “whatever you do matter”. It can thus be deduced that a largely pessimistic explanatory style believes the development of learned helplessness (Seligman, 1990, p. 41).

Abramson N. L., Seligman, M.E.P., and Teasdale, J. D. (1978) proposed that people prone to learned helplessness make causal explanations for the uncontrollable events they encounter. These causal explanations affect self-esteem, and the generality of deficits. This suggests that a person need not actually experience repeated events in order for them to occur- but rather, the person needs to expect that events will be uncontrollable. This explanation influences expectation of future non contingency, which in turn determines the nature of helpless deficits (Peterson C., Maier, S.F., & Seligman, M.E.P., 1993).

In the reformulation, Abramson N. L., Seligman, M.E.P., and Teasdale, J. D. (1978) propose three dimensions of causal explanations – internal-external causes; stable-unstable causes; and global-specific causes. Internal attributions are associated with personal helplessness, as uncontrollability is attributed to individual factors within the person. External explanations are associated with universal helplessness, as uncontrollability is attributed to situational or circumstantial factors that would likely have an effect on anyone who experienced such factors. Thus loss of self-esteem with internal factors is more likely than with external attributions.

Within the second dimension, stable causes are those that are persistent and enduring, while unstable factors are those that are temporary and sporadic. Stable causes are more likely to result in passivity and helpless deficits, as the causes are seen as constant. Thirdly, global causes are those that can be generalised to several situations or outcomes, while specific causes are those that remain particular to a given situation or outcome.

As explained in Abramson N. L., Seligman, M.E.P., and Teasdale, J. D., (1978), these three dimensions interact to determine a person's particular attribution style, which accounts for how people "habitually explain events...and allows for individual variation in response to uncontrollability (Peterson C., Maier, S.F., & Seligman, M.E.P., 1993, p. 151)". Attribution style is seen as relatively stable, which in turn suggests that the probability and duration of helplessness can be predicted in light of personal attribution style. Individuals at risk for cognitive, behavioural, and emotional effects of helplessness were hypothesised to be those who tend to make stable, global and internal attributions for failure (Thompson, 2002).

Learned helplessness thus occurs when an individual learns that outcomes are uncontrollable by responses, and in turn, is seriously debilitated by this knowledge (Maier & Seligman, 1976). When an action seemingly has no change or effect on a desired outcome, events are seen as beyond control, despite efforts. This occurs to the extent that efforts are ceased; task persistence drops, and emotional accompaniments, such as passivity and anxiety may occur (Thornton & Jacobs, 1971; Maier & Seligman, 1976).

Research studies (Hiroto & Seligman, 1975; Gatchel & Proctor, 1976; Miller & Seligman, 1975, as cited in Martinko & Gardner, 1982) have supported the notion that learned helplessness is a fundamental type of learning, as both the original and the reformulated theory of learned helplessness focus on cognitive processes (Overmier & Seligman,

1967). The attributions made by a person for non-contingency between acts and outcomes determine subsequent expectation of future non-contingency, which in turn determines the type of helplessness symptoms (Valas, 2001a, 2001b). Indeed, learned helplessness has been demonstrated to be a reasonable explanation for depressive behaviour, and motivational deficits in the classroom (Seligman, 1975; Dweck, 1975).

#### **2.3.4 The Theory of Cognitive Dissonance: Leon Festinger (1957)**

Cognitive Dissonance Theory, developed by Leon Festinger (1957), is concerned with the relationships among cognitions. Cognition, for the purpose of this theory, may be thought of as a piece of knowledge. The knowledge may be about an attitude, an emotion, behaviour, a value, and so on. For example, the knowledge that you like the colour red is cognition; the knowledge that you caught a touchdown pass is cognition; the knowledge that the Supreme Court outlawed school segregation is cognition. People hold a multitude of cognitions simultaneously, and these cognitions form irrelevant, consonant or dissonant relationships with one another.

Cognitive Irrelevance probably describes the bulk of the relationships among person's cognitions. Irrelevance simply means that the two cognitions have nothing to do with each other. Two cognitions are consonant if one cognition follows from, or fits with, the other. People like consonance among their cognitions. We do not know whether this stems from the nature of the human organism or whether it is learned during the process of socialization, but people appear to prefer cognitions that fit together to those that do not. It is this simple observation that gives the theory of cognitive dissonance its interesting form.

Two cognitions are said to be dissonant if one cognition follows from the opposite of another. What happens to people when they discover dissonant cognitions? The answer to

this question forms the basic postulate of Festinger's theory. A person who has dissonant or discrepant cognitions is said to be in a state of psychological dissonance, which is experienced as unpleasant psychological tension. This tension state has driven like properties that are much like those of hunger and thirst. When a person has been deprived of food for several hours, he/she experiences unpleasant tension and is driven to reduce the unpleasant tension state that results. Reducing the psychological state of dissonance is not as simple as eating or drinking however.

To understand the alternatives, open to an individual in a state of dissonance, we must first understand the factors that affect the magnitude of dissonance arousal. First, in its simplest form, dissonance increases as the degree of discrepancy among cognitions increases. Second, dissonance increases as the number of discrepant cognitions increases. Third, dissonance is inversely proportional to the number of consonant cognitions held by an individual. Fourth, the relative weights given to the consonant and dissonant cognitions may be adjusted by their importance in the mind of the individual.

If dissonance is experienced as an unpleasant drive state, the individual is motivated to reduce it. Now that the factors that affect the magnitude of this unpleasantness have been identified, it should be possible to predict what we can do to reduce it:

### *Changing Cognitions*

If two cognitions are discrepant, we can simply change one to make it consistent with the other. Or we can change each cognition in the direction of the other.

### *Adding Cognitions*

If two cognitions cause a certain magnitude of dissonance, that magnitude can be reduced by adding one or more consonant cognitions.

### *Altering importance*

Since the discrepant and consonant cognitions must be weighed by importance, it may be advantageous to alter the importance of the various cognitions.

#### **2.3.5 Social Learning Theory: Albert Bandura**

Social learning theory is a perspective that states that people learn within a social context. It is facilitated through concepts such as modelling and observational learning. People, especially children, learn from the environment and seek acceptance from society by learning through influential models. Social learning theory is a perspective that states that social behaviour (any type of behaviour that we display socially) is learned primarily by observing and imitating the actions of others. The social behaviour is also influenced by being rewarded and/or punished for these actions.

Social learning theory was derived in an attempt by Robert Sears and other scholars to merge psychoanalytic with stimulus-response learning theory into an inclusive explanation of human behaviour. Sears and others drew their conclusions from the clinical richness of psychoanalysis and the rigor of stimulus-response learning. Albert Bandura, conversely, abandoned the psychoanalytic and drive features of the approach. His approach emphasized cognitive and information-processing capabilities that facilitate social behaviour. Both theories proposed were envisioned as a general context for the understanding of human behaviour, but Bandura's theory provided a stronger theoretical beginning.

According to Social Learning theory, models are an important source for learning new behaviours and for achieving behavioural change in institutionalized settings. Social

learning theory is derived from the work of Albert Bandura which proposed that observational learning can occur in relation to three models:

#### Live model

In which an actual person is demonstrating the desired behaviour

#### Verbal instruction

In which an individual describes the desired behaviour in detail, and instructs the participant in how to engage in the behaviour

#### Symbolic

In which modelling occurs by means of the media, including movies, television, Internet, literature, and radio. This type of modelling involves a real or fictional character demonstrating the behaviour.

An important factor of Bandura's social learning theory is the emphasis on reciprocal determinism. This notion states that an individual's behaviour is influenced by the environment and characteristics of the person. In other words, a person's behaviour, environment, and personal qualities all reciprocally influence each other.

Bandura proposed that the modelling process involves several steps:

**Attention:** In order for an individual to learn something, they must pay attention to the features of the modelled behaviour.

**Retention:** Humans need to be able to remember details of the behaviour in order to learn and later reproduce the behaviour.

**Reproduction:** In reproducing behaviour, an individual must organize his or her responses in accordance with the model behaviour. This ability can improve with practice.

Motivation: There must be an incentive or motivation driving the individual's reproduction of the behaviour. Even if all of the above factors are present, the person will not engage in the behaviour without motivation.

Bandura is known for his 1961-1963 experiments utilizing an inflatable clown known as a Bobo doll in order to test modelling behaviours in children. Children were divided into three groups – one of which was exposed to an aggressive adult model, one which was exposed to a passive adult model, and a control group, which was not exposed to an adult model. Adults in the aggressive group were asked to verbally and physically attack the doll, while those in the passive group were asked to play peacefully. Once the children were given the opportunity to play, results showed that those exposed to the aggressive model were more likely to imitate what they had seen, and to behave aggressively toward the doll. It was found that boys were four times more likely than girls to display physical aggression, but levels of verbal aggression were about the same. The results of Bandura's studies provided support for the influence of modelling on learning. Further, a later study in 1965 showed that witnessing the model being punished for the aggressive behaviour decreased the likelihood that children would imitate the behaviour.

Julian Rotter moved away from theories based on psychosis and behaviourism, and developed a learning theory. In *Social Learning and Clinical Psychology* (1954), Rotter suggests that the effect of behaviour has an impact on the motivation of people to engage in that specific behaviour. People wish to avoid negative consequences, while desiring positive results or effects. If one expects a positive outcome from a behaviour, or thinks there is a high probability of a positive outcome, then they will be more likely to engage in that behaviour. The behavior is reinforced, with positive outcomes, leading a person to repeat the behaviour. This social learning theory suggests that behaviour is influenced by these environmental factors or stimuli, and not psychological factors alone.

Albert Bandura expanded on Rotter's idea, as well as earlier work by Miller & Dollard, and is related to social learning theories of Vygotsky and Lave. This theory incorporates aspects of behavioural and cognitive learning. Behavioural learning assumes that people's environment (surroundings) cause people to behave in certain ways. Cognitive learning presumes that psychological factors are important for influencing how one behaves. Social learning suggests that a combination of environmental (social) and psychological factors influence behaviour. Social learning theory outlines three requirements for people to learn and model behaviour including attention: retention (remembering what one observed), reproduction (ability to reproduce the behaviour), and motivation (good reason) to want to adopt the behaviour.

According to Bandura and Walters's 1963 review on Social Learning Theory, human learning takes place as individual's abstract information from observing behavior of others. The factors of social learning are using symbols and engaging with intentional actions. This is proven by the models Bandura used to help build his theory of social learning of attention, retention, reproduction, and motivation. Bandura uses these complex behaviours of reciprocal determinism to help illustrate the interactive effect of various factors such as the environment, behaviour, and internal events that influence perspectives.

#### **2.3.6 Self Determination Theory (SDT): Edward L. Deci and Richard M. Ryan**

SDT proposes that human motivation varies in the extent to which it is autonomous (self-determined) or controlling. Behaviours and actions that are autonomous are freely initiated and emanate from within one's self (Reeve, 2002). In contrast, when behaviour is controlled it is regulated by an external force. The individual in this instance feels pressured to engage in the behaviour. Based on these distinctions, SDT proposes that

three forms of motivation exist, namely, intrinsic motivation, extrinsic motivation and Amotivation<sup>1</sup> which, based on the level of autonomy associated with them, lie on a continuum ranging from high to low self-determination respectively.

Intrinsic motivation constitutes the most autonomous form of motivation, and refers to an inherent tendency possessed by all humans to seek out novelty and challenges, to extend and exercise their capabilities, to explore and to teach (Ryan & Deci, 2000). An individual that pursues a goal or activity because it is enjoyable or intrinsically captivating would display intrinsic motivation (Koestner & Losier, 2002).

Not all human behaviours can be considered as enjoyable however. To understand how such behaviours are regulated SDT proposes extrinsic motivation as an additional motivational force, and a process called internalization. Extrinsic motivation refers to behaviours that are carried out to attain outcomes unrelated to the activity itself (e.g., social comparisons; Deci, 1971). Internalization refers to an inherent tendency possessed by all humans to integrate the regulation of extrinsically motivated activities that are useful for effective functioning in the social world, but are not inherently interesting (Deci, Eghrari, Patrick & Leone, 1994). SDT further proposes that the extent to which extrinsic motives are internalized can vary. A multidimensional conceptualization of extrinsic motivation is hypothesized to exist, consisting of external, introjected, identified and integrated regulations<sup>2</sup>. These regulations lie on a continuum from lower to higher self-determination, and reflect the extent of the internalization process (Deci & Ryan, 1985).

External regulation can be defined as exercising to either appease an external demand, or attain a reward (Ryan & Deci, 2000). “I exercise because my friends and family say I should” is an example of an external regulation in the exercise domain. Introjection,

which is a slightly more self-determined form of extrinsic motivation, involves internalizing the behaviour's regulation, but not fully accepting it as one's own (Ryan & Deci, 2000). It is a relatively controlling form of regulation, in which behaviours, such as exercise engagement, are performed to avoid negative emotions, such as anxiety or guilt, to support conditional self-worth, or to attain ego enhancement (Ryan & Deci, 2000). Identified regulation reflects a more autonomous form of extrinsic motivation and reflects participation in an activity because one holds outcomes of the behaviour to be personally significant, although one may not enjoy the activity itself. For example, an individual that exercises because he/ she values the benefits of exercise would display identified regulation in this domain.

In addition to specifying the different types of motivational regulations that may guide behaviour, SDT (Deci & Ryan, 1985) also details specific conditions that are responsible for more or less self-determined motivation. Specifically, SDT assumes that all humans possess three basic psychological needs, that is, the need for competence, autonomy and relatedness. The need for competence implies that individuals have a desire to interact effectively with the environment, to experience a sense of competence in producing desired outcomes, and to prevent undesired events (Deci, 1975; Deci & Ryan, 1985). The need for autonomy reflects a desire to engage in activities of one's choosing and to be the origin of one's own behaviour (Deci, 1975; Deci & Ryan, 1985). Finally, the need for relatedness involves feeling connected, or feeling that one belongs in a given social milieu (Baumeister & Leary, 1995; Deci & Ryan, 1985). Essentially, SDT suggest that the most self-determined forms of regulation will guide behaviour when the needs are satisfied. In contrast, low self-determination is a consequence of a thwarting of the three basic needs.

SDT (Deci & Ryan, 1985) also specifies that differential levels of psychological need satisfaction in a given domain will result in diverse cognitive, affective and behavioural consequences (e.g., interest, performance, creativity and general wellbeing; Ryan & Deci, 2000). Further, need satisfaction has been postulated to influence outcomes indirectly via the promotion of different types of motivational regulation (Vallerand, 1997). It is assumed that intrinsic motivation will engender the most positive consequences, followed by identification (Ryan & Deci, 2000; Vallerand, 1997)

However, some research findings in physical activity settings (e.g., Wilson, Rodgers, Blanchard & Gessell, 2003), as well as in other domains such as politics and education (e.g. Koestner & Losier, 2002), have been less conclusive regarding the positive implications of intrinsic motivation compared to other self-determined forms of regulation. Wilson, Rodgers, Blanchard and Gessell (2003) provided evidence suggesting that among participants recruited to engage in a 12-week structured exercise program, identified regulation was a stronger predictor of self-reported exercise behaviour than intrinsic motivation, although both regulations predicted exercise behaviours, exercise attitudes and physical fitness. In addition, interjected regulation has been shown to be positively correlated with strenuous exercise behaviour in some (e.g., Wilson, Rodgers & Fraser, 2002) but not in other studies (e.g., Wilson, Rodgers, Blanchard & Gessell, 2003).

Ryan (1995) proposed that the characteristics of the situation in question will determine the extent to which intrinsic and internalized extrinsic regulations will produce positive behavioural outcomes. With respect to the latter, in contexts in which the activities undertaken are important, but may lack in intrinsic appeal, it is assumed that the innate tendency to internalize the role of such activities will be witnessed (Ryan, 1995). In view of the considerable value that society bestows upon exercise, for health and aesthetic gains, research demonstrating that interjected and identified regulations positively predict

exercise behaviour may indicate that, for some individuals, exercise engagement is maintained via the process described by Ryan (1995). That is, exercise behaviour constitutes an externally motivated activity that requires internalization to initiate and sustain action.

An additional tenet of SDT relevant to the current investigation concerns the social context in which individuals operate. According to SDT autonomy supportive contexts are conducive towards need satisfaction and ensuing self-determined motivational regulations. Such contexts are characterized by the minimization of controls by significant others, the understanding of other people's perspectives, and the provision of choices that guide and facilitate the decision making process (Deci & Ryan, 1985; Ryan & Deci, 2000). Supporting these propositions Wilson and Rodgers (2004) found that among female students and staff enrolled in a team-based intramural physical activity event, perceived autonomy support from friends was positively associated with intrinsic motivation and identified regulation.

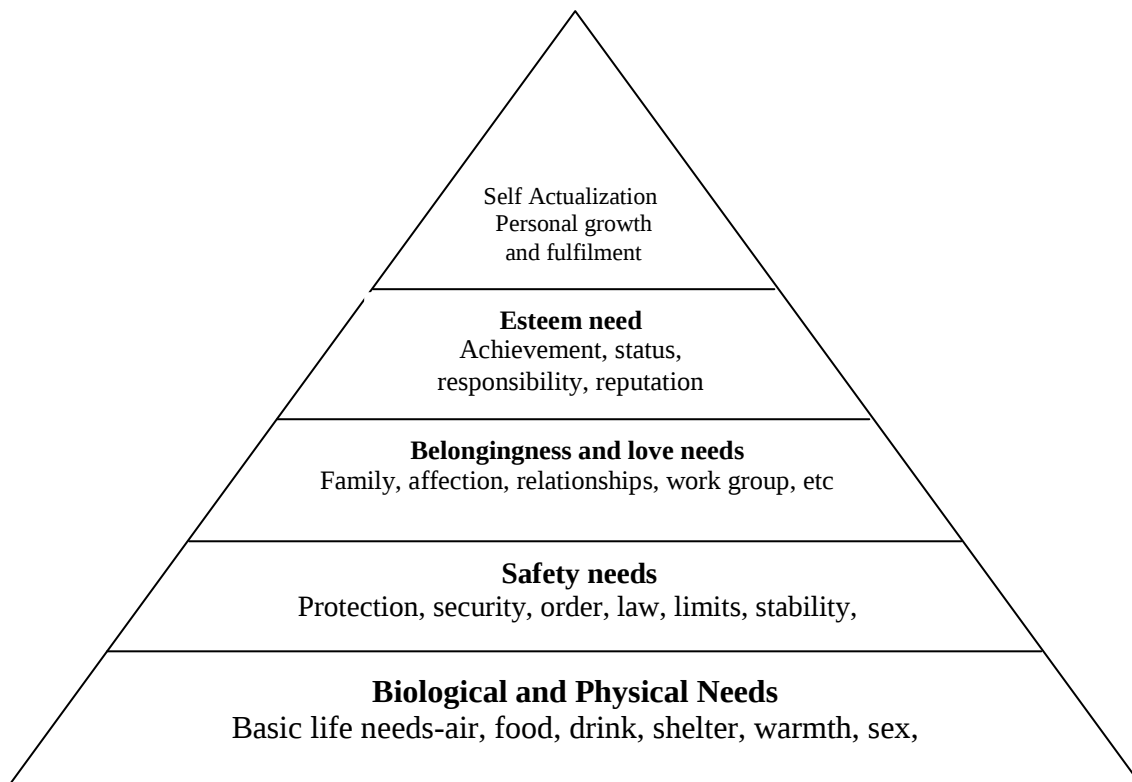
### **2.3.7 Maslow's hierarchy of needs: Abraham Maslow**

This theory was also chosen because it attempts to explain how human beings are motivated by various factors such as biology and achievement of power (Abraham Maslow 1954). Maslow explains how to achieve a given goal ( in this case academic achievement) is directed and sustained by different factors ranging from psychological, safety and love needs among others. Abraham Maslow (1991) posted a hierarchy of human needs. According to him an individual is ready to react upon growth needs among which lies education if only the deficiency needs such as psychological needs, safety needs, belongingness, love needs and esteem needs are met.

## **Maslow's Hierarchy of Needs**

The theoretical framework according to Abraham Maslow (1908-1969) was represented diagrammatically as shown: Maslow's Hierarchy of Needs states that we must satisfy each need in turn, starting with the first, which deals with the most obvious needs for survival itself. Only when the lower order needs of physical and emotional well-being are satisfied are we concerned with the higher order needs of influence and personal development. Conversely, if the things that satisfy our lower order needs are swept away, we are no longer concerned about the maintenance of our higher order needs.

Abraham Maslow (1991) posted a hierarchy of human needs. According to him an individual is ready to react upon growth needs among which lies education if only the deficiency needs such as psychological needs, safety needs, belongingness, love needs and esteem needs are met.



Source: [www.businessballs.com](http://www.businessballs.com)

### 2.3.8 Attribution Theory: Weiner (1971)

Weiner (1971) is widely recognized for developing a theory of attributions specifically in the realm of achievement-related concepts (i.e., academic achievement). According to his theory, people engage in the use of causal attributions in order to make sense of their environment. He identified three common properties in his theory: locus of control, stability and controllability. These three dimensions are present among all persons when engaged in causal thinking. The first dimension, locus of control, refers to attributing the cause to either external or internal force. A child who attributes his high test score to his ability reflects an internal locus of control whereas a child who attributes his good test score to his teacher's good instruction reflects an external locus of control. Weiner second dimension, stability, refers to the relative constancy of the cause, in the original design of his theory; Weiner (1971) developed a 2X2 categorization scheme. Ability was viewed as internal and stable, and luck and external as unstable. Weiner later acknowledged the

shortcomings of this scheme stating that these classifications are somewhat ambiguous among the general population. Weiner three dimensions, controllability, refer to whether the child has control over the outcome. A very difficult task that cannot be successfully mastered by a child no matter how long he /she studies is considered to be uncontrollable. The child had no involvement in the inherent qualities of the task and simply attempting to successfully complete it. There is little the child could do in order to succeed at the task. On the other hand, the child who attributed his success to high effort displays is a controllable factor. The amount of time a student studies for a test is controlled largely by him or her. Thus, they have some control over the outcome of the task. In addition to his three original dimensions, Weiner (1985) proposed the possibility of two additional dimensions: intentionality and globality.

Inference to intentionality Weiner stated that a student might exert high effort when studying for an exam but engage in the use of a poor strategy. This phenomenon has led to the term intentionality. Weiner, (1985) asserted that intent and control generally correlate high with one another. Often student's intent to engage in controllable behaviours and can in fact controls their intent. However, there are situations in which intent and control can be distinguished from one another. Globality refers to whether a situation is temporal (consistent over time) and generalizable (consistent across situation). Weiner (1985) illustrates the concept by referring to a child who attributes his poor mathematics performance to a) low math aptitude or b) low intelligence.

Low maths aptitude is specific situation relating to mathematics academic domain. Low intelligence, however, is a general situation which can affect performance in other academic domains such as reading.

Attribution theorists (e.g., Frieze, and Snyder, 1980; Weiner, 1971) state that future behaviour is largely determined by the perceived causes of past events. In regard to achievement-related concepts, success and failure are generally considered to be caused by ability, effort, task difficulty, and luck. When these tasks are considered relatively stable over time (i.e., ability) then students feel they did not success in a mathematics test due to lack of ability then will expect to fail on similar tasks in the future (Weiner, Niereberg, Goldstein, 1976).

## **2.4 Review of Related/Empirical Studies**

Genero(2008) investigated Chaotic Environments, Learned Helplessness and Academic Achievement in Adolescence. This study demonstrated that exposure to chaotic home environments predicted academic achievement in thirteen-year-old, rural adolescents (N = 145) living in Upstate New York. It was hypothesized learned helplessness may mediate the relationship between childhood environment and academic achievement in adolescence. In his thesis he proposed a unique pathway to explain poor academic achievement in early adolescents living in chaotic environments as mediated by learned helplessness. Regression analysis revealed learned helplessness as a mediator between chaotic environments and academic achievement. Young adolescents with high levels of home chaos had higher levels of learned helplessness, which resulted in lower English and Maths grades.

Cemalcilar, Canbeyli and Sunar, (2003) investigated learned helplessness, therapy and personality trait. This study further investigated 3 aspects of learned helplessness (LH) phenomenon: the induction of the helplessness in humans by a new instrumental task, the effects of a therapy technique that relies on direct retroactive re-evaluation of the helpless experience, and the role of personality characteristics in both helpless induction and

therapy. The sample consists of 92 Turkish Bogaziei University undergraduates, 42 men and 50 women. The authors exposed 2 experimental groups to LH induction by presenting them with an unsolvable maze task; 1 group received therapy afterward, and the other group did not. There were also two groups: a group that received only a solvable version of maze and another group that received no treatment. Before the experimental procedure, all participants completed the Turkish version of the NEO-Five Factor Inventory (FFI). The authors evaluated picture-rating and anagram-solving performances to differentiate the cognitive and emotional deficits of LH. Results of the factorial analyses of variance and the Wilcoxon signed ranks test supported the success of both the helplessness and the therapy technique.

Fainstein, (2009) investigated learned helplessness, depression and academic achievement. Against a backdrop of transformation within the South African context at present, this Quantitative study comprised a comparative analysis of the prevalence of learned helplessness, depression and academic achievement across two differing samples within a single school- a sample of learners in a mainstream class, and a sample of learners presenting with barriers to learning. Moreover, in line with current literature in the field, this study investigated the correlation between learned helplessness, depression and academic achievement, both within and between the sample groups.

The Children's Attributional Style Questionnaire (CASQ) and Children's Depression Inventory (CDI) were administered on a group basis to a total sample of 57 learners in Grades four, five, and six in a private school in Johannesburg. Results of the statistical analyses indicate a significant difference in the overall academic achievement of the sample groups, as hypothesised. However, no significant differences in the prevalence of learned helplessness and depression were found. Further to this, the results highlight a weak-to-moderate negative correlation between learned helplessness and depression; and

academic achievement and depression. Analysis of the results alludes to a range of extraneous factors that may have successfully ameliorated the development and manifestation of learned helplessness and depression within the sample groups, and thus affected the results of this study. In light of this, limitations and strengths of this study are delineated, and recommendations for further research are suggested.

Learned helplessness has been vastly studied in light of children with learning difficulties (Fincham, 1989; Martinko & Gardner, 1982; Thomas, 1979). Many children who experience learning difficulties may experience school as a negative experience, over which they feel little or no control, despite effort. Often, the self-images of these children are particularly at risk, following repeated academic difficulty and/or failure. Furthermore, learned helplessness affects motivation to learn (Valas, 2001a, 2001b).

In comparative studies between children with and without learning difficulties, it has been found that learned helplessness might be more prevalent in children with learning disabilities (Shahar, 2006; Valas, 2001a, 2001b). However, in a longitudinal study conducted by Fincham (1989), learned helplessness was found to be a reliable predictor of achievement in a sample of children without learning disabilities. Khajepour & Ghazvini (2011), in their studies states that parent involvement has an important role in children's school performance, both constructs seem to be positively related also, it was noted that when children are surrounded by caring parents who are involved in their school activities and do their homework together, children are more likely to respond positively to extra-curricular activities and have higher performance. Students with poor backgrounds tend to get low school performance. An important role in student's academic performance is played by academic level of parents, in Turkey especially the father's. Students who come from monoparental families or with parents who are not home owners tend to have better academic performance.

Brecko, (1995) investigated how family background influences students' achievement. A key goal of education is to ensure that every student has a chance to excel, both in school and in life. Increasingly, children's success in school determines their success as adults, determining whether and where they go to college, what professions they enter and how much they can earn. School performance in primary and secondary school does not depend on a student's mental and physical abilities alone; other factors also have an important role. Studies carried out in a wide variety of countries demonstrate that social and family background greatly influences school performance. In the study he tries to establish whether there is significant correlation between social / family background and a students' school performance.

Furthermore, he focusses on how a student's upbringing influences the association between school performance and family and social background. He also examines three populations of Slovene students: third/fourth graders and seventh/eighth graders in primary school and students in the final year of secondary school. Using the cluster method, all three populations were assigned to five different groups according to their achievement score on mathematics and science tests. The result revealed that there is a strongest relationship between background and students' success at school.

The data analyzed show that the strongest relationship between family background and student success at school occurs in the fourth grade. At that level, parental origin and educational level are very significant. We observe that among those students whose parents were not born in the country, more achieved lower than average results compared to other groups. Results are similar in the eighth grade. In the last year of secondary school, it was expected that social background would have less influence on student success. But the differences between groups of students whose parents have different

origin are still significant. Another variable is important when analyzing student success is parental education. In the eighth grade parental education correlates at  $r=0.323$  (father) and  $r=0.316$  (mother); in the last year of secondary school correlations are lower but still significant:  $r=0.224$  (father) and  $r=0.207$  (mother).

When analyzing parental education and origin, we note some differences. The highest level of education was achieved in families where the father was not born in the country; their children also achieved the highest test results. Lowest educational level was achieved in families where both parents were born in other countries; their children achieved lower results on the tests. This was the case for primary as well as secondary school.

With regression analysis it was shown that home background variables are the most predictive of student success in the fourth grade, less in the eighth grade and least in the final year of secondary school.

From the analysis he concludes that the strongest relationship between family background and student school performance is in the fourth grade. The relationship becomes weaker in the eighth grade and very weak in the final year of secondary school.

Osuafor & Okonkwo, (2013) investigated the Influence of Family Background on Academic Achievement of Secondary School Biology Students in Anambra State Nigeria. A survey design was adopted for the study. Five hundred and forty-six (546) Senior Secondary Two (SS2) biology students were drawn by simple random sampling from 14 schools within Awka, Nnewi and Onitsha Education Zones, in Anambra State. Three research questions and four hypotheses guided the study. Data were collected using a researcher constructed questionnaire and students' SS1 and SS2 school results.

There results revealed that family structure, parents' occupation and educational level of parents, did not have significant influence on students' achievement.

Ozioko (2012) investigated the effects of locus of control, learned helplessness and gender on performance in Mathematics. One hundred and twenty (120) Junior Secondary School Students solve mathematics problems under two conditions of locus of control (internal and external), two conditions of learned helplessness and helplessness), and two condition of gender (male and female). The analysis of variance ANOVA of the data showed the locus of control and helplessness each contributed significantly to performance in mathematics. The results also indicated two of the two-way interactions, namely Locus of control x learned helplessness x gender were significant. In other words, performance in mathematics was attributable to the combined effects of locus of control and learned helplessness and gender. However, the prediction that performance in mathematics would be attributable to gender difference was not supported.

Taylor and Frances (2001) investigated Learned Helplessness and Psychological Adjustment: Effects of age, gender and academic achievement. The study was conducted to test the direction of the relationship between learned helplessness, assessed by the teacher, and own expectation about academic achievement. Their sample consist of 1580 students with data collected in grades 3 and 4, 6 and 7 and 8 and 9. The relation between these two variables was reciprocal, with the strongest effect between helplessness and expectations. Hypotheses concerning the relations between achievement, helplessness and psychological adjustment were tested by means of a cross-sectional sample consisting of 1575 students in grades 4, 7 and 9. The analyses of structural equation models showed that academic achievement was directly and indirectly related to the pattern of attributions, expectations, helplessness and psychological adjustment. Moreover, helplessness and academic expectations were significantly related to psychological adjustment. The results also clearly found that boys showed more helpless behaviour, as

assessed by the teacher, than did girls, while, on the other hand, girls reported more psychological maladjustment.

Philes (2012) investigated the influence of home background on pre-school children's academic performance in mathematics, mukuru kwa njenga pre-school, embakasi Nairobi, county. Pre-school is the preparatory stage for the young children. They need proper attention at home and outside the home for good academic performance and for the development of the nation. This research entitled influence of home background on academic performance in mathematics in Mukuru kwa Njenga pre-school in Embakasi, Nairobi County investigates how home background influences academic performance.

The world conference on Education for all (EFA) which took place in Jomtiem Thailand in March 1990 articulated the significance of the early years as foundation for the life of an individual. These deliberations have been corroborated by recent study by Shore Rima (1997) on brain development. This emphasizes that the first years of life are extremely important.

The objectives of the study were to find out if home background influences pre-school children's academic performance in number work. The respondents of the study were twenty pre-school children, two pre-school teachers, one head teacher, twenty parents of the pre-school children who were also respondents. All these were drawn from Mukuru kwa Njenga pre-school in Embakasi, Nairobi County. The instruments used were questionnaires for the head teacher and the pre-school teachers, interview guide for the pre-school parents and documentary analysis forms for the pre-school children. The findings were organized in relation to the factors in the home which influence pre-school children's academic performance in mathematics and interpretation of data was done in form of pie charts, bar graphs and tables. His finding reveals that home background influences pre-school children academic performance in mathematics.

Ojimba, (2013) investigated the relationships between home background and students' achievement in mathematics at the senior secondary school level in River State Nigeria. The ex-post facto research design was adopted for this study, since already conducted mathematics test scores of the students were retrieved and used for the analysis. Furthermore, data were elicited through the home background and student's achievement in mathematics questionnaire (HBSAMQ). A population of 10120 senior secondary II students were involved in the study out of which 4510 were chosen for the sample using the Yarrow Yemen's formula. The data were analyzed using the Z-test statistic, means and simple percentages. The findings were that there is a significant relationship between home support for mathematics, socio-economic Status of parents and students' achievement in mathematic.

Alokan, Osakinle, and Onijingin, (2013) investigated the influence of parents' educational backgrounds and study facilities on academic performance among secondary school students

There has been an outcry against the poor performance of students in the Senior Secondary Certificate Examination in Nigeria. This study investigated the difference between the academic performance of students from parents with high educational background and students from parents with low educational background. It also investigated the influence of having study facilities at home on academic performance. The population for this study comprised all public secondary school students in Ondo State. The sample consisted of 240 students from 6 randomly selected schools. A questionnaire tagged 'Academic Performance Questionnaire' was used to collect data. Expert judgements were used to ensure face and content validity. Test-retest method was used to determine the reliability and a reliability coefficient of 0.72 was obtained. Data collected were analysed by using t-test. The result revealed a significant difference

between academic performance of students from parents with high educational background and students from parents with low educational background. A significant difference was also found between the academic performance of students having study facilities at home and students with no study facilities at home. It can be concluded from the results that parental educational background and having study facilities at home have great influence on academic performance.

Fagbeminiyi, (2011) also examined the role of parents in early childhood education among school pupils in Ikeja Local Government Area of Lagos State. The study employed survey design and simple random sampling procedure for the selection of research participants. A set of questionnaires were designed for both parents and pupils for self-report about the role of parents to education. Analysis of variance (ANOVA) was used to test the null hypotheses. Based on the findings of the study, there was significant relationship between parent involvement and pupil's academic performance. The study of Fagbeminiyi also observed a high relationship between parental educational attainment and age of the child. However, there is no significant relationship between socio-economic characteristics and early childhood education. Fagbeminiyi's study therefore is related to this thesis because it has analysed similar variables (Parental involvement, education attainment and socio-economic status). But on the whole, his study failed to describe the population and sample size in numerical terms, and the scope was undefined. Considering the nature of the population (primary pupils and their parents) the problem of literacy level was not clearly explained.

In a related development, Ushie, Emeka, Ononga and Owelabe (2012) examined the influence of family structure on students' academic performance in public secondary schools in Agege Local Government Area, Lagos State. Stratified random sampling technique was used for selecting 114 students, (males and females) from five schools.

Data on the students' academic performance was obtained from their first term examinations scores in four compulsory subjects' areas namely; English, Mathematics, Economics and Biology. The data were analysed using cross tabulation, tables, simple percentages, independent sample test and multinomial logistic regression (MLS). The t-test results showed that there was no significant difference in the academic performance of students' single parent families and those from two parent families with t- value of 1.278 and p-value 0.205. The multinomial logistic regression results revealed that parental socioeconomic background significantly influenced students' academic performance with the probability of the chi-square (66.782) as 0.001 less than the level of significance of 0.05 (i.e.,  $P < 0.05$ ). The relationship between the study of Owolabe et al., (2012) and this thesis is that the both studies measure effects of socio-economic status on academic performance both differed in terms of variables such as learned helplessness, home background and school location. However, the findings of Owolabe et al., (2012) seemed limited in the sense that it did not take recognisance of learned helplessness of students' and mere family type was not adequate to prove the results of their findings.

Likewise, Abubakar and Oguguo, (2011) examine the age and gender as predictors of academic achievement of college mathematics and science students from Federal College (Tecnical), Omoku, Rivers State. A sample of 332 students (223 females and 109 males) was used. An expo-facto research design was used and a Cumulative Grade Point Average (CCPA) of the student was obtained from college approved results. Age and gender of the student were equally generated from the admission unit of the college. The statistical package SPSS was used for the comparative analysis. Mean, standard deviation and scatter plot were employed for the descriptive statistics while bivariate correlation Universal Analysis of Variance (ANOVA), t-test, z-test and multiple regression analysis were applied for the inferential statistics. The results of their findings revealed a linear

relationship between age versus CGPA and gender versus CGPA. Low positive correlation coefficients were obtained for ages and gender ( $r = 0.030$  and  $0.111$ ) which was significant. The predictor variables jointly accounted for 1.3% of variance, but gender was the better predictor. The null hypothesis was accepted; implying that there was no significant difference in academic achievement of the students.

#### **2.4.1 Uniqueness of the Study**

Reviews of the literature were mostly undertaken abroad in country such as Nairobi, county in Kenya and Nigeria in State such as Anambra, Lagos and River. The findings of previous studies were on learned helplessness, depression, locus of control and academic performance and also on home background and academic performance. The present study is unique because it considered the influence of learned helplessness and home background on academic performance among senior secondary school students' in Federal Capital Territory Abuja, Nigeria. The findings of the study is therefore unique because it found that home background and learned helplessness has significant relationship with academic performance of senior secondary school students in F.C.T. Abuja, Nigeria.

#### **2.5 Summary**

The review of related studies has revealed and adds to a growing body of the literature about the influence of learned helplessness and home background on academic performance. This chapter has discussed concept of learned helplessness and home background, theories of learned helplessness and academic performance. Learned helplessness was defined as when individuals believe that their own behaviour has no influence on consequent events. Academic performance refers to the level of performance of a student in a particular field of study, which higher score indicate better performance

and lower scores reveals poor performance. Theories such as Leon Festinger's cognitive dissonance, Bandura's social learning theory, Edward L. Deci and Richard M. Ryan self-determination theory, Maslow Hierarchy of Needs theory, and Weiner Attribution theory were reviewed along with their implications on academic performance. Evidences from empirical studies indicate that there is relationship between learned helplessness and home background on academic performance.

And finally, the researcher explained the gap that was not attended to the previous researchers, in an attempt to upgrade the decision and current methods, and techniques that can enhance students' academic performance in schools.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the methodology under the following headings; Research design, Population of the study, Sample and Sampling techniques, Instrumentation, Pilot testing, Validity and reliability of the instrument, Procedure for data collection, and Procedure for data analysis.

#### **3.2 Research Design**

Research design is instrumental for successful scientific investigation. The research design for this investigation is correlation method. Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. The design was thus being adopted because the study seeks to investigate the influence of learned helplessness and home background on academic performance among secondary school students in federal Capital Territory, Nigeria.

#### **3.3 Population of the Study**

Federal Capital Territory is the geographical area of this study. The population of the study comprises the senior secondary school students located within the educational zone of the six Area Councils. According to the 2013 school population, there are 250 numbers of senior secondary schools in F.C.T., from which the sample schools for the study were drawn. Also all students from the sampled schools within the area councils were used for data collection.

### 3.4 Sample and Sampling Techniques

The sample of the study is two hundred and ninety hundred (290) senior secondary schools' students. Due to the large size of the population, it was not suitable for the researcher to administer the research questionnaires to all the schools and the entire students. As a result of inconveniences, the researcher used purposive sampling technique. Purposive sampling, also referred to as judgement, selective or subjective sampling is a non-probability sampling method that is characterised by deliberate effort to gain representative samples by including groups or typical areas in a sample. Under this observation of the proportion, inferences could be made on the characteristics of the population and such sample was selected based on the cluster sampling method. Therefore, out of the six area councils in F.C.T. Abuja; one school is selected from each of the six area councils. The tables below show the representation of the population of the schools.

**Table 3.1 Population**

| NAMES OF SCHOOLS | POPULATION |
|------------------|------------|
| GGSS ABAJI       | 400        |
| GSS GWAGWALADA   | 200        |
| GSS KWALI        | 150        |
| GSS YANGOJI      | 150        |
| GSS GARKI        | 200        |
| GSS KUJE         | 150        |
| GSS BWARI        | 150        |
| TOTAL            | 1200       |

Source: Self constructed based on sample observation and size.

A table below shows the representation of the sample schools.

**Table 3.2 Sample Size**

| NAME OF SCHOOL | SAMPLE | %    |
|----------------|--------|------|
| GGSS ABAJI     | 45     | 15   |
| GSS GWAGWALADA | 47     | 15   |
| GSS KWALI      | 40     | 13.3 |
| GSS YANGOJI    | 40     | 13.3 |
| GSS GARKI      | 48     | 16   |
| GSS KUJE       | 40     | 14.3 |
| GSS BWARI      | 40     | 13.3 |
| TOTAL          | 300    | 99.5 |

Source: Self constructed based on sample observation and size.

### **3.5 Research Instrument**

The researcher makes use of three instruments for this research in order to measure the Students' home background, learned helplessness and academic performance of students.

#### **3.5.1 Students' Home Background Scale (SHBS)**

Students' home background scale was measured by the fathers' educational qualification, mothers' educational qualification, the fathers' occupation, mothers' occupation, and income per month, conveyance to school, reading material at home and the gadget accessible at home. The instrument was adapted.

#### **3.5.2 Learned Helplessness Scale (LHS)**

Learned helplessness phenomenon was measured in this research study by using Learned Helplessness Scale (LHS) (Quinless and Nelson, 1988). The instrument was adopted. Each response was scored as thus; strongly agree 4, agree 3, disagree 2, strongly disagree

1. The learned helplessness scale is a 20 items, 4-point Likert scale strongly indicative of learned helplessness.

### **3.5.3 English Language Achievement Test (ELAT)**

The English Language Achievement Test (ELAT) consists of 50 objective items developed by the subject experts (that is teachers) of English Language teaching at the SSS level in order to measure students' academic performances in English Language. The items on ELAT were multiple-choice type, designed on seven sections (A-G) which required the students to select the correct answer from the options provided. All the test items carried equal marks and were scored two marks each out of one hundred marks.

### **3.5.4 Mathematics Achievement Test (MAT)**

The Mathematics Achievement Test was structure on four alternatives (A-E) to measure students' performances in Mathematics.

The Mathematics Achievement Test (MAT) consists of 50 objective items developed by the subject experts (that is teachers) of Mathematics at the SSS level in order to measure students' academic performances in English Language. The test was equally scored two marks each out of one hundred marks.

## **3.6 Validity and Reliability of the Instrument**

### **3.6.1 Validity of the Instruments**

The instruments in this study were validated through content validity. Experts in the field of Educational Psychology and Guidance and counselling evaluated the contents of the items on the instruments, scrutinized them and made necessary corrections and modifications to ascertain their appropriateness and coverage with reference to the

research objectives. Some of the corrections made during the validation of the instruments include adding the number of items from ten to at least twenty, and when i do not succeed at a task I do not attempt any similar task because, I feel that I will fail again. The researcher effected the corrections, and the number of the instruments were added and validated by experts in the same department. The outcome of the validation was satisfactory.

### **3.6.2 Reliability of the instruments**

To estimate the reliability of the instruments, the researcher conducted a pilot study to pilot test the instruments. Forty copies were distributed to forty students; another test was also given after two weeks to retest the instruments using another forty copies to the same students to ensure reliability, consistency and stability of the instrument

The reliability was determined using Cronbach Alpha reliability method and yielded a correlation estimate of .891 which was obtained for Learned Helplessness Scale and .657 for Students' Home Back ground respectively. The result of the study therefore revealed high positive numerical values of correlations which provided strong evidence for use in this study.

### **3.7 Scoring procedure**

The research instrument will be scored through the following:

1. Learned Helplessness Scale (LHS): The learned helplessness scale will be measured on a 4-point Likert's scale with 20 items. The scoring is as follows:

Strongly Agree (AS) -4

Agree (A) -3

Disagree (DA) -2

Strongly Disagree (SD) -1

The highest possible score is 80 (4x20), the least possible score is 20 (1 × 20). Mean responses from 20 - ≤ 40 will be regarded as negative learned helplessness, while mean responses from 40 – 80 will be regarded positive learned helplessness.

2. Students Home background scale (SHBC): The SHBC questionnaire has 8 items with ordinal options. The maximum ordinal option is 6 and the least is 1. The maximum possible score obtainable is “between” 1-32.
3. English Language Achievement Test (ELAT) and Mathematics Achievement Test (MAT). Each test item of the two instruments was scored (2) marks out of one-hundred marks. Mathematics was marked over 100 and English language over 100. Score from 1-≤ 50 are considered as low academic performance, while scores from 51-100 are considered as high performance.

### **3.8 Procedure for Data Collection**

The researcher collected letters from the department of Educational Psychology and Counselling to the principals of selected schools where the data was collected. In each school, the selected students were gathered in the same classroom and each student sat separately on a single seat. The instruments were given to the students at the same time. The students were supervised by the researcher and some of the teachers in the sample schools. Students were asked to read the instructions carefully and asks questions where it is not clear before responding to any question. The respondents were not allowed to share ideas; this enabled them to give their sincere response as regard to the questionnaire administered on them. The filled instruments were collected by the researcher for further analysis.

### **3.9 Procedure for Data Analysis**

Following the collection of data and coding of completed questionnaires, Simple percentage, mean, standard deviation and Pearson Product Moment Correlations (PPMC) were employed in the data analysis.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter presents the discussion of the data analysis. A total of 300 respondents were sampled for the study out of which 290 responded to the study. The analysis of this study is presented in logical sections for easy comprehension. The first section presents the data analysis of the 3 bio data variables in frequencies and percentages. The second part presents the answers to research questions. The third part tests the research hypotheses with the aid of Pearson Product Moment Correlation (PPMC). All hypotheses were tested at 0.05 alpha level of significant. The summary of all the major findings was also presented as well as discussion of findings while recommendations were put forward.

#### 4.2 Demographic data of Respondents

This section presents the demographic data of the respondents as follows:

**Table 4.2.1: Distribution of Sample by Schools**

| SCHOOL                  | FREQUENCY | PERCENTAGE |
|-------------------------|-----------|------------|
| GGSS ABAJI DAY/BOARDING | 42        | 14.5       |
| GSS GWAGWALADA          | 41        | 14.1       |
| GSS KWALI               | 42        | 14.5       |
| GSS YANGOJI             | 42        | 14.5       |
| GSS GARKI               | 41        | 14.1       |
| GSS KUJE                | 39        | 13.4       |
| GSS BWARI               | 43        | 14.8       |
| TOTAL                   | 290       | 100.0      |

The table 4.2.1: above showed the respondents according to their school. A total of 42 or 14.5% were from GGSS Abaji day/boarding school, while 1 or 14.1% are from GSS

Gwagwalada, while 42 or 14.5% are from GSS Yangoji as against 41 or 14.1 from GSS Garki while 39 or 13.4% are from GSS Kuje and the rest 43 or 14.8% from GSS Bwari. This shows that seven schools selected for this study were relatively represented in the study.

**Table 4.2.2: Distribution of sample by Gender**

| Gender | frequency | percentage |
|--------|-----------|------------|
| Male   | 143       | 49.3       |
| Female | 147       | 50.7       |
| Total  | 290       | 100.0      |

According to the above table on the gender status of the respondents, 143 or 49.3% are males while the rest 147 or 50.7% are females.

**Table 4.2.3: Distribution of sample by who sponsor your education**

| Who sponsor your education | Frequency | Percentage |
|----------------------------|-----------|------------|
| Father                     | 131       | 45.2       |
| Mother                     | 117       | 40.3       |
| Guidance                   | 35        | 12.1       |
| Government                 | 4         | 1.4        |
| Community                  | 3         | 1.0        |
| Total                      | 290       | 100.0      |

On respondents' sponsors, 131 or 45.2% are sponsored by their fathers while 117 or 40.3% are sponsored by their mothers as against 35 or 12.1% that are sponsored by their guardian while 4 or 1.4% that are being sponsored by the government and the remaining 3 or 1.0% being sponsored by their community.

### **4.3 Hypotheses Testing**

Three hypotheses guided the research study.

The hypotheses testing formulated in this study were tested using Pearson Product Moment Correlations. The hypotheses were tested at 0.05 level of significant as follows:

**Hypothesis One:** There is no significant relationship between learned helplessness and academic performance among senior secondary school students.

Table 4.4.1: Pearson Product Moment Correlation (PPMC) statistics on the significant relationship between the learned helplessness and academic performance among senior secondary school students’.

| Variables            | N   | Mean     | S.D      | Correlation Index (r) | Df  | SIG (P) |
|----------------------|-----|----------|----------|-----------------------|-----|---------|
| Learned Helplessness | 290 | 37.6207  | 11.42605 | -0.550                | 288 | 0.000   |
| Academic Performance | 290 | 114.6759 | 25.05189 |                       |     |         |

\*\*. Correlation is significant at the 0.05 level (2-tailed)

According to the result of the Pearson Product Moment Correlation statistics, significant negative relationship exists between the academic performance and learned helplessness among senior secondary school students. This is because the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of -0.550 at df of 288. The relationship between the two is negatively proportional. This shows that the higher the academic performance the lower the learned helplessness and the lower the learned helplessness the higher the academic performance. The academic performance among senior secondary students is significantly influenced by the learned helplessness Therefore the null hypothesis which state that there is no significant relationship between the academic performance and learned helplessness among senior secondary school students’ is hereby rejected.

**Hypothesis Two:** There is no significant relationship between Home background and academic performance among senior secondary school students’.

**Table 4.4.2: Pearson Product Moment Correlation (PPMC) statistics on the relationship between academic performance and Home background among senior secondary school students'**

| Variables            | N   | Mean     | Sd      | df  | Correlation index r | p     |
|----------------------|-----|----------|---------|-----|---------------------|-------|
| Home Background      | 290 | 25.2586  | 4.4966  | 288 | 0.465**             | 0.000 |
| Academic Performance | 290 | 114.6759 | 25.0518 |     |                     |       |

\*\*. Correlation is significant at the 0.05 level (2-tailed)

According to the result of the Pearson Product Moment Correlation statistics, significant relationship exists between the academic performance and Home Background among senior secondary school students. This is because the calculated significant (p) value of 0.000 is lower than the 0.05 alpha level of significance at a correlation index r level of 0.465 at df of 288. The relationship between the two is proportional. This shows that the rate of academic performance among senior secondary students is significantly affected by the home background. Therefore, the null hypothesis which state that there is no significant relationship between the academic performance and Home Background among senior secondary school students' is hereby rejected.

**Hypothesis three:** There is no significant relationship between home background and learned helplessness among senior secondary school students.

**Table 4.4.3: Pearson Product Moment Correlation (PPMC) statistics on the relationship between Home Background and the learned helplessness**

| Variables            | N   | Mean    | Sd      | df  | Correlation index r | p     |
|----------------------|-----|---------|---------|-----|---------------------|-------|
| Home Background      | 290 | 25.2586 | 4.4966  | 288 | 0.540**             | 0.000 |
| Learned Helplessness | 290 | 37.6207 | 11.4260 |     |                     |       |

\*\*. Correlation is significant at the 0.05 level (2-tailed).

The Pearson Product Moment Correlation (PPMC) statistics above showed that significant relationship exists between Home Background and the learned helplessness

Reasons being that the calculated p level of significance value of 0.000 was found to be lower than the alpha level of 0.05 at a correlation index r level of 0.540\*\*. This means that the home background of the students has significant impact and effect on their level of learned helplessness. Therefore, the null hypothesis which states that there is no significant relationship between home background and the learned helplessness is hereby rejected.

#### **4.5 Summary of Major Findings**

The following are the major findings of the study

1. There is a statistical significant negative relationship between learned helplessness and academic performance of SSS students in F.C.T., Nigeria ( $r = -0.550$ ,  $p = 0.000$ ).
2. There is a statistical significant relationship between academic performance and home background of SSS students in F.C.T., Nigeria ( $r = 0.465$ ,  $p = 0.000$ ).
3. There is a statistical significant relationship between home background and learned Helplessness of SSS students in F.C.T., Nigeria ( $r = 0.540$ ,  $p = 0.000$ ).

#### **4.6 Discussion of the Findings**

The findings of this study have revealed that there are negative relationships between learned helplessness and academic performance of SSS students in F.C.T., Nigeria. The results of this study portray the components of learned helplessness as failure to initiate action means that students who experience learned helplessness tend not to try to learn new material. Passivity becomes their predominant behaviour, failure to learn means that even when new directions are given to these students, they still learn nothing from them, and emotional problems seem to accompany learned helplessness. Frustration, depression,

and occur frequently. Learned helplessness has been vastly studied in light of children with learning difficulties.

Outcome of this hypothesis reveals that learned helplessness influence students' academic performance.

The findings is in line with early researches findings of Ozioko (2012), who investigated the effects of locus of control, learned helplessness and academic performance in Mathematics in Port Harcourt, River State of Nigeria. His results shows that learned helplessness contributed significantly to performance in Mathematics.(Fincham, 1989; Martinko& Gardner, 1982; Thomas, 1979) they maintain that many children who experience learning difficulties may experience school as a negative experience, over which they feel little or no control, despite effort. Often, the self-images of these children are particularly at risk, following repeated academic difficulty and/or failure. Furthermore, learned helplessness affects motivation to learn (Valas, 2001a, 2001b).In comparative studies between children with and without learning difficulties, it has been found that learned helplessness might be more prevalent in children with learning disabilities (Shahar, 2006; Valas, 2001a, 2001b). However, in a longitudinal study conducted by Fincham (1989) learned helplessness was found to a reliable predictor of achievement in a sample of children without learning disabilities.The finding is also collaborated with the finding of Genero who investigated chaotic environment, learned helplessness and academic performance of adolescence. He found that chaotic environment and learned helplessness influences academic performance of adolescence. Furthermore, research study of Fainstein (2009) on learned helplessness, depression and academic achievement revealed that the result of the statistical analyses indicate a significant difference in the overall achievement, and no significant differences in the prevalence of learned helplessness and depression.

The findings of the study also revealed significant relationship exist between home background and academic performance among senior secondary school students' F.C.T., Nigeria. This is line with previous research findings of Brecko, (1995) who investigated how family background influences students' achievement. The result revealed that there is a strongest relationship between home background and students' success at school. The study of Fabgeminiyi, (2011) on the roles of parents in early childhood education among primary school pupils' in Ikeja, Lagos State- Nigeria is also evident that there was significant relationship between parental involvement and pupils' academic performance. This finding collaborates with the finding of Osuafor and Okonkwo, (2013) they maintain that differences exist. They investigated the influence of family background on academic achievement of secondary Biology students in Anambra State, Nigeria. Their result revealed that family structure, parents' occupation and educational level of parents, did not have significant influence on students' achievement.

The research summarized that home background in this research influence students' academic performance. The finding also shows that significant relationship exists between students' home background and their academic performance. This is supported by the investigation of Okokan, Osakinles & Onijinjin (2013) who conducted a research on significant difference of academic performance of students having study facilities at home and students with no facilities at home. Their results reveals that parent educational background and having study facilities at home have great influence on academic performance which was also supported by Khajehpour & Ghazvini (2011), that parent involvement has an important role in children's school performance, both constructs seem to be positively related also, it was noted that when children are surrounded by caring parents who are involved in their school activities and do their homework together, children are more likely to respond positively to extra- curricular activities and have

higher performance. This study is contrary to this research because it reveals that, home background influence students' academic performance. Students with poor backgrounds tend to get low school performance.

Philes (2012) investigated the influence of home background on pre-school children academic performance in Mathematics. His finding reveals that home background influences pre-school children academic performance in Mathematics. This supports the findings in this research which also found that there is significant relationship between students' home background and their academic performance. Home environment was found to be an important factor in determining academic performance of students. From the beginning, parents have been the major persons involved in raising children in every society. That is why the family is recognized as an important agent of socialization.

Furthermore the findings also reveal that significant relationship exist between home background learned helplessness and the findings is similar to the work of Genero, (2008) who examine the Chaotic Environments, Learned Helplessness and Academic Achievement in Adolescence. His study revealed poor academic achievement in early adolescents living in chaotic environments is mediated by learned helplessness. Regression analysis revealed learned helplessness as a mediator between chaotic environments and academic achievement. And that young adolescent with high levels of home chaos had higher levels of learned helplessness, which resulted in lower English and Math grades.

The study by Khajehpour, (2011) on the relationship between parental involvement and academic performance claims that when parents are involved in children's activities, their school performance tends to increase.

Most research that has been done on parental involvement in schools shows that Low-income families are less involved in their children's education, and because of this lack of

participation, their children are less likely to be successful in school. Considering this statement, society should focus on how to alleviate some of the stress in the lives of these families, and how to help students of all backgrounds thrive in school.

Positive parental involvement starting from the beginning of their children's lives and continuing on in public schools needs to be encouraged so that children's education is improved.

Against this background, in the light of the foregoing, findings from this study provide justification that in F.C.T., parents' encouragement and support in education favour students and therefore, revealed the reason for the outcomes.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter offers Summary of the entire five chapters, offers conclusion and recommendations, as well as suggestions for further studies.

#### **5.2 Summary of the Study**

The study is titled Influence of learned helplessness and home background on academic performance among senior secondary school students in federal capital territory Abuja, Nigeria”. In chapter one, the general introduction as well as statement of problem and significance of the study were discussed. To achieve the main objective, three specific objectives were highlighted, in line with three research questions to be tested as well as three corresponding research hypotheses to be tested. The study highlighted the effect of learned helplessness on students’ academic performance, the various home backgrounds of students which may have effect on their academic performance. The statement of problems hinged on the high failure rate among students due to some negative home background and learned helplessness. To solve these problems, three research questions and three research hypotheses were postulated.

The second chapter presented the relevant literature reviews citing conceptual framework on learned helplessness, home background and academic performance. The theoretical perspectives such as the learned helplessness model, Reformulation of learned helplessness model, the theory of cognitive dissonance, Bandura’s social learning theory, Edward Deci and Richard M. Ryan Self Determinant Theory, Maslow Hierarchy of Needs Theory, Weiner Attributional Theory. And finally, the chapter contains review of empirical studies on learned helplessness, home background and academic performance.

Chapter three highlighted the study methodology. This includes the study being a descriptive survey study. The SSS 2 students as population of the study, 290 sample size, as well as random sampling techniques. Learned helplessness scale (LHS), Students' Home Background Scale (SHBS) and Academic Achievement Tests in English Language and Mathematics were used for the data collection. The instruments were validated through content validity and had a reliability of .894 LHS and .657 for SHBS respectively. The analysis was conducted using simple percentage, mean, standard deviation and Pearson Product Moment Correlations (PPMC).

Finding reveal that, there is a statistical significant negative relationship between learned helplessness and academic performance of SSS students in F.C.T. Abuja, Nigeria, there is a statistical relationship between academic performance and home background of SSS students in F.C.T. Abuja, Nigeria and There is a statistical significant relationship between home background and learned helplessness of SSS students in F.C.T. Abuja, Nigeria.

### **5.3 Conclusion**

Based on the outcome of the study, the following conclusion can be made:

Evidence from the study has led the researcher to conclude that learned helplessness in the classroom can be overcome as follows; when it comes to learned helplessness, the most important factor seems to be control. Humans need to feel they have some level of control over their lives. When someone feels as though they have no control, the feelings comes from a perception and perceptions are formed as a result of sensory input from our experiences in the world truth is that there is no such things as reality, only perceptions. The good news is that because the feelings and behaviour as with learned helplessness are the result of negative perceptions, they can be changed. Negative thinking may bring

negative results because your thinking dictates who you are and where you will go. Changing perceptions involves changing thinking, but not just from negative to positive. It also requires changing the response to stimulus from the one you have already learned (learned helplessness) by associating it with a new response.

Changing students' attributions. When students became themselves for their shortcomings, they have a tendency to hold themselves back from success.

Ability attributions: Teachers can praise, encourage, and reinforce a child's innate ability to succeed at specific tasks along the lines of you are good at this. If a student believes they are good at something they will apply themselves more in future opportunities.

Effort feedback: Encouraging students' effort, indicating truth like, 'if you study, you will do well on the test' or 'if you work hard, your effort will be rewarded.

Goal setting: Realistically, achieving stellar grade and high standards might seem intimidating to some students who feel like they are incapable. Students should be led through a process of establishing reasonable goals that are unique to them.

On the other hand, the educational background of parents and provision of study facilities for children at home have significant influence on the academic performance of such children. Many parents were willing to help their children in their academic work though they were not very committed to helping these children with their academic work to enhance good performance. This jeopardized the children's performance in school and the assumptions are that the home background influences the children's academic performance.

Parents' personal educational backgrounds and economic backgrounds have a significant effect on their children's education. However, if parents are a positive

influence in their children's everyday lives, and most importantly in their everyday education, the future of our society will look brighter and brighter every day.

#### **5.4 Recommendations**

The following recommendations are hereby suggested for this study.

1. School psychologists, counsellors, teacher should help students to find their interests, create their own parts of discovery, empower them to take control of their learning and succeed to reach their potentials and the teachers should also be informed or sensitized on the influence of learned helplessness on academic performance among secondary school student.
2. Since home background of students was significantly related to the students' academic performance, the researcher recommended that parents should actively support the learning of their children in such ways as monitoring children's progress and communicating with school personnel, tutor children at home to reinforce work done in school and acting as volunteer in schools as aides or in other roles.
3. Seminars and workshops should be organized for the parents /guardians so as to equip them with necessary knowledge and skills so as to enable them play their roles effectively as parents as they are the first teachers for their children and to redress problem of learned helplessness as it relates to their home background and academic performance.

#### **5.5 Suggestions for Further Studies**

This study is by no means exhaustive, further studies could be carried out in the relevant fields such as:

Influence of learned helplessness on academic performance of tertiary institution of F.C.T. Abuja, Nigeria.

Effect of learned helplessness and home background on academic achievement of primary school pupils in F.C.T. Abuja, Nigeria.

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Dear Respondent(s),

This Questionnaire is designed to collect information on ‘ ‘ Learned Helplessness and Home background on Academic Performance among Senior Secondary School Students’ in F.C.T. , Nigeria’ ’.

I humbly request the favour of your confidential responses.

PLEASE TICK (✓) THE OPTION THAT BEST REPRESENT YOUR OPINION

SECTION A: PERSONAL DATA

1. SCHOOL:

- a. Government Secondary School Abaji day/ boarding ( )
- b. Government Secondary School co-education Gwagwalada ( )
- c. Government Secondary School co-education Kwali ( )
- d. Government Secondary School co-education Kuje ( )
- e. Government Secondary School co-education Yangoji ( )
- f. Government Secondary School co-education Garki ( )
- g. Government Secondary School co-education Bwari ( )

2. Gender: Male ( ) Female ( )

3. Who sponsors your education: Father ( ) Mother ( ) Guardian ( ) Government ( )  
Community ( ) Others ( )

## APPENDIX I

### STUDENT'S HOMEBACKGROUND SCALE

Instruction: Please tick [✓] the option that best represents your opinion.

I. Father's Education Qualification:

- |                                 |   |
|---------------------------------|---|
| a) No qualification             | 1 |
| b) Primary School Certificate   | 2 |
| c) Secondary School Certificate | 3 |
| d) OND/NCE                      | 4 |
| e) HND/FIRST DEGREE             | 5 |
| f) POST GRADUATE                | 6 |

II. Mother's Education Qualification:

- |                                 |   |
|---------------------------------|---|
| a) No qualification             | 1 |
| b) Primary School Certificate   | 2 |
| c) Secondary School Certificate | 3 |
| d) OND/NCE                      | 4 |
| e) HND/FIRST DEGREE             | 5 |
| f) POST GRADUATE                | 6 |

III. Mother's Occupation:

- |                     |   |
|---------------------|---|
| a) Farming          | 1 |
| b) Trading/Business | 2 |
| c) Civil Servant    | 3 |

IV. Fathers' occupation

- |                      |   |
|----------------------|---|
| a) Farming           | 1 |
| b) Trading/ business | 2 |

|       |                            |   |
|-------|----------------------------|---|
|       | c) Civil servant           | 3 |
| V.    | Income Level Per Month:    |   |
|       | a) Non – 5,000             | 1 |
|       | b) 5,001 – 50,000          | 2 |
|       | c) 50,001 – 100,000        | 3 |
|       | d) 100,001 & above         | 4 |
| VI.   | Conveyance to School:      |   |
|       | a) On foot                 | 1 |
|       | b) By bicycle              | 2 |
|       | c) Taxi                    | 3 |
|       | d) My car                  | 4 |
| VII.  | Reading Material at Home:  |   |
|       | a) No books                | 1 |
|       | b) Prescribed books        | 2 |
| VIII. | Gadgets Accessible at Home |   |
|       | a) No gadgets              | 1 |
|       | b) Radio                   | 2 |
|       | c) Television              | 3 |
|       | d) Satellite               | 4 |

## APPENDIX II

### LEARNED HELPLESSNESS SCALE

#### Instructions to the Participant:

In the following instrument there are statements that you are asked to read carefully. After reading each item, respond as to how closely you agree or disagree with how each item describes you and your feelings about yourself. Circle the response which most closely describes your agreement or disagreement for each item.

| Item                                                                                                           | Response |   |   |    |
|----------------------------------------------------------------------------------------------------------------|----------|---|---|----|
|                                                                                                                | SA       | A | D | SD |
| 1. No matter how much energy I put into a task, I feel I have no control over the outcome.                     | 4        | 3 | 2 | 1  |
| 2. I feel that i am not able to solve problems even if I try.                                                  | 4        | 3 | 2 | 1  |
| 3. I cannot find solutions to difficult problems.                                                              | 4        | 3 | 2 | 1  |
| 4. Failure gives me new opportunity                                                                            | 4        | 3 | 2 | 1  |
| 5. If I complete a task successfully, it is probably because I became lucky.                                   | 4        | 3 | 2 | 1  |
| 6. I do not have the ability to solve most of life's problems.                                                 | 4        | 3 | 2 | 1  |
| 7. When I do not succeed at a task I do not attempt any similar tasks because, I feel that I will fail Again.  | 4        | 3 | 2 | 1  |
| 8. When something doesn't turn out the way I planned, I know it is because I didn't have the ability to do it. | 4        | 3 | 2 | 1  |
| 9. Other people have more control over their success and/or failure than I do.                                 | 4        | 3 | 2 | 1  |
| 10. I do not try a new task if I have failed similar task in the past.                                         | 4        | 3 | 2 | 1  |
| 11. When I perform poorly it is because I don't                                                                |          |   |   |    |

|                                                                                            |   |   |   |   |
|--------------------------------------------------------------------------------------------|---|---|---|---|
| have the ability to perform better.                                                        | 4 | 3 | 2 | 1 |
| 12. I do not accept a task that I do not think I will succeed in.                          | 4 | 3 | 2 | 1 |
| 13. I feel that I have little control over the outcomes of my work.                        | 4 | 3 | 2 | 1 |
| 14. I am unsuccessful at most tasks I try.                                                 | 4 | 3 | 2 | 1 |
| 15. I feel that anyone else could do better than me in most tasks.                         | 4 | 3 | 2 | 1 |
| 16. When I don't succeed at a task, I find myself blaming my own stupidity for my failure. | 4 | 3 | 2 | 1 |
| 17. I am unable to reach my goals in life.                                                 | 4 | 3 | 2 | 1 |
| 18. No matter how hard I try, things never seem to work out the way I want them to.        | 4 | 3 | 2 | 1 |
| 19. I feel that my success reflects chance, not my ability.                                | 4 | 3 | 2 | 1 |
| 20. My behaviour does not seem to influence the success of a work group.                   | 4 | 3 | 2 | 1 |

---

### APPENDIX III

#### MATHEMATICS ACHIEVEMENT TEST (MAT)

Instruction: Answer all questions. Each question carries equal mark. (2 marks)

1. The gradient of a curve is  $2X + 7$  and the curve pass through point (2, 0). Find the equation of the curve.

A.  $Y = X^2 + 14X + 11$  B.  $Y = X^2 + 7X + 9$  C.  $Y = X^2 + 7X - 18$  D.  $Y = X^2 + 7X + 18$

2. Evaluate  $\int_{-4}^0 (1 - 2x) dx$

A. -16 B. 20 C. -20 D. 10

3. Differentiate  $(x^2 - 1/x)^2$  with respect to x

A.  $4x^2 - 2/3x$  B.  $4x^3 - 2 + 2/x^3$  C.  $4x^3 - 3x + 2/x$  D.  $4x^3 - 4x - 2/x$

4. Find the curve of x for which the function  $3x^2 - 9x^2$  is a minimum

A. 3 B. 5 C. 0 D. 2

5. If  $\frac{dy}{dx} = x + \cos x$ , find y.

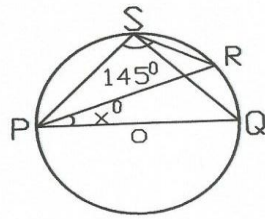
A.  $x^2 - \sin x + c$  B.  $x^2 - \sin x + c$  C.  $x^2/2 + \sin x + c$  D.  $X^2 + \sin x + c$

6. Differentiate  $(\cos x - \sin \theta)$  with respect to  $\theta$

A.  $-2 \sin 2\theta$  B.  $-2 \cos 2\theta$  C.  $1 - 2 \cos 2\theta$  D.  $1 - 2 \sin 2\theta$

7. Find the dimensions of the rectangle of greatest area which has a fixed perimeter p.

A. square of sides'  $p/4$  B. Square of side's  $p/2$  C. square of sides p D. Square of sides  $2p$



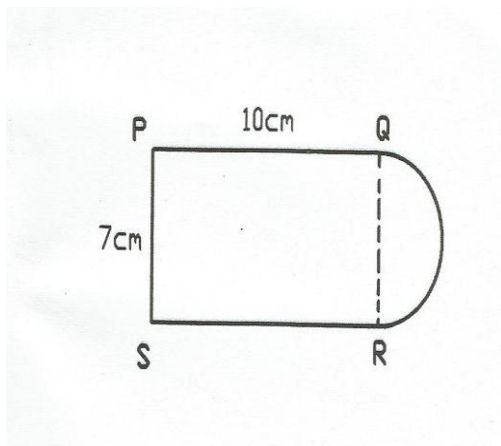
8. In the diagram above,  $PQ$  is the diameter of the semicircle  $QR$ . Find the area of the figure to the nearest whole number.

A.  $80\text{cm}^2$  B.  $70\text{cm}^2$  C.  $90\text{cm}^2$  D.  $89\text{cm}^2$

9. If the  $\tan \theta = 5/4$ , find  $\sin 2\theta - \cos 2\theta$

A.  $41/9$  B.  $9/41$  C.  $1$  D.  $5/4$

10.



In the diagram above  $PQ$  is the diameter of the semicircle  $QR$ . Find the area of the

figure to the nearest whole number.

A.  $80\text{cm}^2$  B.  $70\text{cm}^2$  C.  $90\text{cm}^2$  D.  $89\text{cm}^2$

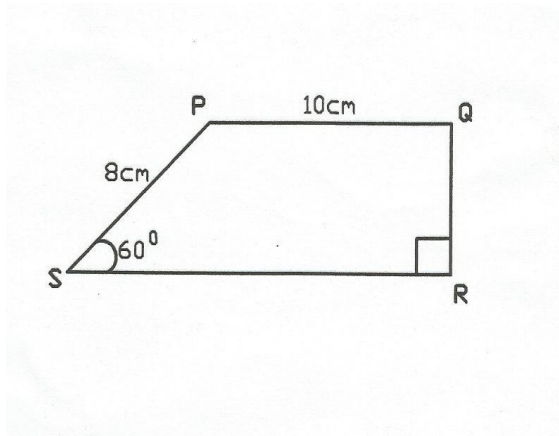
11.  $PQRSTW$  is a regular hexagon and  $QS$  intersects  $RT$  at  $V$ . Calculate  $\angle TVS$

A.  $600$  B.  $900$  C.  $1200$  D.  $300$

12. If the locus of the points which are equidistant from points P and Q. Find PQ at point N, then PN equals.

A.  $\frac{1}{2}$  NQ B. 2 NQ C.  $\frac{1}{4}$  NQ D. NQ

13.



In the diagram above,  $PQ=10\text{cm}$ ,  $PS=8\text{cm}$  and  $\angle PSR$  is  $60^\circ$  while  $\angle SRQ$  is a right

angle. Find SR

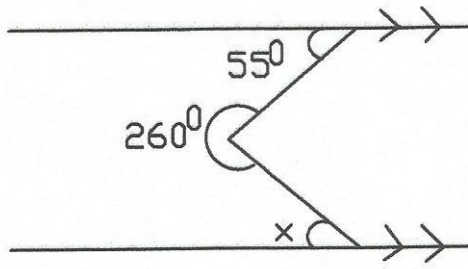
A.  $14\sqrt{3}\text{cm}$  B.  $14\text{cm}$  C.  $10\sqrt{3}\text{cm}$  D.  $10\text{cm}$

14. PQ and RS are two parallel lines. If the coordinates of P, Q, R, S are (1, q), (3, 2),

(5, 2q) respectively. Find the value of q.

A. 4 B. 1 C. 2 D. 3

15.



In the diagram above, find the value of  $x$ .

- A.  $45^\circ$  B.  $55^\circ$  C.  $40^\circ$  D.  $50^\circ$

16. In triangle XYZ,  $\angle XYZ = 15^\circ$ ,  $\angle XZY = 45^\circ$  and  $XY = 7$  cm. Find  $YZ$ .

- A.  $7\sqrt{2}$  cm B. 7 cm C.  $14\sqrt{2}$  cm D.  $\frac{7}{2}\sqrt{6}$  cm

|           |   |   |   |    |    |   |   |   |
|-----------|---|---|---|----|----|---|---|---|
| Score     | 1 | 2 | 3 | 4  | 5  | 6 | 7 | 8 |
| frequency | 2 | 3 | 5 | 12 | 10 | 6 | 4 | 1 |

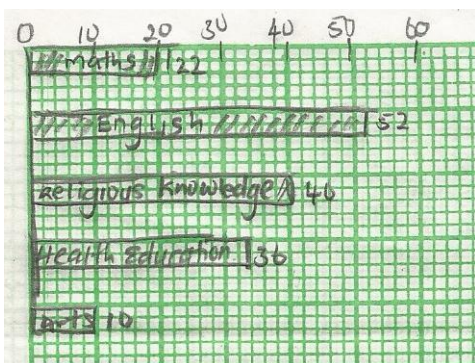
17.

The table above shows the scores of a group of students in a Physics test. If the mode

is  $m$  and the number of students who scored 4 or more is  $n$ , what is  $(n, m)$ ?

- A. (33, 12) B. (33, 4) C. (22, 4) D. (12, 4).

18. For what value on  $n$  is  ${}^{n+1}C_3 = 4({}^nC_3)$ ?



- A. 4 B. 6 C. 3 D. 5

19. The response of 160 pupils in a school asked to indicate their favourite subjects is given in the bar chart above. What percentages of the pupils have English and Health Education as their favourite subjects?

A.50% B. 55% C. 365 D.22%

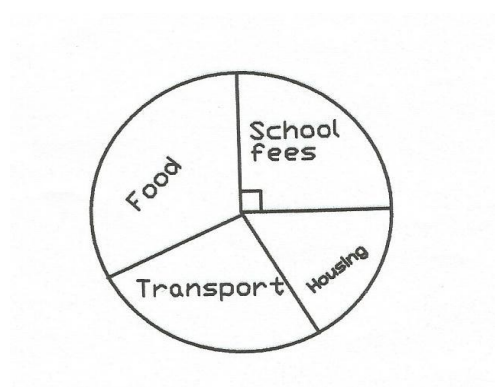
20. A bag contains 5 black, 4 white and X red marbles. If the probability of picking a red marble is  $\frac{2}{5}$ . Find the value of X.

A.6 B.10 C. 4 D.8

21. The table below shows the distributions of recharge cards of four major GSM operators. What is the probability that a recharge card selected at random will be GTN or QTEL? A.  $\frac{2}{5}$  B.  $\frac{3}{5}$  C.  $\frac{3}{20}$  D.  $\frac{1}{4}$ .

| GSM OPERATORS        | GTN | PLO | QTEL | CMOB |
|----------------------|-----|-----|------|------|
| NO. OF RECHARGE CARD | 5   | 6   | 3    | 6    |

22.



The pie chart above shows the expenditure of a family whose income #30,000. If the expenditure on food is twice that on transportation, how much does the family spend on food?

A. #28,000 B. #25,000 C. #12,500 D. #15,000.

23. Find the variance of  $2x$ ,  $2x-1$  and  $2x+1$ .

A.  $\sqrt{2}/3$  B. 2 C. 1 D.  $2/3$

24. If the mean of five consecutive integers is 30, find the largest of the numbers.

A. 30 B. 28 C. 34 D. 32.

25. A final examination requires that a student answers any 4 out of 6 questions. In how many ways can this be done?

A. 30 B. 20 C. 15 D. 45

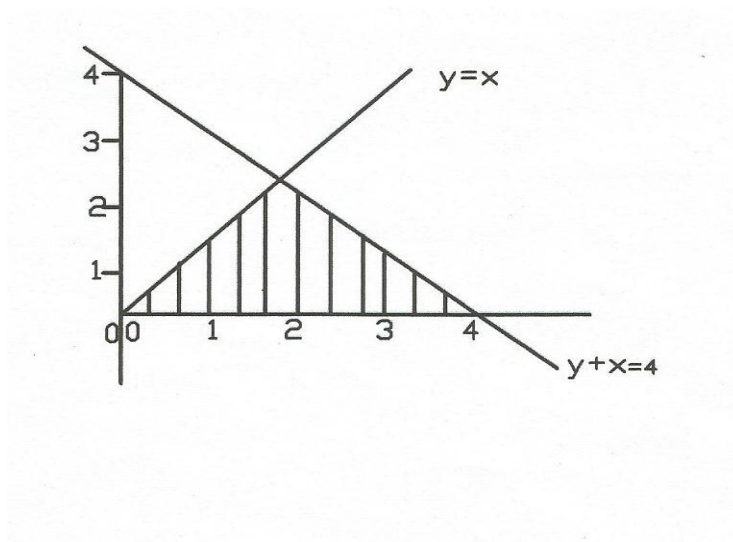
26. The cost of renovating a 6m square room is \$540. What is the cost of renovating a 9m square room?

A. \$270 B. \$810 C. \$1,620 D. \$1,215

27. How many terms of the series 3, -6, +12, -24, +..... Are needed to make a total of  $1-2^8$ ?

A. 9 B. 12 C. 8 D. 10

28.



The solution set of the shaded area above is

A.  $Y + X \geq 4$ ,  $Y \leq X$  B.  $Y \leq X$ ,  $Y + X \leq 4$  and  $Y \geq 0$

C.  $Y \geq 0$ ,  $Y \leq X$  and  $Y + X \leq 4$  D.  $Y \leq X$ ,  $Y + X \leq 4$

29. Find the value of K if the expression  $KX^3 + X^2 - X^2 - 5X - 2$  leaves a remainder 2 when it is divided by  $2x+1$ .

A. 8 B. -10 C. 10 D. -8

30. Solve the inequality for which  $x^{+4}/3 - (x-3)/2 \leq 4$  A.  $X > 7$  B.  $X < 7$  C.  $X < -7$  D.  $X > -7$

31. Evaluate  $\frac{2.81 \times 10^{-3} \times 1.063}{5.637 \times 16 \times 10^{-2}}$  reducing each number to two significant figures.

A. 0.056 B. 0.655 C. 0.0054 D. 0.54

32. Find the roots of  $X^3 - 2X^2 - 5X + 6 = 0$

A. 1, 2, -3 B. 1, -2, 3 C. -1, 2, -3 D. -1, -2, 3

33. If  $Y = X^2 - X - 12$ , Find the range of values of X for which  $Y \geq 0$

A.  $X \leq -3$  or  $X \geq 4$  B.  $X \leq -3$  or  $X > 4$  C.  $-3 \leq X \leq 4$  D.  $-3 < X \leq 4$

34. A binary operation  $*$  on the set of rational numbers is defined as  $X * Y = X^2 - Y^2 / 2XY$ . Find  $-5 * 3$

A. 17/15 B. -17/15 C. -8/15 D. 8/15

35. If  $T = 2\sqrt{l/8}$ , make g the subject of the formula

A.  $4l^2/T$  B.  $4l^2/T^2$  C.  $2\sqrt{l}/T$  D.  $4l^2/T^2$

36. The sum of the first n positive integers is

A.  $n(n-1)$  B.  $n(n+1)$  C.  $1/2n(n+1)$  D.  $1/2n(n-1)$

37. Find p, q for which  $\binom{2p+8}{3-5q} \binom{l}{2} = \binom{24}{-17}$

A. -4, -2 B. -4, 2 C. 4, 2 D. 4, -2

38. If P varies inversely as the cube of q and q varies directly as the square of r, what is the relationship between p and r?

A. P varies inversely as  $r^6$  B. P varies directly as  $r^6$  C. P varies directly as  $r^3$

D. P varies directly as  $\sqrt[6]{r}$

39. A binary operation  $\otimes$  defined on the set of real numbers is such that  $X \otimes Y = XY/6$  for all  $X, Y, \in \mathbb{R}$ . Find the inverse of 20 under this operation when the identity element is 6.

A.  $10/3$  B.  $9/5$  C.  $1/20$  D.  $1/12$

40. If  $m:n = 13:11$ , find  $m^2 - n^2 : (m + n)^2$

A.  $1:12$  B.  $1:10$  C.  $1:13$  D.  $1:11$

41. Convert  $2232_4$  to a number in base six.

A.  $540_6$  B.  $254_6$  C.  $553_6$  D.  $450_6$

42. Calculate the logarithm to base 9 of  $3^{-4} \times 9^2 \times (81)^{-1}$

A. 0 B. 2 C. -4 D. -2

43. Find the tax on income of #20,000 if no tax is paid on the first #10,000 and tax is paid at #55 in #1,000 on the remainder

A. #525 B. #552 C. #255 D. #500.

44. Simplify:  $(25)^{-1/2} \times (27)^{1/3} + (121)^{-1/2} \times (625)^{-1/4}$

A.  $14/5$  B.  $9/11$  C.  $3/275$  D.  $34/55$

45. Find the principal which amounts of #5500 at simple interest in 5 years at 2% per annum.

A. #5000 B. #4900 C. #4800 D. #4700.

46. A car dealer bought a second-hand car for #250,000.00 and spent #70,000.00 refurbishing it. He then sold the car for #400 000.00. What is the percentage gain?

A. 20% B. 25% C. 32% D. 60%

47. Evaluate  $21.05347 - 1.6324 \times 0.43$ , to 3 decimal places.

A. 20.351 B. 20.352 C. 20.980 D. 20.981

48. Evaluate  $\frac{(0.14)^2 \times (0.275)}{7(0.02)}$  correct to 3 decimal places

A. 0.033 B.0.039 C.0.308 D. 0.358

49. Simplify  $(3\sqrt{64a^3})^{-1}$

A.  $8a$  B.  $4a$  C.  $1/4a$  D.  $1/8a$

50. A sector of a circle of radius 7.2cm which subtends an angle of  $300^\circ$  at the centre is used to form a cone. What is the radius of the base of the cone?

A. 6cm B. 7cm C. 8cm D.9cm

**APPENDIXIV**  
**ENGLISH LANGUAGE ACHIEVEMENT TEST (ELAT)**  
**COMPREHENSION**

**Section A: Read the passage carefully and answer the questions that follow.**

In many places in the world today, the poor are getting poorer while the rich are getting richer, and the programmes of development planning and foreign aid appear to be unable to reverse this trend. Nearly all the developing countries have a modern sector where the pattern of living and working are similar to those in developed countries. But they also have a non-modern sector, where the patterns of living and working are not only unsatisfactory, but in many cases are even getting worse.

What is the typical condition of the poor in the developing countries? Their work opportunities are so limited that they cannot work their way out of the situation.

They are underemployed or totally unemployed; when they do find occasional work, their productivity is extremely low. Some of them have land, but often too little land.

Many have no land, and no prospect of even getting any. There is no hope for them in the rural areas and so, they drift into the big cities either and of course no housing.

All the same, they flock into cities because their chances of finding some work appear to be greater there than in the villages where they are nil. Rural unemployment, then, produces mass-migration into the cities; rural unemployment becomes urban unemployment.

The problem can be stated quite simply: what can be done to promote economic growth outside the big cities, in the small towns and villages, which still contain 80% to 90% of the total population? The primary need is work places, literally millions of workplaces.

(Ray Williams: Panorama)

1. The gap between the rich and the poor widens because there
  - a) are no jobs in the rural areas
  - b) are no employment opportunities in the city
  - c) is no work in the village and the city s
  - d) is low growth rate in the productivity
2. The expression 'work their way out of their situation' means
  - a) walk from one village to another
  - b) migrate from village to city
  - c) walk their way out of their village
  - d) change their circumstances
3. Migration to the city among villagers is caused by
  - a) attraction of the city
  - b) low productivity in the village
  - c) inadequate job opportunity in the village
  - d) shortage of land for cultivation
4. Underemployment among the villages refers to
  - a) lack of sufficient land for every body
  - b) low productivity when working
  - c) fewer people for many jobs
  - d) more people for fewer jobs
5. Why are the rich getting richer the poor poorer?
  - a) in nearly all developing countries
  - b) in a majority of countries in the world
  - c) in developing countries with modern sectors
  - d) in countries with non-modern sectors

## LEXIS AND STRUCTURE

**Section B:** In each of the following questions, 6 to 8 choose the word that does not have the same vowel sound as the others.

6. (a) loot (b) boot (c) rout (d) route.  
7. (a) sun (b) shun (c) son (d) short.  
8. (a) deep (b) lease (c) meet (d) lace.

**Section C:** In each of questions 9 to 23, choose the option nearest in meaning to the word (s) or phrase in italics.

9. All the accident victims are bleeding *profusely*  
(a) Slowly (b) excessively (c) diffusely (d) clearly
10. The prosecutor was accused of *obstructing* justice.  
(a) hindering (b) retarding (c) impending (d) interrupting
11. The man preaches *egalitarianism* without matching it up with action  
(a) salvation (b) dedication (c) kindness (d) equality
12. The Federal Government approved a new salary structure as an *incentive* for the Nigerian workers  
(a) a reward (b) an encouragement (c) a package (d) an advance
13. Amina said she married a *doting* husband  
(a) a loving (b) a fun-loving (c) an uncaring (d) a nagging
14. It was a spending spree for all of us when daddy *hit the jackpot*.  
(a) cashed his cheque (b) received his salary (c) found money in a pot (d) won a lot of money
15. It was surprising how we *took to* the stranger at once.  
(a) talk so long with (b) introduce ourselves to (c) form a liking for (d) started fighting

16. Before embarking on his current research, the professor carried out a *feasibility* study of the area.

(a) thorough (b) perfectibility (c) complete (d) practicability

17. The college officer insisted that I show him my *credentials* before I could be registered.

(a) papers (b) qualifications (c) testimonials (d) identities

18. Even though there is no obvious riot on the campus, the atmosphere is *restive*.

(a) quiet (b) chaotic (c) restless (d) tense

19. Mr. Dzokoto plays the piano with great *dexterity*.

(a) wisdom (b) power (c) force (d) skill

20. The government is not opening up to the unions in the negotiations; it must *have something up its sleeve*.

(a) be nursing a hidden agenda (b) be hoping to trap (c) be hiding a last minute package  
(d) be intending to dissolve the unions.

21. Adamu woke up with a start and took to his heels, claiming that something was on *his trail*.

(a) in his food (b) giving him the chase (c) hiding near the bed (d) staring at him

22. When he found himself in a difficult situation, he tried to *double-talk his way through*.

(a) talk to two people to help him (b) mix up issues to sound nervous (c) mix up facts to confuse people (d) talk twice to gain sympathy.

23. They have tried to *circumvent* the restriction on the importation of the commodities

(a) bypass (b) confront (c) oppose (d) challenge.

**Section D:** In each of the following questions 23-25, the word in capital letters has an **emphatic stress**.

Choose the option that best fits the expression in the sentence.

24. The accused hasn't even been TRIED yet.

(a) Was the accused sentenced-to life imprisonment? (b) Has the suspect been apprehended?

(c) Why hasn't the accused been yet? (d) Was the accused handed over to the police?

25. The fire destroyed MANY lives

(a) Did the fire destroy the village? (b) Did the fire destroy some houses?

(c) Did the fire destroy any lives? (d) Did the fire spare any lives?

26. The electricity in OUR premises comes from a generator?

(a) Is the electricity in your compound supplied by a generator?

(b) Is the electricity in your neighbour's premises come supplied by a generator?

(c) Does the electricity in your premises come from NEPA?

(d) Does everybody in your street receive electricity from generators?

**Section E:** In questions 26 and 27, identify the word that has a different stress pattern from the others.

27. (a) interrupt (b) contribute (c) harmattan (d) entertain

28. (a) interlocutor (b) opportunity (c) ambiguity (d) actualization

**Section F: In the questions 28 to 50, fill each gap with the most appropriate option from the list provided.**

29. After two year of courtship, Jide is finally.....

[(a) being married to (b) marrying (c) married to (d) being married by] Ngozi next Sunday,

30. I am... [ (a) Seeking on (b) seeking for (c) seeking at (d) seeking admission to the university this year].

31. The old man's speech has become completely..,

[(a) Un comprehensible (b) un comprehensive (c) incomprehensive (d) incomprehensible].

32. The freed robber expressed his gratitude in a...[a. Spurious b. Spasmodic c. Spontaneous d. Sporadic] prayer of thanksgiving,

33. By twelve midnight, we will be ... [a. Alrbourned b. Airborne c. Airborned d. Alrbourned ] en route for Britain.

34. They were all behaving like a bunch of ... [ A.querulous B. Quarulous C. Quarrelous D. Quarrelous] children.

35. Mrs Ojo was one of .. [A. The first two enlightened young ladies B. The two first young enlightened ladies C. The two first young enlightened ladies D. The first two young enlightened ladies] in my village.

36. Ndem was suspended from work because he showed no ... [A. Love B. Interest C. Character D. Finesse] in dealing with the customers.

37. The visitor was very uncomfortable because of his [A. Runny B. Running C. Watery D. Flowing] nose.

38. The principal expressed his ... when the students broke the rules ... [A. Anger/everyday B. Frustration/time and again C. Disappointment/understandably D. Powerless/occasionally] and he didn't know how to stop them.
39. Immediately I entered the house, I could ... [A. Feel B. Hear C. Detect D. Smell] the smell of gas from the kitchen.
40. The accident was due to ... [A. Negligence B. Negligible C. Negligent D. Neglectable] driving by the defendant.
41. Aggrieved persons are free to seek ... [A. Reparation B. redress C. consolation D. Acquittal] in the court of law.
42. His chases in the games ... [A. Have been B. Has been C. Have being D. has being] seriously jeopardized.
43. We found that it difficult to identify him as the crowd was.... [A. Head to head B. Head above C. head shoulder from shoulder D. Shoulder to shoulder] around him.
44. Our economic programme is ... [A. Deeply root in B. Root in deep C. Rooted in a deep D. Deeply rooted in deep/commitment to Nigeria's economic growth.
45. The group never felt strong enough to act in the open ... [A. Covert B. Overt C. Vicious D. Erratic] hostility was the hallmark of their resistance.

**Section G: In each of the questions 48 to 50, select the option that best explains the information conveyed in the sentence.**

46. The manager said that the new loaf was the last word in bakery

- (a) The loaf was the best ever baked
- (b) The loaf was the last to be baked
- (c) The loaf was the worst to have been baked
- (d) The loaf was the last in the baker's directory

47. The reformists say elections cannot be free and fair unless a number of constitutional changes are affected.

- (a) Reformation depend on constitutional changes
- (b) Free and fair elections depend on law reform
- (c) Free and fair elections are the primary concern of the reformists
- (d) Effecting constitutional changes is dependent on electoral reforms.

48. Hundreds of used items will go under the hammer during the weekend;

- (a) Unserviceable goods will be publicly destroyed at the weekend
- (b) Impounded household items will be sold to the public before the weekend
- (c) Damaged items will be sold next weekend
- (d) Many old items will be auctioned this weekend.

49. The crowd in the hall is intimidating

- (a) the crowd is frightening (b) the crowd is angry (c) the crowd is overwhelming (d) the crowd is riotous

50. The horizon may not be clear now, but the troubled spots have certainly been noted.

- (a) The horizon is dependent on the troubled spots
- (b) Clarity of the horizon is dependent on the perception of the troubled spots
- (c) The troubled spots are more perceptible than the horizon
- (d) Horizon, clarity of the troubled spots and certainty are remarkably noted.

## APPENDIXV

### SOLUTION TO MATHEMATICS ACHIEVEMENT TEST (MAT)

1. Gradient =  $\frac{dy}{dx} = 2x + 7$ ,  $y = \frac{1}{2}(2x + 7)^2 = 2x^2/2 + 7x + c = x^2 + 7x + c$

With point (2, 0) on the curve  $X = 2$ ,  $Y = 0$

$$0 = 2^2 + 7(2) + C; 0 = 4 + 14 + C, C = -18$$

$$Y = X^2 + 7X - 18 \text{ Ans. C}$$

2.  $\int_{-4}^0 (1 - 2x) dx = [x - x^2]_{-4}^0 = 0 - (-4 - (-4)^2)$

$$0 - (-4 - 16) = 0 - (-20) = 20 \text{ Ans. B}$$

3. Let  $y = (x^2 - 1/x)^2$ ;  $u = x^2 - 1/x$ ,  $\frac{du}{dx} = 2x + x^{-2}$ ,  $y = \frac{dy}{du} = 2u$ ;

$$\frac{dy}{dx} = \left(\frac{dy}{du} \times \frac{du}{dx}\right) = 2u \times (2x + x^{-2}) = 2(x^2 - 1/x) \times (2x + 1/x^2)$$

$$= (2x^2 - 2/x) \times (2x + 1/x^2) = 4x^3 + 2 - 4 - 2/x^3 = 4x^3 - 2 - 2/x^3 \text{ Ans. = A}$$

4.  $Y = 3x^2 - 9x^2$ ;  $\frac{dy}{dx} = 6x - 18x$

At turning point  $\frac{dy}{dx} = 0$ ;  $9x(x - 2) = 0$  i.e.  $x = 0$  or,  $x = 2$ ;  $\frac{d^2y}{dx^2} = 18x - 18$

When  $x = 0$ ;  $\frac{d^2y}{dx^2} = -18$  when  $x = 2$ ;  $\frac{d^2y}{dx^2} = 18$

$X$  is minimum when  $X = 2$  Ans. = D

5.  $\frac{d}{dx} \sin x = \cos x$ ;  $y = \int (\sin x + \cos x) dx = \int \sin x dx + \int \cos x dx$ ;  $y = -\frac{\sin^2 x}{2} + \sin x + C$

Ans. C

6. Let  $y = (\cos \theta - \sin \theta)^2$

$$(\cos \theta - \sin \theta)(\cos \theta - \sin \theta) = \cos^2 \theta - 2 \sin \theta \cos \theta + \sin^2 \theta = \cos^2 \theta + \sin^2 \theta - 2 \sin \theta \cos \theta$$

$$= 1 - 2 \sin \theta \cos \theta = 1 - 2 \sin^2 \theta = \frac{1 - \sin^2 \theta}{1} = \cos^2 \theta$$

$$2 \cos^2 \theta$$

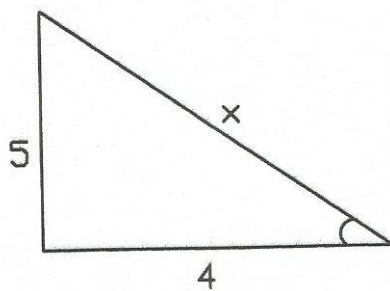
Ans. = B

7.  $P = 2(L + B)$ ;  $L+B = \frac{P}{2}$  at its greatest area the square of the side  $\frac{P}{2}$  is the solution; Ans. = B

8.  $\angle PSQ = 90^\circ$  (angle in a semicircle)  $\angle QSR = 145 - 90^\circ = 55^\circ$

$55^\circ$  (angle in the same segment) Ans. = C

9.

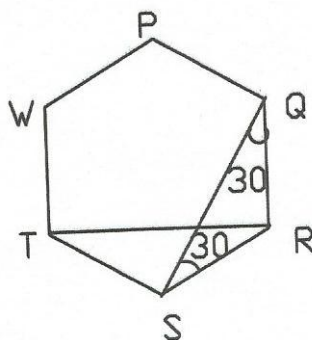


By Pythagoras theorem  $x^2 = 5^2 + 4^2$ ;  $x = \sqrt{25 + 16} = \sqrt{41}$

$\sin^2 \theta - \cos^2 \theta = (5/\sqrt{41})^2 - (4/\sqrt{41})^2 = 25/41 - 16/41 = 9/41$  Ans. = B

10. Area of the figure = Area of PQRS + Area of semi-circle QR =  $(L \times B) + \square = \square^2/2$

$= (7 \times 10) + \frac{22}{7} \times \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times \frac{1}{2} = 70 + 19.25 = 89.25 \cong 89\text{cm}^2$  Ans. = D



11.

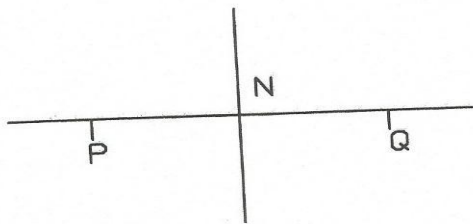
Sum of interior angles =  $(n - 2) 180^\circ$  where  $n = 6$ ;  $4 \times 180 = 720$

Each interior angle =  $120^\circ$   $\angle TRQ = 60^\circ$ ;  $\angle VQR = 30^\circ$

$\angle QVR = 180 - (60 + 30)$  (sum of angles in  $\Delta$ )  $= 180 - 90 = 90^\circ$

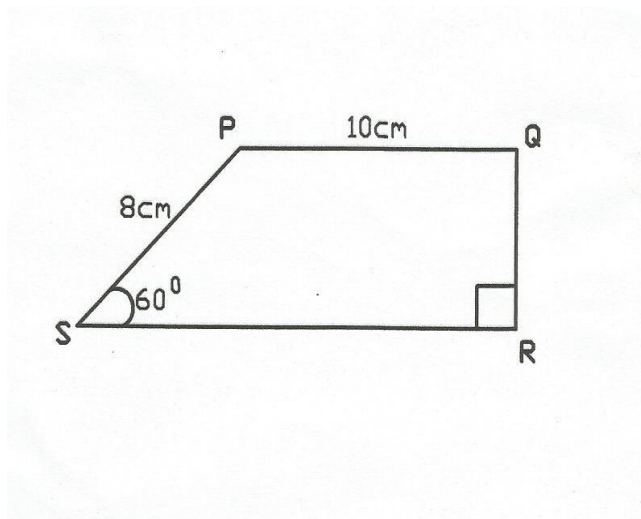
$\angle TVS = 90^\circ$  (vertically opposite angles) Ans. = B

12.



$PN = NQ$  Ans. D

13.



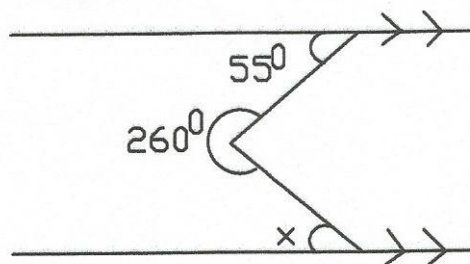
$\cos 60^\circ = \frac{x}{8}$ ;  $x = 8 \cos 60^\circ = 4$

Since  $SR = x + 10\text{cm} = SR = 4 + 10 = 14\text{cm}$  Ans. = B

14. For parallelism  $m_1 = m_2$  (where  $m = \frac{y_2 - y_1}{x_2 - x_1}$ )  $\frac{2-9}{3-1} = \frac{2q-4}{5-3}$ ;  $4, 2Q =$

$4, 2q = 4q - 8$ ;  $6 = 12$ ;  $q = 2$  Ans. = C

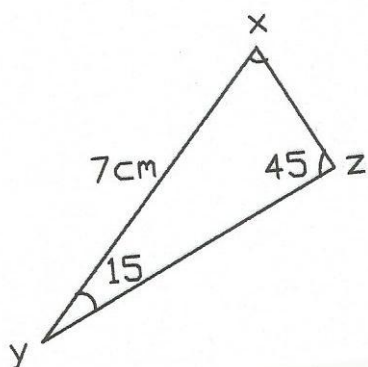
15.



$$TUV = 55^\circ \text{ (alternate angles)}$$

$$WUV = 360 - (260 + 55) \text{ (angles at a point)} = 45^\circ = x = 45^\circ \text{ (alternate angles) Ans. = A}$$

16.



$$YXZ = 180 - (45 + 15) \text{ (angles in a } \Delta) = 120; \text{ using sine formula: } \frac{\square\square}{\sin 120} = \frac{7}{\sin 45} \text{ cross multiply; } yz = \frac{7\sqrt{3}/2}{1/\sqrt{2}} = yz = 7\sqrt{6}/2 \text{ Ans. D}$$

$$17. \text{ Mode } (m) = 4; n(\text{students scored 4 or more}) = 33, (n, m) = (33, 4) \text{ Ans. = B}$$

$$18. {}^{n+c}C_3 = 4({}^nC_3) \quad {}^{n+1}C_3 = \frac{(\square+1)(\square)(\square-1)(\square-2)(\square-3)}{(\square+1-3)!3!} =$$

$$\frac{(\square+1)(\square)(\square-1)}{6} = \text{(i)}$$

$$4{}^nC_3 = 4 \frac{[(\square-1)(\square-2)(\square-3)]}{(\square-3)!3!} = 4 \frac{[\square(\square-1)(\square-2)]}{6} = \text{(ii)}$$

$$\text{Equating (i) (ii) } \frac{[(\square+1)(\square)(\square-1)]}{6} = 4 \frac{[\square(\square-1)(\square-2)]}{6} = n+1 = 4(n-2); n+1 = 4n-8-3n = 9;$$

$$n=3$$

Ans. C

19. English and Health Education

$$52 + 35 = 88; \frac{88}{160} \times 100 = 55\% \text{ Ans.} = B$$

$$20. \text{Total} = 5+4+x = 9+x; \text{pr (R)} = \frac{x}{9} + x = \frac{2}{5}, 5x = 18+2x; 3x=18; x = 6 \text{ Ans. A}$$

$$21. \text{Total } 20; \text{pr (GTN)} = \frac{5}{20}, \text{pr (QTEL)} = \frac{3}{20}, \text{pr (GTN or QTEL)} = \frac{5}{20} + \frac{3}{20} = \frac{2}{5} \text{ Ans.} \\ = A$$

$$22. \text{If school fee is } 90^0, \text{ then transport} = 45^0 \text{ also, if Housing} = x \text{ and food} = 2x \text{ then } x + \\ 2x + 45 + 90 = 360^0, 3x = 360-135; 3x = 225; x = 75^0, 2x = 150^0$$

$$\text{Amount on food} = \frac{150}{360} \times \frac{3000}{1} = \$12,500 \text{ Ans.} = C$$

$$23. 2x, 2x-1, 2x+1 = \text{numbers } 0, 1, -1 \text{ of } 2x \text{ thus the variance of } 0, 1, -1.$$

$$X^2 = 0^2 + 1^2 + (-1)^2 = 0 + 1 + 1 = 2, x = 0 + 1 + (-1) = 0 + 1 - 1 = 0$$

$$\text{Variance } \sum \frac{x^2}{N} - \left( \frac{\sum x}{N} \right)^2 = \frac{2}{3} - \left( \frac{0}{3} \right)^2 = \frac{2}{3} \text{ Ans.} = D$$

$$24. \text{Let the first integer be } x_1 \text{ then } \frac{x_1 + (x_1+1) + (x_1+2) + (x_1+3) + (x_1+4)}{5} = 30$$

$$5x = 10 = 150; 5x = 140; x = 2. \text{ The largest number } -x + 4 = 28 + 4 = 32 \text{ Ans.} = D$$

$$25. {}^5C_4 = \frac{6!}{4! 2!} = 15 \text{ Ans.} = C$$

$$26. \$540 - 6m; x - 9m, x = 9 \times 540\% = \$810 \text{ Ans.} = B$$

$$27. a = 3 \text{ (first term), } r = -2, \text{ s n} = 1 - 2^8, n = ? S_n = \frac{a(1 - r^n)(1 - h)}{1 - r} \quad 1 - 2^8 = 3 \frac{[1 - (-2^n)]}{1 - (-2)}; -$$

$$255 = \frac{3[1 - (-2^n)]}{3} = -255 - 1 = -2^n; -256 = -2^n; 2^8 = 2^n, n = 8 \text{ Ans.} = C$$

28.B

$$29. F(x-a) = ( \text{where R is the remainder} ) 2x + 1, f\left(-\frac{1}{2}\right) = R = 2; Kx^3 + x^2 - 5x - 2$$

$$k\left(-\frac{1}{2}\right)^3 + \left(-\frac{1}{2}\right)^2 - 5\left(-\frac{1}{2}\right) - 2 = 2, \frac{k}{8} + \frac{1}{4} + \frac{5}{2} = 4; -\frac{k}{8} = \frac{11}{4} = \frac{5}{4},$$

$$\frac{k}{8} = \frac{5}{4} = -4k = 40; k = -10 \text{ Ans.} = B$$

$$30. \frac{x+4}{3} - \frac{x-3}{2} < 4$$

Multiply both sides by the LCM (6)

$$2(x+4) - 3(x-3) < 6(4); 2x + 8 - 3x + 9 < 24 - x < 24 - 17; = x > -7 \text{ Ans.} = D$$

$$31. \frac{2.81 \times 10^{-3} \times 1.063}{5.637 \times 16 \times 10^{-2}} \text{ reducing each number to two significant figures. And leaving your}$$

$$\text{answer in 2 significant figure} = \frac{2.8 \times 10^{-3} \times 1.1}{5.6 \times 10^{-2}} = \frac{1.1 \times 10^{-1}}{2} = \frac{0.11}{2} = 0.055 \text{ Ans.} B$$

32. If  $x = 1$  then  $(x-1)$  is one of the factors

$$\frac{x^2 - x - 6}{x^3 - 2x^2 - 5x + 6} = \frac{-x^3 - x^2}{-x^2 - 5x} = -\frac{-x^2 + x}{-6x + 6}$$

Factorise  $x^2 - x - 6 = (x + 2)(x - 3)$ , the factors are  $(x-1)(x+2)(x-3)$ . The roots are 1, -2, 3

Ans. = B

$$33. X^2 - X - 12 \geq; (X^2 - 4X) + (3X - 12) \geq 0; (X-4)(X+3) \geq 0 \text{ putting } X = 2,$$

the smaller is  $(X-4)$ ,  $X-4 \geq 0$  and  $X \leq 0$ ,  $X \geq 4$  and  $\leq -3$ ;  $X \leq -3$  or  $X \geq 4$  Ans. = A

$$34. X * Y = \frac{x-y}{2xy}; -5 * 3 = \frac{(-5)^2 - 3^2}{2(-5)(3)} = \frac{25-9}{-30} = \frac{16}{-30} = -\frac{8}{15} \text{ Ans.} = C$$

$$35. T = 3 \times \frac{1}{g}; \text{ divide both sides by } 2 \times$$

$$T \times 2 = \sqrt{1/g}; \text{ squaring both sides}$$

$$(T \times 2)^2 = 1/g; \text{ cross multiply } g = 4 \times \frac{1}{T^2} \text{ Ans.} = D$$

36. C

$$37. \binom{2 \times 8}{3-5 \times} = \binom{1}{2} \binom{24}{-17}, \binom{2 \times 2 + 8 \times 1}{3 \times 1 + 2 \times (-5 \times)} = \binom{24}{-17} = \binom{4 \times 8}{3-10 \times} = \binom{24}{-17}$$

$$4p+8=24; 4p=16, 3-10q=-17, -10q=-20; q=2; (p, q) = (4, 2) \text{ Ans.} = C$$

$$38. p \propto 1/q^3; q \propto r^2; p = k/q^3; q = k/r^2, q = 3\sqrt{(k/p)}; q = kr^2; k/p = (kr^2)^3 = k^3 r^6 / p = k^2 r^2,$$

P varies inversely as  $r^6$  Ans. = A

$$39. \text{ Let } 20^{-1} \text{ be the inverse of } 20, 20 \otimes 20^{-1} = 6; \text{ then, } \frac{20(20^{-1})}{6} = \frac{6}{1}$$

$$20(20^+) = 36; 20^{-1} = \frac{36}{20} = \frac{9}{5}. \text{ The inverse of } 20 = \frac{9}{5} \text{ Ans.} = B$$

40.  $m:n=13:11$ ;  $m^2-n^2:(m+n)^2$ ,  $(m+n)(m+n)^2$  (common factors  $m+n$ )

$(m-n):(m+n); (13-11):(13+11)$

$2:24 = 1:12$  Ans. A

41.  $2232_4(2 \times 4^3) + (2 \times 4^2) + (3 \times 4^1)(3 \times 4^0) = 128 + 32 + 12 + 2$

$$\begin{array}{r|l} 6 & 174 \\ \hline 6 & 29 \text{ r}0 \\ \hline 6 & 4 \text{ r}5 \\ \hline & 0 \text{ r}4 \end{array}$$

$= 450_6 = 2234_4 = 450_6 = D$

42.  $\log a (3^{-4} \times 9^2 \times 81^{-1}) = \log a \left( \frac{1}{81} \times \frac{81}{1} \times \frac{1}{81} \right)$

$\log a 9^2 = 2 \log a 9 = 2$  Ans. =D

44. C

45.  $1/(25)^{1/2} \times \sqrt[3]{27} + 1(21)^{1/2} \times 1(625)^{1/4} = \frac{1}{5} \times 3 + \frac{1}{11} \times \frac{1}{15} = \frac{3}{5} + \frac{1}{55} = \frac{34}{55}$  Ans. = D

46. Amount = A = #5500; Rate = R = 2%; Time = T = 5 years, but  $A = P + 1$ , from  $1 =$

$\frac{\square\square\square}{100}; \frac{100\square}{\square\square+100} \frac{100 \times \#5500}{2 \times 5 + 100} = \frac{\#55\square\square\square}{11\square} = \#5000$  Ans. = A

46. Cost of purchase = #250,000; cost of refurbishing = #70,000;

Total cost incurred = #400,000.00; selling price = #400,000.00, profit = S.P. - C.P. =  
 $\#400,000.00 - \#320,000 = \#80,000.00$  P%  $\frac{\square\square\square\square\square}{\square.\square} \times \frac{100}{1} \% = \frac{80,000}{320,000} \times \frac{1\square\square}{1} \% =$   
 $25\% \square\square\square.\square$

47.  $21.05347 - 1.6324 \times 0.43 = 21.051538; = 20.352$  Ans. B

$$48. \frac{(0.14)^2 \times 0.275}{7(0.02)} = \frac{0.14 \times 0.14 \times 0.275}{7(0.02)} = 0.14 \times 0.275 = 0.0385 \cong 0.39 \square\square\square.\square$$

$$49. 3\sqrt{(64\square)^3}^{-1} = \frac{l}{\sqrt[3]{64\square^3}} = \frac{l}{4\square} \text{ Ans. C}$$

$$50. r = \frac{\square\square}{360} = \frac{72 \times 300}{360} = 6\text{cm Ans. A}$$

## **APPENDIX VI**

### **SOLUTION TO ENGLISH LANGUAGE ACHIEVEMENT TEST (ELAT)**

1. C, 2.D, 3.C, 4.D, 5.B, 6.C, 7.D, 8.D, 9.B, 10.C, 11.D, 12.B, 13.A, 14.D, 15.C,  
16.D, 17.B, 18.D, 19.D, 20.A, 21.B, 22.C, 23.A, 24.A, 25.D, 26.C, 27.C, 28.A, 29.B,  
30.D, 31.D, 32.C, 33.B, 34.A, 35.D, 36.B, 37.A, 38.B, 39.C, 40.C, 41.B, 42.A, 43.A,  
44.D, 45.A, 46.A, 47.D, 48D, 49.C, 50.C.

## APPENDIX VII

### Reliability

Scale: ALL VARIABLES

#### Case Processing Summary

|       |                       | N  | %     |
|-------|-----------------------|----|-------|
| Cases | Valid                 | 40 | 100.0 |
|       | Excluded <sup>a</sup> | 0  | .0    |
|       | Total                 | 40 | 100.0 |

a. List wise deletion based on all variables in the procedure.

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|----------------------------------------------|------------|
| .891             | .894                                         | 20         |

### Item Statistics

|                                                                                                           | Mean   | Std. Deviation | N  |
|-----------------------------------------------------------------------------------------------------------|--------|----------------|----|
| no matter how much energy I put into a task feel I have no control over the outcome                       | 2.0500 | .63851         | 40 |
| I feel that I am not able to solve problems even if I try                                                 | 2.1500 | .69982         | 40 |
| I cannot find solutions to difficult problems                                                             | 2.1000 | .70892         | 40 |
| Failure gives me new opportunity                                                                          | 2.1250 | .64798         | 40 |
| if I complete a task successfully it is probably because I was lucky                                      | 2.1750 | .74722         | 40 |
| I do not have the ability to solve most of life problem                                                   | 2.1000 | .81019         | 40 |
| when I do not succeed at a task I don't attempt any similar tasks because I feel that I will fail again   | 2.1250 | .79057         | 40 |
| when something doesn't turn out the way I planned I know it is because I didn't have the ability to do it | 2.3250 | .76418         | 40 |
| other people have more control over their success and or failure than I do                                | 2.2750 | .81610         | 40 |
| I do not try a new task if I have failed similar task before                                              | 2.1000 | .90014         | 40 |

|                                                                                      |        |         |    |
|--------------------------------------------------------------------------------------|--------|---------|----|
| when I perform poorly it is because I don't have the ability to perform better       | 2.0000 | .84732  | 40 |
| I do not accept a task that I do not think I can succeed in                          | 2.0750 | .82858  | 40 |
| I feel that I have little control over the outcome of my work                        | 2.0500 | .78283  | 40 |
| I am unsuccessful at must tasks I try                                                | 1.9750 | .69752  | 40 |
| I feel that anyone else could do better than me in must tasks                        | 2.1000 | .77790  | 40 |
| when I don't succeed at a task I find myself blaming my own stupidity for my failure | 2.2250 | .86194  | 40 |
| i am unable to reach my goals in life                                                | 2.2250 | .83166  | 40 |
| no matter how hard I try things never seem to work out the way I want them to        | 2.1750 | .87376  | 40 |
| I feel that my success reflects chance not my ability                                | 2.1250 | 1.01748 | 40 |
| my behaviour does not seem to influence the success of a work group                  | 2.0750 | .91672  | 40 |

### Summary Item Statistics

|               | Mean  | Minimum | Maximum | Range | Maximum /<br>Minimum | Variance | N of<br>Items |
|---------------|-------|---------|---------|-------|----------------------|----------|---------------|
| Item<br>Means | 2.128 | 1.975   | 2.325   | .350  | 1.177                | .008     | 20            |

### Mean Academic performance first and second test

| S/NO | X             | Y             | X <sup>2</sup>    | Y <sup>2</sup>    | XY               |
|------|---------------|---------------|-------------------|-------------------|------------------|
| 1    | 62            | 72            | 3844              | 5184              | 4464             |
| 2    | 72            | 69            | 5184              | 4761              | 4968             |
| 3    | 81            | 74            | 6561              | 5476              | 5994             |
| 4    | 73            | 64            | 5329              | 4096              | 4672             |
| 5    | 79            | 62            | 6241              | 3844              | 4898             |
| 6    | 83            | 61            | 6889              | 3721              | 5063             |
| 7    | 46            | 69            | 2116              | 4761              | 3174             |
| 8    | 39            | 63            | 1521              | 3969              | 2457             |
| 9    | 52            | 56            | 2704              | 3136              | 2912             |
| 10   | 62            | 86            | 3844              | 7396              | 5332             |
| 11   | 74            | 74            | 5476              | 5476              | 5476             |
| 12   | 81            | 60            | 6561              | 3600              | 4860             |
| 13   | 93            | 75            | 8649              | 5625              | 6975             |
| 14   | 80            | 74            | 6400              | 5476              | 5920             |
| 15   | 72            | 92            | 5184              | 8464              | 6624             |
| 16   | 80            | 65            | 6400              | 4225              | 5200             |
| 17   | 89            | 100           | 7921              | 10000             | 8900             |
| 18   | 68            | 73            | 4624              | 5329              | 4964             |
| 19   | 63            | 73            | 3969              | 5329              | 4599             |
| 20   | 65            | 98            | 4225              | 9604              | 6370             |
| 21   | 66            | 72            | 4356              | 5184              | 4752             |
| 22   | 61            | 60            | 3721              | 3600              | 3660             |
| 23   | 52            | 50            | 2704              | 2500              | 2600             |
| 24   | 38            | 1332          | 1444              | 1387              | 37               |
| 25   | 60            | 3844          | 3600              | 3720              | 62               |
| 26   | 72            | 5329          | 5184              | 5256              | 73               |
| 27   | 51            | 2352          | 2601              | 2474              | 49               |
| 28   | 58            | 3364          | 3364              | 3364              | 58               |
| 29   | 60            | 3364          | 3600              | 3480              | 58               |
| 30   | 67            | 4356          | 4489              | 4422              | 66               |
| 31   | 47            | 2116          | 2209              | 2162              | 46               |
| 32   | 47            | 2116          | 2209              | 2162              | 46               |
| 33   | 70            | 5041          | 4900              | 4970              | 71               |
| 34   | 46            | 1892          | 2116              | 2001              | 44               |
| 35   | 52            | 2601          | 2704              | 2652              | 51               |
| 36   | 43            | 1764          | 1849              | 1806              | 42               |
| 37   | 69            | 4761          | 4761              | 4761              | 69               |
| 38   | 61            | 3844          | 3721              | 3782              | 62               |
| 39   | 54            | 2704          | 2916              | 2808              | 52               |
| 40   | 65            | 3844          | 4225              | 4030              | 62               |
| N=40 | $\sum X=2319$ | $\sum Y=2351$ | $\sum X^2=140469$ | $\sum Y^2=143727$ | $\sum XY=142057$ |

**Note: x and y are first and second tests scores for early child hood education pupils**

### (Statistics for finding reliability)

Pearson Product Moment Correlation computed for the Reliability index for the instrument used in the pilot study of the research.

The formula for Pearson Product Moment Correlation is given below:

$$R = \frac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{(N(\sum x^2) - (\sum x)^2)(N(\sum y^2) - (\sum y)^2)}}$$

N=Number of respondents

X is test scores at first administration

Y is test scores at second administration

$\sum x$  is scores at first administration is summed

$\sum y$  is scores at second administration is summed

$\sum x^2$  is scores at first administration is squared and summed

$\sum y^2$  is scores at second administration is squared and summed

$(\sum x)^2$  is scores at first administration is summed and squared

$(\sum y)^2$  is scores at second administration is summed and squared

Where

|      |               |               |                   |                   |                  |
|------|---------------|---------------|-------------------|-------------------|------------------|
| N=40 | $\sum X=2319$ | $\sum Y=2351$ | $\sum X^2=140469$ | $\sum Y^2=143727$ | $\sum XY=142057$ |
|------|---------------|---------------|-------------------|-------------------|------------------|

Pearson Product Moment Correlation formula is:

$$r = \frac{N(\sum xy) - (\sum x)(\sum y)}{\sqrt{(N(\sum x^2) - (\sum x)^2)(N(\sum y^2) - (\sum y)^2)}}$$

$$= \frac{40*142057 - 2319*2351}{\sqrt{(40*(140469) - (2319)^2)(40*(143727) - (2351)^2)}}$$

$$= \frac{40*(140469) - 40*143727 - (143727)^2}{\sqrt{(40*(140469) - (2319)^2)(40*(143727) - (2351)^2)}}$$

$$=.657$$

$$r=.66$$

## APPENDIX VIII

### PEARSON PRODUCT MOMENT CORRELATION ANALYSIS ON LEARNED HELPLESSNESS AND ACADEMIC PERFORMANCE OF SENIOR SECONDARY SCHOOL STUDENTS

#### Descriptive Statistics

|                      | Mean     | Std. Deviation | N   |
|----------------------|----------|----------------|-----|
| LEARNED HELPLESSNESS | 37.6207  | 11.42605       | 290 |
| ACADEMIC PERFORMANCE | 114.6759 | 25.05189       | 290 |

#### Correlations

|                         |                     | LEARNED<br>HELPLESSNESS | ACADEMIC<br>P.PERFORMANCE |
|-------------------------|---------------------|-------------------------|---------------------------|
| LEARNED<br>HELPLESSNESS | Pearson Correlation | 1                       | -.550**                   |
|                         | Sig. (2-tailed)     |                         | .000                      |
|                         | N                   | 290                     | 290                       |
| ACADEMIC<br>PERFORMANCE | Pearson Correlation | -.550**                 | 1                         |
|                         | Sig. (2-tailed)     | .000                    |                           |
|                         | N                   | 290                     | 290                       |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## APPENDIX IX

### PEARSON PRODUCT MOMENT CORRELATION ANALYSIS ON ACADEMIC PERFORMANCE AND HOME BACKGROUND OF SENIOR SECONDARY SCHOOL STUDENTS

#### Descriptive Statistics

|                      | Mean     | Std. Deviation | N   |
|----------------------|----------|----------------|-----|
| Home Background      | 25.2586  | 4.49667        | 290 |
| Academic Performance | 114.6759 | 25.05189       | 290 |

#### Correlations

|                      |                     | Home Background | Academic Performance |
|----------------------|---------------------|-----------------|----------------------|
| Home Background      | Pearson Correlation | 1               | .465**               |
|                      | Sig. (2-tailed)     |                 | .005                 |
|                      | N                   | 290             | 290                  |
| Academic Performance | Pearson Correlation | .465**          | 1                    |
|                      | Sig. (2-tailed)     | .005            |                      |
|                      | N                   | 290             | 290                  |

\*\*. Correlation is significant at the 0.01 level (2-tailed).

## APPENDIX X

### PEARSON PRODUCT MOMENT CORRELATION (PPMC) STATISTICS ON THE RELATIONSHIP BETWEEN HOME BACKGROUND AND THE LEARNED HELPLESSNESS

#### Descriptive Statistics

|                      | Mean    | Std. Deviation | N   |
|----------------------|---------|----------------|-----|
| Home Background      | 25.2586 | 4.49667        | 290 |
| Learned Helplessness | 37.6207 | 11.42605       | 290 |

#### Correlations

|                      |                     | Home Background | Learned Helplessness |
|----------------------|---------------------|-----------------|----------------------|
| Home Background      | Pearson Correlation | 1               | .540**               |
|                      | Sig. (2-tailed)     |                 | .000                 |
|                      | N                   | 290             | 290                  |
| Learned Helplessness | Pearson Correlation | .540**          | 1                    |
|                      | Sig. (2-tailed)     | .000            |                      |
|                      | N                   | 290             | 290                  |

\*\* . Correlation is significant at the 0.01 level (2-tailed).