ANXIETY, SELF CONCEPT, MOTIVATION AND ACADEMIC PERFORMANCE OF PUBLIC SECONDARY SCHOOL STUDENTS IN DELTA CENTRAL SENATORIAL DISTRICT

BY

OKOH, Augustine Okiemute
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CERTIFICATION

We, the undersigned hereby certify that this work has been carried out by **Okoh,** Augustine Okiemute, for the award of Masters of Education (M.ED) degree in the Department of Guidance and Counselling, Faculty of Education, Delta State University, Abraka.

Rev. Fr. (Dr) J. Obiunu *Supervisor*	**Date**
Dr. P. U. Osadebe *Head of Department*	**Date**
Prof. E. P. Oghuvbu *Dean, Faculty of Education*	**Date**

DECLARATION

I hereby declare that this is an original work written by me, **Okoh** Augustine Okiemute, in the Department of Guidance and Counselling, Delta State University, Abraka.

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A.O. OKOH **Date**
Student

DEDICATION

This study is dedicated to God Almighty, in a special way for giving me the grace and the enablement to complete this dissertation.

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ABSTRACT

The purpose of the study was aimed at examining the relationship between anxiety, self concept, motivation and academic performance of public secondary school students in Delta Central Senatorial District of Delta State. The population of the study was made up of 11,069 SS1 students in 81 public secondary schools. Specifically, the sample size is 240 selected from six sampled secondary schools from three Local Government Areas. Six research questions were raised, and six hypotheses were formulated. Correlation design was used for the study. The data collected were analysed using inferential statistics, that is, regression and multivariate analysis. The result of the data analysed revealed that there was a significant negative relationship between anxiety and academic performance of students. There was also a significant positive relationship between self concept and academic performance of students in public secondary schools, there is no significant relationship between motivation and academic performance, there is any significant effect of gender in anxiety, self-concept, motivation and academic performance. Another finding is that location has a significant effect on student's anxiety and academic performance. The study revealed that students in rural schools exhibited anxiety more than students in urban area, while students in urban area had better academic performance than students from rural secondary schools. Therefore, students with higher level of anxiety must be identified and treated in order to increase their academic performance. Teachers in rural schools should be trained on how to help reduce anxiety in rural schools. Parents and educational administrators should be able to help students manage anxiety through the uses of cognitive, affective and psychomotor strategies. Providing, conducive area of learning will be a motivating factor for students. Examination and continuous assessment should be well planned by putting the students into consideration for the purpose of higher academic performance. Also, it will serve as useful information to teachers' and enhance their effectiveness in class as it helps them see the reasons for the poor academic performance of most students.

CHAPTER ONE
INTRODUCTION

Background to the Study

The goal of education is the total development of the individual as enshrined in the national policy on education. One of the means of measuring this educational performance of the student is indicated by the outcome of assessment of such a student. Over the years in Nigeria, it has been observed that the level of academic performance of our secondary school students has been on the decline especially in the public secondary schools. This observation affects the realization of the goal of education as stated in the National Policy on Education. A lot of factors may be responsible for this which may include student internal factors such as anxiety and self concept, and external factors like motivation, learning environment. The extent to which these factors are managed by teachers and other professionals in the field of education, will determine the extent to which the purpose of education is realised in the life of students of public secondary schools.

Anxiety is an aspect of emotions in which there is fear and uncertainty about the future. Anxiety may be defined as an unpleasant sensation that is usually experienced as feelings of apprehension and general irritability accompanied by restlessness, fatigue and various somatic symptoms such as headaches and stomach ache. The introduction of test anxiety has been used for some time past to describe the behaviour and emotions of students who find preparing for and taking test stressful. Hence Elliot, Kratochwill, Cook, and Travers, (2000) state that test anxiety is generated by learners while planning for and taking test. An anxious child, therefore, is the one who is unduly concerned about not understanding what his teacher is saying or what is expected of him, who normally experiences tension when called upon to answer questions and who suffers acute distress before and during school examinations (Cohon, 1982).

However, not all anxieties are noxious. Some anxieties are natural, rational and useful in leading a person to deal constructively with the cause of his fears. Chauhan (1981) states that, when the amount of anxiety becomes misappropriated to the situations, and persist for a longer period of time, such would be referred to as neurotic anxiety. It is against this backdrop that some educationists consider that slight anxiety in the classroom is useful in motivating learning. Anxiety caused by

fear of the teacher, and of being in a strong room for examination will tend to act as an inhibitor of child's activity. Furthermore, school failures causing emotionality could lead some adolescents to commit suicide, leave home and even drop out of school.

According to Eysenck and Nazanin, (1982) the effect of anxiety on academic performance is not always obvious but new research found that anxious individual find it harder to avoid distractions and take more time to turn their attention from one task to the next than their less anxious peers. The researchers, Eysenck and Nazanin (1982), designed several experiments to explore the effects of anxiety on our ability to perform tasks such as avoiding distractions on a computer screen, when reading a story, or solving a series of simple mathematics problems. According to Eysenck (1982), these findings have clear practical implications in the classroom that a lot of the negative effects of anxiety appear to be caused by difficulties with controlling attention. This suggests that training techniques designed to enhance intentional control - the ability to ignore distractions and to switch attention from one task to another - could help anxious students to achieve their academic potential (Eysenck, 1982).

Self-concept can be seen as self perception. Competence involves a combination of what we would like to achieve, making the competence a component of a child's self-esteem (Harter, 1988). Academic self-concept is the part of self esteem involving children's perception of their academic abilities. Self-concept can be high or low. Low self-concept can have negative impact on academic performance, while high self-concept can positively affect academic performance. The researchers concern in this study is low self-concept, student with low self-concept sees themselves as having; low ability, poor ability, not competent, relying on the rating of people, failure, lack basic school needs, rejection and guilt.

Changes in self-concept can be mediated and predicted by various factors. One important factor in academics is evaluation of performance by peers, or Peer Academic Reputation (PAR). If a student has a reputation for success or failure in the academic setting, the student may develop a negative self-concept. This shows that it may not only be the actual success or failure that has an effect, but may also be the secondary effects of poor academic reputation among that influence student's self-concept.

According to Berger (2005), author of the developing person, guilt plays a significant role in shaping a young child's self-concept. As an example, she describes a child that is coddled at home, and his/her socially unacceptable behaviour is never thwarted by parent(s). When the child is denied whatever they want from another child, he/she strikes out towards other children, not understanding that there will be consequences and possible retaliation. If this kind of behaviour were to occur in classroom environment, a teacher could use guilt in an attempt to shape the spoilt child's self concept by reminding the student that hitting others is not acceptable in most social situations. In essence, guilt shapes behaviour. Berger (2005) goes on to explain that most children over the age of five have some sense of the rules and regulations that govern social behaviour that they learn from a guardian, thus shaping their self-concept without using guilt. In some cases, if maladaptive behaviour is left unchecked, the seeds bullying could start to germinate.

Motivation is the combination of a person's desire and energy directed at achieving a goal. It is the cause of action. It can be intrinsic, such as satisfaction and feelings of achievement, or extrinsic, such as rewards, punishment and goal obtainment. Not all people are motivated by the same thing and over time their motivations might change.

According to Mathis and Jackson (1982) motivation is an emotion or desire operating on a person's will and causing that person to act. Holy and Miskel (1987) defined motivation as the complex forces, drives, needs, tension states or other mechanisms that start and maintain voluntary activity directed towards the achievement of personal goals.

Peretomode (2006) thus summarized motivation thus:

1. It involves purposive, designated or goal directed behaviour
2. It has to do with what starts and energizes human behaviour, how it is directed and sustained.
3. It is related not only to behaviour but also to performance.
4. It involves certain forces acting on or within a person (to initiate and direct behaviour)

Educators across the country are frustrated with the challenge of how to motivate the ever increasing number of fresh students entering colleges who are psychologically, socially, and academically unprepared for the demand of college life. Such students often exhibit maladaptive behaviour such as tardiness, hostility towards

authority, and unrealistic aspirations. The standard approach is to address the problem as an academic issue through remedial or development instruction. There are various ways how students can be motivated that can affect academic performance positively their goals which could either intrinsic or extrinsic. Intrinsic when the interest is from within while extrinsic is when there is a reward. Career, family value, peer group, society and instruction also play important role in students' academic performance.

Developmental education programmes however do not address the whole problem. Lack of motivation is not limited to the academically weak students. Successful remedial and study strategies courses aimed at the under prepared student have demonstrated that students who really wants to improve their skills can do when motivated. However, even the best remedial instruction programmes have failed to positively impact the student who is both a lack of academic skills and lack motivation, the greater problem is motivation (Kelly, 1988). Student performance is measured through different means. Moreover, individual characteristics such as intelligence, cognitive styles and personality play important roles in learning. Research findings have also shown that individual students' characterizes variables such as motivational orientation, self-esteem or self-concept, anxiety and learning approaches are important factors influencing academic performance.

Societies all over the world have used education as an instrument for the achievement of their national interests and objectives. Education is an instrument par excellence for effecting national development. It fosters the worth and development of the individual, for the individual's sake and for the general development of the society (Federal Government of Nigeria, 2001). All these call for functional education for the promotion of a progressive and united country. Hence, there is every need to detect and improve on any set back in our secondary school educational system.

Students, who lack level of academic motivation, exhibit a weak drive towards the pursuit of academic goals. Such students manifest signs and symptoms of indifference and apathy towards school. Majority of students, if not all are those who are involved in examination malpractices. Harter (1988) in his studies on examining feelings of competence reported that children who viewed themselves as academically skilled are more motivated to succeed and have high academic performance.

It is on this background that the researcher is seeking to know how anxiety, self concept and motivation relate to academic performance of secondary school students.

Statement of the Problem

There is an increasing public outcry of students' poor academic performance in our school system especially the secondary schools. One sign of this phenomenon is the inability of students to cope effectively with higher educational task when offered admission into the tertiary institutions. Many factors may be responsible for this situation. However the influence of anxiety, self concept, and motivation has been silent issues when issues of academic performance of secondary school students are discussed.

An anxious individual is usually unstable to comprehend any information passed across to him or her and if this (anxiety) happens to a learner, he or she cannot comprehend any information passed to him or her by the teacher. Test and academic performance anxiety can as well affect the comprehension of test questions. Self concept of students in academic performance is another factor that has been observed to affect their academic performance of secondary school students. While anxiety plays a major role in the distraction of the learner, self-context gives a perception of the individual to his ability and inability, but motivation can help re-organise the learner and put him/her together for the task ahead. If a learner is motivated, there is the tendency that he/she will be relieved of many fears that can lead to failure and in-turn put the learner into doing what is expected of him or her.

Apart from the problem above, there are many factors that influence students' academic performances. The factors among others includes: intelligence, creativity, attitude, memory, emotion, learner's age, sex, social background, study habit, interest, self esteem, frustration, tension, anxiety, motivation and others. Many research studies seem to have been carried out on the above factors. Thus the researcher finds it pertinent to study the effect of anxiety, self concept and motivation on academic performance of students'.

The statement of problem therefore put into question form is: is there significant relationship among anxiety, self-concept, motivation variables such as gender and location of school on academic performance of secondary school students?

Research Questions

The study seeks answers to the following research questions

1. What is the extent of relationship between anxiety and academic performance of students in public secondary schools?

2. What is the extent of relationship between, self concept and academic performance of students in public secondary schools?
3. What is the extent of relationship between motivation and academic performance of students in public secondary schools?
4. What is the extent of relationship between anxiety, self-concept, motivation and academic performance of students of public secondary school?
5. What is the extent of relationship between gender and academic performance of student in public secondary schools?
6. What is the extent of relationship between location and academic performance of student in public secondary school?

Hypotheses

The following null hypotheses were formulated to guide the study.

Ho_1 There is no significant relationship between anxiety and the academic performance of students in public secondary schools.

Ho_2 There is no significant relationship between self concept and the academic performance of students in public secondary schools.

Ho_3 There is no significant relationship between motivation and the academic performance of students in public secondary schools.

Ho_4 There is no significant relationship between anxiety, self-concept, motivation and academic performance of students in public secondary schools.

Ho_5 There is no significant relationship between gender and academic performance of student in public secondary schools.

Ho_6 There is no significant relationship between Location and academic performance of student in public secondary schools.

Purpose of the study

The main purpose of the study was to investigate the anxiety, self-concept, and motivation as correlates of academic performance of students in public secondary schools in Delta Central Senatorial District. Specifically the study will investigate:

1. The relationship between anxiety and academic performance of students in public secondary schools.
2. The relationship between, self concept and academic performance of students in public secondary schools.
3. The relationship between motivation and academic performance of students in public secondary schools.

4. The relationship between gender and academic performance of students in public secondary schools.
5. The relationship between location and academic performance of students in public secondary school.

Significance of the Study

The study will be of great significance to: students, teachers, school administrator, parents, guidance counsellors, the general public and other researchers.

Students who are the primary beneficiary of the findings of this research will find this study useful, as it will enlighten them on the dangers of anxiety's influence on them and the need to have positive self-concept and motivation. It will also empower them with the necessary skills needed to overcome the pressure from the above variables thereby increasing their academic performance.

Teachers will benefit immensely from this research as it will enlighten them and be a useful tool in handling anxiety problems, identify children with anxiety problems, and also get them to be concerned about ways of reducing the negative variables in school. It will also enlighten them and equip them with the needed skills to get learners motivated in the course of their study and the need to have positive self-concept. Teachers will understand the need to help learners develop positive self concept and reduce anxiety towards academic work.

Administrators of schools will equally benefit from the findings of this study as it will help them to build positive emotional climate of school in order to enhance teaching and learning, thus promoting a congenital school culture and climate. They will find this study helpful as it will make them understand the need for motivation of learners and teachers in the school environment for effective teaching and learning.

The outcome of this study will enlighten parents and make them have thorough knowledge of anxiety, self-concept and motivation and its implications to the growth and development of the learners and the entire school system at large. In addition, the need to encourage their wards to reduce anxiety challenges, develop positive self-concept and motivate them to put in their best in academic pursuit. The need to prepare the child for tomorrow should be paramount in their schedule and not preparing tomorrow for the child. Because if the child is not prepared for tomorrow, he/she will not be able to fit into it as the needed skills will be missing.

This research will equally be of immense benefit to Guidance Counsellors in their bid towards combating poor academic performance in secondary school. Since

they are aware of the different form of anxiety challenges, there is need to identify the students with anxiety challenges, negative self-concept and motivational issues and give them the right treatment, thereby enhancing their academic performance in schools. The findings from this study will also help them in carrying out useful researches that will equip them with new skills of counselling teachers and students on need for academic excellence.

Finally, other researchers in the field of education, sociology, management, psychology and social sciences will find this study useful in carrying out further researches on anxiety, self-concept and motivation in the secondary school setting.

Scope and Delimitation of the Study

This study is delimited to public secondary schools in Delta Central Senatorial District in Delta State, while the scope of the study will cover variables such as; anxiety, self-concept, motivation, gender, location and academic performance.

Operational Definition of Terms

For the sake of clarification for readers and future researchers, the following terms as used in this study have been defined to avoid misinterpretation.

Anxiety: This refers to feeling of lack of confidence, irritability, reduction of self – liking and guilt perceived that make an individual unable to solve one's problems.

Self-concept: Self-Concept refers to the personal beliefs that a learner develops about his/her academic abilities or skills.

Motivation: Motivation can be defined as the internal drive directing behaviour towards some ends.

Academic Performance: This refers to the outcome of learning experiences obtained from test scores.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In this chapter, relevant literature on the variables under investigation was reviewed under the following sub headings:

- Conceptual Model
- Academic Performance and Its Relevance to Education
- Review of Anxiety
- Structure of Self-Concept.
- Components of Motivation to Learning.
- Anxiety and Academic Performance.
- Self concept and Academic Performance.
- Motivation and Academic Performance.
- Gender and Academic Performance
- Location and Academic Performance
- Review of Empirical Studies
- Appraisal of Reviewed Literature

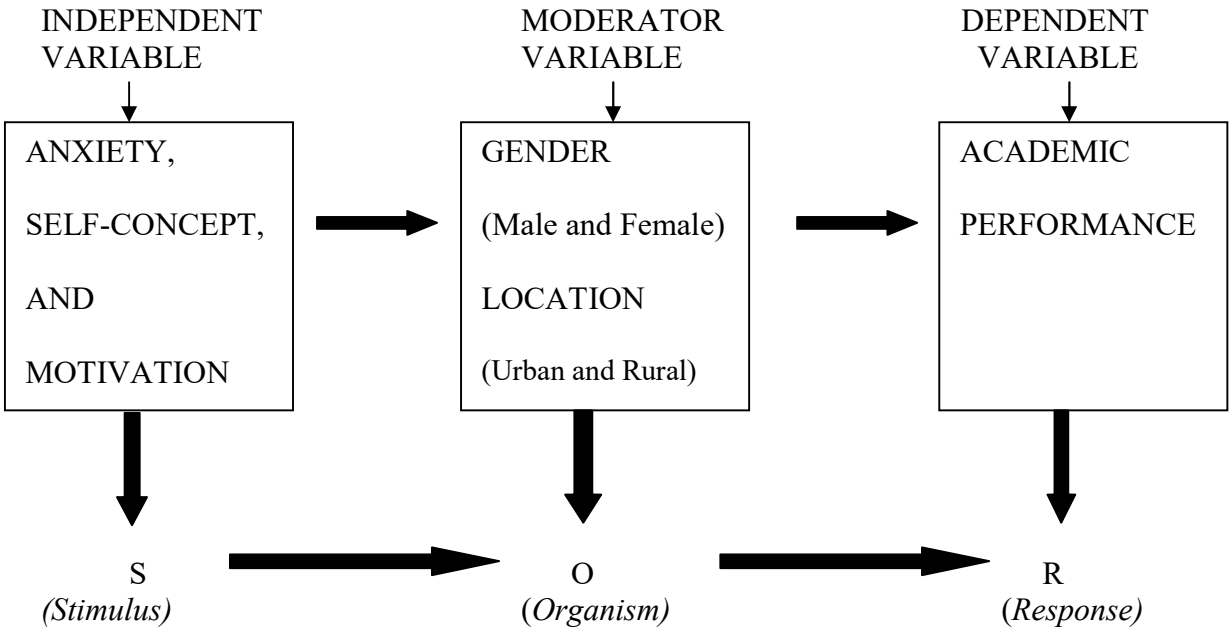
CONCEPTUAL MODEL

The conceptual model is a product of related literature review on the behavioural and psycho analytic and existentialist theory in showing the relationship between the independent variable and the effect on academic performance.

The model is based on Clarke Hull's (1952) learning theory, which shows that the basic unit of learning is a learned link between stimulus and a specific response. In this case, when an individual or organism comes across a stimulus, he retains the trace in the central nervous system just as he retains the trace of the stimulus that evoked the response in form of a behavioural equation. S – O – R means S = represents stimulus, O = represents Organism, that is, the biological and environmental state of the organism and R = represent Response (Ojo, 2002).

In this present study, the S represents the Independent variables which are; Self concept, Anxiety and motivation. The O represent organism (moderating variables of gender and location). Why, R represents the dependent variable (academic performance).

Figure 2.1: A theoretical framework showing the relationship between anxiety, self-concept, motivation and academic performance



Sources: Hull 1952

Academic Performance and Its Relevance to Education

In education, success is measured by academic performance (achievement) or how well a student meets the standard set out by the institution. Jain (2009) defines academic achievement or performance as the marks scored in subject. Academic performance according to the Cambridge University Reporter (2003) is frequently defined in terms of examination performance. Academic achievement refers to what the student have learned or what skills the student has learned and is usually measured through assessments like standardized tests, performance assessments and portfolio assessments (Santrock, 2006). The descriptive assessment information will usually be translated through grading system such as Grade Point Average (GPA) and course grade. This study will make use of Cumulated Grade Point Average (CGPA) since it provides information of the students' academic performance across time. Academic performance, which is measured by the examination results, is one of the major goals of a school. Hoyle, and Miskel, (1987) argued that Nursery 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. The academic deans and the quality assurance committee are concerned about those who do not perform well because if this poor performance goes unchecked, the university may

lose its reputation, which may result in loss of confidence in UCU graduates (Kyoshaba, 2009).

According to Thelma (1998) in her research on variables that associated with academic achievement of African-American identified non-cognitive as one of the main contributor. African-American with high scores on measures of educational aspirations, values (courage, exciting life, cleanliness, imagination, and helpfulness), emotional intelligence, acceptability of mixed dating, self-confidence, satisfaction with academic advising and tutoring, being in control of academic outcomes, preference for long-term goals, academic self-concept, self-esteem, self-concept of ability, specific personality traits (achievement aspirations, affiliation, dominance, endurance, exhibition, harm avoidance, nurturance, order, play, and understanding), favourable opinions of their study habits and relationships with others, and low scores on alienation and reliance on family and institutions to solve social and academic problems, had higher grade-point averages than those with contrasting scores on these variables. According to Egbule (2009), academic achievement is often measured using the following:

Grades: People often consider grades first when evaluating academic achievement. This includes schools, which rank students by their GPA, awarding special designations such as valedictorian and salutatorian for those who graduate first and second in their class. Scholarship organizations and universities also start by looking at grades, as do some employers, especially when hiring recent graduates. Grades carry more weight in some industries, especially technical professions such as law, medicine and finance. Other industries place less importance on GPA, particularly creative professions such as writing or art and occupations such as sales where people skills are more crucial than technical knowledge.

Test Scores: Grades don't always reflect a person's knowledge or intelligence. Some students don't perform well in a classroom setting but are very intelligent and earn high marks on IQ tests, standardized testing or college entrance examinations. Universities and employers consider these scores along with other measurements and may forgive a less-than-perfect GPA for students who perform well on these tests. Some tests, such as the Law School Admission Test (LSAT) and Medical College Admission Test (MCAT), determine if a student is accepted into graduate school. Law firms and medical facilities also place great importance on these scores and may eliminate anyone who scores below a certain number.

Review of Anxiety

The review of anxiety shall be explained under learning theory Learning. Most of the work on anxiety, within the framework of learning theory has been carried out by representative of the human school. While most of their experimental has involved lower animals, the "conditioning" concept of anxiety has been extensively applied to complex human behaviour. Kazdin (1989), showed the role of anxiety for learning theory mainly from this attempt to explain the nature and consequence of punishment. Punishment, he defined as "the presentation of an aversion event or the removal of a positive event following a response that decreases the frequency of that response".

In a serious note Kazdin (1989) mentioned two aspect of punishment:

1. Something aversion (unpleased after a response otherwise called aversion stimulus, e.g. a parent may slap a child who yells at the parent, or teacher may reprimand students who are talking in class
2. Something positive (pleasant) disappear after a response e.g. a child who kicks another youngster which may be sent indoors

Punishment is a consequence that decreases the likelihood of the behaviour that it follows. And at times punishment can produce a number of side effects. Parker and Coiler (1975) in Cohon (1982) gave the following side effect of punishment as:

1. Strong punishment can elicit aggression and other emotional behaviours in children are, including crying, tantrums, and head banging.
2. The individual who delivers the punishment sometimes becomes so closely associated with punishment in general that the child may begin to avoid interaction with that person.
3. It can reduce an entire class of responses sometimes including behaviours that are not a problem e.g. the child who is punished by the teacher for speaking out of turn may react by decreasing the rest of all verbal participation in the class.
4. Punishment is not a good teaching device because it only tells children what they did wrong, not what they should be doing instead.

He concluded that punishment should always be used in combination with reinforcement for the appropriate behaviour we wish the child to display. Even then, it should be used sparingly and preferably as a negative consequence such as removing something desirable rather than a positive consequence such as slapping or spanking.

In another dimension, Kazdin (1989) opined that there are three general categories of punishment; the presentation of aversive events, the withdrawal of positive consequence and consequence based on activity. Nevertheless, there is an avoidance in children and it allows a student to prevent or postpone contact with something aversion. So when an organism avoids a situation, it is through the operation of some mediating mechanisms, precluding the occurrence of noxious or painful event. The nature of these mediating mechanisms, learning theorist, contend, it is what is commonly called fear, phobia or anxiety.

The conditioning models state that previously neutral events or stimulus (the Conditioned Stimulus, (CS), when paired with an Unconditioned Responses (CR) after a suitable number of paring. This conditioned response is what is commonly called fear. Anxiety or fear is viewed as secondary or acquired drive established by classical conditioning. As far as the consequences of conditioned for are concerned, there seems to be some general principle of classical conditioning that Pavlov discovered. According to Kalish (1998) in his review, the principle includes:

- Stimulus generalization which implies the transfer of a trained responses to situation or stimulus conditions other than those in which training has taken place. Meaning that not only a neutral stimulus but other stimuli that are similar become conditioned.
- Discrimination which implies that children do not respond to similar stimuli in an identical manner.
- Extinction which implies that conditioned stimulus gradually loses its power to elicit the responses as a result of no longer being paired with the unconditioned stimulus.

Structure of Self-Concept

Concept is affected by feedback that leads children to attribute failure to insufficient effort, have little effect on their subsequent motivation. Self-concept presupposes but is distinguishable from self-awareness, which is simply an individual's awareness of their self (which, "refers to the extent to which self-knowledge is clearly and confidently defined, internally consistent, and temporarily stable"), and is also more general than self-esteem, which is a function of the purely evaluative element of the self-concept. Self-Concept refers to the personal beliefs someone develops about their academic abilities or skills. A person's develops and evolves as they age. Research by Tiedemann (2000) suggests that begins developing

in early childhood, from age 3 to 5, due to parental/family and early educators' influences. Other research contends that does not develop until age 7 or 8, when children begin evaluating their own academic abilities based on the feedback they receive from parents, teachers and their peers. Due to the variety of social factors that influence one's self concept, developing a positive has been related to peoples' behaviour and emotions in other domains of their life, influencing happiness, self-esteem, and anxiety levels to name a few. Due to the significant impact self concept has on a person's life, fostering positive self-concept development in children should be an important goal of any educational system.

Due to the variety of social factors that influence one, in developing a positive self concept has been related to people's behaviours and emotions in other domains of their life, influencing one's happiness, self-esteem, and anxiety levels to name a few. Due to the significant impact it has on a person's life, fostering positive self-concept development in children should be an important goal of any educational system.

These research findings are important because they have practical implications for parents and teachers. Research by Craven, Marsh, and Debus, (1991) indicates that parents and teachers need to provide children with specific feedback that focuses on their particular skills or expressed abilities in order to affect them positively. Other research suggests that learning opportunities should be conducted in a variety of mixed-ability and like-ability groupings that downplay social comparison because too much of either type of grouping can have adverse effects on children's self concept in the way they view themselves in relation to their peers.

It is important for teachers to understand that they themselves, together with classroom situation, play an important role in the affectivity of students. It is not unusual to hear students say that they would prefer not to attend a class because of the teacher and his/her negative disposition towards them. This attitude of the teacher or the negativity that is experienced in the classroom may affect a student's academic self-concept. As indicated previously, The Shavelson Model defines self-concept as a person's perceptions of himself, formed by environmental experiences, and by significant others (Ahmed & Bruinsma, 2006).

A teacher can be considered as a "significant other" in an academic context, the classroom situation may be defined as an "environmental experience", and both of them may have an influence on the academic self-concept of a student. Learners' self-perceptions of ability are related to the feedback that they receive form their

educators. Each educator has a pattern of interaction by means of which he or she gives an indication, verbally or non-verbally, of what his or her opinions of the learners are (Bester, 2003). It is for this reason that it is important for the lecturers to understand how they may influence and affect students' self-concepts.

Botes (in Du Plessis 2005) states that given the role that the expectation and experience of success has on the formation of academic self-concept, educators can do much to make their learners feel successful. There is a popular belief that underachieving students will perform better academically if their self-concept is targeted for improvement. In many cases, teachers fail to do this, and an unfortunate consequence of such a situation is that the students end up being the suffering party (Sikhwari, 2004:16).

The one-dimensional model of viewing self-concept is the oldest and most traditional way. According to the one-dimensional model, self-concept does not consist of different dimensions, such as an academic. Social self-concept, but of overlapping content area, such as academic achievement or appearance, and each of these content areas is equally important.

Research and literature, however, indicate that self-concept is not a one-dimensional, but rather a multi-dimensional construct. Byrne (1986:173) conducted a study on 929 high school students and found that self-concept is multi-dimensional, hierarchically structured, and stable. Sanchez and Rhoda (2003:97) support this finding by Byrne (1986), when they state that it is agreed that self-concept has a multi-dimensional nature. Sanchez and Rhoda (2003:97 in Louise 2011) furthermore state that self-concept is considered to comprise of various dimensions, areas or facets, some of which are more related to certain personality aspect (physical, social, emotional), while others appear to be more linked to academic achievement. Shavelson et al. (1976) created a multi-dimensional, hierarchical model of self-concept, called the Shavelson Model. This model maintains that self-concept consists of a global self-concept, which is comprised of both an academic and a non-academic self-concept. The researcher concurs with this view of the self-concept. Byrne (1986:173) states that how self-concept is viewed theoretically is a fundamental issue, because it frames both the dimensionality of the construct and its relation to other variables.

Shavelson, Hubner and Stanton, (1976) also identified a number of distinctive features of self-concept, such as it being organized, multi-faceted, hierarchical, stable,

or unstable, developmental, descriptive and evaluative, and differentiable from other constructs. In the above model self-concept is defined as a person's perceptions of himself, formed through environmental experiences, and by significant others.

According to the Shavelson Model, individuals' perceptions of the self are developed in response to their perceptions of others' reactions towards them (Areepattamannil & Freeman 2008:705).

The model that Shavelson, Hubner and Stanton created is in the form of a pyramid, with global self-concept at the top of the pyramid. Global self-concept is followed by academic and non-academic self-concepts. They are again divided into self-concepts that are more specific. The self-concepts are increasingly differentiated from the top to the Bottom of the model; the dimensions are related to one another, but can be identified and studied as separate construct (Du Plessis 2005:62).

Global self-concept can be described as the general evaluative attitudes and feelings you have about yourself Ahmed and Bruinsma (2006:554). Academic self-concept is related to feelings or attitudes that a person has of his or her own academic abilities.

According to Marsh and Hau (2004) in Louise (2011), the relationship between academic achievements cannot be fully understood if the researchers investigating this topic rely on global estimates of self-concept. Thus, if you are investigating academic achievement, the focus should not be on global self-concept, but solely on academic self-concept. Hamaschek (1995:419) states that a growing body of literature that not only is it easier to differentiate academic self-concept from general self-concept, but academic self-concept is even more highly correlated with academic achievement than general self-concept.

In a review of early research on the concept, Brogan (1998:1) reported that the learners' level of achievement might be related to the perceptions they have of themselves as learners. Brogan (1998) also pointed out that how learners feel about their abilities, for better or for worse, consciously or unconsciously, influence their academic achievement. In the study of Baran & Maskan (2011) on a Study of Relationships between Academic Self Concepts, Some Selected Variables and Physics Course Achievement, Table 6 showed that the male students' academic self concept total score means (2.98) and their mean scores of the sub-dimension of interest in mechanics were higher than female students' mean scores (2.82) at ($P<.05$). In Table 9 it is seen that there was a positive significant relationship between the

students' academic self concept total score means, the mean scores regarding the sub-dimension of Academic average variable (.167) computational ability (-.356), the sub-dimension of interest in science (169), interest in mechanics (-.038) and their achievement in the course of physics. This implies that positive self concept is significantly related to academic performance.

From the above, it is clear that research indicates a relationship between academic self-concept and academic performance. However, there has also been evidence to the contrary; various studies have found no or a very small correlation between academic self-concept and academic achievement.

Components of Motivation to Learn

Motivation is a factor in behaviour that initiates and directs activity and sustains that activity over a period of time. It is a factor that directs behaviour toward the satisfaction of some needs. It is an internal state which increases or decreases the effect of an individual puts into activity (Rosser and Nicholson, 1984, Woolfolk, 1980; and Onoyase 2007).

Motivation could either be intrinsic or extrinsic. They are both essential in academic settings, as has been seen in the above discussion of these two forms of motivation. Mnyandu (2001:11) reaffirms this by stating that both intrinsic and extrinsic motivation are often required in academic achievement, because intrinsic motivation cannot always be relied upon, because not all academic tasks are interesting. Mnyandu (2001:11) states that it is imperative that educators acquire a broad understanding of both of these forms of motivation in order to help the learner use a particular type of motivation that is best suited to a particular learning situation and that will facilitate success.

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Intrinsic motivation is a kind of motivation that is present within an individual without any external stimulus needed for it to be present. Extrinsic motivation, on the other hand, is only present together with an external incentive. It would therefore be correct to assume that intrinsic motivation is more desirable than extrinsic motivation. Extrinsic motivation is, however, necessary in certain learning situations.

Deci and Ryan's (1985) studies have indicated that there exists a positive relationship between intrinsic motivation and academic achievement. They state that even an academic task is difficult; a learner's intrinsic motivation will cause him/her to persist with the task. Ryan and Stiller (in Ryan and Deci 2000:55) indicate that intrinsic motivation has emerged as an important phenomenon for educators, a natural developer of learning and achievement that can be systematically catalyzed or undermined by parent and teacher practices.

Mnyandu (2001:18) declares that indicators of intrinsic motivation include enthusiasm and persistence with an assigned task, the time devoted to tackling the task, and the associated feelings of self-efficacy. Elaborating on the advantages of intrinsic motivation, Harackiewicz, Sansone, and Higgins (1998) in Ryan and Deci (2000:55) also suggest that intrinsically motivated students are more likely to concentrate in class to ensure that they acquire adequate knowledge for what they have to do. If learners are interested in a specific topic they are likely to devote their time and energy to the task. It is clear that all these behaviours will contribute towards academic achievement.

In a study conducted by Vallerand and Bissonenette, in Ryan and Deci (2000; 55) they found that intrinsic motivation is conducive to academic achievement. They investigated the role of intrinsic, extrinsic and motivational styles as predictors of behavioural persistence in academic settings. The participants included 388 male and 474 female French-Canadian students from Montreal. The results indicated that students who persisted and finished their courses had higher initial levels of intrinsic motivation towards the academic activities than students who dropped out of the class.

It is clear from the above that intrinsic motivation is associated with a range of behaviours that are beneficial and conducive to the academic achievement of students. However, in contrast to most theorists who believe that intrinsic motivation is positively related to academic achievement, Mnyandu (2001), in a local study on 120 learners from three primary schools in Shoshanguve in South Africa, found that intrinsic motivation was not positively related to academic achievement. The information that will be provided by this study will enable the lecturers in the Department of Quantity surveying at the University of the Free State to motivate the students in a way that will optimize their academic achievement. Since academic

achievement is important in any academic setting, this study will provide information on how to optimize the academic achievement in students.

Extrinsic motivation is important in education and it contributes to academic achievement. Ryan and Deci (2000:55) emphasized this when they supported the point of view of Mnyandu (2001), who states that understanding extrinsic motivation is an important issue for educators who cannot always rely on intrinsic motivation to foster learning and achievement. Ryan and Deci (2000) declare that many of the tasks that educators want their students to perform are not inherently interesting or enjoyable. Educators should be skilled enough to be able to use cues in the classroom to encourage intrinsic motivation, and they must also help their learners to develop extrinsic motivation so as to prompt them to engage in uninteresting tasks (Mnyandu 2001:27). In a study done by Mnyandu (2001:54), it was found that learners are capable of being both intrinsically and extrinsically motivated. It is therefore possible for a learner to possess both intrinsic and extrinsic motivation.

Extrinsic motivation is present when the student receives external encouragement to learn and achieve academically. Bar-tal and Bar-Zorah (in Mnyandu 2001:26) state that extrinsically motivated learners do not usually show any determination to improve on their academic performance and have little reason to exert more effort on their academic tasks, unless they are persuaded by the offer of extrinsic rewards. Deci and Ryan (in Areepattamannil and Freeman 2008:711) insist that students who are more extrinsically motivated experience greater anxiety and a poorer ability to cope with failures. Despite these behaviours that are associated with extrinsic motivation, extrinsic motivation is important in educational settings.

Lecturers should, however, be careful when encouraging extrinsic motivation in students, because if a student is intrinsically motivated, exposure to too much extrinsic motivation can be detrimental to the initial intrinsic motivation. Boggiano and Pittman (in Mnyandu 2001:20) found that the intrinsic motivation of students', which had initially been doing well on their own, decreased after being exposed to extrinsic rewards. Their intrinsic motivation may reduce when they perceive their behaviour as extrinsically control.

1. Curiosity

The behaviourist talks about reward and punishment as being the main influence on learning. Behaviour can be focused toward a reward or away from a punishment. Human behaviour is far more complex. People are naturally curious.

They seek new experiences; they enjoy learning new things; they find satisfaction in solving puzzles, perfecting skills and developing competence. A major task in teaching is to nurture student curiosity and to use curiosity as a motive for learning.

Providing students with stimuli that are new but not too different from what they already know stimulates curiosity. Presenting stimuli that are completely foreign may create anxiety rather than curiosity. There must be a balance between complexity and clarity.

Ask students questions or create a problem situation rather than presenting statements of fact. This increases student interest and curiosity to learn more about the topic. Curiosity is a motive that is intrinsic to learning, and thus continued learning is not dependent upon the teacher rewarding learning.

2. Self-Efficacy

The term self-efficacy reminds me of a phrase my mother was fond of; "the power of positive thinking". This concept was again brought to mind at a Lecture I attended given by a sports psychologist who was hired by Saskatchewan Roughriders prior to their winning the Grey Cup in 1989. He had each player wrap a piece of tape on their ring fingers to represent the Grey Cup ring they would be wearing after winning the grey cup. They were asked to believe in their ability to win. This concept of self-efficacy can be applied to student learning. Students that harbour doubts of their ability to succeed are not motivated to learn.

Dividing tasks into chunks and providing students with early success is a Method of developing confidence in the student. Driscoll (1994) describes this as performance accomplishments, one of four possible sources of self-efficacy. The other three, she describes include vicarious experience, verbal persuasion and physiological states. Vicarious experience is when the learner observes a role model attaining success at a task. Verbal persuasion is often used as others persuade a learner that he or she is capable of succeeding at a particular task. The final possible source of self-efficacy is physiological states. This is the "gut feeling" that convinces a student of probable success or failure. For example, a student may feel physically sick when they arrive at an exam. There is little a teacher can do to alter a student's physiological state, other than to suggest relaxation exercises or desensitization training to overcome fears and anxiety.

3. Attitude

Every educator has encountered students who are labelled as having a bad attitude. Attitude is an elusive commodity. A manager dealing with an employee with an "attitude" is instructed to deal specifically with the behaviour that is occurring. Performance evaluations are not to include the term, "bad attitude". Rather specific examples of actual situations must be cited of employee job performance. In an educational setting, the performance that we are striving for is learning, which in some cases can be judged through behaviour but not always. As with employees, it is important to point out to students specific behaviours that demonstrate an attitude. However, the attitude of a student towards learning is very much an intrinsic characteristic and is not always demonstrated through behaviours. The positive behaviours exhibited by the student may only occur in the presence of the instructor, and may not be apparent at other times. For example, a person may have a poor attitude toward the police but when confronted by a police officer, they behave courteously and respectful. The behaviour is contrary to the attitude.

Fleming and Levie (1993) summarized three approaches to attitude change; "providing a persuasive message, modelling and reinforcing appropriate behaviour and inducing dissonance between the cognitive, affective and behavioural components of the attitude." They suggest that if a person is induced to perform an act that is contrary to that person's own attitude, attitude change will result.

4. Need

The needs of individual students can vary greatly, the most well known and respected classification of human need is Maslow's hierarchy of needs. There are five levels of need in this hierarchy: (1) physiological (lower level) (2) Safety (lower-level) (3) Love and belongings (higher needs) (4) Esteem (higher need) (5) Self-Actualization (higher need). The importance of this to motivation is the lower-level needs must be satisfied at one level before the next higher order of needs become predominant in influencing behaviour. Education fits into the realm of achieving higher-level needs. Students will not be ready to learn if they have not had, their lower-level needs met. Children, who are sent to school hungry, are not able to learn. Their lower needs must be met first.

5. Competence

Competence is an intrinsic motive for learning that is highly related to self-efficacy. Human beings receive pleasure from doing things well. Success in a subject

for some students is not enough. For students who lack sense of efficacy, teachers must not only provide situations where success occurs but also give students opportunities to undertake challenging tasks on their own to prove to themselves that they can achieve.

Prerequisite skill development promotes competence in a field of study. There is an old saying, which says that, give someone a fish and they will eat for a day, teach someone to fish, and they will eat for a lifetime. Learning a skill without an understanding of the process is doomed to be lost. External support, respect and encouragement are important for the students to achieve competence. The achievement of competence itself becomes the intrinsic motivating factor.

6. External Motivators

Active participation provides a stimulating environment and combats boredom. Learning strategies should be flexible, creative and constantly applied. Stimulating learning environments provide variety in form of presentation style, methods of instruction and learning materials. Students will learn in boring situation provided with motivators such as fear, pressure and extrinsic goals (grades, job status, and so on). The learning environment under those motivators is often tensed and stressful.

a. Grades have value as an external motivator in learning, if the process of evaluation is well planned considering motivation theory.

b. Reinforcement is another form of an external motivator. The value of reinforcement as a motivator is questioned from those who suggest that once the reinforcement is removed the behaviour stops. Critics suggest students must have intrinsic motivation to accomplish certain activities. In intrinsic motivation, the “doing” is the main reason for finishing an activity. With extrinsic motivation, the value is placed on the ends of the action.

The value of reinforcement is on the road to intrinsic motivation. Students need confidence building reinforcement such as praise and encouragement to guide them. Students can also provide their own self-reward for accomplishing goals they have set. External motivators must be accepted, valued, and endorsed by student. They must feel that their perspectives are valued, and they have opportunities to share their thoughts and feelings. “External conditions that support these internal conditions include; provisions for relevancy, choice, control, challenge, responsibility, competence, personal connection, fun, and support from others in the form of caring,

respect and guidance in skill development," (McCombs, 1996) The ARCS Model of Motivational Design by Keller views motivation as a sequence. You first gain the attention of the learner, and then provide relevance of what you are teaching to their personal goals and needs. The learner gains confidence as the learning process unfolds. The satisfaction of the new knowledge provides motivation to continue learning (Driscoll (1994).

Attention gaining and maintaining attention follows many of the same principles as discussed in providing a stimulating learning environment and arousing curiosity. Often it is easy to gain attention at the beginning of a lesson. Sustaining the attention is a challenge. Provide variety in presentations through media, demonstrations, small group discussions, or whole class debates. Likewise, printed text can be varied through different types, sizes or fonts or the inclusion of diagrams or pictures.

Relevance

Helping students find relevance while learning can be a daunting task for some students. Linking what is being taught to something that is familiar and relevant to the students helps in the motivation of that student. Motivation amounts to persuasion for knowledge based subjects that provide the basis for learning future concepts. Often assurances are given that the student will eventually see the relevance of what they are learning.

Keller includes familiarity as a component of relevance. Instruction is relevant to the learner, if it is related to concrete examples with the learners' experience. Metaphors, analogies and stories relate information to something the students are familiar with, and help students understand new concepts. Once the students sees the relevance they are then in a position to set goals.

Self-imposed goals provide relevance for the students. Actively setting goals can be an important source of motivation. When individual set goals, they determine an external standard to which they will internally evaluate their present level of performance. Goals must be explicit and attainable to sustain motivation. Often students set a goal such as achieving 70% on a test. Goals should be more explicit. An example of an explicit goal is learning to calculate a diabetic diet without the use of references. The eventual goal for the student is employment in the field of menu marking. Goal setting provides relevance.

It is important to be sensitive to the individual need for achievement and for affiliation when asking students to set goals. Students, that have a high need for affiliation benefit from co-operative groups working together toward the achievements of a goal, rather than individual goal setting.

Confidence

Confidence and self-efficacy are closely aligned. Three strategies for developing confidence are outlined by Driscoll (1994).

1. Create a positive expectation for success by making it clear just what is expected of students. Break complex goals into smaller chunks. It is easier to eat an elephant, if you do it in small chunks.
2. Provide success opportunities for students. Learners gain confidence, if they are given enough assistance to perform a task they are not quite capable of doing on their own.
3. Provide learners with a reasonable degree of control over their own learning. Help them to recognize that learning is a direct consequence of their efforts.

Satisfaction

Satisfaction can be enhanced in a learner by celebrating successes. Often we fail to realize the impact of this on adults. Publicly celebrating success provides reinforcement for the learner receiving the acknowledgment but also motivates other learners to strive for this acknowledgment. Praise is often overlooked as a strong motivator for adults.

In a classroom setting, it is important to find something to celebrate with all students. At times, in an educational environment a learner's satisfaction can be influenced when he/she compares themselves to others who may have done as well or better. It is important to point out to students that their learning outcomes are individual and must be consistent with their own expectations. Driscoll (1994) summarized many of the applications of the ARCS model in the table below.

Instructional Strategies for Stimulating Motivation as suggested by the ARCS, Model Gaining and Sustaining Attention Capture student's attention by using novel or unexpected approaches to instruction. Stimulate lasting curiosity with problems that invoke mystery. Maintain students' attention by varying the instructional presentation. Enhancing relevance increase the perception of utility by stating (or having learners determine) how instruction relates to personal goals.

Provide opportunities for matching learners' previous experiences. Increase familiarities by building on learners' previous experiences. Building confidence create a positive expectation for success by making clear instructional goals and objectives. Provide learners with a reasonable degree of control over their own learning.

Generating satisfaction Create natural consequences by providing learners with opportunities to use newly acquired skills. In the absence of natural consequences, use positive symbolic awards. Ensure equity by maintaining consistent standards and matching outcomes to expectations. Spitzer's (1996) concept of super motivation puts emphasis on the activity rather on the individual. Comparing learning to sport, but acknowledges that most activities are inherently boring. The activity of golf for example is rather repetitive and boring if taken out of the context of the game. The motivating contexts of the game include; action, fun, choice, social interaction, error tolerance, measurement, feedback, challenge and recognition. These applied to a learning situation are motivating for students.

Action involves getting learners out of their seats and actively involved in the learning process both mentally and physically. Fun helps to energize students and provides opportunities for different formats and student involvement. Computer games are a good example of how to imbed learning activities with fun. Choice provides variety and learner control. Choice may be provided through choice of learning method, content or instructional materials. Social interaction is a higher-level need according to Maslow. Opportunities for social interaction can include small group discussions, peer tutoring, collaborative problem-solving and decision-making. Error tolerance is often low in educational settings. Learners must feel comfortable to make mistakes and have opportunities to learn from them.

Measurement such as score keeping in sports is a motivating factor. Measurement in sports tracks progress. In a learning environment measurement can be repositioned into a facilitating force that includes focusing on formative evaluation, soliciting learner input into what should be measured, and encouraging self-measurement. Feedback in sports is always immediate and predominately positive. In learning often feedback is discouraging. Constructive feedback should be continuous, pointing out the positive and focusing on how performance can be improved in the future. Challenges can be motivating particularly if the learner responds to challenges by setting goals. Surprisingly self set goals tend to be more ambitious than those set by others.

Recognition should occur for minor achievements as well as major ones. It is important to point out many positive to the learner. Message designed and Attitude Change Principles. The principles of attitude change can be explained using the communication model of the source sending a message to a receiver through a channel.

Wlodkowski (1986) classifies attitudes as having four directions towards, the instructor (the source), the subject matter (the message) and the learning situation (the channel), themselves as learners (the receiver) and the expectancy for success they have for themselves or self-efficacy. All of these attitude directions will influence the student's motivation to learn.

Anxiety and Academic Performance

Spielberger (1972, in Cohon, 1982) propose that we use the terms A – to refer to a transitory phenomenon usually brought on by a particular stimulus situation to which an individual respond in a characteristic fashion while, a second term; A –trait refers to a person who finds himself in an A-state more frequently or more intensely or in a response to broader range of stimulus situation than a non A – trait person. The A-trait may be thought of a predisposition for anxiety states. According to him, arousal of anxiety state involve a process or sequence of temporarily ordered events initiated by either external or internal stimuli that are perceived to be dangerous or threatening to an individual. Any internal stimuli which cause an individual to think about or anticipate a dangerous or frightening situation may evoke high level of A – state. For example, a student who remembers that he has failed to prepare for an examination that is scheduled for the next class period would probably experience a sudden increase in A – state.

He points out that many kinds of situations are stressful or threatening to nearly everyone but whether a particular situation arouses anxiety in a particular individual depends on how he perceived that situation. Even situation that most of us would agree are quite non-stressful maybe perceived as dangerous or threatening by some people. This propensity to see situation as threatening defined the

A – Trait; a high

A– Trait person sees more situation as threatening and thus finds himself in an

A – State more often than does a low

A – Trait person

Certain elements have been suggested as essential elements of the experience of anxiety; these elements are uncertainty, helplessness and future orientation that can be derived from an anxiety situation. For example the case of the student who forgot to study for his examination, he is uncertain of what the examination would be like, how will his performance affect his final grade in the course. He also feels helpless, the time left is so small that he does not know what else to do and it carried the unknown future implications.

According to Lazarus and Avevill (1972) during anxiety, there is uncertainty about one or all of several things exactly what will happen, whether it will happen and when it will happen and what can be done about it. Anxiety often occurs in social situations. The uncertainty in social anxiety is most often related to not knowing how others will react to us and what they expect us to do. Kaczkowski and Owen (1972) suggest a reciprocal relationship between anxiety and anger. Anxiety occurs when we don't know what others expect of us, while anger is the reaction of most of us when others do not meet our expectations.

Social anxiety may be further related to shame, the fear that we will not measure up to our own expectation for ourselves (often as reflected in the reaction of others). In the A – state, it is difficult to separate the sense of helplessness from the sense of uncertainty. When you do not know what will happen or what to do about it you are helpless.

Anxiety often carried with it feeling of lack of confidence, irritability, reduction of self – liking and guilt, all those are reactions to a perceived inability to solve one's problems. The anxious individual is to trouble so much by immediate and concrete danger as by further possibilities.

Self-Concept and Academic Performance

Self-Concept refers to the personal beliefs someone develops about their academic abilities or skills. A person's self concept develops and evolves as they age. Research by Tiedemann (2000) suggests that self concept begins developing early childhood, from age 3 to 5, due to parental/family and early educators' influences. Other research contends that self concept does not develop until age 7 or 8 when children begin evaluating their own academic abilities based on the feedback they receive from parents, teachers, and their peers. According to Rubie-Davis (2006), by age 10 or 11 children view their academic abilities by comparing themselves to their peers.

Ocshe (2003, in Louise 2011) conducted a study on a sample of 645 University students. The study concentrated on the interrelations between the students' self-perceptions, their expectancies, and academic achievement. The sample was divided into three groups, namely over estimators, realists and under estimators. The date revealed that, compared to under estimators, the over estimators:

(a) expected significantly higher marks;

(b) Were significantly more confident about their expectations; and

(c) Perceived them as having a significantly higher ability

In this study, Ocshe (2003) found that humble self-assessments were more conducive to academic performance. Ocshe (2003) found that the under estimators achieved significantly higher marks than both the realists and the over estimators. According to this study, students should rather underestimate their abilities, and rather have a more negative or realistic self-concept, in order to achieve academic success. This is clearly in contrast to the findings of the studies discussed in the previous section. His study also revealed that the over-estimators expected significantly higher marks than both the realists and the under-estimators, although they actually gained lower marks. Ocshe (2003) furthermore found that highly under confident students achieved higher grades than those students who were slightly or moderately less confident. A positive self-concept, according to Ocshe (2003), was the least conducive to academic success.

Ocshe (2003: in Louise 2011) states that in an academic context educators should reconsider the importance of accurate self-perceptions. Students with accurate self-concepts have realistic views of their competence levels. The main challenge, according to Ocshe, (2003) is to encourage accurate self-concepts rather than positive self-concepts, without destroying the students' self-esteem. Gross (in Vaile et al. 2005:41) declares that it would seem that the notion of a healthy, as opposed to a high self-esteem is more desirable.

In another study done by Yoon, Eccles, and Wigfield (1996), they found out that a positive self-concept of ability alone did not always have a positive influence on academic performance over time. They indicated that an unrealistic positive self-concept of ability was often detrimental to performance. Unrealistic positive self-concept can be defined as students with inflated self-concept that have a positive opinion of their competence, but that are unrealistic Sze and Valentin (2007, in Louise 2011). Yoon et al. found that over-confidence was slightly harmful to the subsequent

performance of females. Yoon et al. (1996:10) urge students to rather hold a realistic view of themselves and their academic abilities than unrealistic positive views of themselves. They stated that, compared to other societies, the American society seems to laud the motivational effects of positive self-concepts. They stated that several cross-cultural researches found that some societies tend to place the stress more on a realistic view of the self.

Malcolm Knowles (1984) assumption of the adult learners' self-concept is that adults need to be responsible for their own decisions and to be treated as capable of self-direction. Self-directing adults can be described as guided by themselves; they are capable of directing their own behaviour. In contrast to the dependency of children, adults have a deep psychological need to be self-directing. Adult learners resent and resist situations that do not allow for self-directing. Beyer (1999) states that self-perceptions that are out of touch with reality not only reveal a lack of self-knowledge, but may also impede effective self-regulation and goal-setting in academic, professional and interpersonal situations. He advocates that students should rather possess realistic self-perceptions in order to be able to accurately predict academic achievement. But, Tennant (1998) argues that it is for a good reason that adult education has a tradition of empowerment based upon the modern student, especially when it addresses the concerns of those whose sense of 'self' have been dislocated and fragmented. In many of the situations where adult educators work, the pursuit of a coherent, continuous 'self' is indispensable to empowerment (Tennant 1998:372). He furthermore reveals that, "Rather I am concerned with avoiding an 'essential view of the self, but at the same time developing a concept of the self which is compatible with transformative adult education practice". It is clear from the discussion above that there are contrasting opinions and findings on what type of academic self-concept is most beneficial academic achievement.

Also, it has been argued that students first of all have to do well at school in order to have a positive. Self-image is a necessary prerequisite for doing well at school (Hamachek, 1995). Numerous studies have shown a positive correlation between self-concept and academic achievement. However, correlation does not imply causation. Marsh (1990 in Tennant 1998) states that perhaps the most vexing theoretical question in self-concept research involves determining the causal ordering of self-concept and academic performance.

There has been much focus on the causal relationship between these two variables. The question is, does academic performance influences academic self-concept or does self-concept influence academic performance? Based on the available literature, it is plausible to suggest that there are three perspectives about the relationship between students' academic performance and their self-concepts (Green, Fugelsang, & Kraemer. 2006; in Louise 2011). These are as follows, namely the skill development model, the self-enhancement model, and the reciprocal effects model.

The skill development model states that academic performance exerts a positive effect on academic self-concepts of students (Jen & Chien, 2008 in Louise 2011). This model maintains that past achievement, whether successful or unsuccessful, influences the formation of self-concept but that self-concept does not influence academy (Barker, Eva, & Andrei (2008). This model implies that academic self-concept emerges principally as a consequence of academic achievement. In a study done by Helmke and Van Aken (in Vialle et al. 2005), they found that academic achievement has more of an impact on self-concept than the other way around. This is a further support for the skill development model.

The self-enhancement model, on the opposite end of the spectrum, proposes that the improvement of students' academic self-concepts should be a prerequisite to enhance their academic performance. The self-enhancement model postulates that the self-concept variables are primarily causes of academic performance (Green, et al, 2006 in Louise 2011). This model maintains that an improvement of self-concept will lead to improved academic performance, and that achievement does not influence self-concept (Barker et al. (2008).

Marsh (1990 in Tennant 1998) did a study on 1456 students in Grades 10, 11, 12, and one year after graduation from high school. It was found that the reported grade averages in Grades 11 and 12 were significantly affected by self-concept measured the previous year, whereas the prior reported grades had no effect on subsequent measures of academic self-concept. These findings clearly support the self-enhancement model. The results provide one of the few valid demonstrations of prior academic self-concept influencing subsequent academic performance. This study appears to be methodologically stronger than the previous research (Marsh, 1990 in Tennant 1998).

Marsh (1990 in Tennant 1998) declares that in reality, both of these extreme positions are probably too simplistic in that the relations between academic self-

concept and academic achievement are likely to be reciprocal. The reciprocal model emphasizes the mutual causality between academic self-concept and academic achievement of a student. This model suggests that academic self-concept and academic achievement have a reciprocal effect on each other. The reciprocal effects model assumes that self-beliefs predict increases in academic achievement and conversely, higher levels of academic achievement predict improvements in self-beliefs (Barker, et. al. 2008). According to Green, et al. (2006), the reciprocal effects model has had the most support. The research also supports this model. It is the belief of the researcher that academic self-concept and academic achievement influences each other.

Green, *et al.* (2006) state that the reciprocal effects model has major implications for the importance placed on academic self-concept as a means of facilitating other desirable educational outcomes, as well as being an important outcome variable. They stated that if students' academic self-concepts are enhanced without improving on their academic achievement, then the gain in self-concept are likely to be short-lived. Research has also supported the view that academic self-concept and academic achievement mutually reinforce each other, to the extent that a positive or a negative change in one facilitates a commensurate change in the other. Put simply, improved self-concepts will lead to better academic performance, and improved achievement will lead to better academic self-concepts (Green, et al, 2006). The researcher agrees with Hamechek (1995) when he states that the debate about which comes first – a positive self-concept or academic achievement – is probably more academic than practical. He continues to suggest that what is important is to appreciate their interactive and reciprocal dynamics, and to recognize that they mutually reinforce each other to the extent that a positive or negative change in one facilitates a commensurate change in other.

Self-concept is manifested through functioning in various social domains like school, family, and peer group. The developmental progress in function of social comparisons is not inevitable, however, and can be influenced by the atmosphere of the educational environment nevertheless the relationship between social comparison and self-concept is bi-direction.

This is because social comparisons can affect children's self-image by giving them information about how they are performing relative to other children. But children's self-image may affect their willingness to engage in social comparisons,

depending on how pleasant or aversive they expect the resulting information to be (Butler & Ruzany, 1993). Indeed Harter (1988) in his studies on examining feelings of competence and perceived self-efficacy reported that children who view themselves as academically skilled are more motivated to succeed, more persistence in their work and more willing to seek out challenging tasks or problems. Therefore, children with low opinions of their academics abilities are less motivated to work. For more emphasis, he continued by saying that academic self-concept is affected by feedback regarding failure. Thus, Tariola and Kabiown (1992) said that self-concept is essentially a phenomenological organization of individual experiences and ideas about themselves in all aspects of their life, hence self-concepts becomes multidimensional.

According to Seligman (1975), the child who is not rewarded, apprised, and made to feel confident early in life will develop a negative self-concept of him and invariably have a high anxiety threat; uncertainty in children would be experiential by a child interacting with hostile demanding or indifferent parent.

The effect of sex and school location on self-concepts has been carried out by researchers such as Tariola and Kobiown (1992) who worked on self-concepts of Nigeria adolescents. And found out that significant differences exists between the sexes on body image, mastery and coping, peer relationship and family relationship with adolescent of high socio-economic status generally showing more positive self-concept. However, Simmous and Roserberg (1975 in Jegede 1981) reported that males have more positive self-concept than females. In a different study carried out by Peterson & Schulengerg (1984 in Jegede 1989) titles “a self-image, questionnaire for young adolescents, reliability and validity studies”. They reported that females tend to perceive themselves as less successful than males and they received less favourable appraisals from significant order as compared to males.

Contrasting the above findings Jegede (1981) reported no significant difference between male and female subjects with regard to self-concept on the effect of school location on self-concept. Jegede (1981) who worked on self-concept young Nigeria adolescents reported that in Nigeria urban residence exerts more positive influence on self-concepts than rural residence because generally poor living conditions are found in the rural areas than their urban counterparts.

Motivation and Academic Performance

Inertia is a property of matter by which it remains at rest or in uniform motion in the same straight line unless acted upon by some external forces. Motivation can be defined as the internal drive directing behaviour towards some ends. Motivation helps individuals overcome inertia. External forces can influence behaviour but ultimately, it is the internal force of motivation that sustains behaviour. People work longer, harder and with more vigour and intensity when they are motivated than when they are not. Such abstract concepts as attitude and needs are personal and not easy for an instructor to address. Adult educators are dealing with a group of individuals whose needs and motivations are very diverse. Opinions about the role of motivation in academic performance and what can be done about it vary widely among college faculty, administrators, and student service professionals. Consideration about unmotivated students opens a Pandora's Box of questions: Can anything be done about these students? Can motivation be taught? What kind of strategies can be used to influence motivation? Is this time wasted that might better be used on those students who are already motivated?

In the opinion of Awanbor (2005), this lacuna in our secondary education among other things is lack of students' motivation. He holds that students, who lack level of academic motivation, exhibit a weak drive towards the pursuit of academic goals. Such students manifest signs and symptoms of indifference and apathy towards school. Majority of such students, if not all, are those who are involved in examination malpractices.

Furthermore, he noted that because of poor motivation due to inadequate remuneration, poor teaching environment as a result of lack of basic teaching materials, listless and unmotivated learners in the classroom, among others, the teachers have become the endangered species in their own profession. They no longer teach and students in turn no longer learn, Awanbor (2005). He suggested that students should be academically motivated as this will go a long way to solving most of the problems faced in education system and also increase students academic performance. He further remarked that motivating students will help them to be more responsible and have more interests in studies. He also holds that motivation of students, will reduce if not completely eliminate, high school dropouts rates, low enrolment rates, truancy, etc. Every educators needs to be concerned about motivation, it is a quality that students, teachers, parents, school administrators and

other members of the community must have if our educational system is to prepare young people adequately for the challenges and demands of the coming century. Of course, the ways these various group of individuals generate and use motivation differs greatly. Students need motivation to learn, parents needs it to track the educational progress of their sons and daughters, teachers needs it to become better teachers, and school administrators needs it to ensure that every facts of the school they manage continues to improve. How true is this claim that students are not academically motivated? Motivation can also be seen as the forces that energize, direct, and sustains behaviour:

- **Energizes Behaviour:** What initiates a behaviour, behavioural pattern, or change in behaviour? What determines the level of effect and how hard is, person's work? This aspect of motivation deals with the question of "what motivates people?" It attempts to explain the amount of effort or energy an individual puts into a task.
- **Directs Behaviour:** What determines which behaviours an individual chooses among the alternative actions, behaviours, or problem solutions? This aspect of motivation deals with the question of choice and conflict among competing behavioural alternatives. It deals directly with the direction of one's effort.
- **Sustains Behaviour:** What determines an individual level of persistence with respect to behavioural pattern? Why do some individuals keep working at something long after others have quit? This aspect of motivation deals with how behaviour is sustained and stopped. It deals with the persistence and consistency of behaviour.

Motivation determines the specific goals towards which students strive. Thus it affects the choice students make. For instance, whether to enrol in physics or any other subject, whether to spend an evening completing a challenging homework, assignment or playing video games with friends. The more students are motivated to achieve academic success, the more they will be proud of their academic performances. Motivation increases the amount of effort and energy that students spend in activities directly related to their academic activities enthusiastically and lackadaisically. The impact of motivation in the academic performances of students cannot be over emphasised because motivation affects what students pay attention to and how effectively they perform in school. For instance, motivated students often make a concreted effort to truly understand classroom and to learn it meaningfully in

order to increase their academic performances. Students academic performance is monitored closely so as to identify early any student whose performance is likely to lead to academic failure. The Faculty works with individual students to provide academic guidance so as to maximize the Chances of all students succeeding. Two kinds of academic performance review take place, one at the end of a term and another at the end of both winter session and summer session. Both kinds of reviews evaluate recent academic performance in light of past performance but cumulative average over more than one session is not assessed. The review at the end of a term will identify students at risk of academic failure. The review at the end of each session (winter and summer) will determine whether or not a student can continue in the next session and under what conditions.

Life experience widens the gap between students and creates a diversity that is important in learning. Instructional designers must meet the challenge of designing instruction that is motivating. There are a number of motivational techniques which is great bearing on instructional design. The potential benefits of attention to motivation in instructional design are many.

Gender and Academic Performance

Gender can be regarded as psychological aspect of maleness and femaleness, (Crawford, 1996). Gender has to do with the condition of being male or female, male and female population in the school. They vary in learning according to their individual background and achievement. On the effect of sex on the academic performance of students Obioma and Ohuche (1981), Onunkwo (1996) found that male students performed better than their female counterparts.

A number of studies starting in the 1990s are showing statistical data that children from single sex schools and/or classrooms are out performing students from coeducational schools (Journal of Educational psychology, 2002). The advantages of single sex education fall into three categories: (a) expanded educational opportunities (b) custom tailored learning and instruction (c) greater autonomy, especially in heterosexual relationships. The advantages of single sex education for boys fall into two basic categories:(a) Teachers can custom tailor their teaching style to the boys; and (b) the all boys classroom promotes a more diverse and well rounded educational experiences. Boy's schools have a natural advantage, because they can tailor their curriculum to topics that interest boys, and teach these topics in ways that keep the boys engaged.

Many supporters of single sex education hold that gender does make a difference in the classroom primarily single sex education can help students learn more effectively. Gender roles can be subverted in a single sex environment: boys will be more likely to pursue the arts and girls likely to pursue math and science (Kadidy & Ditty, 2001; Elliot, Kratochwill, Cook & Travers, 2000, 1971; Cone-Esson & Ramirez, 1998). There are neurological and chemical differences that include: the females use the left hemisphere of the brain more often; this area of the brain according to studies are used by females to hear better than male which would call for male to sit closer to the front of the classroom to hear instructions better: as males usually are seated in the rear of the classroom, this would be a change from the traditional sitting arrangement (Sax, 2002). Also females have higher levels of estrogens in the brain, which reduce aggressive behaviour and create a calmer classroom atmosphere. Without the presence of the opposite sex, students will be less distracted from their academics. As well, teachers will have the ability to devote more time to instruction and less to discipline. Scores on the main assessment of the national assessment of educational progress (NAEP) review those females in grade 4, 8 and 12 have consistently out performed males in reading. The main assessment data from NAEP shows females continued to have higher reading scores than males' at all three grades, but there were no measurable increase in females' scores when data were compared to 2005 data at grades four and eight and there was a decrease in 12th grade reading scores for females from 297 to 295 in 2007. Females in grade 4, 8 and 12 outperformed their male peers in writing in 2002 and 2005. In 2002, males made up a higher proportion of students taking AP exams in science and calculus. Males also obtained higher average scores on these examinations compared to females.

Gender does have a direct bearing on student's academic performance consequently; schools have been given the green light to further indicate that single gender classes have pros and cons and if not properly instituted they could backfire. Consequently, it has been proven that gender does not have an impact on students' academic performance in that males and females performs better when students are in single sex classrooms without distractions of the opposite sex.

Location and Academic Performance

As school population continues to increase the influence of school type, sex, and location on academic performance is generating much research interest. Keeves (1978) for instance, has demonstrated that school type (Government, Catholic or other

independent schools) did not make a contribution to the academic achievement of a sample of Australian adolescents independently influence of their home backgrounds. William et al. (1980) in another study of Australian seventeen years also has revealed that other things being equal, students attending Catholic or other independent school had higher levels of achievement than students from Government Schools.

However, some studies have examined performance of students in various states of the federation. According to Mbaekwe (1986), the studies were intended to assist education authorities of various states to decides where a particular type of school should be located; the size of a school in each location; whether a new school should be built or otherwise among others. Boylan and Mcswan (1998) reported that rural schoosl were inferior and lacking in the range of facilities with high staff turnover and suffered from lack of continuity in their curriculum. Obe (1984) observed a significant difference in rural-urban academic performances of 480 primary six school finalist on the aptitude subtest of the National Common Entrance Examination into secondary school. He concluded that children from urban schools were superior to their rural counterparts. Owoeye (2002) holds similar view as Obe that there was a significant difference between academic performance of students in rural and urban area in public examination. Ajayi and Ogunyemi (1990) and Gana (1997) in their different studies on the relationship between academic performance of students in Urban and rural schools also agreed on this view. Also, in his study Ajayi (1999) found out that there was no significant difference between students' academic performance of rural and urban secondary school students. Students with urban and suburban background consistently outperformed students from rural and small town area. Parental education levels correlated with academic success.

Review of Empirical Studies

The review is presented according to the independent variables investigated.

- **Anxiety and Academic Performance**

In the study of Frantiiiek, Stuchlikovh, and Kindlmann, (1995) on Trait-State Anxiety, Worry, Emotionality, and Self-Confidence in Top-Level Soccer Player, using MANOVA analysis, univariate results could be used because the symmetry conditions were satisfied (using Box's M and Mauchly's sphericity test). The results showed a significant main effect of A-trait for cognitive anxiety, F (1, 43) = 4.87, p = .033; not for somatic anxiety, F (l, 43) = .05, p = 315; and a nearly significant effect for self-confidence, F(l,43) = 3.75,~= .059. Stress level influenced cognitive anxiety,

F (l, 43) = 23.54, p = .000, and somatic anxiety, F(l, 43) = 11.14, *p* = .002, but not self confidence, F(1, 43) = 2.32, *p* = .135. There was a highly significant interaction between stress level and A-trait for self-confidence, F(1,43) = 8.23, p = .006, but not for the other two subscales of the CSAI: F(1, 43) = 2.38, p = .130, for cognitive anxiety, and F(1,43) = *.009, p* = .923, for somatic anxiety. In summary, therefore, high stress games resulted in significantly higher levels of cognitive and somatic anxiety, but no effect was found for self confidence. Also, A-trait influenced the results of cognitive anxiety

- **Self-Concept and Academic Performance**

In a study done by House (1993), he examined the relationship among five areas of academic self-concepts and the academic achievement of the students at the start of their studies at an American university, and followed their enrolment status at the university for four years. He found that the students' self-concept of their overall academic ability was the single most significant predictor of subsequent school withdrawal. House (1993), therefore, found that students' academic self-concepts were the most important factors that determined whether they continued in school or not. When their academic self-concepts were negative, the students were more likely to dropout of school; thus, the indication of the importance of academic self-concept in an academic setting.

Barker, Dowson and McInery (2005) also pronounce that studies have repeatedly shown moderate to strong correlations between academic achievement and academic self-concept. Damrongpanit (2009:10) found, in a study done on 820 Grade 9 students, and extremely strong relationship between self-concept and academic achievement. In a quantitative study done by Sikhwari (2004) on 200 randomly selected second year students at the University of Venda, it was found that there was a significant correlation between self-concept and academic achievement. Kumar (2001) indicated in a study on 318 distance learners that there exists a moderate positive and a significant correlation between academic self-concept and academic performance.

According to Trusty (1996:29, in Louise 2011) in a study on 563 African American elementary learners, school-related self-concepts did not account for a significant amount of variability in achievement test scores. In another study by Areepattamannil and Freeman (2008) on 573 Grade 11 and 12 students from two public secondary schools in Greater Toronto area, they found only small to moderate

correlation between academic self-concept and academic achievement variables for both the non-immigrant and immigrant groups. Similarly, in a local study done in South Africa by Baadjie (2008) on 44 Grade 9 learners attending St. Barnabas College, it was found that there was no significant correlation between self-concept and academic achievement.

Vaill (2005), in Louis (2011) did a study on 65 high-ability secondary school students. The sample was drawn from a longitudinal study of more than 900 students. The research demonstrated that there was no correlation between self-concept and academic achievement in the gifted group. There were no differences in the measured self-esteem between the gifted and non-gifted students. Although the study by Vialle, Heaven, and Ciarrochi, (2005:39), focused on self-esteem and not on self-concept, both these constructs are very closely related and are often used as synonyms. They declared in their study that the terms, self-esteem and not on self-concept, are frequently used interchangeably in everyday contexts – and sometimes in the research literature.s

- **Motivation and Academic Performance**

In the study of Coetzee (2011) on the relationship between students' academic self-concept, motivation and academic achievement at the University of the Free State, it was that motivation is significantly related to academic achievement. The results in Table 6, indicate that together all the predictor variables explain 29.5% (R^2 = 0,295) of the variance in the academic achievement of the third year students. This calculated R^2-value is significant on the 5% level of significance [$F_{7;\ 43}$ = 2,369; p <. 05]. Therefore, academic self-concept and motivation combined explain 29.5% of the variance in the academic achievement of the third year students.

The motivation scale (intrinsic motivation, extrinsic motivation and a motivation combined) delivers a significant contribution to the variance in the academic achievement of the third year students on the 5% level of significance [$F_{(3;48)}$ = 2,746]. Motivation explains 12, 1% of the variance in the academic achievement of the third year students. The corresponding f-value (0.17) is denotative of a result with powerful practical value.

The motivation scale (intrinsic motivation, extrinsic motivation and a motivation combined) delivers a significant contribution to the explanation of variance in the academic achievement of second year students on the 5% level of

significance. Motivation explains 9, 5% of the variance in the academic achievement of second year students. The corresponding f-value (0.13) is denotative of a result with powerful practical value.

The results in Table 5 indicate, that all the predictor variables together account for 27, 8% (R^2 = 0,278) of the variance in the academic achievement of the second year students. The calculated R^2-value is significant on the 5% level of significance [$F_{7:43}$ = 2,369; p <0, 05]. Therefore, academic self-concept and motivation account for 27.8% of the variance in the academic achievement of the second year students.

- **Location of School and Academic Performance**

The study of Yusuf & Adigun (2010) on the influences of school sex, location and type on students' academic performance, for testing the hypothesis on School location, not significantly influencing students' academic performances. Table 4 shows that t-Calculated value of 0.68 is lower than the t-Critical value of 1.7. Hence, the null hypothesis is not rejected. That is, school location did not significantly influence students' academic performance. It was also revealed in this study that school location had no significant influence on students' academic performance. This finding implies that whether a student attends rural or urban secondary school it does not make a difference in his academic performance.

Appraisal of Reviewed Literature

Academic performance is a way a person excels in terms of school requirements, talks, awards and achievements. Academic performance was measured in society in many ways.

Anxiety, self-concept and motivation is ubiquitous and an integral of any learning situation. They play an inevitable part of both outcome and condition of learning whether the teacher is aiming for it or not. It is likewise believed that an adequate understanding of the casual role of anxiety, self concept and motivation is essential in gaining a clearer insight into an individual learning process. There is a relationship existing between the students' anxiety, self concept, motivation and their academic performance. There are a lot of students who leave school nowadays, it has been observed that prevailing problems of students like leaving school, dropping out, poor attendance, low grades, truancy and negative attitude towards teachers and peers which affects their academic performance and adjustment in school are often due to high anxiety, negative self-concepts, and poor motivation and these can be influenced

by certain factors, it can be due to the teacher's attitude towards them or the way their parents treat them. The result of the influence of these factors can be positive or negative level and this level may greatly affect the academic performance of students. It is observed that students' academic performance is becoming worse in public secondary schools. Many parents prefer to enrol their children in Government College where better parents' academic performance is guaranteed. For their children perform very well academically in co-educational school (mixed school). To this end, many of them would prefer their children in single sexed schools for senior school certificate examination to enhance better academic performance. Many parents believed that the academic performance in urban schools is poor compared with academic performance of students in rural schools and therefore, enrol their children in the rural schools for senior certificate examination (SSCE). It appears most of the public secondary schools cannot compete favourably with Government Colleges (States Unity Colleges) in terms of students' academic performance as a result of their inefficiency.

An in-depth review has been carried out on the topic under study, several concepts and empirical studies on anxiety and motivation have been variedly done. Anxiety has been identified as a very important factor for students' academic performance and how it correlates with students self concept and motivation. The reviewed literature has also noted some points on examining feelings of competence and perceived self-efficacy reported that children who view themselves as academically skilled are more motivated to succeed, more persistence in their work and more willing to seek out challenging tasks or problem. And so children with low opinions of their academic abilities are less motivated to work.

The gap this study covers is the provision of evidence based information on the influence of anxiety, self concept and motivation on academic performance of secondary school students in Delta Central Senatorial District. These variables have not been combined in a single study to the best knowledge of the researcher. The outcome of this study will provide a new source of information with particular reference to the population studied.

CHAPTER THREE

RESEARCH METHOD AND PROCEDURE

This chapter focuses on the method that was employed in conducting this study. These are;

- Research Design
- Population of the Study,
- Sample and Sampling Technique,
- Research Instrument,
- Validity of the Research Instrument
- Reliability of the Research Instrument
- Method of Data Collection
- Method of Data Analysis.

Research Design

The study employed correlation method. This design was chosen to identify if a relationship exist between variables. Gay (1996) describe a correlation design as that which is involved in the collection of data in order to determine whether and to what extent a relationship exist between two or more variables. This view was up held by Efurhieme (2004).

Population of the Study

The population of this study comprised of all senior secondary school students (SS1) in Delta Central Senatorial District. There are eight (8) local government areas namely; Ethiope East, Ethiope West, Sapele, Okpe, Uvwie, Udu, Ughelli South and Ughelli North**.** (Post Primary Education Board, Asaba, 2015).

Sample and Sampling Technique

The purposive sampling technique was used to select three (3) Local Government Areas, namely: Ethiope East, Ughelli North and Udu Local Government Areas of Delta State for this study out of the eight (8) Local Government Areas earlier mentioned above. It is worthy of note that there are 81 secondary schools in the three Local Government Areas with population size of 11,069 SS1 students made up of 6,654 female students and 4,415 male students.

The simple random sampling was used to select six (6) schools from the total 81 secondary schools, with a total population of 822 respondents, from where two hundred and forty (240) respondents were selected. This was evenly distributed

among the six (6) schools making a total of forty (40) students from each secondary school. This comprised of 120 female and 120 male students.

Research Instrument

The instrument for the study is a researcher's develop four-point liker scale questionnaire of items of strongly agreed (SA) 4 points, agreed (A) 3 points, Disagreed (D) 2 points and strongly disagreed (SD) 1 point, where respondents will tick a response and students terminal results. The first instrument for data collection was a questionnaire titled; Anxiety, Self-Concept and Motivation Questionnaire (ASCMQ). The second instrument was a terminal examination result of the sampled students. The questionnaire is divided into our (4) sections (A, B, C and D). Section A elicited the respondents' personal information like name of school, sex, class, age, and so on. Section B had 15 items assessing the students' anxiety. Section C had 15 items assessing their self-concept, and Section D had 15 items assessing the students' motivation. Hence, the total items in the questionnaire are 45 items.

Validity of the Instrument

In order to ascertain the face, content and construct validity of the instrument used for this study, the researcher sought the expert help of his supervisor as well as other senior lecturers in the department of guidance and counselling. The experts subjected the instrument to thorough screening, by checking the suitability and clarity of the items. Various items on the instrument were checked and found to be in line with the objectives of the study. Their advise, correction and criticism were utilized to strengthen the instrument and to ensure that the instrument was relevant and clear. The content and construct validity of the instrument was estimated using Factor Analysis. The Principal Component Analysis (PCA) was used as an extraction method and Eigen values above 1; screen plot and parallel analysis were used to estimate the construct and content validity of the instrument.

Upon analysis, all 15 items in the students' anxiety scale were retained. The construct validity ranged from 0.50 to 0.86, while the content validity is 60.90. Also all 15 items in the student self concept scale were retained. The student self concept construct validity ranges from 0.41 to 0.91 and the content validity is 66.62. The construct validity of students' motivation ranged from 0.52 to 0.86, while the content validity is 60.78. All the items in the students motivation scale were retained. The whole instrument had a content validity of 86.48 and a construct validity ranging from 0.41 to 0.91. The table 3.1 gives the summary of the construct validity estimate of

each scale in the Anxiety, Self-concept, Motivation and Academic performance of Student Questionnaire (ASCMAPQ).

Table 3.1: Content Validity Estimate of ASCMAPQ

Variables	No. of items	Explained Variance	Unexplained Variance	Total
Student's Anxiety	15	60.90	39.10	100
Student's self Concept	15	66.62	33.38	100
Student' Motivation	15	60.78	39.22	100
ASCMAPQ	45	86.48	13.52	100

As shown in the Table 3.1, each of the scale demonstrated a good content validity of all the items as the total percentages of explained 60.90%, 66.62% and 60.78% for each scale respectively.

Reliability of the Instrument

To ensure the internal consistency of the instrument, the researcher, two (2) prior to the administration of the instrument, the researcher administered the questionnaire to respondents who are not part of the sample. The questionnaire was administered to 60 students. The reliability of the instrument was tested using Cronbach's alpha (α) for estimating the internal consistency of the instrument. Upon analysis the students' anxiety yielded a reliability index of 0.83; the students' self concept scale yield a reliability index of 0.67 and the student motivation scale yielded a reliability index of 0.82. The whole instrument had an internal consistency of 0.92.

Method of Data Collection

The researcher obtained a letter of introduction from the Head of Department (HOD) of Guidance and Counselling, Delta State University, Abraka to facilitate access to the subjects for the purpose of this study. The questionnaire was administered with the help of three (3) research assistants.

Copies of the questionnaire were administered by the researchers to the respondent in the six (6) Secondary Schools used for the study. Two schools (one rural and one urban) school were each selected from three local Government Areas.

After the researcher had solicited for the co-operation of the schools head, he provided necessary guidance and explanations of the instrument to the respondents, the researcher then administered the questionnaire to the students (respondents). All

the administered copies of the questionnaire were retrieved from the respondents by the researcher.

Method of Data Analysis

The data collected were analyzed using SPSS version 21. Research questions 1-3 were answered and hypotheses 1-3 tested using regression analysis, while research questions 4 and 5 were answered and hypotheses 4 and 5 tested using multivariate analysis of variance, at 0.05 level of significance.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION

In this chapter, the data collected from 240 students for the study on Anxiety, self-concept and Motivation (ASCMQ) were presented, analyzed and discussed in line with the research questions and hypotheses. The data were presented in tables on the basis of five research questions and five null hypotheses. Multiple regression and multivariate Analysis of Variance statistical analysis with the aid of SPSS version 21 packages was used in data analysis and interpretation. All statistical output are resented in tables and interpretation presented below.

Presentation of Data

Research Question 1: what is the extent of relationship between anxiety and academic performance of students in public secondary school?

Hypothesis 1: There is no significant relationship between anxiety and academic performance of students in public secondary school.

To answer the research question and test the hypothesis, a linear regression analysis was conducted with the anxiety scores of students as the independent variable and the academic performance of the students as the dependent variables. The summary of the output is presented in Table 4.1

Table 4.1: Relationship between anxiety and academic performance of students in public secondary schools

Model summary					
	R	R^2	Adjusted R^2	SEE	
	0.21	0.043	0.043	13.33	
ANOVA					
Model	SS	Df	MS	F	P
Regression	1915.202	1	1915.202	10.778	.001*
Residual	42290.198	238	177.690		
Total	44205.400	239			
Variables in the Equation					
	B	Std. Error	Beta	t-ratio	P
Constant	37.641	6.547		5.749	0.000*
Anxiety	0.580	.177	.208	3.283	0.001*

**Significant at 0.05 confidence level.*

Dependent Variable: Academic Performance

The Table 4.1 shows that there was a significant relationship between anxiety and academic performance of students in public secondary schools in Delta Central senatorial district of Delta State ($r = 0.21$; $\rho<0.05$). The extent to which anxiety

influences the academic performance of students is indicated by R^2. The R^2 value of 0.043 indicates that anxiety influences students' academic performance by 0.043. The answer to research question one is: the extent of relationship between anxiety and academic performance of students in Delta central Senatorial district is 0.043.

Test the hypothesis, the Table 4.1 shows that there was a significant relationship between Students' anxiety and the academic performance of students $F(1,238) = 10.778$, $\rho < 0.05$]. The null hypothesis is therefore rejected. The result therefore implies that that was a significant negative relationship between anxiety and academic performance of students in Delta central Senatorial District of Delta State. The adjusted R^2 value of 0.039 indicates that 3.9% of variance in the academic performance of public secondary school students in Delta central Senatorial district was explained by students' anxiety. Also the Beta Value weight of anxiety (β= -0.208, $\rho<0.05$) indicates that anxiety is a significantly unique negative predictor of academic performance. The B value of -0.580 indicates that for a unit change (increase) in the anxiety level of the students, there will be a corresponding decrease of 0.580 units in the academic performance of students in public secondary schools in Delta North Senatorial District of Delta State.

Research Question 2: What is the extent of relationship between self concept and academic performance of students of public secondary school?

Hypothesis 2: There is no significant relationship between self concept and academic performance of students in public secondary schools.

To answer the research question 2 and test the hypothesis 2, a linear regression analysis was conducted. The summary of the result is presented in Table 4.2

Table 4.2: Relationship between student self concept and academic performance of students in public secondary schools

Model summary					
	R	R^2	Adjusted R^2	SEE	
	0.186	0.035	0.035	13.392	
ANOVA					
Model	SS	Df	MS	F	P
Regression	1526.425	1	1526.425	8.512	0.004*
Residual	42678.975	238	179.323		
Total	44205.400	239			
Variables in the Equation					
	B	Std. Error	Beta	t-ratio	P
Constant	40.309	6.447		6.252	0.000*
Student Self Concept	0.415	0.142	0.186	2.918	0.004*

**Significant at 0.05 confidence level.*

Dependent Variable: Academic Performance

The Table 4.2 shows that there was a relationship between self concept and academic performance of students in public secondary schools in Delta Central senatorial district of Delta State ($r = 0.186$; $\rho<0.05$). The extent to which student self concept influences the academic performance of students is indicated by R^2. The R^2value of 0.035 indicates that self concept influences student's academic performance by 0.035. The answer to research question Two is : the extent of relationship between student self concept and academic performance of students in Delta Central Senatorial District is 3.5%.

In test the hypothesis, the Table 4.2 shows that there was a significant relationship between self concept and the academic performance of students $F(1, 238) = 8.512$, $\rho < 0.05$]. The null hypothesis is therefore rejected. The result therefore implies that there was a significant relationship between self concept and academic performance of students in Delta central Senatorial District of Delta State. The adjusted R^2 value of 0.030 indicates that 3% of variance in the academic performance of public secondary school students in Delta central Senatorial district was explained by students' self concept. Also the Beta Value weight of self concept ($\beta= 0.186$, $\rho<0.05$) indicates that self concept is a significantly unique positive predictor of academic performance. The B value of 0.415 indicates that for a unit change (increase) in students self concept, there will be a corresponding increase of 0.415 units in the academic performance of students in public secondary schools in Delta North Senatorial District of Delta State.

Research Question 3: What is the extent of relationship between student motivation and academic performance of students of public secondary school?

Hypothesis 3: There is no significant relationship between motivation and academic performance of students in public secondary schools.

To answer the research question 3 and test the hypothesis 3, a linear regression analysis was conducted. The summary of the result is presented in Table 4.3

Table 4.3: Relationship between motivation and academic performance of students in public secondary schools

Model summary					
	R	R^2	Adjusted R^2	SEE	
	0.106	0.011	0.007	13.552	
ANOVA					
Model	SS	Df	MS	F	P
Regression	495.790	1	495.790	2.700	0.102ns
Residual	43709.610	238	183.654		
Total	44205.400	239			
Variables in the Equation					
	B	Std. Error	Beta	t-ratio	P
Constant	48.671	6.317		7.705	0.000
Motivation	0.233	0.142	0.106	1.643	0.102ns

NS – Not significant at 0.05 confidence level.

Dependent Variable: Academic Performance

The Table 4.3 shows that there was no significant relationship between motivation and academic performance of students in public secondary schools in Delta Central senatorial district of Delta State ($r = 0.106$; $\rho > 0.05$). Though, the relationship was not obvious statistically significant, the extent to which motivation influences the academic performance of students is indicated by R^2. The R^2 value of 0.011 indicates that student motivation influences their academic performance by 1.1%. The answer to research question Three is: the extent of relationship between student motivation and academic performance of students in Delta central Senatorial district is 1.1%

In testing the hypothesis three(3), the Table 4.3 shows that there was no significant relationship between motivation and the academic performance of students $F(1, 238) = 2.700$, $\rho > 0.05$]. The null hypothesis is therefore accepted. The result therefore maintains that there was no significant relationship between motivation and academic performance of students in Delta central Senatorial District of Delta State. The adjusted R^2 value of 0.007 indicates that only 0.7% of variance in the academic

performance of public secondary school students in Delta central Senatorial district was explained by students' self concept.

Research Question 4: What is the extent of relationship between anxiety, self-concept, motivation and academic performance of students of public secondary school?

Hypothesis 4: There is no significant relationship between anxiety, self-concept, motivation and academic performance of students in public secondary schools.

Table 4.4: Relationship between anxiety, self-concept, motivation and academic performance of students in public secondary schools

Model Summary					
	R	R^2	Adjusted R^2	SEE	
	0.315	0.423	0.043	12.867	
ANOVA					
Model	SS	Df	M S	F	P
Regression	1756.297	1	585.432	71.207	.001
Residual	4900.077	596	8.222		
Total	6656.373	599			
Variables in the Equation					
	B	Std. Error	Beta	t-ratio	P
(Constant)	39.929	5.179		12.662	.000
Anxiety	.142	0.035	.151	4.156	.000
Self Concept	.285	0.037	.291	7.624	.000
Motivation	.314	0.145	.261	6.946	.000

** Significant at 0.05 confidence level.*

Dependent Variable: Academic Performance

The Table 4.4 shows that there is a significant relationship between anxiety, self-concept, motivation and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State ($r = 0.315$; $\rho>0.05$). Though, the relationship was not obvious statistically significant, the extent to which anxiety, self-concept and motivation influences the academic performance of students is indicated by R^2. The R^2 value of 0.012 indicates that anxiety, self-concept and students motivation influences their academic performance by 1.1%. The answer to research question four is: the extent of relationship between anxiety, self-concept, student motivation and academic performance of students in Delta Central Senatorial District is 1.1%

In testing the hypothesis four, the Table 4.4 shows that there was significant relationship between anxiety, self-concept, motivation and the academic performance of students $F(1, 239) = 2.800$, $\rho > 0.05$]. The null hypothesis is therefore rejected. The

result therefore maintains that there is significant relationship between anxiety, self-concept, motivation and academic performance of students in Delta Central Senatorial District of Delta State. The adjusted R^2 value of 0.007 indicates that only 0.7% of variance in the academic performance of public secondary school students in Delta Central Senatorial District was explained by students' self concept.

Research Question 5: What is the interaction effect of gender in the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State?

Hypothesis 5: There is no significant interaction effect of gender in the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State.

To answer the research question and test the hypothesis, a multivariate analysis of variance was conducted with gender as the independent variable and student's anxiety, student's self concept, student's motivation and student's academic performance as the dependent variables. The output is presented in Table 4.**5** below.

Table 4.5: Relationship between gender and academic performance of students in **public secondary schools**

Effect	**Wilks' Lambda Value**	**F**	**Df**	**P**	**Partial eta squared**
Intercept	0.007	7881.431	4, 235	0.000*	0.993
Gender	0.974	1.551	4, 235	0.188ns	0.026

*** Significant at 0.05 confidence level; ns - not significant at 0.05 confidence level**

The Table 4.5 shows that there was no interaction effect of gender on the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State (wilks' Lambda = 0.974; ρ = 0.188). Research question 4 : the extent of interaction of gender in the relationship among student anxiety, student self concept, students motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State is represented by the partial eta squared value of 0.026 indicating 2.6%.

In testing the hypothesis, the table 4.5 shows that no significant relationship exists in the relationship among student anxiety, student self concept, students

motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State ($F(4, 235) = 0.974$; $\rho > 0.05$). In testing for the effect of gender in each of the dependent variables, the table 4.5b shows the test between subject effects.

Table 4.5b: Relationship among gender, Anxiety, Self concept, Motivation and academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	P	Eta Squared
Corrected Model	Student's Anxiety Score	11.668	1	11.668	.489	.485	.002
	Student's self concept score	1.564	1	1.564	.042	.838	.000
	Student's Motivation score	17.938[c]	1	17.938	.467	.495	.002
	academic performance of students	961.074[d]	1	961.074	5.289	.022	.022
	Student's Anxiety Score	322733.601	1	322733.601	13521.10	.000	.983
	Student's self concept score	481933.881	1	481933.881	12944.73	.000	.982
	Student's Motivation score	465524.688	1	465524.688	12132.54	.000	.981
	academic performance of students	834088.607	1	834088.607	4590.50	.000	.951
Gender	Student's Anxiety Score	11.668	1	11.668	0.489	.485	.002
	Student's self concept score	1.564	1	1.564	0.042	.838	.000
	Student's Motivation score	17.938	1	17.938	0.467	.495	.002
	academic performance of students	961.074	1	961.074	5.289	.022	.022
Error	Student's Anxiety Score	5680.795	238	23.869			
	Student's self concept score	8860.769	238	37.230			
	Student's Motivation score	9132.046	238	38.370			
	academic performance of students	43244.326	238	181.699			
Total	Student's Anxiety Score	329607.000	240				
	Student's self concept score	493064.000	240				
	Student's Motivation score	477140.000	240				
	academic performance of students	878230.000	240				

Corrected Total	Student's Anxiety Score	5692.462	239				
	Student's self concept score	8862.333	239				
	Student's Motivation score	9149.983	239				
	academic performance of students	44205.400	239				

The table 4.5b shows that gender has no effect on students anxiety F(1, 238) = 0.489; ρ> 0.05; Partial eta squared = 0.00. Gender also had no effect on student self concept F (1, 238) = 0.042; ρ>0.05; partial eta squared = 0.00). The Table 4.5b also shows that gender had no effect on motivation of the students (F(1, 238) = 0.495; ρ >0.05; partial eta squared = 0.002) and gender also had no effect on the academic performance of students (F(1, 238) = 5.289; ρ > 0.05 ; partial eta squared = 0.022). Since Gender had no interactions in any of the dependent variables, neither was there any effect in the relationship among all the dependent variables, the null hypothesis is therefore accepted. The result maintains that there is not significant interaction effect of gender in the relationship among student anxiety, student self concept, students motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State.

Research Question 6: What is the interaction effect of location in the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State?

Hypothesis 6: There is no significant interaction effect of Location in the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State.

To answer the research question 5 and test the hypothesis 5, a multivariate analysis of variance was conducted with location as the independent variable and student's anxiety, student's self concept, student's motivation and student's academic performance as the dependent variables. The output is presented in Table 4.5 below.

Table 4.6: Relationship between location and academic performance of student in public secondary school

Effect	Wilks' Lambda Value	F	Df	P	Partial eta squared
Intercept	0.008	7729.381	4, 235	0.000*	0.992
Location	0.942	3.650	4, 235	0.007*	0.058

* *Significant at 0.05 confidence level*

NS - not significant at 0.05 confidence level

The Table 4.6 shows that there was an interaction effect of location on the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State (wilks' Lambda = 0.942; $\rho < 0.05$). The answer to the research question 4 is: the extent of interaction of gender in the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State is represented by the partial eta squared value of 0.058 indicating 5.8% influence of location on the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State.

In testing the hypothesis 6, the table 4.6 shows that there was a significant location effect in the relationship among student anxiety, student self concept, students motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State ($F(4, 235) = 3.650$; $\rho > 0.05$). In testing for the effect of location in each of the dependent variables, the table 4.6b shows the test of between subject effects.

Table 4.6b: Relationship among Location, Anxiety, Self concept, Motivation and academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	ρ	Eta Squared
Corrected Model	Students Anxiety Score	138.712[a]	1	138.712	5.944	.015	.024
	student self concept score	1.702[b]	1	1.702	.046	.831	.000
	student Motivation score	65.140[c]	1	65.140	1.707	.193	.007
	academic performance of students	516.942[d]	1	516.942	2.816	.095	.012
	Students Anxiety Score	309498.412	1	309498.412	13263.221	.000	.982
	student self concept score	466072.552	1	466072.552	12518.889	.000	.981
	student Motivation score	448723.007	1	448723.007	11755.412	.000	.980
	academic performance of students	811216.726	1	811216.726	4419.235	.000	.949
Location	Students Anxiety Score	138.712	1	138.712	5.944	.015	.024
	student self concept score	1.702	1	1.702	.046	.831	.000
	student Motivation score	65.140	1	65.140	1.707	.193	.007
	academic performance of students	516.942	1	516.942	2.816	.095	.012
Error	Students Anxiety Score	5553.751	238	23.335			
	student self concept score	8860.632	238	37.230			
	student Motivation score	9084.843	238	38.172			
	academic performance of students	43688.458	238	183.565			
Total	Students Anxiety Score	329607.000	240				
	student self concept score	493064.000	240				
	student Motivation score	477140.000	240				
	academic performance of students	878230.000	240				
Corrected Total	Students Anxiety Score	5692.462	239				
	student self concept score	8862.333	239				
	student Motivation score	9149.983	239				
	academic performance of students	44205.400	239				

The table 4.6b shows that Location had a significant effect on students anxiety ($F(1, 238) = 5.944$; $\rho < 0.05$; Partial eta squared = 0.024). Location had no effect on

student self-conception (F(1, 238) = 1.702; ρ>0.05; partial eta squared = 0.000). The Table 4.6b also shows that location had no effect on motivation of the students (F (1, 238) = 1.707; ρ >0.05; partial eta squared = 0.007). Location also had no significant effect on the academic performance of students (F (1, 238) = 3.892; ρ > 0.05; partial eta squared = 0.012). Based on the Wilks' Lambda test, the null hypothesis is therefore rejected. The result implies that there was a significant interaction effect of location in the relationship among student anxiety, student self concept, students motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State.

Since there was a significant effect of location on students' anxiety and students' academic performance, a descriptive statistic was carried out to determine the differences in the mean score for the different location.

Summary of Findings

Based on the results of the data analysis, the following findings were made:

1. There was a significant relationship between anxiety and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State.
2. There was a significant relationship between student self concept and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State
3. There was no significant relationship between motivation and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State
4. There was a significant relationship between anxiety, self concept, motivation and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State
5. There was no interaction effect of gender on the relationship among student's anxiety, student self concept, students motivation and academic performance in public secondary schools of Delta Central senatorial district of Delta State. .
6. There was an interaction effect of location on the relationship among student anxiety, student self concept, students motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State

7. Location had a significant effect on student's anxiety and academic performance, but Location had no effect on student's self conception and motivation.
8. Students from rural schools exhibited anxiety more than students from urban secondary schools.

Discussion of Findings

Arising from the findings presented above, the following discussions were made in this study in relation to how the findings agree or disagree with the materials reviewed in related literature as well as current issues in the area under study. There was a significant relationship between anxiety and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State. This finding simply implies that the relationship between academic performance and anxiety is a negative one, that is to say, as anxiety increases academic performance decreases. This is in line with the finding of Mohammad, Akhtar, Saira, and Syeda, (2012) who found that when anxiety increases, academic achievement decreases both in male and female students. Students' academic performance has been observed to be influenced by several factors including anxiety. The study by Afolayan, Bitrus, Olayinka, Adeyanju, and Agama, (2013) indicated that anxiety is a common cause of poor academic performance during examination among few students. This anxiety is often expressed as psychological, physiological and behavioural abnormalities during examination. Mohammed *et al*., (2012) also reported a perfect negative relationship between anxiety and academic achievement of students. The reason for this is not far-fetched, anxiety often carried with it feeling of lack of confidence, irritability, reduction of self – liking and guilt, all these are reactions to a perceived inability to solve one's problems. The anxious individual is troubled so much by immediate and concrete danger as by further possibilities. It means that when anxiety increases academic achievement falls and when anxiety decreases academic achievement rises. This is similar to and in line with the outcome of the present study.

With respect to self concept, there was a significant positive relationship between student's self concept and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State. This implies that as self concept increases among secondary schools in Delta State, student's academic performance also increases. This agreed with the findings of Tang (2011), who noted that human behaviour can be substantially explained by self-concept, which is

influenced by our sense of identity, the judgments other people make of us and perceptions of social relationship with other people. Besides that, parental upbringing, continuous failure, depression and internal self-critic also influence the development of one's self-concept. Tang (2011) in his study on 'The Relationships of Self-concept, Academic Achievement and Future Pathway of First Year Business Studies Diploma Students' observed that non-academic self-concepts; peer relation self-concept and appearance self-concept all affected academic achievement for non-language subjects and English scores respectively. On the other hand, students who perceived themselves as better looking than others (higher appearance self-concept) may be over confident and neglect the academic aspects when doing verbal presentations in individual and group works which contribute largely to the English coursework (Tang, 2011). Affum-Osei *et al.,* (2014) also reported a very strong significant relation between students' self-concept and academic achievement, which agrees with the outcome of this present study.

Tang (2011) added that this is supported by the importance of non-academic self-concept in student's real life, in adjusting to adulthood. Peer relation self-concept is an important social factor during class and out-of-class. While this may enhance learning among peers but the negative relationship between academic achievement and peer relation, self-concept in this study may be explained as overly dependent on peers in doing group assignments or coursework will daunt independent learning and encourage social loafing.

With respect to motivation, this study showed that there was a no significant relationship between motivation and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State. Although, the relationship was not obvious statistically significant, the extent to which motivation influences the academic performance of students however indicated that student motivation influences their academic performance by 0.9%. This result implies that as motivation increases there was little or no change in academic performance of the students. This outcome contradicts the report of some researchers. For instance, Kusurkar, Ten Cate, Vos, Westers, and Croiset, (2012), reported a positive association between motivation and academic performance of students, in their study on 'how motivation affects academic performance: a structural equation modelling analysis', they explained that motivation has been shown to positively influence study strategy, academic performance, adjustment and well-being in students in domains of

education other than medical education. Tella (2007) also reported is significant difference in the academic achievement of highly motivated and lowly motivated students in mathematics in his study on 'the Impact of Motivation on Student's Academic Achievement and Learning Outcomes in Mathematics among Secondary School Students in Nigeria'. All these works at variance with the findings of the present study suggest that motivation has a major influence on or association with academic achievements of students. Affum-Osei *et al.* (2014) reported no significant relationship between students' achievement motivation and academic performance, that is to say, relationship exists between motivation and academic achievement but not significant to have any significant impact on students' performance. The reason for this may be that students do not have the need for motivation these days as hard work for improvement has been thrown to the trash bin as examination malpractices and other means of obtaining good academic performance has taken the centre stage.

Hypothesis four (4) revealed that there is significant relationship between anxiety, self concept, motivation and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State. This implies that anxiety, self-concept and motivation influence the academic performance of students. This is in agreement with the study by Sikhawari (2014) on 'Relationship between Motivation, Self-concept and Academic achievement of Students at a University in Limpopo Province', who found that there were significant correlations between self-concept, motivation and academic achievement of students. This implies when a student has a positive perception of his/her abilities and he/she is well motivated to study, the possibility of the increase of academic performance is sure.

No significant interaction effect of gender was found on the relationship among student anxiety, student self concept, students motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State. That is, gender has no effect on students anxiety, gender also had no effect on student self conception, gender had no effect on motivation, and gender had no effect on academic achievement. This implies that gender had no interactions in any of the dependent variables, neither was there any effect in the relationship among all the dependent variables. Afolayan *et al*., (2013) reported that there was no statistical significant relationship between gender and anxiety with respect to student academic performance. They added that students' academic performance has been observed to be influenced by several factors including anxiety.

This anxiety is often expressed as psychological, physiological and behavioural abnormalities during examination. The report implies that gender does not have a significant role in determining the level of anxiety and academic performance, and this agrees with the outcome of the present study. According to Dobson (2012), few studies indicated a significant difference in anxiety based on gender. Several studies did not agree about who showed more anxiety. A particular study however, showed that male students were significantly more likely to suffer from anxiety. Another study found higher levels of anxiety in female students. One study found that more females were more likely to attribute their grades to the effort they put in to a test or assignment. The same study found that students who attribute academic performance to effort are more likely to suffer from anxiety. Therefore, females in the study were more likely to suffer from anxiety related to Perfectionism and anxiety can be positive for some students (Dobson, 2012). Obioma and Ohuche (1981) and Onunkwo (1996) found that male students performed better than their female counterparts. In their study, (Afolayan et al., 2013) further observed that there was no statistical significant difference between anxieties among males or females performance in examinations. There was also no statistical significant relationship between anxiety in male and female gender and their academic performance. This implies that gender does not have a significant role in determining the level of anxiety and academic performance.

Tella (2007) observed that results of some studies have shown that gender difference were significant when impact of motivation on academic achievement was compared in male and female students. Also results from other studies indicate significant difference when extent of motivation was taken as variable of interest on academic achievement in mathematics based on the degree of their motivation. The result clearly reveals that significant difference exists in the academic achievement of male and female student in mathematics with (Tella, 2007). It was also found that female students are significantly more motivated than their male counterparts (Sikhwari, 2014). Okorodudu and Ossai (2012) reported that though there was a negative relationship between examination anxiety and academic performance in the psychology course, the relationship was not significant. They also added that, sex of students did not significantly affect the relationship between their examination anxiety and academic performance in the psychology course, this agrees with the findings of the study under consideration.

With respect to location, there was an interaction effect of location on the relationship among student anxiety, student self concept, students motivation and the academic performance of student in public secondary schools of Delta Central Senatorial District of Delta State. Keeves (1978) however, has demonstrated that school type (Government, Catholic or other independent schools) did not make a contribution to the academic achievement of a sample of Australian adolescents independently influence of their home backgrounds. This is at variance with the outcome of this study. The variation observed may be as a result of different parts of the world being considered, i.e. Australia against Nigeria. William *et al.* (1980) in another study of Australian seventeen years however revealed that other things being equal, students attending Catholic or other independent school had higher levels of achievement than students from Government Schools, which agrees with the present study.

Boylan and Mcswan (1998) reported that rural school were inferior and lacking in the range of facilities with high staff turnover and suffered from lack of continuity in their curriculum. Obe (1984) observed a significant difference in rural-urban academic performance of 480 primary six school finalist on the aptitude subtest of the National Common Entrance Examination into secondary, and concluded that children from urban schools were superior to their rural counterparts. Owoeye (2002) holds similar view as Obe that there was a significant difference between academic performance of students in rural and urban area in public examination. All these agree with the outcome of this study, indicating that the location of a school has a lot of role to play in the academic achievement of the students.

It is a common knowledge that rural settings lack so many social amenities needed for the education of the students, therefore what the urban student can achieved as a result of the presence of social amenities, cannot be in the rural setting. In addition, there is need to influence the environment positively, the urban students are more challenged with this need unlike their rural counterpart.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

In this chapter the following sub-headings will be consider;

- Summary of Study
- Summary of Research Findings and Conclusion
- Recommendations
- Contributions to knowledge
- Suggestion for further studies

Summary of the Study

The study examined the anxiety, self concept and motivation as correlates of academic performance of public secondary school students in Delta State. To carry out a successful study, six research questions and hypotheses were formulated to guide this study.

As a correlation study, it studied adapted behaviour theory of learning. The estimated population of the study comprised of all public secondary school students in Delta Senatorial District. Purposive sampling technique was used to draw the sample used in this study. The researcher generated 45 items instrument titled 'Anxiety, self-concept and Motivation (ASCMO) Questionnaire. The questionnaires was validated at its face, content and construct validity and had a reliability coefficient value of 0.92 Cronbach's alpha value, and a construct validity of 86.48 and a content validity ranging from 0.41 to 0.91. Linear and multiple regression as well as Multivariate Analysis of Variance (MANOVA) were used to answer the research questions and test the hypotheses. The hypotheses were tested at 0.05 level of significant. Based on the results of the data analysis, the following findings were made:

1. There was a significant relationship between anxiety and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State.
2. There was a significant relationship between student's self concept and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State
3. There was no significant relationship between motivation and academic performance of students in public secondary schools in Delta Central Senatorial District of Delta State

4. There was no interaction effect of gender on the relationship among student's anxiety, student self concept, students motivation and academic performance in public secondary schools of Delta Central Senatorial District of Delta State.
5. There was an interaction effect of location on the relationship among student's anxiety, student's self concept, student's motivation and the academic performance of students in public secondary schools of Delta Central Senatorial District of Delta State.
6. Location had a significant effect on student's anxiety and academic performance, but Location had no effect on student's self conception and motivation.
7. Students from rural schools exhibited anxiety more than students from urban secondary schools.
8. Students from urban secondary school had a better academic performance than students from rural secondary schools in Delta Central Senatorial District of Delta State.

Conclusions

Based on the findings of the study, the following conclusions were inferred. As anxiety increases among secondary school students in Delta State, their academic performance reduces because anxiety has a negative influence on academic performance, as such, if there is need to increase academic performance of secondary school students, there is the need to reduce the anxiety level of learners. Self concept by students of secondary schools in Delta State influences their academic performance. However, self concept is not a good predictor of academic performance. Academic performance is not influenced by motivation. Motivation is not a predictor of academic performance. Gender does not interact with the relationship that exists among anxiety, self concept, motivation and academic performance. Location however, interacts with the relationship that exists among anxiety, self concept, motivation and academic performance. Students from rural schools were more anxious than those from urban schools and consequently, those from urban schools had a better academic performance.

Recommendations

Based on the findings and conclusion made by the researcher in this study the following recommendations are made;

1. Guidance counsellors alongside teachers should regularly carryout counselling services aimed at reducing anxiety level of learners in order to increase their academic performance.
2. Learners should be assisted by counsellors, teachers and parents to develop positive self concept by making them to know that if they have positive view of their efficiency, it is bound to motivate them to put in their best in academics.
3. Students should be regularly motivated positively in the home and in the school so that they can increase their academic performance, with the awareness that mounting undue pressure on a learner raises the anxiety level.
4. Students should be adequately prepared for any examination as well as for class work so that they are able to develop confidence in themselves and thus prevent examination related anxiety. This should be done by the teachers in teaching and learning without too much pressure.
5. Examinations and continuous assessment tests as well as assignments should be well planned and the students put into consideration during such planning to avoid undue stress on the students which most likely triggers anxiety.
6. Teachers in rural schools should be trained on how to help manage anxiety of students in rural schools and how to help students develop positive self-concept. This should be done with the view that the teacher will translate this to the classroom in helping learners.

Contributions to knowledge

This study has made some contributions to knowledge in the following ways:

1 This study may serve as useful source information in the area of teacher's effectiveness in class as it helps them see the reasons for the poor performances of most students.

2 It also helps the counselors to identify with students that exhibit high level of anxiety, and as such will be able to counsel them accordingly.

Suggestion for further studies

1. The study may also be carried out to compare private and public schools in Delta state.
2. Similar study can be conducted on tertiary institutions and as well, a comparison may be made between tertiary and secondary schools.

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APPENDIX 1

QUESTIONNAIRE ON ANXIETY, SELF-CONCEPT, MOTIVATION AS CORRELATES ACADEMIC PERFORMANCE OF STUDENTS QUESTIONNAIRE (ASCMAPQ)

Department of Educational Psychology, Guidance and Counselling
Delta State University
Abraka, Nigeria.

Dear Student,

The attached questionnaire is designed on the Anxiety, Self-Concept, and Motivation as correlated Academic performance of students in public secondary schools in Delta State.

Please kindly respond to the questions candidly and to the best of your convictions. Information gotten from you will be treated in strict confidence and will be used only for academic purposes.

Thanks,

Yours faithfully,

OKOH, A.O.

SECTION A: PERSONAL DATA

Please tick [√] where applies to you.

1. Name of school……
2. Gender: Male [ ] Female [ ]
3. School location: Urban [ ] Rural [ ]

SECTION B: STUDENTS' ANXIETY

Tick [√] to indicate your level of agreement or disagreement with the following statements. Strongly agreed = SA, Agreed = A, Disagreed = D, Strongly Disagreed = SD.

S/N	STATEMENTS/ITEMS	SA	A	D	SD
1.	I feel upset whenever I stand in front of the class				
2.	I get very worried anytime I see an unknown question in a test				
3.	I border so much whenever I fail question asked by my teachers during lessons				
4.	I get frightened anytime my teacher look at me to ask me questions during lessons				
5.	I become jittery whenever I stand up to answer questions asked me during lessons				
6.	At home I often worry about school activities				
7.	I do not fear when I make mistakes as read aloud to the class				
8.	I am very worried anytime I propose to bring a book to school and forget				
9.	I like disclosing my marks in a test to other students whenever I pass				
10.	It worries me a lot whenever I fail some questions in a test				
11.	I feel comfortable whenever I have a new teacher				
12.	I shiver anytime I hear that a student should be severely punished				
13.	I tremble a lot whenever I am late to school				
14.	I am confident anytime my teacher asks me sudden question in class				
15.	I boldly ask my teacher for help whenever I don't understand something				

SECTION C: STUDENTS' SELF CONCEPT

S/N	STATEMENTS/ITEMS	SA	A	D	SD
1.	I am liked by teacher				
2.	I am trusted and easily attracted by people				
3.	I could never achieve academic honours, even if I worked harder.				
4.	Relative to most people, my verbal skills are quite good				
5.	Am usually well-behaved				
6.	Am usually careless				

7.	I am diligent				
8.	Am usually not friendly				
9.	Am usually shy				
10.	Am usually polite				
11.	Am usually honest				
12.	I have a lot of intellectual curiosity				
13.	Am usually helpful				
14.	Am intelligent				
15.	Am not fluent in English language				

SECTION D: STUDENTS' MOTIVATION

S/N	STATEMENTS/ITEMS	SA	A	D	SD
1.	Am motivated by failure				
2.	Correction from my teacher motivates me				
3.	Am motivated by my love for a subject				
4.	Am motivated by the desire to succeed				
5.	Am motivated by competition				
6.	Correction from my parents motivates me				
7.	Am motivated by my parents' career				
8.	I lose motivation whenever my teacher scolds me				
9.	Am not motivated by my classmates' progress				
10.	I get motivated by rewards from my teacher				
11.	I get motivated by rewards from my parents				
12.	I lose motivation once my teacher flogs me for failure				
13.	I don't have the subject text, so am not motivated				
14.	Am not motivated because am not comfortable in class				
15.	I like being persuaded by my teacher				

APPENDIX 2

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT academic
  /METHOD=ENTER Students Anxiety.
```

Regression: hyp1

[DataSet1] G:\Father Okoh to Use.sav

Descriptive Statistics

	Mean	Std. Deviation	N
academic performance of students	59.1976	13.64639	248
Students Anxiety Students Anxiety Score	36.7742	4.95378	248

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.234[a]	.055	.051	13.29587	.055	14.195	1

Model Summary

Model	Change Statistics	
	df2	Sig. F Change
1	246[a]	.000

a. Predictors: (Constant), Students Anxiety Students Anxiety Score

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2509.423	1	2509.423	14.195	.000[b]
	Residual	43487.896	246	176.780		
	Total	45997.319	247			

a. Dependent Variable: academic performance of students
b. Predictors: (Constant), Students Anxiety Students Anxiety Score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	35.536	6.337		5.608
	StudentsAnxiety Students Anxiety Score	.643	.171	.234	3.768

Coefficients[a]

Model		Sig.	Correlations		
			Zero-order	Partial	Part
1	(Constant)	.000			
	StudentsAnxiety Students Anxiety Score	.000	.234	.234	.234

a. Dependent Variable: academic performance of students

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT academic
  /METHOD=ENTER Students Self Concept.
```

Regression: hyp2

[DataSet1] G:\Father Okoh to Use.sav

Descriptive Statistics

	Mean	Std. Deviation	N
academic performance of students	59.1976	13.64639	248
Students Self Concept score	44.9274	6.02044	248

Correlations

		academic performance of students	Students Self Concept
Pearson Correlation	academic performance of students	1.000	.186
	Students Self Concept student	.186	1.000
Sig. (1-tailed)	academic performance of students	.	.002
	Students Self Concept score	.002	.
N	academic performance of students	248	248
	Students Self Concept score	248	248

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.186[a]	.034	.030	13.43674	.034	8.768	1

Model Summary

Model	Change Statistics	
	df2	Sig. F Change
1	246[a]	.003

a. Predictors: (Constant), Students Self Concept score

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1582.974	1	1582.974	8.768	.003[b]
	Residual	44414.344	246	180.546		
	Total	45997.319	247			

a. Dependent Variable: academic performance of students
b. Predictors: (Constant), Students Self Concept score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	40.306	6.437	
	Students Self Concept score	.420	.142	.186

Coefficients[a]

Model		t	Sig.	Correlations	
				Zero-order	Partial
1	(Constant)	6.262	.000		
	Students Self Concept score	2.961	.003	.186	.186

Coefficients[a]

Model		Correlations
		Part
1	(Constant)	
	Students Self Concept score	.186

a. Dependent Variable: academic performance of students

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT academic
  /METHOD=ENTER Students Motivation.
```

Regression: hyp3

[DataSet1] G:\Father Okoh to Use.sav

Descriptive Statistics

	Mean	Std. Deviation	N
academic performance of students	59.1976	13.64639	248
Students Motivation score	44.0968	6.12147	248

Correlations

		academic performance of students	Students Motivation score
Pearson Correlation	academic performance of students	1.000	.096
	Students Motivation score	.096	1.000
Sig. (1-tailed)	academic performance of students	.	.065
	Students Motivation score	.065	.
N	academic performance of students	248	248
	Students Motivation score	248	248

Correlations

		academic performance of students	Students Anxiety Score
Pearson Correlation	academic performance of students	1.000	.234
	Students Anxiety Score	.234	1.000
Sig. (1-tailed)	academic performance of students	.	.000
	Students Anxiety Score	.000	.
N	academic performance of students	248	248
	Students Anxiety Score	248	248

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.096[a]	.009	.005	13.61066	.009	2.299	1

Model Summary

Model	Change Statistics	
	df2	Sig. F Change
1	246[a]	.131

a. Predictors: (Constant), Students Motivation score

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	425.820	1	425.820	2.299	.131[b]
	Residual	45571.499	246	185.250		
	Total	45997.319	247			

a. Dependent Variable: Academic performance of students
b. Predictors: (Constant), Student Motivation score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	49.739	6.298	
	Students Motivation score	.214	.141	.096

Coefficients[a]

Model		t	Sig.	Correlations	
				Zero-order	Partial
1	(Constant)	7.897	.000		
	Students Motivation score	1.516	.131	.096	.096

Coefficients[a]

Model		Correlations
		Part
1	(Constant)	
	Students Motivation score	.096

a. Dependent Variable: Academic performance of students

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT academic
  /METHOD=ENTER Students Anxiety
  /METHOD=ENTER Students Self Concept
  /METHOD=ENTER Students Motivation.

GLM Students Anxiety Students Self Concept Students Motivation academic BY
gender
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /EMMEANS=TABLES(gender) COMPARE ADJ(BONFERRONI)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /DESIGN= gender.
```

General Linear Model : hyp4

[DataSet1] F:\ \Father Okoh to Use.sav

Between-Subjects Factors

		Value Label	N
gender	1.00	male	135
Gender	2.00	female	113

Descriptive Statistics

	gender Gender	Mean	Std. Deviation	N
Students Anxiety Score	1.00 male	36.6963	4.48925	135
	2.00 female	36.8673	5.47642	113
	Total	36.7742	4.95378	248
Students Self Concept score	1.00 male	45.0370	6.00672	135
	2.00 female	44.7965	6.06094	113
	Total	44.9274	6.02044	248
Students Motivation score	1.00 male	44.3185	6.19178	135
	2.00 female	43.8319	6.05319	113
	Total	44.0968	6.12147	248
academic performance of students	1.00 male	57.7926	13.46754	135
	2.00 female	60.8761	13.72832	113
	Total	59.1976	13.64639	248

Box's Test of Equality of Covariance Matrices[a]

Box's M	10.634
F	1.045
df1	10
df2	269564.485
Sig.	.402

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.[a]

a. Design: Intercept + gender

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.993	8086.892[b]	4.000	243.000	.000
	Wilks' Lambda	.007	8086.892[b]	4.000	243.000	.000
	Hotelling's Trace	133.118	8086.892[b]	4.000	243.000	.000
	Roy's Largest Root	133.118	8086.892[b]	4.000	243.000	.000
gender	Pillai's Trace	.016	.983[b]	4.000	243.000	.418
	Wilks' Lambda	.984	.983[b]	4.000	243.000	.418
	Hotelling's Trace	.016	.983[b]	4.000	243.000	.418

	Roy's Largest Root	.016	.983[b]	4.000	243.000	.418

Multivariate Tests[a]

Effect		Partial Eta Squared	Noncent. Parameter	Observed Power
Intercept	Pillai's Trace	.993	32347.570[b]	1.000
	Wilks' Lambda	.993	32347.570[b]	1.000
	Hotelling's Trace	.993	32347.570[b]	1.000
	Roy's Largest Root	.993	32347.570[b]	1.000
Gender	Pillai's Trace	.016	3.931[b]	.309
	Wilks' Lambda	.016	3.931[b]	.309
	Hotelling's Trace	.016	3.931[b]	.309
	Roy's Largest Root	.016	3.931[b]	.309

a. Design: Intercept + gender
b. Exact statistic
c. Computed using alpha = .05

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
Students Anxiety Score	1.789	1	246	.182
Students Self Concept score	.318	1	246	.573
Students Motivation score	.420	1	246	.517
academic performance of students	.162	1	246	.688

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.[a]
a. Design: Intercept + gender

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df
Corrected Model	Students Anxiety Score	1.798[a]	1
	Students Self Concept student score	3.560[b]	1
	Students Motivation score	14.568[c]	1
	academic performance of students	584.860[d]	1
Intercept	Students Anxiety Score	332878.637	1
	Students Self Concept score	496406.141	1
	Students Motivation score	477979.068	1
	academic performance of students	866229.344	1
Gender	Students Anxiety Score	1.798	1
	Students Self Concept score	3.560	1
	Students Motivation score	14.568	1
	academic performance of students	584.860	1

Error	Students Anxiety Score	6059.557	246
	Students Self Concept score	8949.133	246
	Students Motivation score	9241.109	246
	academic performance of students	45412.458	246
Total	Students Anxiety Score	341442.000	248
	Students Self Concept score	509534.000	248
	Students Motivation score	491498.000	248
	academic performance of students	915077.000	248
Corrected Total	Students Anxiety Score	6061.355	247
	Students Self Concept concept score	8952.694	247
	Students Motivation score	9255.677	247
	academic performance of students	45997.319	247

Tests of Between-Subjects Effects

Source	Dependent Variable	Mean Square	F
Corrected Model	Students Anxiety Score	1.798[a]	.073
	Students Self Concept score	3.560[b]	.098
	Students Motivation score	14.568[c]	.388
	academic performance of students	584.860[d]	3.168
Intercept	Students Anxiety Score	332878.637	13513.883
	Students Self Concept score	496406.141	13645.557
	Students Motivation score	477979.068	12723.890
	academic performance of students	866229.344	4692.378
gender	Students Anxiety Score	1.798	.073
	Students Self Concept score	3.560	.098
	Students Motivation score	14.568	.388
	academic performance of students	584.860	3.168
Error	Students Anxiety Score	24.632	
	Students Self Concept score	36.379	
	Students Motivation score	37.565	
	academic performance of students	184.603	
Total	Students Anxiety Score		
	Students Self Concept score		
	Students Motivation score		
	academic performance of students		
Corrected Total	Students Anxiety Score		
	Students Self Concept score		
	Students Motivation score		
	academic performance of students		

Tests of Between-Subjects Effects

Source	Dependent Variable	Sig.	Partial Eta Squared
Corrected Model	Students Anxiety Score	.787[a]	.000
	Students Self Concept score	.755[b]	.000
	Students Motivation score	.534[c]	.002
	academic performance of students	.076[d]	.013

Intercept	Students Anxiety Score	.000	.982
	Students Self Concept score	.000	.982
	Students Motivation score	.000	.981
	academic performance of students	.000	.950
gender	Students Anxiety Score	.787	.000
	StudentsSelfConcept student self concept score	.755	.000
	StudentsMotivation student Motivation score	.534	.002
	academic academic performance of students	.076	.013
Error	StudentsAnxiety Students Anxiety Score		
	StudentsSelfConcept student self concept score		
	StudentsMotivation student Motivation score		
	academic academic performance of students		
Total	StudentsAnxiety Students Anxiety Score		
	StudentsSelfConcept student self concept score		
	StudentsMotivation student Motivation score		
	academic academic performance of students		
Corrected Total	StudentsAnxiety Students Anxiety Score		
	StudentsSelfConcept student self concept score		
	StudentsMotivation student Motivation score		
	academic academic performance of students		

Tests of Between-Subjects Effects

Source	Dependent Variable	Noncent. Parameter	Observed Power
Corrected Model	StudentsAnxiety Students Anxiety Score	.073[a]	.058
	StudentsSelfConcept student self concept score	.098[b]	.061
	StudentsMotivation student Motivation score	.388[c]	.095
	academic academic performance of students	3.168[d]	.426
Intercept	StudentsAnxiety Students Anxiety Score	13513.883	1.000
	StudentsSelfConcept student self concept score	13645.557	1.000
	StudentsMotivation student Motivation score	12723.890	1.000
	academic academic performance of students	4692.378	1.000
gender	StudentsAnxiety Students Anxiety Score	.073	.058
	StudentsSelfConcept student self concept score	.098	.061

	StudentsMotivation student Motivation score	.388	.095
	academic academic performance of students	3.168	.426
	StudentsAnxiety Students Anxiety Score		
	StudentsSelfConcept student self concept score		
Error	StudentsMotivation student Motivation score		
	academic academic performance of students		
	StudentsAnxiety Students Anxiety Score		
	StudentsSelfConcept student self concept score		
Total	StudentsMotivation student Motivation score		
	academic academic performance of students		
	StudentsAnxiety Students Anxiety Score		
	StudentsSelfConcept student self concept score		
Corrected Total	StudentsMotivation student Motivation score		
	academic academic performance of students		

a. R Squared = .000 (Adjusted R Squared = -.004)
b. R Squared = .000 (Adjusted R Squared = -.004)
c. R Squared = .002 (Adjusted R Squared = -.002)
d. R Squared = .013 (Adjusted R Squared = .009)
e. Computed using alpha = .05

Estimated Marginal Means

Gender

Estimates

Dependent Variable	Gender	Mean	Std. Error	95% Confidence Interval
				Lower Bound
StudentsAnxiety Students Anxiety Score	1.00 male	36.696	.427	35.855
	2.00 female	36.867	.467	35.948
StudentsSelfConcept student self concept score	1.00 male	45.037	.519	44.015
	2.00 female	44.796	.567	43.679
StudentsMotivation student Motivation score	1.00 male	44.319	.528	43.280
	2.00 female	43.832	.577	42.696
academic academic performance of students	1.00 male	57.793	1.169	55.489
	2.00 female	60.876	1.278	58.359

Estimates

Dependent Variable	Gender	95% Confidence Interval
		Upper Bound
StudentsAnxiety Students Anxiety Score	1.00 male	37.538
	2.00 female	37.787
StudentsSelfConcept student self concept score	1.00 male	46.059
	2.00 female	45.914
StudentsMotivation student Motivation score	1.00 male	45.358
	2.00 female	44.968
academic academic performance of students	1.00 male	60.096
	2.00 female	63.394

Pairwise Comparisons

Dependent Variable	(I) Gender	(J) Gender	Mean Difference (I-J)	Std. Error
StudentsAnxiety Students Anxiety Score	1.00 male	2.00 female	-.171	.633
	2.00 female	1.00 male	.171	.633
StudentsSelfConcept student self concept score	1.00 male	2.00 female	.241	.769
	2.00 female	1.00 male	-.241	.769
StudentsMotivation student Motivation score	1.00 male	2.00 female	.487	.781
	2.00 female	1.00 male	-.487	.781
academic academic performance of students	1.00 male	2.00 female	-3.084	1.732
	2.00 female	1.00 male	3.084	1.732

Pairwise Comparisons

Dependent Variable	(I) Gender	(J) Gender	Sig.	95% Confidence Interval for Difference
				Lower Bound
StudentsAnxiety Students Anxiety Score	1.00 male	2.00 female	.787	-1.417
	2.00 female	1.00 male	.787	-1.075
StudentsSelfConcept student self concept score	1.00 male	2.00 female	.755	-1.274
	2.00 female	1.00 male	.755	-1.755
StudentsMotivation student Motivation score	1.00 male	2.00 female	.534	-1.053
	2.00 female	1.00 male	.534	-2.026
academic academic performance of students	1.00 male	2.00 female	.076	-6.496
	2.00 female	1.00 male	.076	-.329

Pairwise Comparisons

Dependent Variable	(I) Gender	(J) Gender	95% Confidence Interval for Difference
			Upper Bound
StudentsAnxiety Students Anxiety Score	1.00 male	2.00 female	1.075
	2.00 female	1.00 male	1.417
StudentsSelfConcept student self concept score	1.00 male	2.00 female	1.755
	2.00 female	1.00 male	1.274
StudentsMotivation student Motivation score	1.00 male	2.00 female	2.026
	2.00 female	1.00 male	1.053
academic academic performance of students	1.00 male	2.00 female	.329
	2.00 female	1.00 male	6.496

Based on estimated marginal means
a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.016	.983[a]	4.000	243.000	.418	.016
Wilks' lambda	.984	.983[a]	4.000	243.000	.418	.016
Hotelling's trace	.016	.983[a]	4.000	243.000	.418	.016
Roy's largest root	.016	.983[a]	4.000	243.000	.418	.016

Multivariate Tests

	Noncent. Parameter	Observed Power
Pillai's trace	3.931	.309[a]
Wilks' lambda	3.931	.309[a]
Hotelling's trace	3.931	.309[a]
Roy's largest root	3.931	.309[a]

Each F tests the multivariate effect of Gender. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Exact statistic
b. Computed using alpha = .05

Univariate Tests

Dependent Variable	Sum of Squares	df	Mean Square

StudentsAnxiety Students Anxiety Score	Contrast	1.798	1	1.798
	Error	6059.557	246	24.632
StudentsSelfConcept student self concept score	Contrast	3.560	1	3.560
	Error	8949.133	246	36.379
StudentsMotivation student Motivation score	Contrast	14.568	1	14.568
	Error	9241.109	246	37.565
academic academic performance of students	Contrast	584.860	1	584.860
	Error	45412.458	246	184.603

Univariate Tests

Dependent Variable		F	Sig.	Partial Eta Squared
StudentsAnxiety Students Anxiety Score	Contrast	.073	.787	.000
	Error			
StudentsSelfConcept student self concept score	Contrast	.098	.755	.000
	Error			
StudentsMotivation student Motivation score	Contrast	.388	.534	.002
	Error			
academic academic performance of students	Contrast	3.168	.076	.013
	Error			

Univariate Tests

Dependent Variable		Noncent. Parameter	Observed Power
StudentsAnxiety Students Anxiety Score	Contrast	.073	.058
	Error		
StudentsSelfConcept student self concept score	Contrast	.098	.061
	Error		
StudentsMotivation student Motivation score	Contrast	.388	.095
	Error		
academic academic performance of students	Contrast	3.168	.426
	Error		

The F tests the effect of Gender. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Computed using alpha = .05

```
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
```

```
  /STATISTICS COEFF OUTS R ANOVA ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT academic
  /METHOD=ENTER StudentsAnxiety StudentsSelfConcept StudentsMotivation
gender.
```

General Linear Model: hyp5

[DataSet1] F:\ \Father Okoh to Use.sav

Between-Subjects Factors

		Value Label	N
location	1.00	urban	105
Location	2.00	rural	143

Descriptive Statistics

	location Location	Mean	Std. Deviation	N
StudentsAnxiety Students Anxiety Score	1.00 urban	35.9714	5.01432	105
	2.00 rural	37.3636	4.84193	143
	Total	36.7742	4.95378	248
StudentsSelfConcept student self concept score	1.00 urban	44.8476	5.45749	105
	2.00 rural	44.9860	6.42068	143
	Total	44.9274	6.02044	248
StudentsMotivation student Motivation score	1.00 urban	43.4286	5.97568	105
	2.00 rural	44.5874	6.20124	143
	Total	44.0968	6.12147	248
academic academic performance of students	1.00 urban	61.1810	13.50554	105
	2.00 rural	57.7413	13.61219	143
	Total	59.1976	13.64639	248

Box's Test of Equality of Covariance Matrices[a]

Box's M	20.424
F	2.005

df1	10
df2	236254.275
Sig.	.029

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.[a]

a. Design: Intercept + location

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.993	8064.600[b]	4.000	243.000	.000
	Wilks' Lambda	.007	8064.600[b]	4.000	243.000	.000
	Hotelling's Trace	132.751	8064.600[b]	4.000	243.000	.000
	Roy's Largest Root	132.751	8064.600[b]	4.000	243.000	.000
location	Pillai's Trace	.061	3.969[b]	4.000	243.000	.004
	Wilks' Lambda	.939	3.969[b]	4.000	243.000	.004
	Hotelling's Trace	.065	3.969[b]	4.000	243.000	.004
	Roy's Largest Root	.065	3.969[b]	4.000	243.000	.004

Multivariate Tests[a]

Effect		Partial Eta Squared	Noncent. Parameter	Observed Power
Intercept	Pillai's Trace	.993	32258.399[b]	1.000
	Wilks' Lambda	.993	32258.399[b]	1.000
	Hotelling's Trace	.993	32258.399[b]	1.000
	Roy's Largest Root	.993	32258.399[b]	1.000
location	Pillai's Trace	.061	15.876[b]	.903
	Wilks' Lambda	.061	15.876[b]	.903
	Hotelling's Trace	.061	15.876[b]	.903
	Roy's Largest Root	.061	15.876[b]	.903

a. Design: Intercept + location
b. Exact statistic
c. Computed using alpha = .05

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
StudentsAnxiety Students Anxiety Score	.017	1	246	.896
StudentsSelfConcept student self concept score	2.998	1	246	.085
StudentsMotivation student Motivation score	1.750	1	246	.187
academic academic performance of students	.319	1	246	.573

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.[a]
a. Design: Intercept + location

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df
Corrected Model	StudentsAnxiety Students Anxiety Score	117.350[a]	1
	StudentsSelfConcept student self concept score	1.160[b]	1
	StudentsMotivation student Motivation score	81.306[c]	1
	academic academic performance of students	716.330[d]	1
Intercept	StudentsAnxiety Students Anxiety Score	325609.463	1
	StudentsSelfConcept student self concept score	488597.885	1
	StudentsMotivation student Motivation score	469025.822	1
	academic academic performance of students	856248.072	1
location	StudentsAnxiety Students Anxiety Score	117.350	1
	StudentsSelfConcept student self concept score	1.160	1
	StudentsMotivation student Motivation score	81.306	1
	academic academic performance of students	716.330	1
Error	StudentsAnxiety Students Anxiety Score	5944.005	246
	StudentsSelfConcept student self concept score	8951.534	246
	StudentsMotivation student Motivation score	9174.372	246
	academic academic performance of students	45280.988	246
Total	StudentsAnxiety Students Anxiety Score	341442.000	248
	StudentsSelfConcept student self concept score	509534.000	248
	StudentsMotivation student Motivation score	491498.000	248

Corrected Total	academic academic performance of students	915077.000	248
	StudentsAnxiety Students Anxiety Score	6061.355	247
	StudentsSelfConcept student self concept score	8952.694	247
	StudentsMotivation student Motivation score	9255.677	247
	academic academic performance of students	45997.319	247

Tests of Between-Subjects Effects

Source	Dependent Variable	Mean Square	F
Corrected Model	Students Anxiety Score	117.350[a]	4.857
	Students Self Concept score	1.160[b]	.032
	Students Motivation score	81.306[c]	2.180
	academic performance of students	716.330[d]	3.892
Intercept	Students Anxiety Score	325609.463	13475.750
	Students Self Concept score	488597.885	13427.317
	Students Motivation score	469025.822	12576.377
	academic performance of students	856248.072	4651.776
location	Students Anxiety Score	117.350	4.857
	Students Self Concept score	1.160	.032
	Students Motivation score	81.306	2.180
	academic performance of students	716.330	3.892
Error	Students Anxiety Score	24.163	
	Students Self Concept score	36.388	
	Students Motivation score	37.294	
	academic performance of students	184.069	
Total	Students Anxiety Score		
	Students Self Concept score		
	Students Motivation score		
	academic performance of students		
Corrected Total	Students Anxiety Score		
	Students Self Concept score		
	Students Motivation score		
	academic performance of students		

Tests of Between-Subjects Effects

Source	Dependent Variable	Sig.	Partial Eta Squared
Corrected Model	Students Anxiety Score	.028[a]	.019
	Students Self Concept score	.858[b]	.000
	Students Motivation score	.141[c]	.009
	academic performance of students	.050[d]	.016
Intercept	Students Anxiety Score	.000	.982
	Students Self Concept score	.000	.982
	Students Motivation score	.000	.981

	academic performance of students	.000	.950
	Students Anxiety Score	.028	.019
	Students Self Concept score	.858	.000
location	Students Motivation score	.141	.009
	academic performance of students	.050	.016
	Students Anxiety Score		
	Students Self Concept score		
Error	Students Motivation score		
	academic academic performance of students		
	StudentsAnxiety Students Anxiety Score		
	StudentsSelfConcept student self concept score		
Total	StudentsMotivation student Motivation score		
	academic academic performance of students		
	StudentsAnxiety Students Anxiety Score		
	StudentsSelfConcept student self concept score		
Corrected Total	StudentsMotivation student Motivation score		
	academic academic performance of students		

Tests of Between-Subjects Effects

Source	Dependent Variable	Noncent. Parameter	Observed Power
	StudentsAnxiety Students Anxiety Score	4.857[a]	.593
	StudentsSelfConcept student self concept score	.032[b]	.054
Corrected Model	StudentsMotivation student Motivation score	2.180[c]	.313
	academic academic performance of students	3.892[d]	.502
	StudentsAnxiety Students Anxiety Score	13475.750	1.000
	StudentsSelfConcept student self concept score	13427.317	1.000
Intercept	StudentsMotivation student Motivation score	12576.377	1.000
	academic academic performance of students	4651.776	1.000
	StudentsAnxiety Students Anxiety Score	4.857	.593
	StudentsSelfConcept student self concept score	.032	.054
location	StudentsMotivation student Motivation score	2.180	.313
	academic academic performance of students	3.892	.502
Error	StudentsAnxiety Students Anxiety Score		

	StudentsSelfConcept student self concept score		
	StudentsMotivation student Motivation score		
	academic academic performance of students		
	StudentsAnxiety Students Anxiety Score		
Total	StudentsSelfConcept student self concept score		
	StudentsMotivation student Motivation score		
	academic academic performance of students		
	StudentsAnxiety Students Anxiety Score		
Corrected Total	StudentsSelfConcept student self concept score		
	StudentsMotivation student Motivation score		
	academic academic performance of students		

a. R Squared = .019 (Adjusted R Squared = .015)
b. R Squared = .000 (Adjusted R Squared = -.004)
c. R Squared = .009 (Adjusted R Squared = .005)
d. R Squared = .016 (Adjusted R Squared = .012)
e. Computed using alpha = .05