

UNIVERSITY OF CAPE COAST

DETERMINANTS OF STUDENTS' LEARNING BEHAVIOUR IN  
SELECTED PUBLIC SENIOR HIGH SCHOOLS IN THE CAPE COAST  
METROPOLIS

BY

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Thesis submitted to the Department of Educational Foundations of the Faculty of  
Education, University of Cape Coast, in partial fulfilment of the requirements for  
award of Master of Philosophy Degree in Guidance and Counselling

MARCH 2011

## **DECLARATION**

### **Candidate's Declaration**

I hereby declare that this is the result of my original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:..... **Date**.....

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### **Supervisors' Declaration**

We hereby declare that the preparation and presentation of thesis were supervised in accordance with guidelines on supervision of thesis laid down by the University of Cape Coast.

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## **ABSTRACT**

The study examined the determination of student's leaning behaviour of selected Public Senior High School in Cape Coast Metropolis of the Central Region of Ghana. A descriptive survey research design was adopted using sample of 320 students randomly selected from eight Senior High School in Cape Coat.

A questionnaire was use to gather the date. The Cronbachs alpha coefficient for the reliability of the of the instrument was 0.823. Means, standard deviation and independent t-test were use as statistical indexes to analyse the result.

The finding revealed that generally students learning behaviour could be influenced by factors that contribute to their academic performances, which include test anxiety, classroom atmosphere, peer relationship and parental support.

The result also showed that parents and the teachers motivation are essential in cultivating good leaning behaviour. The findings further reveled that parents with good educational background positively influence the leaning behaviour of children. It was also found that peers who are academically good inspire their colleagues to also study hard while distractions from peer interfere with their studies, however, majority of the students do no see time spend with peers as having negative influence on their leaning behaviour.

I have however, recommended that parent and teachers should be sensitised to motivate and encourage students to improve upon their learning behaviour. Additionally, peers who are academically good should be given the support to inspire colleagues for healthy academic competition.

## **ACKNOWLEDGEMENTS**

I wish to express my profound gratitude to a number of people who in diverse ways contributed the success of this thesis. In particular, special thanks are due to my principal supervisor, Prof. Fredrick Ocansey (Director, Guidance Counseling and Vice Dean of Faculty of Education) who devoted his precious time and energy towards the successful completion of this work. I am also grateful to my co-supervisor, Mr. Awabil for his encouragement, comments and suggestions. God richly bless you all.

My sincere thanks also go to my husband, Mr. Joseph Kwaku Anaman for his unflinching support, sacrifices and encouragement throughout this study.

I am also grateful to the authorities of the Senior High School in Cape Coast who granted me permission for the studies to be carried out. I also appreciate the vital role of all participants who supplied the information for the study.

To all my colleagues and friends who can divers way contributed to the successes of this work, especially Mr. Isaac Opoku-Inkoom, Mrs. Josephine Bentil, Mrs. Pricilla Commey Mintah, Guidance and Counseling (2007) year group and finally to my family, for their prayers, encouragement and support. I say thank you.

## **DEDICATION**

To my son, Ebo Amponsah Aduakye Anaman

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **Background to the Study**

Learning is a relatively permanent change in behavioural potential that occurs as a result of reinforced practice (Beitz, 1995). Burns (1995) defines learning as “a relatively permanent change in behaviour including both observable activity and internal processes such as thinking, attitudes and emotions” (p.16). Burns contends that learning might not manifest itself in observable behaviour until sometimes after the educational programme has taken place. Similarly, study is a strategy which promotes internalisation of knowledge and breeds genuine intellectualism and is very essential if the purpose of the student is to be achieved (Nneji, 1991). Learning is a special type of reading that requires devotion of time on the part of the student. The onus of knowing the purpose of being in school, and adopting strategies that will successfully lead to that purpose lies on the students.

Students may occasionally experience some changes in their academic work which may be due to a change in their learning behaviour. Learning is seen as observable behaviour and behaviour is predisposition which has been developed through a long and complex process. Behaviour offers great possibilities for successful achievement in learning. It is important motivator and affects the learning of students. According to Crow and Crow (1982) student’s

behaviour towards his learning affects his worthwhileness in his education. Constructive, objective learning behaviour encouraged during childhood serve well during adolescence. The researcher also found that students at secondary level face many problems which hinder the development of positive learning behaviour. The experiment revealed that guidance services have significant positive effect on student's learning behaviour. Improvement in learning behaviour resulted in improvement of students' academic work.

Rosar and Rosar (1998) asserted that test for instance, has been found to determine students' ways of learning. For instance, some students tend to follow a set pattern of learning in preparation towards an examination whereas when there is no examination, there is no organised pattern for studying. A study by Niebuhr (1995) examined relationships between school climate and family environment and student learning. Her findings suggest that the elements of both school climate and family environment have a strong direct effect on learning. Phillips (1998) also found that parental education and social economic status have an impact on student achievement. Students with parents who were both college-educated tended to achieve at the highest levels. Ferguson (1991) also highlighted that income and family size were modestly related to student learning.

Student's scores in examination at both Junior High School (JHS) and Senior High School (SHS) are low. Media reports in Ghana about student's performance in examination give credence to this. For example, the Ghanaian Times Report (July 15, 2008) quoted the Minister of Education, Science and Sport, Professor Dominic Fobih, as he answered questions in the parliament as

saying “The chief Examiner’s of West Africa Examinations Council (WAEC) report of 2007, has identified inability to read and comprehend questions correctly as a cause of students low grades” (p.17). He further disclosed that to improve WAEC findings, the ministry has introduced comprehensive measures, including the cultivation of good learning pattern to eliminate the possible factors that negatively affect academic success of students. The minister disclosed this when he was answering question as to why about 50% of the total JHS students of 320,225 failed in 2007 Basic Education Certificate Examination (BECE).

It is common knowledge that in Ghana, learning behaviour of students in SHS is particularly determined by so many factors ranging from congenital to socio-economic factors. Certain determinants have been identified by the researcher which could influence how students study, acting as a barrier or motivating factor to the attaining and maintaining high academic work. Some of these determinants as identified by the researcher are test anxiety, peer relationship, classroom atmosphere and parental support.

### **Statement of the Problem**

Several factors seem to affect students’ learning. They include peer influence, parental support, test anxiety, classroom atmosphere, study attitudes and behaviour, self efficacy, locus of control and motivation among others. Some isolated studies have been done outside Cape Coast Metropolis on few of these factors. For instance, Olatoye (2005) investigated the influence of peer relationship on students’ study behaviour in Ogun state in Nigeria. Opare (2008) also researched into gender difference in self-efficacy and Cassidy and Lynn

(1991) explored how family environment impact on students' learning. Osterman (2000) also investigated the effect of school environment on students' sense of belonging and learning. Others have conducted studies on trends in the family efforts on learning behaviour and the extent to which parents' education or lack of education affects the learning behaviour and educational attainment of students in Western Nigeria. In all these, an outcome that runs is that the aforementioned factors affect learning behaviour.

It is against this background that researcher investigated test anxiety, peer relationship, classroom atmosphere and parental support of these factors influencing students learning in the public senior high schools in the Cape Coast Metropolis to provide comprehensive information to facilitate the designing in counselling programme and policy –formulation.

### **Purpose of the Study**

The specific purpose of the study was to:

1. Investigate whether test anxiety, peer relationship, classroom atmosphere and parental support determine students study learning behaviour.
2. Determine whether gender influences students' learning behaviour.
3. Find out whether differences exist between learning behaviour of forms one and three students.
4. Determine whether differences exist between learning behaviour of mixed and single-sex school.



## **Research Questions**

The following research questions were used to guide the study:

1. To what extent does test anxiety determine students' learning behaviour?
2. To what extent does classroom atmosphere determine students' learning behaviour?
3. To what extent does peer relationship determine students' learning behaviour?
4. To what extent does the parental support of students determine learning behaviour?

## **Hypotheses**

To give directions to the study, three (3) hypotheses were tested.

The hypotheses tested were:

1. H<sub>0</sub>1: There is no significant difference between the determinants of learning behaviour of male and female students.
2. H<sub>0</sub>2: There is no significant difference between determinants of learning behaviour of Form One and Form Three students.
3. H<sub>0</sub>3: There is no significant difference between determinants of learning behaviour of students in mixed and single-sex schools.

## **Significance of the Study**

Parents would be informed on the determinants that affect their wards learning and the role they have to play in their development of good learning pattern. It would provide guidelines to assist parents to help their children establish a study schedule and schedule goals, to promote studying for

understanding and higher achievements. Teachers would understand some underlying determinants that obstruct the academic work of students. Findings of the study would help teachers to encourage students to do away with determinants that affect their learning negatively and teach effectively to promote good learning.

The results of this study will also guide the GES which is the major stakeholder of education in the country to include issues related to determinants of students' learning in their curriculum so that both teachers and students would have fair knowledge on factors that determine students learning. Students could also be sensitized through workshops and seminars so as to avoid the determinants that negatively affect their learning and concentrate on the positive ones to facilitate academic success.

It will also guide the school psychologists and counsellors in efforts to guide students to achieve success by adopting good learning behaviour. The headmasters of the Senior High School would also be informed on determinants of students' learning which will serve as a guide for implementing policies. Finally, the findings of this study will also serve as a basis for further research work in education with regard to effective acquisition of learning among SHS students in particular, and all students in general.

### **Delimitation of the Study**

Though there are many public Senior High Schools in the Cape Coast Metropolis, the study was limited to six schools due to a number of constraints including time and finance. These are Oguaa Secondary Technical School,

Academy of Christ the King and Adisadel College. The rest are University Practice Senior High School, Ghana National College, and Wesley Girls' High Schools. The researcher did not cover the entire region or country due to its extensive nature. The researcher found it expedient to use Cape Coast for the study due to the fact that, it is the cradle and actually centre for education in Ghana. Secondly, Cape Coast has most of the top Senior High Schools in the country. The schools selected were a representative sample of urban and rural settings, and therefore the results can be generalized. The study was to find out the extent to which test anxiety, classroom atmosphere, peer relationship, and parental support determine students learning in public Senior High Schools. Other determinants like motivation, time management, library facilities, physical structure of the school and self-efficacy were not covered. Private schools were also not covered.

### **Limitations**

Though Likert scales are powerful and useful in research it has limitations. For instance, there is no assumption of equal intervals between the categories, hence a rating of four indicates neither that it is twice as powerful as two nor that it is twice as strongly felt. Also the researcher could not check on whether the respondents were telling the truth since some respondents might be deliberately falsify their replies. Also in using a Likert scale, the researcher could not give the respondents who wished to add any other comments about the issue under investigation chance to do so.

Survey also is not in itself comprehensive enough to provide answers to

questions and cannot establish causes and effect relationship (Osuala, 1991).

### **Definition of Terms**

Terms used in this work include learning, test anxiety, classroom atmosphere, parental support and peer relationship. These are operationally defined as follows:

Learning behaviour: It refers to a particular way a person does his or her things through training or based on knowledge acquired.

Test anxiety: It refers to how worried students become before, during and after examination.

Classroom atmosphere: It deals with issues relating to competence of teachers and the value they place on students' contribution and monitoring of academic work of students.

Parental support: This refers to facilities available at home, parents' educational background and their involvement or interest in their wards' learning.

Peer relationship: It deals with issues such as interaction among peers and how it affects students' learning.

### **Organisation of Chapters**

The study examines the determinants influencing students' learning in public SHS in Cape Coast Metropolis. The study is divided into five chapters. The first chapter is an introduction to the study. It involves the background to the study, statement of the problem, purpose of the study, research questions, hypotheses and significance of the study, delimitations and definition of terms.

Chapter two focuses on the review of the related literature. It comprises both theoretical and empirical evidence of the study. It reviews literature on sub-

topics such as learning theories and concepts, test anxiety, classroom atmosphere, peer relationships, parental support of the students and their effects on students learning.

Chapter three is basically about the methodology employed in this study. This includes the research design, population, sample and sampling procedure. It also looks at the design and administration of the instrument used for the study. The chapter also describes the procedure adopted in collecting data and how the data was analysed.

Chapter four deals with analyses and discussion of data collected from the schools while the last but not least chapter; chapter five, focuses on the summary, conclusions, recommendations and suggestions for further studies.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This chapter reviews the theoretical and empirical framework of the study under the following themes which reflect the purposes of the study:

1. Concept of learning
2. Theories of learning behaviour  
Pavlov's Classical Conditioning Theory  
Piaget's Cognitive Learning Theory  
Vygotsky's Cognitive Development Theory  
Skinner's Operant Behavioural Theory  
Bandura's Social Learning Theory
3. Empirical Studies

This covers the following areas:

Test Anxiety and Learning Behaviour.  
Peer Relationship and Learning Behaviour  
Classroom Atmosphere and Learning Behaviour  
Parental Support and Learning Behaviour.

#### **The Concept of Learning**

In psychology and education, a common definition of learning is a process that brings together cognitive, emotional, and environmental influences

and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values, and world views (Beitz, 1995). Many authors have also attempted to define the learning. For instance, Burns (1995) defines learning as “a relatively permanent change in behaviour including both observable activity and internal processes such as thinking, attitudes and emotions” (p.99). Burns contends that learning might not manifest itself in observable behaviour until sometimes after the educational programme has taken place. Similarly, learning is seen as relatively permanent change in behavioural potential that occurs as a result of reinforced practice. This definition postulates that the change needs not be an improvement. Addictions and prejudices are learned as well as high-level skills and useful knowledge. The psychological study of learning embraces more than learning a new job or academic subject. It also has a bearing on the fundamental development, motivation, social behaviour and personality.

The development of learning, the view of Hilgard (1962) is revealed through the changing probability that an awaited behaviour may result. It is rather an intervening variable, one that is inferred as a connecting process between an antecedent variable and consequent behaviour. Hilgard inferring from Kohler's theory of insight learning stated that “a learner is a resourceful person, one who is able to use what he knows in new situations and one who is able to discover for himself solutions to problems that he has never before faced” (P.276). Insightful learning encourages problem-solving behaviour in the learner. The learner must have prior familiarity with the essentials of the problem. For example, no one can solve a novel algebraic problem without knowing the meaning of the symbols and

operations for which they stand. Insightful learning requires the learner to see facts in relation to understanding the essentials they bear upon the problem. Insightful learning depends upon the capacity of the learner. For example, older children can learn things that younger children cannot learn. This is influenced by past experiences.

All instances of learning involve the learner in behaviour of some sort. He learns to do something. An example is learning to read. The same feature of behaviour is exhibited by instances that could be described as learning to become somebody. For example, one can learn to become a teacher. To learn to be somebody is to learn to do something. Learning involves the changing of one's behaviour. From a variety of instances of learning, Burns (1995) deduced four features of learning. In the first instance, the learner learns to do something. This, he interpreted as a feature of behavioural change. Secondly, he previously did something different. That is a change of behaviour. For the third feature, that change of behaviour occurs in a particular kind of situation. Fourthly, the learner changes from one situation to another. In terms of these four features that appear to characterize learning, any instance of learning must get two responses, namely, an old response and a new different response. That is, any instance of learning involves a two-fold series of behaviour. Burns then defined learning as adopting a new response to a situation. A fundamental implication of this definition is that learning is not a single "thing". There are a lot of theories which seek to explain the concept of learning such as the Bandura (1969) social learning theory and the classical conditioning learning theory of Ivan Pavlov.



## **Classical Conditioning Theory**

Classical Conditioning is a concept usually associated with the work of the Russian Scientist Ivan Pavlov (1849-1936). Even though, Pavlov originally experimented his work on animals its significance can be related to humans. Classical Conditioning is the learning process in which a previously neutral stimulus (conditioned stimulus) is repeatedly paired with an unconditioned stimulus that reflexively elicits an unconditioned response. In other words, the process of learning that occurs in classical conditioning takes place when a new stimulus, the unconditioned stimulus (US), for example, the sound of a bell repeatedly occurs paired with the original unconditioned stimulus (food). Eventually the Conditioned Stimulus itself will evoke the response. Given the above premise, one salivates in response to the sight or smells of food, blinks in response to someone poking a finger in one's eye or takes book and study because there is a teacher in the classroom.

According to Pavlov (1927), an unconditioned stimulus (US) for example, appealing food automatically, reflexively elicits an unconditioned response (UR) for example salivation. After this happens many times, the unconditioned stimulus (ringing bell) can eventually be presented without the unconditioned stimulus (food) and will evoke the original response, now called the conditioned response (CR) Salivation.

With respect to classical conditioning, therefore, it is worth considering that thought, behaviour and even objects can be associated with a particular event in one's life to the extent that, event may naturally trigger the occurrence of a

given event. Thus, a student who associated test taking with nervousness, fear of failure, and other negative thought processes may experience test anxiety before, during and even after test taking.

### **Cognitive Theory of Learning**

Cognitive psychologists believe that it is very important to study peoples' thoughts - that is, the way people think and perceive things. Piaget's (1952) theory of Cognitive development, concerns the emergency and acquisition of schemata - schemes of how one perceives the world - in "developmental stages", times when children are acquiring new ways of mentally representing information believed that intelligence was not gained with age and that younger children were not dumber than their older peers, but those they merely thought differently. His theory of cognitive development was a progressive reorganization of mental processes as a result of maturation and experience.

Piaget (1952) based his theory of development on four stages that are accompanied by age ranges by which each stage should be accomplished. The first of the four stages is the sensory motor stage, which ranges from birth to age two. During this stage infants learn mostly through try and error. Objects and events can be mentally represented generally signals the transition to the next stage, the preoperational stage.

The preoperational stage occurs from around two to age seven. In this stage the children begin to mentally present events and objects, as well as engage in symbolic play. The next stage, the concrete operational stage, is where children gain the ability to understand and participate in conservation, the

meaning of numbers, area, volume, and orientation, as well as learning the concept of reversibility. This range from the age of seven to just around eleven years old brings the child to the next stage. The formal operational stage is an open-ended stage, which begins at age eleven, and can, go on from there. As the adolescent enters this stage, they gain the ability to think in an abstract manner, classify, and combine items in a more sophisticated way. It is during this stage that the child develops the ability for higher-level order and reasoning.

The adolescent can develop good learning practice as a higher-level order and reasoning. Adolescence is the stage in life where one's desire to gain freedom from adults is at its peak. The adolescent may also happen to be under strict supervision of parents and may not get the opportunity to explore their environment to their advantage which affects their studies. A basic assumption is that what we think influences what we feel. If we think happy, positive thoughts, we will tend to feel better than if we think negative ones. They correctly add that therapists using a cognitive approach believe that psychological distress is often a result of unpleasant thoughts that are usually not tuned to reality and include misconceptions, distortion, exaggerations of problems, and unreasonably negative evaluations of event.

Lawton (1986) deduced from Piaget's theory of teaching and learning, and confirmed that actual learning depends on the student himself/herself. The teacher is only a facilitator of learning. He also affirms that teaching and learning are a social effort rather than an individual affair. On learning as a social effort rather than an individual affair Piaget (1959) held that cognitive development was

enhanced when the child had the chance to interact with and manipulate the environment. Central to this Piagetian idea of the learning process are states of disequilibrium, due to an imbalance between what is understood and what is encountered. Piaget suggests that peer interaction promotes cognitive conflict by exposing discrepancies between the peers own and others knowledge, resulting in disequilibrium. As a higher level of understanding emerges through dialogue and discussion among individuals of equal status, equilibrium is restored and, simultaneously, cognitive change occurs.

Piaget also held the idea that language facilitates thinking and that as peers interact through dialogue they learn and unlearn from others. In the group setting children reflect on their own understanding and those of others, and they analyze the various viewpoints. Research rounded in this Piagetian constructivist framework supports this view that working with peers lead to greater cognitive benefit than working alone.

By implication, the child develops through stages of which each stage must be accomplished to gain higher level order of reasoning at adolescent. Should a child skip a stage in his development; it will affect his learning behaviour at any stage in life. Also, peers interact through dialogue to achieve higher level of understanding in learning than being an individual affair.

### **Cognitive Development Theory**

Vygotsky's (1978) theory is that cognitive development occurs when two participants who differ in their initial levels of competence work collaboratively on a task to arrive at a shared understanding (Johnson & Johnson, 1994). With

this perspective there are two concepts: zone of proximal development and inter subjectivity. The zone of proximal development (ZPD) is the difference between what a child can accomplish independently and what can be achieved in conjunction with a more competent partner. ZPD is defined as the gap between what a student can do alone and what the student can achieve with assistance. Vygotsky's presentation was on the facilitation of learning through experiences mediated by other people. In his explanations, the learner cannot reach full potential without the aid of others. The processes of guiding the learner to higher stages of cognitive functioning rely on interactive human relationships. For example, mentors, teachers or more capable peers—can raise the student's competence through the (ZPD). In this view assistance is transitional, a "scaffold" that is removed when it is no longer needed and the student has internalized another's support. Inter subjectivity is the shared understanding that results from individuals discussing their differing view points (Fawcett and Garton, 2005). The more knowledgeable peer is viewed as having the responsibility for adjusting the level of support required to fit the less knowledgeable peer's zone of proximal development. This is a collaborative learning among peers who differ in their levels of competence.

Vygotsky (1978) holds that effective verbal interaction is central in the collaborative learning context. Language or verbal interaction has been seen as a powerful mediating mechanism in cognitive change. Effective verbal interaction supports students' elaborate explanations, asking questions, providing answers, listening, giving feedback and encouraging. This means that peers as well as

significant others like teachers, parents mentors among others influence students' learning behaviour in the sense that their competence level is raised through these peoples' encouragement.

### **Skinner's Operant Behavioural Theory**

Operant Conditioning is a concept that is often associated with the psychologist B. F. Skinner. According to Skinner (1956) operant conditioning refers to the process of changing the frequency of behaviour (the operant) by following it with reinforcement (which will make the behaviour more frequent in future) or punishment which should make the behaviour less frequent in future. If a reward follows, the person is likely to repeat the behaviour again in the future; if a punishment follows the person is less likely to repeat the behaviour.

Given the above premise, a student may study (the operant). This practice may be followed by a reward (positive reinforcement) or a punishment. If a reward follows (enjoyable feeling or peers approval) the student is likely to repeat the practice in future. If a punishment (severe spunk from parents or teachers) follows, the student is less likely to repeat the behaviour. In this case, learning will be repeatedly associated with a punishment (pain), and so the behaviour becomes less frequent or extinct with time. For example, if a girl repeatedly experiences headache when she sits down and study, she will probably not study at all because of the pain (punishment). She may therefore resort to cheating or better still procrastination whenever she is to study.

Reinforcers can be positive or negative and both are used to strengthen behaviour. Unlike animals, humans often respond to verbal operants, taking

advice, listening to the warnings of others, and obeying given rules and laws, even without having personally experienced any negative consequences from disobeying. The knowledge of what could happen if certain behaviours are chosen can be enough to keep us from acting in certain ways. Although this is not always the case, with many lessons being learned "the hard way," the ability to benefit from the experiences of others as examples is a uniquely human characteristic. One aspect of human behaviour which is important is the feelings associated with behaviour that is controlled by conditioning. When previous behaviours have been rewarded, students are likely to repeat those behaviours happily and willingly, feeling that they are doing what they 'want' to be doing. If, on the other hand, students choose behaviours in order to avoid a repeat of negative reinforcement, they may behave appropriately, but will be inclined to feel that their freedoms are being infringed upon. Children, like the rest of us, are free to behave in any manner that they choose, as long as they are willing to accept the consequences of their actions.

Newman and Schwager (1992), also provide another way of explaining the association between learning and reinforcers using peer interactions. For basic behaviourists' theories, relationships between people affect learning, only as much as people reinforce each other in the academic arena. For instance, if the peer group encourages education and learning, then the individual student within that group will value learning, because the individual is reinforced, or rewarded, for behaviour that indicates that learning is valued. Students in peer groups that do not value education lack the stimulation and reinforcement needed to encourage

personal learning. These peer groups presumably stimulate and reinforce other values.

In addition, it benefits both children and their parents when positive reinforcement techniques are chosen as a means of guiding children's behaviour. Even babies and very young children respond well to a system where rewards exists, repeating behaviours when they elicit big smiles and hugs from Mum and Dad. As children grow, using positive reinforcement to encourage appropriate behaviour can help parents to encourage their children cultivate positive learning behaviour.

### **Social Learning Theory**

Albert Bandura's social learning theory speaks precisely about the human interactions involved in learning. Observational learning is based upon learning by watching and then "modelling" or acting similarly to others. If the student views and works with people who appreciate learning by engaging in learning activities, then the student too will engage in learning and might work harder at learning. Peers with positive attitudes and behaviours toward education will allow and teach each other to set goals that include opportunities to learn and achieve. If peer models do not convey positive attitudes toward learning, then the students observing these models will not prioritize learning in their own lives. They will learn to prioritize other goals (Bandura, 1996). According to Bandura (1977) human beings learn all kinds of social behaviours by observing and imitating others. He buttresses this point with the fact that learning would be exceedingly laborious, if people had to rely solely on the effects of their actions to inform



them what to do.

Imitation is more striking in humans' situation that imitation of models shapes children's development. It is common knowledge that adolescents imitate those they see as heroes and heroines. This can be associated to their academics, sports, fluency in speech and in their sexual exploits. Considering learning, students imitate the significant others or those they fancy their lifestyles. The fresh students may on the other hand imitate and practise what and how the seniors, classmates or other friends learn.

On the part of identification, a saying goes that, 'birds of a feather flock together'. In the same way also, students identify with one another especially those with a common characteristic or attitude. This encourages them to forge ahead with confidence in whatever they do including learning. Those who learn hard or otherwise, getting to know of others who do same, form groups and operate together. This helps them to share ideas about various techniques that can be used to achieve their aim. Once a behaviour is learned, the likelihood of its being performed depends on its consequences. Successful experiences with an activity over time create a sense of competence at performing the activity or self efficacy (Bandura, 1982).

According to Laird (1985), Carl Rogers developed a theory of facilitative learning and the basic premise of this theory is that learning occurs by the educator acting as a facilitator, that is by establishing an atmosphere in which learners feel comfortable to consider new ideas and are not threatened by external factors (Laird, 1985). This may imply that, human relationships have varying degrees of

importance in motivational and learning theories and most approaches tend to agree, however, that students who surround themselves with peers and other social influences and who value learning and the educational process will also value their own learning and strive to enhance their education. Rogers' theory also posits that human beings have a natural eagerness to learn, there is some resistance to, and unpleasant consequences of, giving up what is currently held to be true, and that the most significant learning involves changing one's concept of oneself.

Sullivan (1953) outlined a developmental theory describing the changes in inter-personal needs as an individual matures. He observed that elementary school students tend to work with larger peer groups, which are usually the whole class with whom the young student spends their academic days. Classroom peer groups give way to same-sex "chums" in early adolescence. These same-sex chums fit the best friend/confidant role. Late-elementary and middle school students usually confine their social activities to include these one or two friends. High school and early adulthood individuals seek out and spend time with love interests who satisfy emotional and physical intimacy needs and achievement. Children are socialized by the people with whom they associate; through daily interaction over the course of many years, acceptable social customs are taught and fostered. Other children as well as adults can have a great impact on a broad range of issues in the child's life, including achievement in school. Understanding the way social interactions affect academic achievement is important for parents, educators, and policy makers. In particular, academic achievement and the often corresponding

level of educational attainment tend to predict the average earnings an individual may secure over a lifetime. For this reason, isolating the peer effects on academic achievement can make a significant contribution to the public debate over education reform.

With social learning theorists, imitation is more striking in humans' development as such students imitate the significant others or those they fancy their lifestyles. For this reason, students who surround themselves with peers and significant others like teachers, parents, mentors among others who value learning and the educational process will also value their own learning and strive to enhance their education.

## **Empirical Studies**

### **Test Anxiety and Learning**

Hembree (1988) defined anxiety as “an anticipatory cognitive process involving repetitive thoughts related to possible threatening outcomes and their potential consequences” (p. 48). Similarly, Spielberg and Sarason (1989) also defined test anxiety as a situation-specific trait that refers to the anxiety states and worry conditions that are experienced during examinations. The level of anxiety can fluctuate over time in response to both internal and external stimulation. Observable behaviours of anxiety can be noticed during the completion process of a quiz. Some of those behaviours might include perspiration, excessive movement and questioning of instructions. Those behaviours are often compatible with the classification of high and low test anxiety groups (Smith, 1965). There are also

stable individual differences in the degree to which anxiety is manifested in any given situation. A disruption or disorganization of effective problem-solving and cognitive control, including difficulty in thinking clearly, can also lead to test anxiety (Friedman & Bendas-Jacob, 1997).

Different factors contribute to the development of test anxiety according to Spielberger and Sarason (1989). One of them is self-concept, which is the overall sum of self-referent information that an individual has processed, stored and organized in a systematic manner. The self-concept can be viewed as an image of oneself. Worry of suffering brings about reduction of self-image, particularly in the eyes of peers, lead to higher test anxiety levels (Freidman & Bendas-Jacob, 1997). Another factor that contributes to the development of test anxiety is self-awareness. It is defined as the feeling of being observed or evaluated by others. Other people's perception of the individual may have an impact on performance (Levitt, 1980). A more commonly recognized factor of test anxiety is the classroom climate. People, in general, have the need to manipulate and control their surroundings in order to produce a comfortable environment. In a classroom setting, however, there may not be the opportunity to control the surroundings. This opens the door to the possibility of different levels of arousal. The degree of arousal in relation to one's adaptation level will determine whether a positive or negative experience will result (Spielberger & Sarason, 1985). If an individual's experience is negative, then the test anxiety level will be higher leading to lower performance. Consequently, if an individual's experience is positive, then the test anxiety level will be lower leading to higher performance (Smith, 1965).

Smith (1965) is of the view that, test anxiety in general is expected to have a negative effect on performance. For instance, administration of quizzes arouses anxiety, which interferes with performance. Planned quizzes should lead to higher quiz grades. This is due to the assumption that with planned quizzes, participants will be able to study, which could counteract their anxiety level and bring it down to a more productive state. Without fair warning, participants will have higher anxiety levels, which can interfere with their performance and lead to lower quiz grades. Neutral conditions can have very similar effects as high test anxiety conditions on quiz performance. This could be due to the possibility that stressful testing conditions arouse high anxiety, which in turn arouses defensive processes and prevents the person from acknowledging the anxiety (Smith, 1965). Therefore, the participants in the stressful condition will have a similar experience as the participants in a neutral condition and the quiz grades should be comparable.

According to Okoli (1998), specific conditions and mechanisms that cause anxiety are not well understood, but there is evidence that students who are test-anxious tend to have high levels of general anxiety that determines their learning. He said some children have biological predispositions to high levels of general anxiety, making them more susceptible to the effects of being evaluated. Also repeated difficulties with test-taking or other performances tend to lower self-confidence, which in turn can create conditions for more frequent experiences of anxiety. Excessive pressure or coercion is likely to worsen students' anxiety, further disrupting their learning, self-esteem, and motivation. Consequences of

chronic test anxiety can include lowered self-esteem, reduced effort, and loss of motivation for school tasks (Okoli, 1998).

According to Spielberger (1973) there are two forms of anxiety that are pertinent to understanding the formation and maintenance of anxiety. These are trait anxiety and state anxiety. Trait anxiety which refers to anxiety that is chronic and pervasive across situations and is not triggered by specific events. Trait anxiety is the basis for a variety of anxiety disorders, including generalized anxiety and social phobia. State anxiety also refers to anxiety that occurs in specific situations and usually has a clear trigger. Not all people who have high state anxiety have high trait anxiety, but those who have high trait anxiety are more likely to experience state anxiety. He indicated that while taking tests, state anxiety may occur, although the student may also have tendencies toward trait anxiety. Therefore, if a student shows high state anxiety, it is possible that he or she has high trait anxiety. It is important to identify students with high trait anxiety, because it can be a sign of significant emotional problems and may be a precursor for the development of depression, especially in females (Spielberger, 1973).

Anxiety is actually a normal way of reacting to stressful situations. It is a way in which our body tries to cope up with the oncoming stress. When we face certain stressful situations, a hormone called adrenaline is released in our body, which in turn produces certain physical symptoms that help us during difficult situations. Some of the physical changes an anxious person experiences include stomach ache, fever, giddiness, rapid heart-beat, perspiration, shivering, sweating,

dizziness, headaches, racing heartbeats and nausea. They may also experience certain emotional problems like crying or getting frustrated easily, fidgeting, and drumming on a desk.

Psychiatric Times Reports (March 2009) reported that, test and examination time in this competitive world cause a lot of tension and nervousness in students. Some students are anxious by nature and easily get nervous when they face a stressful situation. Negative thoughts creep into the minds of such students during tests, even if they have prepared well and consequently affect their learning. The fear that one will forget everything he has studied or the fear of going through a tough question paper makes him nervous which topple their study schedule. It also induces negative thinking, which is likely to make students forget what has been studied (Psychiatric Times, 2009).

Many students, according to Abella and Heslin (1989), experience some nervousness or apprehension before, during, or after an exam. This kind of test anxiety can be a powerful motivator for subsequent studies, however some student experience test-related anxiety to such a degree that it can lead to poor performance and interfere with their attitude toward studies. These students suffer from test anxiety which prevents them from demonstrating their knowledge on examinations. Smith (2008) argues that, almost every person experiences test anxiety during his or her student life. Thus feeling anxious during test or examination is part and parcel of a student's life. Little anxiety actually helps one in concentrating and working hard for the examination. It implies that anxiety is like a tonic to work hard. However, if students spend all their time feeling

anxious, lot of valuable study time would be lost and may be the root cause for poor performance, leading to academic failure, psychological disorder and poor self confidence. Thus, anxiety becomes a problem when it affects examination performance of students because they cannot learn (Smith, 2008).

Ohman (2000) sees test anxiety as is one aspect of "evaluation anxiety," in which mental and physical reactions are triggered in some people when they are being judged. He asserts that, it is when students feel nervous before, during and after the examination and have not been able to remember what they had studied thoroughly that they blank out. Test anxiety is therefore the uneasiness, apprehension, or nervousness felt by students who have a fear of failing an examination. In the same vain Ohman further opines that, students suffering from test anxiety may experience it because of the following: the association of grades with personal worth, fear of embarrassment by a teacher, fear of alienation from parents or friends, time pressures, or feeling a loss of control. He is of the view that an optimal level of arousal is necessary to best complete a task such as an examination; however, when the anxiety or level of arousal exceeds that optimum, it results in a decline in performance. Anxiety may also affect people who are perfectionists and achieve high scores in every test. Such students pressurize themselves and are always tensed to gain perfect scores. This may cause anxiety as even one wrong answer can make them feel that they have done badly in the test so cannot study again. Test anxiety is most common in people who have not studied for the whole academic year, but still want to score excellent marks. When one starts preparing at the last minute, he has lots to study



in such limited time span. As they get tensed, anxiety crops in, especially when they are unable to complete everything and remember everything they studied. The thought of studying lots in a stipulated time span also make them sick with anxiety and determines their study attitudes and behaviour. This kind of behaviour reflects poor study attitudes and behaviour, lack of organization and poor time management. Thus, not preparing in advance causes low self confidence and fear of failure.

Levitt (1980) indicated that, test anxiety due to many factors has raised widespread concerns in recent times and consensus of many people was that moderate test anxiety helps smooth study and examination but excessive one can affect learning efficiency and test performance. The study was therefore conducted to investigate city school seniors test anxiety level, form and its influencing factors in order to identify problems early so as to effectively prevent them. The results showed higher proportion of test anxiety in girls (72.3%) than boys (27.7%). This may be related to the social environment and psychological characteristics that women are more vulnerable to stress than men which make them prone to mood swings than men.

Abu- Zeina and Al-Zagal (1984), assert that test anxiety can develop for a number of reasons. For instance, prior negative experience with test taking may serve as activating event and students who have experienced, or have a fear of, blanking out on tests or the inability to perform in testing situations can develop anticipatory anxiety. This kind of anxiety can build as the testing situation approaches, and can interfere with the student's ability to prepare adequately for

good performance. Lack of preparation is another factor that can contribute to test anxiety. Poor time management, poor learning, and lack of organization can lead to a student feeling overwhelmed about test. Students' who are forced to cram at the last minute will feel less confident about the material covered than those who have been able to follow a structured plan for studying. Being able to anticipate what the exam will cover, and knowing all the information have been covered during the study sessions, can help students to enter the testing situation with a more positive attitude. However lack of confidence, also contribute to test anxiety. The pressure to perform well on examination is a great motivator unless it is so extreme that it becomes irrational. They also indicated that perfectionism and feelings of unworthiness provide unreasonable goals to achieve through testing situations. Also when a student's self-esteem is too closely tied to the outcome of any one academic task, the results can be devastating. In these situations, students may spend more time focusing on the negative consequences of failure, than preparing to succeed.

Anxiety can have a profound impact on learning behaviour and test taking. Many symptoms of anxiety are physical. They can include headaches, muscle tension, nausea, and feeling tired. Other symptoms are frequent urination and trembling. In addition to physical symptoms, anxiety involves constant worrying, difficulty concentrating, and being startled easily. These cognitive symptoms are more difficult to observe, but can affect studying just as much as, if not more than, physical symptoms. Most people who have anxiety follow thought-feeling-action pattern. The thought can be something like "I am going to

fail this test." This will trigger the feelings of anxiety, and any number of the symptoms listed above. Studying requires focus, concentration, and a degree of confidence in your ability to retain the information. A person who suffers from anxiety may lack all of these. In addition, they may be experiencing physical symptoms that exacerbate their lack of concentration thereby affecting learning behaviour.

### **Parental Support and Learning Behaviour**

The parental support variable is considered to be a very complex one. It basically the support parents give to their children due to the level of parents' educational status, income, occupation, and home environment among others. Efforts have been made by some researchers to use parental support to explain the variation in learning behaviour of students (Bloom, 1980; Addae-Mensah, Djangmah, & Agbenyega, (1973); Nyarko-Sampson, 2004). The home environment plays a significant role in academic work of students. It is seen as a place where students are prepared to take up the challenges of studies.

Durojaje (1976) asserted that, the effects of home environment on the student's learning behaviour can be explained in two ways. Firstly, at the early stage of development, a child is born to a family and grows up within the scope and characteristics of his or her environment. The child at this stage acquires the initial social behaviour and manners. The child's intellectual potentialities for success in school depend on the initial efforts of the parents in cultivating this potentialities and thereby establishing a good functional relationship with teachers. Secondly, Durojaje indicated that after school hours students spend the

rest of their time at homes where some parents show interest in helping with their studies while others may not which determine children's learning behaviour, parents are responsible in encouraging their children to practice good learning. This can be done by parents engaging the children in conversation about learning at home and encourage times of quiet play or study by children themselves. They should also serve as role models for children to follow. For instance, when children see other family members reading books, magazines or writing, studying and spending quiet times in taking care of family business or record keeping they will also do same. These help children to develop positive learning behaviour.

Jaynes and Wlodkowski (1990), posit that benefits of positive relationships between school and family are difficult to dispute. To them family appears to be the primary determine on a child's motivation to learn. Family has an impact on motivation at every stage of development, lasting through secondary school and beyond. Healthy and effective families possess positive attitudes and behaviours toward their children which help them to succeed in school and life (Jaynes & Wlodkowski, 1990). With parents being a child's first and most important teacher, it seems obvious that family will serve as a significant determinant on the development of a child's motivation to study.

According to Addae-Mensah et al (1973) highly educated parents especially in Ghana most often than not set high academic standards for their children at the very tender age and also take great pains to draw their children's attention to economic success and what goes into it. Parents in helping these children to achieve success consistently interact with teachers to help the child

toward that direction. It is natural therefore for such children to study hard at school and become high achievers when standard is set and vice versa. Research strongly supports the benefits of having parents involved in their child's education (Pape , 1999). He revealed that parents who are involved in their child's academic life have a profound effect on the child's ability to learn and help instil in them an appreciation for learning that can last a lifetime. Benefits associated with parental involvement have been discussed by Hannon and Nutbrown (2001) as involving improved learning, academic performance, academic motivation, and lower dropout rates. Jaynes & Wlodkowski (1990) has also listed the following as benefits of a positive relationship between teachers and parents: the establishment of mutual trust; the expressed shared goal of the best interest of the child; the creation of a vehicle for open communication; and the clarification of an attitude of collaboration and problem solving rather than blaming.

Guay, Boivin and Hodges (1999), also asserted that the children of secondary school and university educated men and women have 17 and 32 times respectively better chances of gaining secondary education than the son of an illiterate. This indicates that, education and occupation of parents, to a very great extent, determines secondary school entry. It further implies that students from high income educated families are likely to go to the Senior High School and even proceed further to tertiary levels. Another interesting assertion by Guay, Boivin and Hodges (1999), on is the effect of the parents' education on the child's achievement is that the eighth graders' rise in reading test scores is much more pronounced. According to them as children progress to higher grades, concepts

within the subject become more involved. Therefore, parents with college experience may be better equipped to help their children with their homework and school achievement as their children progress in school. They assume that there is a correlation between socio-economic status and attitude to education; that is, parents with high education have more positive attitudes towards education. Children thus draw inspiration from their parents which determine their learning. Blake (1989) highlighted that when children are too many, resources such as time, money, attention, space and materials for learning are not enough for all of them. Thus, using the resources “Dilution Model”, he proved that sibling size and the economic power is inversely related to academic performance and educational attainment. When family resources are limited, it determines children’s learning behaviour negatively. He also indicated that when the children in the family are too many, the resources are diluted, that is, more money is spent/ on things other than education. Also not all children have access to home computers and vast arrays of educational books and encyclopaedia. In his study on ‘When Bigger is not Better’ family size, parental resources and educational performance of children” confirmed Blake’s assertion in his study and pointed out that across a variety of samples methods, subgroups and educational outcomes, individuals perform better when they have few brothers and sisters.

Nyarko-Sampson (2004) postulated that, some children are provided with a quiet, clean and well lit area to learn while many others come home to do time consuming chores and other family duties, such as baby sitting for younger siblings or cooking dinner while both parents are at work. Still other children

return home to families that are not stable and these children have so much to do through the night to support the family income, and do not worry about studying (Nyarko-Sampson, 2004). Cooper (1994) and other researchers also explored the concept of a “level playing field”. This refers to the wide variety of home life situations in which children reside. Whereas one child may have a warm meal waiting for him/her and a well lit, clean, and quiet area in which he/she would learn another child hurries home to cook dinner and take care of his/her siblings and has little or no time to study. In some homes, there is no value on academics and so the importance of learning is not reinforced. The home conditions of some students are not conducive to do lengthy and thought provoking studies. This concept of a “level playing field” challenges the notion that just because students attend the same school and are provided with the same access and opportunities to education, nothing could determine their learning behaviour (Cooper 1994).

Like Cooper, other researchers are also concerned about the notion of a ‘level of playing field’. According to them when a student goes home after school, several factors will affect how he/she learns or complete an assignment the he/she takes home. These include the student’s other time commitments, home environment, and the involvement of others (Kralovec & Buell, 2000). A significant concern of many researchers is that, students coming from families of a lower socio-economic status or those whose parents did not have access to high school education may not have access to the same resources at home as a child whose family is well educated and in high socio-economic category.

A study conducted by Mau (1997) on Parental influences on the high school students' academic achievement, revealed that parental support plays a significant role in child's academic achievement. Ma (2001) in a related study after reviewing many studies in the field of mental abilities concluded that the relationship of I.Q to socio-economic level is a documental fact in mental test history and high Intelligent Quotient (I.Q) are found among families of high social economic levels. Educational and economic policies pursued by the government are so rigid that they have resulted in unprecedented hardships, especially to the underprivileged. Also high cost of school fees in both private and public schools as well as textbooks have compelled disadvantaged parents to engage their wards in other economic generating ventures to help augment the family income hence robbing the students of their study time. That is overworking at home results in fatigue and loss of time because students retire to bed without looking through a page of their notes.

The Ghana Education Service (GES: 2000) made some findings and confirmed what Lichter and GLSS identified. The GES research showed that, the reason why children in rural areas do not perform well academically is due to absenteeism from school as a result of parents' limited resources hence their inability to support the children. In Ghana, majority of the parent population do not enjoy any child maintenance allowances or support from the government. They only rely on their insignificant income for the upkeep of their families and their education as well. Poverty has an appreciable effect even when intelligence level has been taken into account. In effect, most parents had to sacrifice a lot of



things in order to use their insignificant income to contribute towards the educational development of their children.

Cogen (1992) posits that, parental involvement was indexed by head teachers' assessments of apparent parental interest in the child scored on a four-point scale: parental initiative in talking with teacher, time spent with child in reading and on outings, picnics and visits. Parental aspiration was rated on the basis of the parental desire for the child to stay on at school (when the child was 7 or 11) and hopes for further education/first job when the child was 16. Achievement was assessed using standardized tests of reading and mathematics and personal adjustment was measured using the British Social Adjustment Guide. The data were analysed using techniques which allow the researcher to identify the relationships between the variables in the model and to ascertain how much each contributes in explaining the link between the 'inputs' (in this case, social class) and 'outputs' (in this case pupil achievement and adjustment). Characteristically, family social class was significantly related to pupil achievement and at all ages. Children from higher social classes had higher levels of attainment and better scores on scales of personal adjustment than children from lower social classes. Throughout the study there was a strong relationship between achievement and parental involvement. The processes through which social class worked however, changed according to the age of the child. At age 7 pupil achievement and adjustment was mainly influenced positively by parental involvement and negatively by material deprivation. By far the strongest positive influence was parental involvement (Cogen, 1992).

## **Classroom Atmosphere and Learning Behaviour**

It is common knowledge that behaviour is determined by the kind of environment around the individual. Thus the classroom atmosphere of a student is essential in creating the right learning atmosphere that is ideal for academic work. The classroom is the arena where interpersonal relationships between the teacher and students have great impact on the learning. Sprinthall (1987) asserted that the teacher is the centre of the classroom. Thus the teacher's attitude towards the pupils or students is very important in determining the classroom atmosphere. For younger students, providing a classroom environment that enriches learning opportunities with teachers who model positive learning values will set the new learner on a path toward good learning. It is also pointed out that academically, successful schools set high expectations for work and achievement. The concept of the school as a place of learning is communicated clearly to student, and commitment to learning behaviour is expected in every classroom. Expectations are manifested in performance standards set by the school. Low standards reflect low expectations; high standards reflect high expectations, (Anderson, 1988). Adoom (2007) suggested that the issue of large class sizes prevent teachers from giving their best in improving students' learning behaviour particularly when it has to do with marking assignment and teaching. He further said that a well motivated teacher will definitely be a performer to help improve students' studies in school. Frustration as a result of a mistake made by some students in some subjects deters them for further learning of those subjects affecting their learning. Students mostly lose interest in subject they often make mistakes and therefore

stop improving upon them. Volkman and Bye (2006) stated that a good classroom environment helps students improve upon how they study. He further stressed that a school which has a spacious classroom and the needed teaching and learning materials with teachers of good attitude tend to have students with good learning behaviour.

In the view of Koomson (1990), the type of classroom climate established by the teacher is fundamental to determine students' behaviour towards their studies. Skills involved in establishing a positive classroom climate are therefore of immense importance to facilitate effective learning. The type of classroom climate generally considered best to facilitate students' learning behaviour is one that is described as being purposeful, task-oriented, warmth, supportive and has a sense of order. Such a climate facilitates learning behaviour by establishing and maintaining positive behaviour in students toward their lessons. This derives from the teacher's insistence that time is a precious asset that must not be wasted. Hence, a prompt start of lessons, monitoring of students' progress and careful attention to organizational matters converge to ensure the smooth flow of lessons and the maintenance of students' involvement in the lessons help them in the formation of good learning behaviour.

Kenneth (1998) made a clear observation that where teachers allow minor matters to interrupt the flow of a lesson, a message is conveyed to the students that the lesson is not of immense importance and, therefore, interrupt students' learning. He asserted that sending the wrong signal by the tone of voice or as a preamble to a topic that it is not particularly worthwhile will undermine creating a

purposeful and task-oriented ethos. Similarly, ending a lesson earlier is also likely to have the same effect. Koomson (1990), emphasized that purposeful and task-oriented focus can usefully be described as a 'business-like' approach to presentation. It is characterized by the students' acceptance of the teacher's authority to organize and manage the teaching activities. A very important aspect of establishing such positive expectations by students is the need to ensure that students have self-respect and self-esteem regarding themselves as learners. This can in part, be fostered by providing realistic opportunities for success and helpful support and encouragement whenever students encounter difficulties. A relaxed, warm and supportive classroom atmosphere stems from the style and manner of relationships teachers establish with their students. Being relaxed with students' misbehaviour calmly helps to arouse curiosity and interest in the learning activities which boost their studies (Koomson, 1990). Commenting on this, Kenneth (1998) said that by giving feedback the teacher could usefully help students to develop good learning behaviour. He indicated that paying attention or using certain strategies in approaching students work would enable teachers to meet the demands on students and establish a positive atmosphere such as feedback which can be a useful tool of offering support to enhance studies.

Kraft (1994) is of the view that, the type of relationship established between the teacher and the students also affect their learning. In his view the type of interaction that exists between the teacher and the students has been found to be dictated by how the teaching-learning encounter is respectively perceived. Most importantly, the interaction resulting from this perception has been found to

determine students' learning significantly. The academic environment needs to be structured in a fashion that allows for student interaction but sets boundaries that afford pro-social behaviour. Recognition of the strategic effort required maintaining classroom social and academic order that can help both the learner and the teacher decide how to approach problems addressed in either domain. Anderson (1988) is of the view that students' learning behaviour are most likely to flourish in a climate where relationships are based on mutual respect and rapport between the teacher and the students. Mutual respect develops from the students seeing the teacher's actions that he or she is competent and cares about their progress by planning and conducting effective lessons and carrying out various tasks with commitment. Good rapport emanates from conveying the idea to students that the teacher understands, shares and values their perspective as individuals on a whole range of matters and experiences, covering academic, social and personal concerns. To sustain order and control, teacher relationship with students must be one in which they respect and accept his authority to manage and control what happens in the classroom so that their learning progresses effectively. Anderson (1988) underscores the fact that it is important for the teacher to create a context in which good communication can take place.

According to Tamakloe, Amedahe and Atta (2005), there is widespread acceptance of the fact that disciplinary problems in the classroom usually reduce the time for the teaching-learning process. Misbehaviour makes teaching unpleasant and ineffective if they occur so frequently that the teacher has to spend much of the teaching time correcting them. It is essential to create the type of

atmosphere within which learning can occur efficiently and enjoyably. The deviant behaviour of a few members of the class can be so disruptive that everybody else cannot do any meaningful academic work. Studies require close attention, concentration and uninterrupted work. Every aspect of the instructional programme of the school can determine students learning. For this reason, there is the need for cooperation and coordination of the activities of all the members of a class for successful teaching and learning. Effective classroom discipline is, therefore, very important for effective learning behaviour and vice versa. Classroom dynamics must include consideration of the types of classroom curricula. The well-known and intended analytic curriculum taught to pre service educators and recorded in the lesson plans and assignments may easily disregard the underlying informal curriculum of social and human interaction. Students are not isolated in the pursuit of knowledge. They are social beings who need to interact and establish social contacts. Within the classroom, time and organization can be established to focus students on their learning. Pairing and grouping students by their devotion to academics, for example, may benefit all involved. Those who value learning can share their enthusiasm and act as mentors for those who have other priorities. Students who motivate themselves in non-academic directions can view and appreciate the choices of peer learners.

Sills (1989) also argued that, besides the fact that in a mixed-sex classroom environment, females fall into the stereotype ideas that males should be smarter than them, many are also discouraged and overlooked in classroom settings when they make effort to dominate, and assume leadership roles. Sill

highlighted that this predominately male characterised environment discourages females from feeling comfortable or included in a situation that required such behaviour and as a result these differences of learning styles often dampen girls' self-esteem. He asserts that educators frequently fail to accommodate female learning styles and thus disadvantage female students despite their intelligence or creative ability. Females' self-esteem and their development as leaders are strongly determined by the way males perceive them or the way the girls think boys perceive them, and this greatly affects their learning behaviour in the classrooms. Thus all these negative attitudes towards female students by their male counterparts which are seen as a norm have a lot of effects on their learning behaviour (Sills, 1989).

According to Koepke (1991), students from the Philadelphia High School for Girls say that "girls avoid the pressure to 'play dumb' for the boys who do not like the smart girls". In this all-girl classroom environment, students avoid the temptation to suppress their intellectual sides and therefore do not get caught up in the traditional gender and occupational stereotypes which affect their studies. Also in an observational study of mixed school mathematics classes conducted by Jimenez and Lockheed (1989), it was observed that teachers directed most of their attention to male students. This they argued may be due to the fact that males tend to have greater disruptive behaviour. In many cases, a more important reason that females are uncomfortable in such classroom settings is the fear of being ridiculed by their male peers, or appearing to be too smart in the eyes of other students, especially males. This poses a problem for females because they are not able to

perform at their full potentials. Also gender stereotypes, lack of self-confidence, and the education environment have a great effect on classroom performance, and inhibit them from reaching their academic and social capacity in general. In the classroom, females prefer a 'conversational style' that encourages group discussions and consensus, and builds ideas on top of each other.

Achievement of a student is a small part of what a student is and what she does. The responsibilities of educational institutions include helping students recognize their own place as social contributors and maximizing the resources available to them through interpersonal relationships. For example, cooperative learning help-seeking behaviours are essential resources for students in the classroom that facilitate both student achievement and social competence. Some students and educators view help-seeking as a sign of dependence or weakness, but research supports the contention that help-seeking is a sign of social competence that increases students' chances of academic success. Negative attitudes toward help-seeking may discourage low-achieving students from approaching peers and teachers and may further isolate them. This is especially detrimental to older students. Besides, classroom atmosphere could be determined by peer group behaviour whether positive or disruptive according to literature.

A large number of empirical studies have been done on indirect peer effects though very little work has been done on direct effects. For instance, in a study of grades one through three in the Montreal school system Kraft (1994) examined the effect of classroom composition on student's performance on standardized tests. The study found a statistically significant relation between the



mean class intelligent quotient (I.Q) and student test scores. This suggests the existence of positive externalities by students of relatively higher academic ability and negative externalities by those of lower academic ability. These peer effects were quantified using a regression of student IQ on control variables, including lagged IQ, and the contemporaneous mean class IQ (second order also included). The results suggested that a student at the 50<sup>th</sup> percentile in a class with a mean IQ equal to that of the first quintile (45.2) would increase to the 79<sup>th</sup> percentile in French and the 88<sup>th</sup> percentile in Math if placed in a class with a mean IQ equal to that of the fifth quintile (54.8). While Henderson et al. do not attempt to measure the effects of disruptive behaviour; they do provide empirical evidence for the existence of peer effects in the classroom.

### **Peer Relationship and Learning Behaviour**

A vast body of work exists on student peer effects, drawing from the fields of psychology, education, and economics. Researchers have been discussing the link between social interactions among peers in school and learning behaviour for over 40 years according to Johnson (2000). There are extensive literature notes which indicate that a child's peer group determines their learning behaviour and academic development and that these influence begin at the very start of formal education. Peer relationships, particularly in early adolescence, are important part of this social context and shape school development. Researchers have indicated that there is a significant correlation between peer relationships and students' learning behaviour (Garner, Bootcheck, Lorr, & Rauch, 2006; Ryan, Kiefer, & Hopkins, 2004; Wentzel & Watkins, 2002). Agyeman (1986) was of the view that

some peer groups may help their members to compliment the learning process thus promoting academic achievement of learners. On the other hand, others may lead members to rebel against the classroom norms and school authorities which may disrupt their study process.

Influence and motivations for all kinds of children's behaviour, including learning behaviour and personal academic development, come not only from their peers, but also from their parents, teachers, and others with whom they come into close contact. Because of the sheer amount of time the typical child spends each day with his or her friends, the peer influence on a child can be substantial. Most of the literature focuses on how the individual characteristics of a student's peers determine educational output through "contagion", the ability of peer behaviour to determine the behaviour of an individual student learning. Lazear (2001), however, illustrates how peers can affect education output in a more direct fashion by behaving disruptively. Little empirical work has been done separating contagion from direct peer effects. The interactions among peers both in and outside classroom are normal and essential part of the learning process that determines the lifelong learning behaviour of students. The potential effects of peer relationships are reciprocal: Some students are more receptive than others. On one extreme, for example, is a student who values and seeks peer input on every decision; on the other is the social isolate who avoids interaction in and out of the classroom.

Sullivan (1953) outlined a developmental theory describing the changes in inter-personal needs as an individual matures. He observed that elementary school

students tend to work with larger peer groups, which are usually the whole class with whom the young student spends their academic days. Classroom peer groups give way to same-sex "chums" in early adolescence. These same-sex chums fit the best friend/confidant role. Late-elementary and middle school students usually confine their social activities to include these one or two friends. High school and early adulthood individuals seek out and spend time with love interests who satisfy emotional and physical intimacy needs (Sullivan, 1953). McCaslin and Good (1996) are also of the view that, demands and opinions of friends can overwhelm the needs of family and, at times, can overwhelm the individuals themselves. As the individual matures biologically and cognitively, the culture of education also changes, moving the student through a system marked by a single class in early elementary school to a system of hour-long classes in middle and high school. Student peer preferences also change during these years. Friendships of two to three students give way to larger group networks. It comes as no surprise, then, that the relative consistency of peers allows them to take precedence over academics and educators in later education.

In addition to school structure, McCaslin and Good (1996) indicated that determinants such as home life and increased personal responsibilities also have explanations for students' decreased academic motivation and increased receptivity to peer influence. That is, the subculture of the peer group can be very telling in determining students' motivation to succeed in academics. In short, the relative influence of peers or peer groups typically increases with the age and development of the student. For instance a younger student may be able to find

the motivation and desire to learn apart from classmates and friends, looking instead to values from home and teacher while older students are more apt to seek out those who have similar interests and values. Encouraging elementary students to interact with peers, adults, and family members who have strong learning desires can support the students' development as learners.

Although peer influence may not yet be as powerful as they will become in student achievement motivation, the effects of young students' interactions cannot be disregarded. As the learner matures the importance of how peers view the learner's actions and decisions may well supercede the opinions of others, possibly even the views of the learners themselves. At a minimum, the influence of peers and a student's relationships with them can be understood as a function of student age, motivation, learning, and classroom opportunities. Goodlad (1984) asserted that feelings of mistrust and harassments toward classmates may cause them to withdraw from peer interactions or isolate themselves from social and academic activities of the school. They argue that, harassments experienced by such victims of peer relationship lead to pre-occupation with worries and withdrawal from peer learning activities which may bring about contact with their 'enemies' which in turn affect their learning behaviour.

Wentzel (2003) indicates that during adolescence the connection between peer relationships and academic progress continues. Acceptance by peers in both the sixth and seventh grades is positively related to the pursuit of prosocial goals and behaviour, while negatively related to the pursuit of academic social responsibility goals (Wentzel, 2003). He found in their study that a child with

positive friendship features in the seventh and eighth grades are more involved in school learning. Peer relationships also appear to affect discipline-specific academic success. They indicated that, middle and high school students' English efficacy is related to high perceived peer attachment as measured by the Inventory of Parent and Peer Attachment. Consequently, it can be said that learning behaviour during adolescence is connected to aspects of teenagers' peer relationships.

Two major issues in the literature on the peer effect merit special mention here: changes in the effect of peers over time and cultural patterns penalizing learning pattern. First, some academics argue that peer effects become more important as time passes, peaking somewhere during adolescence. At the same time, children must foster positive peer groups early in order to become well-adjusted adolescents and adults. Having friends in school allows the child to learn a host of skills: group interaction, conflict resolution, and trust building, among others. Without positive peer group interactions, serious social problems may develop. Peer rejection in early childhood and early adolescence, for example, is a good predictor of social and learning problems later. The predictive power is generally indirect; consider, for example, the case of positive peer relationships. Peer approval leads to a pro-social behaviour in many areas of a child's life, including learning. This will tend to affect the self-esteem of the child, which has other social consequences. The literature on this issue is extensive, and a number of texts have been written on the subject (Johnson, 2000).

## **School Type and Learning Behaviour**

The academic environment of a student is essential to creating the right learning atmosphere that is ideal for academic excellence. Single-sex education (SSE) is the practice of conducting education where male and female students attend separate classes or are in separate schools. The practice was predominant before the mid-twentieth century, particularly in secondary education. Single-sex education in many cultures is advocated on the basis of tradition and religion and practiced in many parts of the world. The reported that a number of studies starting from the 1990s showed statistically that, those students from single-sex schools outperformed students from mixed- schools. In 2002, because of the bi-partisan nature of the studies, the US law of 1972 that made mix-sex in public schools mandatory was revoked and funding was given to support single-sex options. There are now associations of parents who are advocating for single-sex education.

In Ghana, though western education was introduced in the 16<sup>th</sup> century, it did not really get established until the arrival of the Christian missionary societies in the 19<sup>th</sup> century. Even though the Christian mission schools got established through a lot of difficulty, eventually they were embraced and requested for by large section of the community. A remarkable feature of these schools was their predominantly single-sex character. The all-male schools were set up essentially to train pastors, catechists, teachers, professionals and other sections of intellectuals, the all-female ones were set up essentially to train worthy partners for the pastors, catechist, teachers and other gentlemen being educated in the all-

male schools. The curricular emphasis of all-female mission schools, were literature, languages, cookery, dressmaking, home management and others. In spite of their initial disparate curricular emphases, both all-male and all-female schools tended to, and still tend to be academically oriented (Nyarko-Sampson, 2004).

Mixed-sex schooling became a common feature of the Ghanaian secondary school system when the colonial administration entered the field in the 1920s. Since then, mixed-sex schools have made useful contributions to the development of education in the country. In spite of their contributions, these schools have not enjoyed as much prestige as their single-sex counterparts (Goodlad, 1984). Some weaknesses are identified as inherent in mixed-sex schooling. One of such apparent weaknesses is that the mixed-sex school setting does not seem to provide a salutary academic environment for adolescents. The reason assigned is that when adolescent boys and girls meet together in the same school, there is usually the tendency for them to be distracted from academic work. Also mixed-sex schooling is a means of socializing males and females into different roles in a gender-stratified society. This may imply that; boys are prepared for their roles in the world of the dominant class, whereas girls are prepared for their role in the world of the silent dominated class. For instance, males are always chosen to be the leader assisted by females.

Many times girls act naive or hide their intelligence and abilities because they think this is the way to be socially accepted and popular with boys (Sills, 1989). At an all-girls school however, these temptations to be ignorant are

diminished because females are in classrooms only with female peers. This enhances participation and confidence in the classroom, and also helps to avoid many of the gender stereotypes that exist.

In the words of Sills (1989), a way to help conquer this problem of females' lack of self-confidence in mixed-sex school settings is for teachers to recognise these differences. Since teachers set the standards, it is equally important that they realize the differences in learning styles between males and females. Educators can also help females assert themselves by emphasizing the "connection over separation, understanding and acceptance over assessment, and collaboration over debate". This may be the ideal solution; however, it is extremely difficult and unrealistic to maintain a classroom that caters simultaneously for two conflicting learning styles. Jimenez and Lockheed (1989) opine that males can establish the norm in a mixed school classroom and it is one to which females are required to conform. When girls and boys are brought together there is not a merger of two equally balanced groups but a submersion of one. Instead of trying to compromise this issue of different learning styles, a more realistic and ideal solution is the existence of single-sex schools for girls.

Single-sex academic environments for females can greatly strengthen performance and participation in the classroom. To Jimenez and Lockheed (1989), very often, class-level participation rates and leadership opportunities are suppressed for girls in coeducational setting. In most classroom settings, discussions and class work revolves around the male type of learning patterns, making it more difficult for females to feel comfortable and excel in mixed-school



classroom settings. When females are in traditional mixed-sex school classroom settings, they are not given the attention or respect that they need or deserve in order to enhance their assertiveness and self-esteem. Schools, which are exclusively female, encourage and motivate their students to achieve in an environment that does not suppress their studiousness and confidence. This stems from the fact that males and females have different dominating personality characteristics, and also the fact that they have different classroom experiences because they approach learning differently and teachers tend to treat them differently. Lee and Marks (1990) suggest that female colleges create climates in which students are encouraged to spend significant amounts of time studying and working hard to meet the expectations of instructors. Both first-year students and seniors at female colleges report significantly higher levels of academic challenge than female at mixed-sex institutions. This may imply that female at single-sex college perceive the environment to require a high level of academic achievement. As a result, they work hard to meet these high expectations hence affecting their learning behaviour. Females appear to benefit most from the emphasis single-sex colleges place on higher order cognitive activities in course work. Although the level of academic work expected of students who attend the most selective single-sex colleges has long been touted as a defining characteristic, the study suggests that many female colleges are indeed providing female a challenging academic experience. The advantages of women's colleges are said to be due in part to: Greater opportunities for and participation in student leadership roles; the availability of more female mentors and role models among the faculty and top

administrators and higher percentages of students enrolled in the traditionally-male disciplines of math, science, and engineering.

Kimbell (1989) found that another benefit of single-sex education for girls is that it allows girls to evolve into self-confident and assertive women. This is crucial for females because they are at such an influential age, and the confidence that they gain help them in the future. In a study of three Jewish high schools in New York, it was found that fear of success was greater among girls at mixed-sex school than among those at a single-sex schools. Also attending an all –female school can help give girls the opportunity of a positive environment that is crucial to attaining self-confidence. By having high self-esteem, these female students of single-sex schools will be able to have higher educational aspirations, follow their goals and dreams, become leaders, and most importantly, break the many gender stereotypes which still exist within the Ghanaian society.

The findings show that students at women’s colleges interact more frequently with faculty suggests that faculty members at women’s colleges may be more accessible and students have more opportunities to talk with faculty members outside of class than women at coeducational institutions. Indeed, it is reasonable to assume that high levels of student-faculty interaction create opportunities for mentorship, such as providing advice and encouragement, recommendations for awards, internships or jobs, and involving students in research which influence their learning behaviour. This finding lends further insight into the discussions raised by Sills (1989), regarding the advantages of the number of female faculty at women’s colleges, by suggesting that it is the

frequency of interactions among students and faculty members at women's colleges that makes a positive educational difference for women. Fuchs-Epstein (1997) is of the view that, single-sex schools have shown to have a positive influence on all students and especially for female in science. Women in science, mathematics, and engineering at mixed-sex institutions are often discouraged from pursuing science as a career because they have few interactions with role models that could support such a choice. They perceive further that science professors fail to take females in such institutions seriously. Simpson (1996) indicated that psychologists theorize that single-sex schools create "pink ghettos" that "perpetuate feelings of inferiority. A set of interviews conducted by (Simpson, 1996) indicate females' reasons for choosing a single-sex school is to reinforce their loss of self esteem. The responses of three female students and their families indicated their choice to attend a single-gender school was primarily based on the "elite socialization" and "protective environment" offered by the school. Girls could escape the "disruptive environment" of males because by retreating to the "sanctuary" the all-girls' school provided. This process of "learning one's gender identity" will affect females more than males (Nyarko-Sampson 2004).

Opare (1998) opined that such studies do virtually not exist in Ghana, and the few studies done elsewhere revealed, however, that single-sex schools tend to recruit their students from among the elite. On reasons why most parents prefer single-sex schools to mixed-sex schools, are that they believe that single-sex schools have a more academic orientation, and that such schools have more

protected environments. Another reason is the strong religious orientation that single-sex schools have which minimizes, if not rule out acts of indiscipline. Parents choose single-sex schools for their children and wards because of the safety and discipline in their religious environments. Such environments, they say, offer guarantee of academic excellence, which in turn guarantees high chances of University admission. With particular reference to females, single-sex schooling is said to be devoid of stereotyped patterns of gender relations, which intimidate them in mixed-school setting. Hence single-sex schooling is said to offer an equitable and sound education for females. Single-sex schooling, therefore, is said to equip females with the ability to overcome the disadvantaging effects of discrimination in a gender-stratified society (Lee & Marks, 1990). The American Association of University Women's (AAUW) study on whether girls in the United States of America perform better only when they are separated has found that academically there [is] no evidence that single-sex education works (Murray, 1998). New, sophisticated studies are more reliable and disprove the earlier research in favour of single-sex schools. By controlling for confounding variables, the true cause of educational inequalities can be identified (Fuchs-Epstein, 1997:197).

### **Gender and Learning Behaviour**

Research by American Association of University Women (AAUW) (1994) showed that, girls were frequently marginalized in the classroom, with teachers responding more readily to boys, who monopolized linguistic, physical space and teacher attention. Gender differences in studying occur due to gender role

stereotyping. The hidden curriculum (behaviours that are not planned and structured but are learnt unconsciously) contributes to the reinforcement of gender roles, and aspects of the formal curriculum reinforced masculine notions of subjects that science and mathematics related. That is students learn gender-based behaviours that are strongly expected, regulated and reinforced by society and may learn to hide their emotions since society frowns on men who cry in public and reinforces men who appear strongly and stoic when faced with sorrow or stress. This is likely to help boys to always strive to study and achieve higher than girls. Women are expected to be gentle, kind and sensitive to others. They are expected to play an “expressive role”, that is to serve the psychological and physical needs of the family members and to promote harmony (Lefton 1991).

In Ghana, according to Anamuah-Mensah (1995), there is clear pattern of female concentration in typically feminine field of study such as teaching, nursing and humanities. He implied that there is a public perception that science and mathematics related subjects are for males only. Females are made to think that they are encroaching on the secret domain of males whenever they choose to learn these subjects. There have been instances where girls have been branded witches by their male counterparts and even teachers for excelling in mathematics, science related subjects (Anamuah-Mensah, 1995). He indicated that it is believed that for girls in science and mathematics related occupations as well as the stereotyping views held by employers and the rest of the society exacerbate the exclusion of women in science related occupations. There is a general traditional view that women are fragile, therefore, they should not, be made to perform strenuous

activities. This notion affects their learning attitudes and behaviour and achievement in school.

This may imply that the way females are perceived and treated by society goes a long way to affect their learning behaviour. For instance, at school, girls may be so gentle that even if they do not understand something in class, they are not likely to express it. Maccoby (1986) also indicated that gender-based ideas about profession are stereotyped which determine the students learning behaviour and profession. To him, parents are the first and most important sources of gender-based stereotyping which makes it difficult to change. Even today, relatively few women plan to become soldiers and few men intend to teach in day-care centres. The fact that the boys aspire to be doctors, engineers, may motivate them intrinsically more than girls in their studies.

A research conducted in Florida, United States of America into the learning attitudes and behaviour of boys at the primary and secondary levels by Askew and Ross (1988), revealed that even at primary levels, boys preferred to work independently, were highly competitive and showed a need to identify certain activities as male. Askew and Ross also indicated that by the time boys reach secondary school they might have acquired an individualistic competitive learning style that has significant implications for their interpersonal relationships with their peers and teachers and for their personal development. However, according to Deem (1980) girls on average, develop verbal skills such as grammar, spelling and vocabulary more quickly than boys. Females tend to speak more words than males, and women usually are very fluent in social interactions

and perform well in cooperative learning situations. Women also lean toward inductive reasoning (expanding upon basic knowledge based on experience). The female brain also uses emotion as a stimulant toward learning and incorporates multiple senses in the process.

Gender researchers in the United States of America (USA) demonstrated that career expectations and subject choices were structured along traditional gender lines, to the disadvantage of females (Deem, 1980; Sharma & Meigham, 1980). In the General Certificate of Secondary Education (GCSE) examinations, girls were consistently outperforming boys in achievement across the range of subjects, particularly in English, the humanities and foreign languages.

Blake (1989) says that, Literacy Hour was introduced with the aim to help boys catch up with girls. Within this context, vigorous debates have taken place in Britain, searching for reasons for boys' lower levels of achievement, and exploring ways in which the gap can be narrowed. Research has been carried out at a number of levels to explain the failure of boys to achieve at the same level as girls, with academic debates examining such issues as teacher-student interaction, curriculum content and the gender images of subjects, modes of assessment, single-sex schooling, labour market changes and concepts of masculinity. Cohen (1998) challenges the view that boys "underachievement" can be attributed to a variety of determinants external to themselves, such as the quality of teaching or the nature of resources, rather than their own intellect, potential or motivation.

Influential determinants in the relationship between gender and attainment have been investigated, such as assessment procedure, pupil attitudes and teacher

expectations (Gipps & Murphy, 1995). To arrest this development, Cambridge Educational Associates, The Institute of Education, and the School of Education at the University of Leeds organised conferences aimed at clarifying the underlying issues as well as offering practical suggestions for schools, teachers, parents and students.

In a research by the American Association of University Women (AAUW) in 1992 to consider gender equity in improving education and career opportunities for females, evidence was presented to show that girls were not receiving the same quality or even quantity of education as boys. However, recent studies showed that the AAUW report was wrong, as it was like “calling a wedding a funeral’ (Kleinfeld, 1998; Sommers, 2000). They argue that the findings reported by the AAUW were contrary to the research findings. The authors contend that from grade school through college, females currently receive higher grades and obtain higher-class ranks. They also receive more honours in every field except science and sports.

Kleinfeld (1998) reported that, on standardized tests, females typically surpass males in writing ability, reading achievement, and certain other verbal skills while males surpass females in science and mathematics. In the general population of males and females, however, sex differences in achievement tests are typically small – except for the big female advantage in writing. This assertion is further buttressed by Sommers (2000) that the representation of American girls as apprehensive and academically diminished is not true to the facts. Girls, allegedly so timorous and lacking in confidence, now outnumber boys in



government, in honour societies, and even in debating clubs. He agrees with Kleinfeld (1998) that only in sports are the boys still ahead, targeting the sports are the boys still but says, women's groups are targeting the sports gap with a vengeance. According to him girls read more books, and outperform males on tests of artistic and musical ability. There is therefore not much difference by way of gender variation in the academic performance of males (boys) and females (girls).

### **Summary of Literature Review**

Many attempts have been made by many authorities to define learning. Basically, learning behaviour has been defined as relatively permanent change in behavioural potential that occurs as a result of reinforced practice. This definition implies that the change needs not be an improvement. Behaviour is also learned dispositions to repeat past responses. They are not just restricted to behaviours. Thoughts can become behaviour as well. They are triggered by features of the context that co-varied frequently with past performance, including performance, locations, preceding, actions in a sequence, and particular people. Learning pattern among students of second cycle in Ghana can be determined by anxiety, parental support, peer relationship and classroom atmosphere. For instance, almost every person experiences test anxiety during his or her student life. Thus feeling anxious during test or examination is a part and parcel of a student's life. Little anxiety actually helps one in concentrating and working hard for the examination. It implies that anxiety is like a tonic to work hard. However, if students spend all their time feeling anxious, a lot of valuable study time would be

lost and may be the root cause for poor performance, leading to academic failure, psychological disorder and poor self confidence. Thus, anxiety becomes a problem when it affects examination performance of students. Also the support parents give to their children due to the level of parents' educational status, income, occupation, and home environment among others influence students' learning and interactions among peers both in and outside classroom are a normal and essential part of the learning process that determines the lifelong learning behaviour of students. All these have lots of effect on students' learning behaviour.

## **CHAPTER THREE**

### **METHODOLOGY**

This section covers the range of approaches (techniques and procedures) which were employed by the researcher in the process of data gathering. This includes research design, population, sample and sampling procedures, instrumentation and procedure for data collection, pilot-testing of instruments and data analysis.

#### **Research Design**

The choice of research design for a particular study is based on the purpose of the study (Cohen, Manion & Morrison, 2004). For this study, descriptive survey as a research design was considered a suitable design to be used. According to Gay (1992) the descriptive survey is an attempt to collect data from members of the population in order to determine the current status of that population with respect to one or more variables. This justifies the choice of descriptive survey design by the researcher because that is exactly what this study is all about. The researcher collected data from members of the population and determined the current status of that population with respect to one or more variables. Osuala (2001) also indicated that descriptive survey research gives a picture of a situation or a population. It is basic for all types of research in assessing the situation as a pre-requisite for inferences and generalizations. It also helps or enables the researcher to collect data on a large number of people.

Descriptive research design is useful because it can provide important information regarding the average member of a group. Specifically, by gathering data on a group of people, a researcher can describe the average member, or the average performance of a member, of the particular group being studied. Descriptive research design is highly regarded by policy makers in the social sciences where large populations are dealt with using questionnaires, which are widely used in educational research since data gathered by way of descriptive survey represents field conditions (Osuala, 1991).

Surveys permit the researcher to study more variables at one time than is typically possible in laboratory or field experiments. It is an efficient and accurate means of determining information about a given population. The results from surveys are provided relatively quickly, and ensure higher reliability than some other techniques. However, the researcher was not oblivious of some of the weaknesses associated with survey design. According to Tuckman (1972), sampling error may occur due to chance selection of different individuals. Osuala (1991) has also pointed out that the descriptive study may have the problem of low response rates that can have adverse effect on the results of the survey.

It is also not in itself comprehensive enough to provide answers to questions and cannot establish causes and effect relationship (Osuala, 1991). Furthermore, according to Leedy (1985), “one of the most subtly and ineradicably shortcomings of descriptive survey is the presence of bias” (p.132) and especially when one uses questionnaires.

The following suggested ways were employed to reduce the bias nature of

descriptive survey: Questions answered were clear and not misleading, getting respondents to answer questions thoughtfully and honestly. 320 questionnaires were completed and returned from the six schools thereby ensuring meaningful data analyses.

Despite the shortcomings identified, the descriptive survey design was used. An advantage of the design is that it has the potential to provide a lot of information obtained from quite a large sample of individuals (Fraenkel & Wallen, 2000). It was therefore appropriate to use the descriptive survey to find out the determinants of students' learning behaviour in public senior high schools in Cape Coast Metropolis.

### **Target Population**

Cohen et al (2004) explain a target population as a group of elements or cases, whether individuals, objects or events, that conform to specific criteria and to who the researcher intends to generalise the study. In this study the target population was 11,131 students from all Senior High Schools (SHS) in the Cape Coast Metropolis. The accessible population was 6,546 made up of students from Oguaa Secondary Technical School, Academy of Christ the King and Adisadel College. The rest are University Practice, Ghana National College and Wesley Girls' schools. Tables 1 and 2 show the size of target and accessible population respectively.

**Table 1: Target Population per School**

<b>School</b>	<b>Population</b>
Academy of Christ the King	742
Mfantsipim College	1609
Adisadel College	1293
Oguaa Secondary Technical School	824
Holy Child Senior High School	918
Wesley Girls Senior High School	1242
Ghana National Collage	1365
St. Augustine Collage	1380
University Practice Senior High School	1062
Effutu Secondary Technical School	996
<b>Total</b>	<b>11,131</b>

Source: Statistics Section, Metro Education Office, Cape Coast

**Table 2: Accessible Population**

<b>School</b>	<b>Population</b>
Oguaa Secondary Technical School	842
Academy of Christ the King	742
Ghana National College	1365
University Practice Senior High School	1062
Adisadel College	1293
Wesley Girls Senior High School	1242
<b>Total</b>	<b>6,546</b>

Source: Statistics Section, Metro Education Office, Cape Coast

## **Sample and Sampling Procedure**

Sampling involves the process of selecting a portion of the population to present the entire population (Amedahe, 2000). In all, 320 students formed the sample for the study chosen from the 6 selected schools. In choosing the sample, stratified random sampling technique, simple random sampling and ratio and proportion procedures were used. The stratified sampling in the view of Cohen and Manion, (1995) would guarantee proportional representative of the subjects and enable the researcher to study the differences that might exist between various sub-groups of a population whilst the simple random sampling gives equal chance to all the subjects.

The stratified random sampling procedure was used to group all the Senior High Schools in the Cape Coast Metropolis into two strata, that is, all-boys, all- girls (single-sex) and mixed (co- educational). A total of 6 schools were selected using a simple random method. The 6 schools comprised 1 boy schools, 1 girl schools and 4 mixed schools from the Cape Coast Metropolis. The stratified sampling procedure was used since the population was in groups and had common characteristics related to the variables of the study. It was also to improve the representativeness of the sample. Students of SHS1 and SHS3 were used for the study. One hundred and sixty students were randomly selected from each of the two classes (SHS1 and SHS3). The consideration for the SHS1 and SHS3 was out of the notion that SHS1 is the transition from Junior High School (JHS). The researcher wanted to find out if their learning behaviour was different from the SHS3 students who had already settled down to the demands of the

syllabus and might have acquired more knowledge than SHS1 students.

In order to reduce bias in the selection of the sample, the simple random sampling, using a table of random numbers was used. The caseload was listed with an arbitrary starting point on the table. The first number the researcher finger rested on automatically became the first student for the study. The 320 students used for the study were all selected in the same way described above. In situations where a number was repeated the researcher moved her finger across the row of numbers to the very next, to select the next person. Above all, ratio and proportion method was used to get the exact sample from each school which summed up to the 320. Table 3 displays the details of the participants taken from each of the 6 schools.

**Table 3: Sample Size**

<b>School</b>	<b>Population</b>	<b>Sample Size</b>
Oguaa Secondary Technical School	842	41
Academy of Christ The King	742	36
Ghana National College	1365	67
University Practice Senior High School	1062	52
Adisadel College	1293	63
Wesley Girls Senior High School	1242	61
Total	6,546	320



### Demographic Data

A total of 320 respondents were drawn from six schools in the Cape Coast Metropolis of the Central Region of Ghana for the study. Table 4 represents the gender distribution of the respondents in the study.

**Table 4: Distribution of Respondents by Gender (N=320)**

Items	Frequency	%
Female	166	51.9
Male	154	48.1
Total	320	100.0

Source: Field Data, 2010

Table 4 indicates that 166 females and 154 males which represent 51.9% and 48.1%, respectively, answered the questionnaire. The researcher was also concerned with the distribution of respondents by levels. Table 5 presents the summary of this data.

**Table 5: Distribution of respondents by level (N=320)**

Items	Frequency	%
SHS 1	156	48.8
SHS 3	164	51.2
Total	320	100.0

Source: Field Data, 2010

Table 5 shows that 156 (48.8%) of the students were in SHS 1 while about 51% in SHS 3. The researcher was also interested in the distribution of respondents by age. Summary of this result is presented in Table 6.

**Table 6: Distribution of Respondents by Age (N=320)**

<b>Age</b>	<b>Frequency</b>	<b>%</b>
14-16	154	48.1
17-19	161	50.3
20-21	5	1.6
Total	320	100.0

Source: Field Data, 2010

As shown in Table 6, about 48% of the respondents were between the ages of 14 and 16 years, 50.3% were between the ages of 17 and 19 years while 1.6% of the participants were also between the ages of 20 and 21 years. This shows that majority of the respondents, 98.3% fall between 14 and 19 years which also represents the adolescent age group.

### **Research Instrument**

The instrument used in the study was questionnaire. Leedy (1985) and Amedahe (2000) postulates that questionnaire is widely used in all educational research; if developed to answer the research questions. It is effective for securing factual information about practice, enquiring into opinions and attitude of the study. The questionnaire is a widely used and useful instrument for collecting survey information providing structured often numerical data, being able to administer with or without the presence of the researcher and often being comparatively straight forward to analyse (Fraenkel & Wallen, 2000). Ethically, the questionnaire will always be an intrusion into the life of the respondent in terms of time taken to complete the instrument and the level of sensitivity and

possible invasion of privacy. In the case of the topic under study, because of the sensitive nature of the topic, the researcher sought the respondents informed consent and strongly encouraged respondents to complete the questionnaire even though the decision whether to become involved or to redraw was entirely theirs. The guarantee of confidentiality, anonymity and non-traceability was also assured.

The questionnaire for the research was a five point Likert-scale type developed by the researcher to measure the determinants of students' learning. The questionnaire comprised two main sections (A & B). Section A involves the personal data of the respondent; age, class, gender and school type (mixed/single-sex). Section B consisted of 40 items in 4 scales. Each scale carried 10 items and measured a specific factor that determines the learning behaviour of students. The scales were:

Scale1: Test Anxiety – It is to find out how worried students become before, during and after examination and the effects on their learning.

Scale 2: Classroom Atmosphere - It deals with issues of competence of teachers and the value they place on students' contribution and monitoring of academic work of students.

Scale 3: Parental Support – It finds out whether facilities available at home, and parents' educational backgrounds and their involvement or interests in their wards' studies determine their learning behaviour.

Scale 4: Peer Relationship – It deals with issues such as interaction among peers and its influence on learning.

The questionnaire was designed based on five point Likert scale. It provides a range of responses to a given statement; that is (1) Strongly Disagree (2) Disagree (3) Undecided (4) Agree (5) Strongly Agree. Likert scale was considered by the researcher because it has the advantage of being relatively easy to develop. It also builds in a degree of sensitivity and differentiation of response while still generating numbers (Cohen, et al 2004).

### **Pilot - testing of Research Instrument**

According to Leedy (1985) everything about the questionnaire should be piloted, nothing can be excluded, not even the type face or the quality of the paper. A pilot-test has several functions, principally to increase the reliability, validity and practicability of the questionnaire (Morrison, 1993). Thus, pilot-test checks the clarity of the questionnaire items, instructions and layout. It is also used to gain feedback on the validity of the questionnaire items. It is also used to eliminate ambiguities or difficulties in wording of the questionnaire among others (Morrison, 1993). The research instrument was personally designed by the researcher. There was therefore the need for a pilot-testing of the instrument to establish validity and reliability of the items. There was also the need to find out if the instructions accompanying the items were clear enough and would, therefore aid the respondents to complete the questionnaires as accurately as possible. The questionnaires were tested at Aggrey Memorial Zion Senior High School. They were administered and collected on the same day. The pilot test was essential because it actually helped the researcher to know the internal consistency of the instrument and also helped to reshape and restructure the items.

For instance, it enabled the researcher to identify and correct few ambiguities like clarity of expression and overloaded questions.

Aggrey Memorial Zion Senior High School was chosen because the school is in not Cape Coast Metropolis and has large population. The teaching staff and the students of Aggrey Memorial Zion Senior High School and the ten (10) public schools, which form the target population of the study, have similar qualification and experiences.

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

Face and content validities were established by submitting the instrument to the researcher's supervisors for review. Cronbach's Alpha was used by the researcher to establish the reliability of the instrument during the pilot-test. Pavet, Deiner, Colvin, and Sandvik (1991), have indicated that in terms of reliability, the most important figure is the Alpha value which is Cronbach's Alpha co-efficient. Pavet et al (1991) indicated that any scale with Cronbach's Alpha of less than 0.7 cannot be considered reliable. On the basis of that the value of 0.823 which was the Cronbach's Alpha co-efficient for the pilot-test is above 0.7 and therefore be considered reliable.

### **Data Collection Procedure**

With a letter of introduction from the Department of Educational Foundations, University of Cape Coast, permission was sought from the headmasters of the Senior High Schools the researcher visited. The headmasters introduced the researcher to the guidance and counselling co-ordinators in the schools who helped to fix the date for the administration of the questionnaire. On

the day of administration of the questionnaire, the researcher established good rapport with the participants in order to win their confidence to accept and complete the questionnaire. The researcher explained the purpose of the study to the participants and assured them of anonymity. The questionnaires were completed at a sitting and collected immediately. The return rate was 100%.

### **Data Analysis**

The questionnaire was close-ended and respondents were expected to respond to all the items. Items were measured on a five-point scale: 1. strongly disagree, 2. disagree, 3 undecided, 4. agree, and 5. strongly agree. In analysing the data, the various responses were coded, edited and scored using the research questions and the hypothesis.

#### **Research Question One**

To what extent does test anxiety determine students' learning behaviour? Means and standard deviation were used to analyse the response to determine how test anxiety affects students learning.

#### **Research Question Two**

To what extent does classroom atmosphere determine students' learning behaviour? This was analysed using means and standard deviation.

#### **Research Question Three**

To what extent does peer relationship determine students' learning behaviour? Means and standard deviation were used to analyse the research question.

#### **Research Question Four**

To what extent does the parental support of students determine learning behaviour? To analyse the result, means and standard deviation were employed.

#### **Research Question Five**

What are the major determinants of students' learning behaviour? Means and standard deviation were used to analyse the research question to find out the major determinants of students learning behaviour.

#### **Hypotheses**

There is no significant difference between the determinants of learning behaviour of male and female students. Independent sample t-test was used to conduct the analysis.

There is no significant difference between determinants of learning behaviour of Form One and Form Three students. Independent sample t-test was used to find out if there is a significant difference between determinants of learning behaviour of Form One and Form Three students.

There is no significant difference between determinants of learning behaviour of students in mixed and single-sex schools. Independent sample t-test was used to conduct the analysis.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

#### **Introduction**

This chapter deals with the analysis and discussion of data gathered from the participants of the study from selected mixed and single sex schools Cape Coast Metropolis. The presentation of the result was done based on the research questions and hypotheses. Means, standard deviation and t-test were employed to answer and test the research questions and hypotheses respectively.

#### **Answers to Research Questions**

The four research questions formulated based on test anxiety, classroom atmosphere, parental support and peer relationship are answered and discussed below. The items were constructed on a five-point scale ranging from 5= Strongly Agree, 4= Agree, 3 =Undecided 2= Disagree 1= Strongly Disagree. The fifth research question used all the four variables to determine the major determinants of students' learning behaviour.

#### **Research Question One**

To what extent does test anxiety determine students' learning behaviour?

The aim of this research question was to investigate the effects of test anxiety on students' learning. A summary of this result is presented in table 7. For the purpose of this discussion, mean scores of 2.5 and above suggests agreement



with a given statement and below 2.5 suggests disagreement.

**Table 7: Descriptive Statistics of Participants' Responses to Effects of Test Anxiety on Their Learning (N =320)**

Items	N	Mean	S D
1. I forget facts I really know during exams because I get nervous	320	1.64	1.457
2. Thoughts of doing poorly in exams interfere with my studies	320	1.81	1.471
3. I wish exams do not bother me so much so that I can learn	320	1.96	1.529
4. I study late into the night, the day before examination	320	2.11	1.525
5. I have great difficulty managing the amount of study( the materials for an examination)	320	2.21	1.437
6. I have trouble finishing my exams because of tension which affects my learning	320	2.59	1.455
7. I cannot easily cope with examination tension and manage my learning	320	2.61	1.342
8. I become so tensed after an examination that it affects my learning	320	2.81	1.312
9. I cannot learn when I am about to write an examination	320	2.90	1.273

Source: Field Data, 2010

SD: Standard Deviation

From Table 7, four predominant items on test anxiety reported by students as determinants of their learning behaviour are stated and discussed below.

The first most predominant students' behaviour due to test anxiety

reported by respondents was “I cannot learn when I am about to write an exam”, with a M of 2.90 and SD of 1.237. This implies that most of them become uneasy, apprehensive or nervous when they are about to write an examination, suggesting that majority of students in SHS in the Cape Coast metropolis do experience some form of tension. This uneasiness or tension may lead to unpleasant situations such as headaches, rapid heartbeats, stomach aches, abnormal sweating and dizziness. This is in line with the findings of Smith (2008), who asserted that almost every person experiences test anxiety during his or her student life. Test anxiety is most common in students who have not studied very well for the examination. Thus feeling anxious before and during test or examination is a part and parcel of student life. Little anxiety actually helps one in concentrating and working hard for the examination. It implies that anxiety is like a tonic to work hard. However, if students spend all their time feeling anxious, a lot of valuable study time would be lost and may be the root cause of poor performance, leading to academic failure, psychological disorder and poor self confidence. Thus, anxiety becomes a problem when it affects students study pattern (Smith, 2008). Abu- Zeina and Al-Zagal (1984), also indicated that one of the reasons why students can develop test anxiety is prior negative experience with test taking. This may serve as activating event and students who have experienced, or have a fear of blanking out on tests or the inability to perform in testing situations can develop anticipatory anxiety. This kind of anxiety can build as testing situation approaches, and can interfere with student's ability to prepare adequately for good performance.

A second most predominant item dealing with test anxiety was. “After an

examination, I become so tense that it affects my learning”, with the M of 2.81 and SD of 1.312 indicating students’ agreement to the fact that they have difficulty learning after examination because of tension. Learning requires focus, concentration, and a degree of confidence in one’s ability to retain the information. A person who suffers from anxiety may lack all of these. In addition, they may be experiencing physical symptoms that exacerbate their lack of concentration such as headache which affect their learning. Anxiety may also affect people who are perfectionists and want to achieve high scores in every test. Such students pressurize themselves and are always tensed to gain perfect scores. This may cause anxiety as even one wrong answer can make them feel that they have done badly in the test so cannot learn again. Also, Abella and Heslin (1989) found out from their research that many students experience some nervousness or apprehension before, during, or after an examination. This kind of test anxiety can be a powerful motivator for subsequent learning, however some students experience test-related anxiety to such a degree that it can interfere with their attitude toward subsequent studies.

The third most predominant test anxiety reported by students as affecting their learning behaviour was “I cannot easily cope with examination tension and manage my learning”. This has a mean value of 2.61 and SD of 1.342. Most of the students agreed to the assertion that they find it difficult to manage their studies because of tension. This is in line with study of Smith (2008) who opined that, as students start preparing for examination at the last minute, the thought of learning lots within a time frame makes them sick with anxiety which adversely affect

their learning.

Lastly under the same test anxiety, “I panic when I have to take an exam which affects my learning” with M of 2.59 and SD of 1.4447 was reported by students as determining their learning. Some probably panic because they have not learn very well for a long time but still want to excel or have a lot to learn in such a limited time span. Students generally perceive examination to be threatening and sometimes this perception can lead to poor performance in examination. This is also consonance with the findings of Sarason, Mandler and Criaghill (1952) who examined the effects of anxiety on individual’s learning behaviour and concluded that interrupting learning behaviour with reports of success or failure tend to depress the score of high anxiety students but raises the score of low anxiety students.

The least reported stressor in Table 7 was, “I forget facts I really know during exams because I get nervous” with a M of 1.64 and SD of 1.347 indicated students disagreement to the item. This finding is in contrast with the views of Sommers (2000) which indicated that, almost every student experiences some form of nervousness naturally during examination but some are by nature very anxious and easily forget the facts even if they have prepared well. Negative thoughts creep into the minds of such students during examination which affect their learning behaviour adversely. He also pointed out that, for some students, negative thinking of not doing well in the examination is the most likely cause of forgetting what has been learnt during examination. That is, fear that one will forget everything he had learned induces negative thinking which is likely to

make students forget what has been studied.

The second least anxiety-related issues that students' perceived as anxiety provoking was "thoughts of doing poorly in exams interfere with my studies" This has a M of 1.81 and SD of 1.471. Since the mean is less than 2.5 it should be regarded as one of the least determinants of students learning behaviour. This may mean that a significant number of students were not bothered about how poorly they perform in examination when learning. May be they have the idea that learning harder for the subsequent examination will improve their performance.

### **Research Question Two**

To what extent does a Classroom Atmosphere Determine Students' Learning Behaviour?

This research question aimed at finding out the extent to which classroom atmosphere determines students' learning. It particularly deals with issues relating to competence of teachers and the value they place on students' contribution and monitoring of academic work of students. In discussing classroom atmosphere in relation to student's behaviour, the attitude of teachers play a major role in determining classroom atmosphere as asserted by Sprinthall (1987). For the purpose of this discussion, a mean score of 2.5 and above suggests agreement with a given statement and below 2.5 indicates disagreement. Summary of this result is presented in Table 8.

**Table 8: Descriptive Statistics of Participants' Responses on Effect of Classroom Atmosphere on Learning. (N =320)**

Items	N	Mean	SD
1. The behaviour of students towards the academic achievement of the opposite sex in the class influence my learning	320	1.79	1.141
2. The academic competition in the classroom affects my learning	320	1.99	1.026
3. The way teachers handle the lesson in the class affect my learning	320	2.34	1.256
4. I learn regularly in order to answer questions in class	320	2.36	1.169
5. Noisy classroom atmosphere interferes with my learning	320	2.39	1.292
6. Teachers value my contribution in class motivates me to learn hard	320	2.52	1.341
7. Mutual respect and rapport between teachers and students affects my learning	320	2.58	1.372
8. Deviant behaviour of some of my classmates disrupt my learning	320	2.90	1.425
9. The competence of the teachers in handling classroom activities influences my learning	320	3.28	1.629

Source: Field Data, 2010

SD: Standard Deviation

Table 8, shows that, the majority of respondents with a M of 3.28 and a SD of 1.629 indicate that competence of teachers in handling classroom activities determines their learning. Competence in this sense means teacher's knowledge in

the subject as well as teaching methods. This may imply that teachers in the SHS in the Metropolis are adequately resourced in terms of their areas of specialization and the use of appropriate pedagogical skills for effective teaching. Teachers are likely to get mutual respect from students when they portray a high level of competence. This may be in the form of carrying out various tasks with commitment. As Agyeman (1986) reported in his study, a teacher who does not have both the academic and the professional qualification would undoubtedly have a negative influence on the teaching and learning behaviour of his /her subject. Also a teacher who is academically and professionally qualified, but works under unfavourable conditions of service would be less dedicated to his works and thus be less productive than a teacher who is unqualified but works under favourable conditions of service

With a  $\underline{M}$  = 2.90 and  $\underline{SD}$  of 1.425, the students agreed that deviant behaviour of some of their classmates disrupts their learning. The act of learning requires close attention and full concentration, therefore deviant behaviours of students in the class can be so disruptive for other students to do any meaningful academic work. Frequent misbehaviour in the classroom makes teaching and learning unpleasant and ineffective. This confirms the assertion of Tamakloe, Amedahe, and Atta (2005) that there is widespread acceptance of the fact that disciplinary problems in the classroom usually affect the teaching and learning process adversely.

Furthermore, with a  $\underline{M}$  = 2.39 and a  $\underline{SD}$  = 1.29, the students agreed that monitoring of their academic progress in the classroom motivates them to learn

hard. Students' progress in learning is monitored through class exercises, and test and assignment known as School Based Assessment (SBA), and the use of attendance register. These help the school authorities to know the performances of students, how regular or punctual they are at any given period. Consequently, this may motivate them to learn harder knowing that they are being closely monitored.

The data in the Table 8 also indicates that mutual respect and good rapport between teachers and students affect their learning. This attracted a mean value of 2.58 and SD of 1.39. The finding means that good interpersonal relationship between teachers and students in the classroom enhances students' learning. This is consistent with the view of Anderson (1988) who postulated that students' learning behaviour is most likely to flourish in a climate where relationships are based on mutual respect and good rapport between the teacher and the student. Good rapport emanates from conveying the idea to students that the teacher understands, shares and values their perspective as individuals on a whole range of matters and experiences, covering academic, social and personal concerns. To sustain order and control, teacher relationship with students must be one in which they respect and accept his authority to manage and control what happens in the classroom so that their learning progresses effectively. He underscores the fact that it is important for the teacher to create a context in which good communication can take place because students develop respect for teachers when they realize that the teachers are competent and care about their social and academic progress. Kraft (1994) also pointed out that, the type of relationship established between the teacher and the student in terms of interaction has been



found to determine learning behaviour and achievements significantly.

Also, with regard to the influence of teachers' value of their contribution in class on their learning, majority of the students agreed to the item with M of 2.52 and SD of 1.34. This may imply that encouragements and rewards teachers give to students when they contribute to discussions in class motivate them to study hard. These serve as positive reinforcement for students to strive to learn and understand in order to contribute in class. Positive reinforcement involves the presentation of a reward (verbal, social or material) following the performance of a desirable act on the assumption that a pleasant consequence closely following the behaviour increases the likelihood of its recurrence. Also motivation or stimulating a person to take action helps to accomplish the desired goal. This is in consonance with the finding Pecku (1991) who indicated that motivation gives rise to desired behaviour. He emphasized that, motivation helps one to have the desire to achieve certain aims. Hence there is the need for teachers to reward and motivate students to learn to get good educational attainment. Similarly, Newman and Schwager (1992) also provided another way of explaining the association between learning and reinforce using peer interactions. Thus, relationships between people affect learning, only as much as people reinforce each other in the academic arena. For example, if the peer group encourages education and learning, then the individual student within that group will value learning, because the individual is reinforced, or rewarded, for behaviour that indicates that learning is valued. Students in peer groups that do not value education lack the stimulation and reinforcement needed to encourage personal learning.

With regard to the extent to which academic competition in the classroom affects their learning, a significant number of students disagreed with this item with  $M = 2.28$  and  $SD = 1.229$ . This may mean that students are not encouraged in the classroom through awards and sponsorship in the form of scholarships, among others if any, do not determine their learning behaviour.

### **Research question 3**

To what extent does socio-economic background of students determine their learning behaviour?

This was to find out the extent to which the background of parents determines the way students learn. It involves the educational level, economic status and occupation. This research is hinged on the fact that socio-economic background of students has a lot of impact on the general attitude and behaviour of students including learning. In fact, Jaynes and Wlodkowski (1990) reiterated that relationship between school and family is difficult to dispute. They identified parental background of students to be a major environmental determinant of a child's motivation to learn.

Table 9 shows the responses from the participants. For the purpose of the discussion of the items in table 9, the mean score of 2.5 and above indicate agreement and below 2.5 indicate disagreement.

**Table 9: Descriptive Statistics on Participants' Responses to Parental Support on Their Learning Behaviour (N= 320)**

Items	N	Mean	SD
1. My siblings at home disturb my learning because I have to help in taking care of them.	320	1.96	1.163
2. Parents' inability to provide my educational needs influence my learning.	320	2.28	1.263
3. I get almost all the materials needed for learning.	320	2.33	1.283
4. My parents expect me in taking care of my younger siblings which influence my learning.	320	2.51	1.332
5. My parents do not get time to monitor my learning because they are full time workers.	320	2.58	1.289
6. Encouragement from parents influences my learning.	320	2.77	1.400
7. I have enough facilities (like library, computers) at home for learning.	320	3.23	1.367
8. Parents' interaction with my teachers encourages me to learn.	320	3.37	1.354
9. My parents are well educated so they guide me in terms of learning.	320	3.50	1.337
10. My parents provide me with enough incentives for good academic performance from time to time influences my learning.	320	3.62	1.359

Source: Field Data, 2010

SD: Standard Deviation

From Table 9 it can be seen that, the statement “My parents provide enough incentives for good academic performance from time to time influences my learning”, is the most predominant determinant with  $\underline{M} = 3.62$  and  $\underline{SD} = 1.359$ . This implies that a significant number of students in SHS in the Cape Coast Metropolis are motivated to learn hard by the kind of incentives parents provide for them to facilitate their academic work. According to Jaynes and Wlodkowski (1990), parents appear to be the primary influence on a child’s motivation to learn. Family has an impact on motivation at every stage of development, lasting through secondary school and beyond. Healthy, effective families possess positive attitudes and behaviours toward their children which help them to succeed in school and life. They also indicated that parents being a child’s first and most important teacher, it is obvious that they will have a significant influence on the development of a child’s motivation to learn. This illustrates the significant role that parents play in education and motivation of students.

A significant number of students with a  $\underline{M} = 3.50$  and  $\underline{SD} = 1.337$  also indicate that interactions their parents have with their teachers encourage them to study hard. The interaction here implies discussing of issues in relation to students academic achievements. The parents of these students may also be well educated who know what goes into academic success. Addae-Mensah, Djangmah, & Agbenyega (1973) asserted that highly educated parents especially in Ghana most often than not set high academic target for their children at the very tender age and draw their attention to the economic successes that go with them. To achieve such successes, these parents normally interact with teachers of their children for

possible guidelines and support. Literature strongly supports the benefits of having parents involved in their child's education. For instance, Pape (1999) indicated that parents who are involved in their child's academic life have a profound effect on the child's ability to learn and help instil in them an appreciation for learning that can last a lifetime. Wlodkowski & Jaynes (1990) list the following as benefits of a positive relationship between teachers and parents: establishment of mutual trust; expressed shared goal of the best interest of the child; creation of a vehicle for open communication; and clarification of an attitude of collaboration and problem solving rather than blaming.

Also, students agreed with a M of 3.37 and SD of 1.354 that educational status of their parents is a contributing factor to their academic success. Educated parents may guide their children probably in terms of assignments, studies among others. This is in consistent with the views of Hannon and Nutbrown (2001). They contend that the children of parents with secondary and tertiary education backgrounds have 17 and 32 times respectively better chance of gaining secondary education than the children of the uneducated parents. This indicates that education of parents, to a very great extent influences SHS entry of their children. It further implies that students from high income educated families are likely to go to the Senior High Schools.

The findings also show as indicated in Table 9, whether the availability of learning facilities at home such as library and computers among others enable students to learn. This has a M of 3.23 and SD of 1.38. Adequate learning facilities make students' learning easier. On the other hand, students whose

parents do not have the means to provide them with these facilities at home to provide them with first hand information will develop a different learning behaviour which may affect their performance negatively. According to Nyarko-Sampson (2004), normally it is students of parents with low economic background who do not have these facilities at home. He reiterated that these students have so much to do to support the family at the expense of their studies. Phillips (1998) also found in his study that parental education and social economic status have an impact on student achievement and that students with parents who were both college-educated tend to achieve at the highest levels.

In responding to the statement “my siblings at home disturb my learning because I have to help in taking care of them”, participants disagreed with a  $M=1.96$  and  $SD=1.16$ . The finding is contrary to what is practice in Ghana. It is common knowledge that parents leave the younger children in the care of the older ones especially on vacations and after school. The reason for the current finding could be due to the fact that respondents have libraries or places where they could learn without interruptions from siblings.

#### **Research question 4**

To what extent does a peer relationship determines students’ learning behaviour?

The researcher was also interested in finding out the effects of peer relationship on students’ learning behaviour at the Senior High School level in the country. Summary of the results are presented in Table 10. For the purpose of the discussion of the items in the table, a mean score of 2.5 and above indicates

agreement and below 2.5 indicates disagreement.

**Table 10: Descriptive Statistics on Participants' Responses to Effects of Peer Relationship on Their Learning Behaviour (N= 320)**

Items	N	Mean	SD
1. I often have difficulty finding appropriate time to be with friends which affect my learning.	320	1.98	1.096
2. I waste a lot of time with friends which influence my learning.	320	2.39	1.294
3. I find it difficult to combine my learning with pressure from friends.	320	2.48	1.327
4. Distractions from my friends interfere with my learning.	320	2.43	1.370
5. My friends help me to obtain most of the materials I learn.	320	2.84	1.460
6. Peer teaching among my friends affects my learning.	320	3.15	1.346
7. Acceptance by friends affects my learning.	320	3.17	1.385
8. My friends value their academic work which influences my learning.	320	3.17	1.398
9. My classmates who are academically good inspire me to learn hard.	320	3.22	1.343

Source: Field Data, 2010      SD: Standard Deviation

From Table 10, participants' agreed with M of 3.17 and SD of 1.40 that the level of seriousness and importance their friends attach to their academic work really influence their learning. This finding may imply that the value students place on their academic work has influence on the learning behaviour of a

majority of the students. When students place more value on their academic work, it encourages their peers to also sit up and develop positive learning behaviour. On the flip side, when students place less value on their academic work, it will impact negatively on the learning behaviour of their peers. Human interaction in social learning is by observing and modelling or acting similarly to others. It is likely that a student may observe the work of those who appreciate learning and change his or her learning towards that direction. This is consistent with the views of Bandura (1996). He contended that peers with positive attitudes towards their education will allow and teach each other to set goals that include opportunities to learning and academic achievement. He added that if peer models, on the other hand, do not convey positive attitudes towards learning, the students observing these models will not prioritise their learning.

In response to whether peer teaching affects the learning behaviour of students, respondents agreed with a M of 3.15 and SD of 1.346 indicated that peer teaching actually affects their learning. This gives evidence to the fact that facilitation of learning through experiences mediated by others may help others to reach their full potential. Many capable peers can raise the competency level of their friends through “zone of proximal development” propounded by Vygotsky (1978). In the same vein, Agyeman (1986) reported that some peer groups may help their members to compliment the learning process, thus promoting academic achievement of learners. On the other hand, others may lead members to rebel against the classroom norms and school authorities which disrupt their study process. Also Bandura (1996) posited that students with positive behaviours



toward education will allow and teach each other to set goals that include the opportunities to learn and succeed.

Also in the Table 10, the students indicated that peer relationship helps them to obtain most of their learning materials from friends which determine their learning. This they agreed with a M of 2.84 and SD of 1.460 which may imply that, students get learning materials like textbooks, handout, research materials and calculator among others from peers which promote their learning.

However, participants' disagreed that they waste a lot of time interacting and has no significant effects on their learning with the mean of 2.43 and SD of 1.370. This result may mean that most of the interactions among students are geared towards academic work. Perhaps, they manage their time well and only use leisure time to converse with peers. It may also mean that interacting with friend increase their understanding in their studies as asserted by Piaget (1959). He held the view that cognitive development was enhanced when the child interact with and manipulate the environment. Piaget suggested that peer interaction promotes cognitive conflict by exposing discrepancies between the peers own and others knowledge, resulting in disequilibrium. As a higher level of understanding emerges through dialogue and discussion among individuals of equal status, equilibrium is restored and, simultaneously, cognitive change occurs. That is, language facilitates thinking and that as peers interact through dialogue they learn and unlearn from others. In the group setting children reflect on their own understanding and those of others, and they analyze the various viewpoints

## Research Question 5

What are the major determinants of students' leaning behaviour?

This question was intended to find out the major determinants of students' learning behaviour. The determinants have been ranked from the highest to the lowest (1-4).

**Table 11: Major Determinants of Students' Learning Behaviour (N=320)**

Rank	Determinants	Mean	SD
1	Test Anxiety	3.26	.728
2	Parental Support	2.82	.513
3	Peer Relationship	2.77	.561
4	Classroom Atmosphere	2.43	.566

Source: Field Data, 2010      SD: Standard Deviation

Table 11 indicates that, test anxiety was the major determinant of students' learning behaviour with a M of 3.26 and SD .728. This may mean that majority of the participants go through anxiety either before, during and/or after examination. According to Psychiatric Times Reports (March 2009), test and examination time in this competitive world cause a lot of tension and nervousness in students. Some students are anxious by nature and easily get nervous when they face a stressful situation. Negative thoughts creep into the minds of such students during tests, even if they have prepared well and consequently affect their learning. The fear that one will forget everything that has been studied or the fear of going through a tough question paper makes them nervous which topple their study schedule. It also induces negative thinking, which is likely to make students

forget what has been studied (Psychiatric Times, 2009). This may be the reason behind this finding.

Parental support is the second major determinant of students' learning behaviour with the M of 2.82 and SD of .513. Parental support is basically the support parents give to their children due to the level of parents' educational status, income, occupation, and home environment, among others. Durojaje (1976) asserted that the effects of home environment on the student's learning behaviour can be explained in two ways. Firstly, at the early stage of development, a child is born to a family and grows up within the scope and characteristics of his or her environment. The child at this stage acquires the initial social behaviour and manners. The child's intellectual potentialities for success in school depend on the initial efforts of the parents in cultivating this potentialities and thereby establishing a good functional relationship with teachers. Secondly, Durojaje indicated that after school hours students spend the rest of their time at homes where some parents show interest for helping with their studies while others may not. Parents are responsible for encouraging their children to practice good learning behaviour. This can be done by parents engaging the children in conversation about learning. They are required to create spaces for quiet reading and learning in home and encourage times of quiet play or study by children themselves. They should also serve as role models for children to follow. For instance, when children see other family members reading books, magazines or writing, studying and spending quiet times in taking care of family business or record keeping they will also do same.

## Testing Research Hypotheses

### Hypothesis One

There is no significant difference between the determinants of male and female students' learning behaviour.

**Table 12: Independent Samples T-test of Determinants of Students' Learning with Regard to Gender**

Determinants	Females (162)		Males (158)		Df	t-value	Sig (2-tailed)
	X	SD	X	SD			
1. Test Anxiety	3.49	.74	3.04	.71	318	5.44	.000
2. Classroom Atmosphere	2.39	.59	2.47	.56	318	-1.28	.203
3. Parental support	2.79	.46	2.84	.56	318	-.89	.370
4. Peer relationship	2.92	.59	2.63	.63	318	4.21	.000

Source: Field Data, 2010 Significant at .05 SD= Standard Deviation X=Mean

From Table 12, it can be seen that there is significant difference between the determinants of students' learning in males and females with respect to test anxiety and peer relationship. Mean values of 3.49 for females and 3.04 for males indicate that test anxiety of females is higher than males. In the Ghanaian society, most males are not burden with a lot of household chores as compared to their female counterparts who engage in domestic chores that will demand much of their time. This may not give them enough time to learn for examination, hence causing anxiety thereby affecting their academic performance.

Mean values of 2.92 for females and 2.63 for males also indicate that females are influenced by peers more than males. It is reasonable to expect that the more the interaction of students with their peers, the more the influence these peers will have on their learning. Since females are more attuned to social interactions with peers, one would then expect that their learning will be more influenced by peers than boys. Piaget (1959) suggested that peer interaction promotes cognitive conflict by exposing discrepancies between the peers own and others knowledge, resulting in disequilibrium. As a higher level of understanding emerges through dialogue and discussion among individuals of equal status, equilibrium is restored and, simultaneously, cognitive change occurs thereby influencing learning behaviour. Agyeman (1986) was also of the view that some peer groups may help their members to compliment the learning process thus promoting academic achievement of learners. On the other hand, others may lead members to rebel against the classroom norms and school authorities which may disrupt their study process.

Test anxiety of females as indicated in the table 12 is higher than that of the males and this finding is in line a with study conducted by Levitt (1980), which investigated city school seniors test anxiety level, form and its influencing factors in order to identify problems early so as to effectively prevent them. The results showed higher proportion of test anxiety in girls (72.3%) than boys (27.7%). This may be related to the social environment and psychological characteristics that women are more vulnerable to stress than men which make them prone to mood swings than men.

## Hypothesis Two

There is no significant difference between determinants of learning behaviour of Form One and Form Three students.

This hypothesis sought to find out whether class levels of students influence their learning behaviour. The differences were tested by computing the average scores of all scales of the learning determinants and an independent t-test conducted.

Table 13 sought to find out whether there is no statistically significant difference between school level and the determinants of learning behaviour.

**Table 13: Independent Sample T-test of Determinants of Students' Learning with Regard to Form**

Determinants	SHS1(154)		SHS3(162)		Df	t-value	Sig(2-tailed)
	X	SD	X	SD			
1.Test Anxiety	2.89	.54	2.75	.49	318	2.41	.017
2.Classroom Atmosphere	1.80	.866	2.14	.60	318	-2.85	.005
3.Parental support	2.89	.537	2.74	.49	318	2.41	.370
4.Peer relationship	2.92	.56	2.78	.68	318	-.033	.974

Source: Field Data, 2010 Significant at .05 SD= Standard Deviation X=Mean

From Table 13, it can be seen that there is significant difference between the determinants of learning behaviour in Forms 1 and 3 students with respect to

test anxiety and classroom atmosphere. With the mean value of 2.89 and SD of .54 for Form one students and 2.75 with SD of .49 for Form 3 students indicated that Form 1 experience test anxiety more than the Form three students. The Form 1 students being “fresh” in the school may experience test anxiety more than the Form 3 students who are used to examination conditions in the school.

Table 13 also showed that classroom atmosphere affects Form three students’ learning behaviour more than Form one students with mean values of 2.14 and 1.80 respectively.

### **Hypothesis Three**

There is no significant difference between determinants of learning behaviour students in single and mixed sex schools.

Table 14 sought to find out whether there is no statistically significant difference between determinants’ of learning in single and mixed schools.

**Table 14: Independent Samples T-test of Determinants of Students Learning with Regard to School Type**

Determinants	Mixed(162)		Single Sex(158)		Df	t-value	Sig (2-tailed)
	X	SD	X	SD			
1.Test Anxiety	3.25	.76	3.28	.76	318	-.25	.800
2.Classroom Atmosphere	2.85	.48	2.42	.65	318	1.28	.203
3.Parental support	2.87	.48	2.75	.55	318	2.07	.040
4.Peer relationship	2.83	.60	2.72	1.65	318	1.55	.123

Source: Field Data, 2010 Significant at .05 SD= Standard Deviation X=Mean

From Table 14, it can be seen that there is significant difference between the determinants of students learning in mixed and single sex schools with respect to parental support. Mean values of 2.87 and 2.75 for mixed and single schools respectively indicate that influence of parental support on the students in the mixed school is stronger than that of the single schools.

Parental support basically means the support parents give to their children due to the level of parents' educational status, income, occupation, and home environment among others. According to Cogen (1992), children from higher social classes had higher levels of attainment and better scores on scales of personal adjustment than children from lower social classes.



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

This chapter looks at the summary, conclusions and recommendations of the study.

#### **Summary**

The aim of the study was to investigate four determinants of students' learning of public SHS in Cape Coast Metropolis and to find out the major determinant of students' learning. The study also sought to identify whether variables such as gender, grade level and school type were significant determinants of students' behaviour.

The population comprised Form 1 and Form 3 students of six Senior High Schools in Cape Coast Metropolis. A total of 320 students were used for the study. The research instrument used for the study was questionnaire. A descriptive survey research design was adopted and stratified random sampling technique was used to select students from six Senior High Schools in Cape Coast Metropolis. Mean values, standard deviations and independent t-test were used to analyse data so as to address the research questions and test hypotheses.

The study revealed that test anxiety and parental support are the major determinants of students' learning as compare to peer relationship and classroom atmosphere. The study further revealed that students study hard when teachers value their contributions in class and monitor their academic progress. Again,

they indicated that mutual respect and good rapport between students and teachers make the atmosphere in classroom healthy for learning while deviant behaviour of some classmates disrupts their learning.

It was further discovered that, incentives from parents as well as parents' interactions with teachers motivate students to study hard. Facilities like library, computers, and books provided at home also came out as influencing their learning positively. It was also found that peers who were academically good inspire their colleagues to also study hard while distractions from peer interfere with their studies.

Finally, the study revealed that:

1. There was significant difference between determinants of learning behaviour of male and female students' with respect to test anxiety and peer relationship while there was no significant difference between determinants of male and female students' learning with respect to classroom atmosphere and parental support.
2. There was significant difference between determinants of learning behaviour of Form 1 and Form 3 students' with respect to test anxiety and classroom atmosphere while there was no significant difference between determinants of learning behaviour of Form 1 and Form 3 students' with regard to peer relationship and parental support.
3. Significant difference exists between determinants of learning behaviour of students in mixed and single-sex schools with respect to parental support.

## **Conclusions**

The following conclusions were drawn from the study. Firstly, the major determinants of students' learning were test anxiety and parental supports are the minor being peer relationship and classroom atmosphere.

Secondly, gender, grade level and school type are significant in determining students' learning.

Finally, there was significant difference between the determinants of learning behaviour of female and male students with respect to test anxiety and peer relationship. Also there was significant difference between the determinants of learning behaviour of forms 1 and 3 students with respect to classroom atmosphere and peer relationship while there was significant difference between the determinants of learning behaviour of single sex and mixed schools in terms of test anxiety and classroom atmosphere.

## **Counselling Implications**

A person who suffers from test anxiety can actually conquer this disorder according to Ralph and Charles (1980). They pointed out some of the ways one can conquer test anxiety:

1. Discipline is one of the important things to be included when overcoming it. Learning how to focus well and concentrate on the things that are relevant for the studies is significant.
2. Relaxing should also be included on the routine to at least calm your mind to help it absorb the information intake during the study. Quality sleep is also indispensable since it allows you to rejuvenate. In fact, there are many

ways to increase the concentration power. One of the most effective is choosing a good place where there is a minimum distraction, noise and interruption.

3. Additionally, having a good lighting, temperature, clean environment and comfort are also of great help. Test anxiety is just one of the causes of lack of preparation, poor learning and time management, and worrying too much about the exams. Learning how to let go of these bad behaviour will definitely help in overcoming test anxiety that actually destroys the student's chance to excel in school.

### **Recommendations**

Based on the research findings and the conclusions drawn from this study, the following recommendations are made by the researcher:

1. One major finding of the study was that test anxiety and parental support were the major determinants of students' learning behaviour. Based on this finding the researcher recommends that school counsellors and psychologists should put in measures to reduce test anxiety and its effect on students' learning behaviour and performance. Furthermore, the Ghana Education Service in collaboration with the Ministry of Education should educate parents on the influence that parental support has on the performance of their children in school. The educational authorities should also collaborate with the non-governmental organisations to support students without parents or those from poor backgrounds so that they can develop good learning behaviour.

2. Another outcome of the research was that, mutual respect and good rapport between teachers and students motivate students to learn hard. Based on this finding, seminars, workshops and in-service training on the importance of good interpersonal relationship between teachers and students should be organised by the Ghana Education Service for teachers periodically. In addition students should also be sensitized through workshops and seminars on how to interact and establish good rapport with teachers and peers. This will guide the School Psychologists and Counsellors in their efforts to guide students to achieve academic success.
3. The study also revealed that motivation and encouragement from parents could impact positively on the learning of students. Based on this finding the researcher recommends that parents should provide learning materials and facilities such as books, computers, and libraries, among others to enable students learn effectively. Verbally, parents should also give words of encouragement to students even when their performance is not the best. This will help them develop 'can do' spirit to enhance their learning behaviour as well as their performance
4. It was also revealed in the study that incentives from parents and parents' interactions with teachers motivate students to study hard. The researcher therefore recommends that Parents Teacher Associations in various schools should be strengthened. The association should also meet periodically to interact and discuss issues that border students learning.

5. It was also found that peers who were academically good inspire their colleagues to also learn hard while distractions from peer interfere with their learning. This calls for mixed ability groupings to be encouraged in various schools so that the good students could help the weaker ones. However, students whose behaviours may distract their colleagues should be admonished with possible disciplinary measures taken against them when necessary.

### **Areas for Further Research**

This study primarily focused on investigating the determinants of students' learning in the Senior High School. It was limited to public schools in the Cape Coast Metropolis. The following are therefore recommendations for further research:

The participants of this study were Senior High School students. Replication of this study could include students of private Senior High School, colleges of education and other tertiary institutions. Secondly, the study could be conducted in the other regions of Ghana so as to enable the Ghana Education Service to have comprehensive information on the determinants of students' learning behaviour.

## REFERENCES

- Abdul-Rahaman, S. (July 15, 2008). Minister answers questions in parliament. *The Ghanaian Times*. (No.15465). p. 17
- Abella, R., & Heslin, R. (1989). Appraisal processes, coping, and the regulation of stress related emotions in a college examination. *Basic and Applied Social Psychology*, 10(4), 311-327.
- Abu- Zeina, F., & Al-Zagal, I. (1984). The effect of test anxiety and item difficulty sequence on 9<sup>th</sup> graders' achievement on math tests: *Dirasat*, 11(6), 139-155.
- Addae-Mensah, I., Djangmah, J., & Agbenyega, C. (1973). *Family background and educational opportunity in Ghana*: Accra: Ghana Universities Press.
- Adoom, F. (2007). *Improving students' attendance in class*. Accra: Black Mask Ltd.
- Agyeman, D. K. (1986). *Sociology of education for African students*. Accra: Black Mask Ltd.
- Amedahe, F. K. (2000). Lecture notes on educational research. University of Cape Coast. Cape Coast. (*Unpublished notes*).
- American Association of University Women. (1994). *The AAUW report: How Schools short change girls*, Washington D.C.: American Association of University Women.

- Anamuah-Mensah, J. (1995). The race against underdevelopment: A mirage on reality. *Journal of Science and Mathematics Education*, 1, 1, 6-23.
- Anderson, J. R. (1986). *Knowledge compilation: The general learning mechanism*. Palo Alto, CA: Tioga Press.
- Anderson, M. B. (1988). *Improving access to schooling in the third world: An Overview*. Cambridge, Mass: Harvard Universty.
- Askew, S. D., & Ross, C, (1988). *Boys don't cry: Boys and sexism in education*. Milton Keynes: Open University.
- Bandura, A. (1996). Multifacted impact of self-efficacy beliefs on academic functioning. *Child Development*. 67(1), 206–1,222.
- Bandura, A. J. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. J. (1969). *Social-learning theory of identification processes*. Chicago: Rand McNally.
- Bandura, A. J. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122-147.
- Beitz, J. M. (1995). Social and educational factors affection knowledge attitudes and behaviours of college students. *Dissertation Abstracts International - A 54* (04), 1248 (UMI No. 9527448).
- Blake, J. (1989). *Family size and achievement*. Los Angeles, C. A: University of California Press.
- Bloom, B. S. (1980). *All of our children learning*. New York: McGraw-Hill.
- Burns, S. (1995). 'Rapid changes require enhancement of adult learning' H R



- Cassidy, T., & Lynn, R. (1991). Achievement motivation, educational attainment, cycles of disadvantage and social competence: Some longitudinal data. *British Journal of Educational Psychology*. 61, 1-12.
- Cogen, V. (1992). *Boosting the adolescent underachiever: How parents can change a "C" students into an "A"*. New York: Plenum Press.
- Cohen, M. (1998). A habit of healthy idleness; Boys' underachievement in historical perspective, In D. Epstein, J. Elwood, V. Hey & J. Maw (Eds.), *Failing boy? Issues on gender and achievement*. 145-148. Buckingham: Open University Press.
- Cohen, C., & Manion, L. (1995). *Research methods in education*. London: Routledge Falmer.
- Cohen, C., Manion, L., & Morrison, K. (2004). *Research methods in education* (5<sup>th</sup> ed.). London: Routledge Falmer.
- Cooper, H. (1989). Synthesis of research on homework. *Educational Leadership*. 47, 85- 91.
- Cooper, H. (1994). *The battle over homework: An administrator's guide to setting sound and effective policies*. Thousand Oaks, CA: Corwin Press.
- Coleman, J. S. (1966). *Equality of education opportunity*. Washington D.C: U.S. Govt. Printing Office.
- Crow, A., & Crow, E. (1982). *An introduction to psychology of learning*, Boston: Houghton.
- Denga, D. I. (1982). *Student Counselling; A major solution to campus unrest*; Nigeria, Orit Egwa Ltd.

- Deem, R. (1980). *Schooling for women's work*. London: Routledge and Kegan Paul.
- Durojaje, M. A. (1976). *A new introduction to education psychology*. Nairobi: Evan Brothers Ltd.
- Fawcett, L. M. & Garton, A. F. (2005). The effect of collaboration on children's problem-solving ability. *British Journal of Educational Psychology*, 75, 157-169.
- Ferguson, R. (1991). Paying for public education: New evidence of how and why money matters. *Harvard Journal on Legislation*, 28, 65- 98.
- Fraenkel, J. R., & Wallen, N. E. (2000). *How to design and evaluate research in education*. (4<sup>th</sup> ed.). Boston: McGraw Hill.
- Friedman, I. A., & Bedas-Jacob, O. (1997). Measuring perceived test anxiety in adolescents: A self-report scale. *Educational and Psychological Measurement*, 57, 1035-1047.
- Fuch-Epstein, C. (1997). Multiple myths and outcomes of sex segregation. *New York Law School Journal of Human Right*, 14, 185-355.
- Garner, R., Bootcheck, J., Lorr, M., & Rauch, K. (2006). The adolescent society revisited: Cultures, crowds, climates and status structures in seven secondary schools. *Journal of Youth and Adolescence*, 35(6), 1023-1035.
- Gay, L. R. (1992). *Educational research: Competencies for analysis and application* (4<sup>th</sup> ed.). New York: Merrill/Macmillan.
- Ghana Education Service. (2000). *Conditions and scheme of service*, Accra: Ghana Publishing Corporation.

- Gipps, C., & Murphy, P. (1995). *A fair test?* Buckingham: Open University Press.
- Goodlad, J. (1984). *A place called school*. New York: McGraw Hill.
- Guay, F., Boivin, D., & Hodges, E. V. E (1999). Social comparison processes and academic achievement: The dependence of development of self-evaluations on friends performance. *Journal of Educational Psychology*, 91, 564-568).
- Hannon, P., & Nutbrown, C. (2001, September). Outcomes for children and parents of an early literacy education parental involvement programme. *Paper presented at the British Educational Research Association Annual Conference, Leeds*.
- Hembree, R. (1988). Correlates, causes, effects and treatment of test anxiety. *Review of Educational Research*, 58, 1, 47-77.
- Hilgard, R. (1962). *Introduction to psychology*, New York: Harcourt Brace and World Inc.
- Jaynes, J. H., & Wlodkowski, R. (1990). *Eager to learn: Helping children become motivated and love learning*. San Francisco: Jossey-Bass Publishers.
- Jimenez, E., & Lockheed, M. E. (1989). Enhancing girls' learning behaviour through single-sex education: Evidence and a policy conundrum. *Educational Evaluation and Policy Analysis*, 11, (2), 117-142.
- Johnson, K. (2000). *The peer effect on academic achievement among public elementary school students*. The Heritage Foundation Center. Internet @URL<<http://www.heritage.org/Issues/Education>>(Retrieved on

15/05/10).

- Johnson, D. W., & Johnson, R. T. (1994). *Collaborative learning and argumentation*. Edina, MN: Interaction Books Co.
- Kenneth, D. M. (1998). *Classroom teaching skills* (4<sup>th</sup> ed.). London: McGraw Hill Company Inc.
- Kimbell, M. (1989). A new perspective on women's math achievement. *Psychological Bulletin*, 105, 198-214.
- Kleinfield, J. (1998). The myth that schools short-change girls: Social science in the service of deception. Washington D.C.: *Women's Freedom Network*. (ERIC Document Reproduction Service No. ED 423210).
- Koepke, M. (1991). A School of their own. *Teacher Magazine*, 2(5), 44-47.
- Koomson, K. A. (1990). The influence of school environment on the perception and academic behaviour of students in low and high achieving school. *Unpublished thesis*, University of Cape Coast, Cape Coast.
- Kraft, R. J. (1994). *Teaching and learning in Ghana*. Boulder, CO: Mitchell Group.
- Kralovec, E. & Buell, J. (2000). *The end of homework*. Boston, MA: Beacon Press.
- Laird, D. (1985). *Approaches to training and development*. Addison-Wesley. Reading, Mass.
- Lazear, E. P. (2001). Educational Production. *Quarterly Journal of Economics*, 116, 777-803.

- Lee, V. & Marks, H. M. (1990). Sustained effect of the single-sex secondary school experience on attitudes behaviours and values in college. *Journal of Educational Psychology*. 82,578-592.
- Leedy, P. D. (1985). *Practical research*. New York: Macmillan Publishing Co.
- Lefton, L. A. (1991) *Psychology* (4<sup>th</sup> ed.). New York, Allyn and Becon Pub. Co.
- Levitt, E. E. (1980). *The psychology of anxiety* (2<sup>nd</sup> ed.). New Jersey: Lawrence Erlbaum Associates, Inc.
- Little, P. L & Littleton, K. (1994). *Cognitive approaches to group work*. London: Cassell.
- Ma, X. (2001). Participation in advanced mathematics: Do expectation and Influence of students, peers, teachers, and parents matter? *Contemporary Educational Psychology*. 26, 132-146.
- Maccoby, E. E. (1986). *The Development of the Sex Differences*. California: Stanford University.
- Mau, W. (1997). Parental influences on the high school students' academic achievement: A comparison of Asian immigrants, Asian Americans, and white Americans, *Psychology in the Schools*. 34 (3), 267-277.
- McCaslin, M., & Good, T. L. (1996). The Informal Curriculum. *The handbook of educational psychology*. (Ed.), David C. Berliner H, & Robert C. Calfee. New York: American Psychological Association/Macmillan.
- Merchant, D. K., & Gajar, A. (1997). A review of the literature on self-advocacy components in transition programmes for students for students with learning disabilities. *Journal of Vocational Rehabilitation*, 8, 224-231.

- Morrison, K. R. B. (1993). *Planning and accomplishing school-centred Evaluation*. Norfolk: Peter Francis Publishers.
- Murray, B. (March 23-28, 1998). Girls' Classes Get a Bad Mark. *U.S. News & World Report*. p.12
- Newman, R. S., & Schwager, M. T. (1992). Student perceptions and academic help seeking: *Student perceptions in the classroom*. Dale Schunk and Judith Meece. Hillsdale, NJ: Erlbaum.
- Niebuhr, K. (1995). *The effect of motivation on the relationship of school climate, family environment, and student characteristics to academic achievement*. (ERIC Document Reproduction Service ED 393 202).
- Nneji, I. M. (1991). *Promoting effective study habits among university students: Spheres of influence: ventures and vision in educational development*, The University of Western Australia, Perth, Western Australia.
- Nyarko-Sampson, E. (2004). *Study habit of senior secondary students of selected districts in the central region of Ghana*. Unpublished thesis, University of Cape Coast, Cape Coast.
- Ohman, A. (2000). *Fear and anxiety: Evolutionary, cognitive, and clinical perspectives*. *Handbook of emotions*. New York: The Guilford Press.
- Okoli, C. E. (1998). The effects of self-management techniques in the alleviation of students mathematics anxiety. *African Journal of Education*. 1(1), 200-209.
- Olatoye, R. A. (2005). Peer influence on the study habit of secondary school adolescent in the Ogun state. *An International Journal of Psychology in*

*Africa, 13 (2), 56-63.*

Opare, J. A. (2008). Gender differences in academic self efficacy beliefs and perceptions of the internal dynamics of the collaborative learning context.

*An International Journal of Psychology in Africa, 16 (2), 1617-1631.*

Opare, J. A. (1998). Choosing a single sex school: Elite cloning motive or queue joining ambition? *Journal of Educational Management, 1, 94-104.*

Osterman, K. F. (2000). Students' need for belonging in the school community.

*Review of Educational Research, 70, 323-367.*

Osuala, E. C. (1991). *Introduction to research methodology*. Onitsha: Africana Publishers Ltd.

Osuala, E. C. (2001). *Introduction to research methodology (2<sup>nd</sup> ed.)*. Onitsha, Nigeria: African EPP Publishers Ltd.

Pavlov, I. P. (1927). *Condition reflexes*. London: Oxford University Press.

Pape, B. (1999). Involving Parents Lets Students and Teachers Win. *Education Digest, 64 (6), 47-51.*

Pavet, W., Deiner, E., Colvin, C. R., & Sandvick, E. (1991). Further validation of the satisfaction with LIFE scale: Evidence for the cross method convergence of well being measures. *Journal of Personality Assessment, 57, 141-161.*

Pecku, N. K. (1991). *Introduction to guidance for training colleges*. Ghana University Press, Accra.

- Phillips, M. (1998). *Family background, parenting practices, and the black-white test score gap*. Washington, D.C., Brooking Institution Press.
- Piaget, J. (1952). *The language and thought of a child*. London: Paul Kegan.
- Piaget, J. (1959). *The language and thought of the child*. (3<sup>rd</sup> ed.). London: Paul Kegan
- Rasor, L.T., & Rasor, R. A. (1998). Test anxiety and learning behaviour of community college students in relation to ethnicity, gender, and age. *Research Report by Community Colleges*.
- Psychiatric Times Report (March 2009). *Clinically Useful Psychiatric Scales: HAM-A (Hamilton Anxiety Scale)*. Retrieved on March 6, 2009, from <http://www.psychiatrictimes.com>.
- Ryan, A. M., Kiefer, S., & Hopkins, N. B. (2004). Young adolescents' social motivation: An achievement goal perspective. *Motivating students, improving schools: The legacy of Carol Midgley. Advances Motivation and Achievement (13)*. Oxford: Elsevier.
- Sarason, H., Mandler C., & Criaghill E. (1952) Specific anxiety theory and the test anxiety questionnaire. *Educational and Psychological Measurement* 31, 1011-1014.
- Sharma, S., & Meigham, R. (1980). Schooling and sex roles: The case of GCE 'O' level math. *British Journal of Sociology of Education*, 193-206.
- Sills, C. K. (1989). Paths to leadership: Building middle school girls' self-esteem. *Feminist Teacher*, 8 (2), 61-66.
- Simpson, M. D. (1996). What's the verdict? *NEA Today*. 15, 3,25.



- Skinner, B. F. (1956). Some issues concerning the control of human behaviour. *Science*. 124, 1057-1066.
- Smith, C. P. (1965). The influence on test anxiety score of stressful versus neutral conditions of test administration. *Educational and Psychological Measurement*. 25, 135-141.
- Smith, M. (2008). *Anxiety attacks and disorders: Guide to the signs, symptoms, and treatment options*. Retrieved March 3, 2009, Help guide Web site
- Sommers, C. H. (2000). *The war against boys: How misguided feminism is harming our young men*. New York: Simon & Schuster.
- Spielberger, C. D., & Sarason, I. G. (1989). *Stress and anxiety*. Washington: Hemisphere Publishing Corporation.
- Spielberger, C. A. (1973). *State-trait anxiety inventory for children* [Manual] Palo Alto, CA: Consulting Psychologists Press.
- Sprinthall, E. (1987). *Educational Psychology: A development approach*. (2<sup>nd</sup> ed.). New York: Addison Wesley.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.
- Tamakloe, E. K., Amedahe, F. K., & Atta, E. T. (2005). *Principles and methods of teaching*. Accra: Ghana Universities Press.
- Tuckman, B. (1972). *Conducting educational research*. New York: Harcourt Brace Inc.
- Volkman, B., & Bye, L. (2006). Improved school attendance through adult volunteer reading partners. *Children and Schools*, 28, 145-152.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wentzel, K. R. (2003). Motivating students to behave in socially competent ways. *Theory Into Practice, 42*(4), 319-326.

Wentzel, K. R., & Watkins, D. E. (2002). Peer relationships and collaborative learning behaviour as contexts for academic enablers. *School Psychology Review, 31*(3), 366-377.

## **APPENDICES**

### **APPENDIX A**

#### **QUESTIONNAIRE FOR PUBLIC SENIOR HIGH SCHOOL ON DETERMINANTS OF STUDENTS LEARNING BEHAVIOUR**

This study is being carried out in your school by a Master of Philosophy student of the University of Cape Coast. Please it is the concern of the researcher to ensure confidentiality of respondents' response. You are therefore not to write your name.

Thank you very much in anticipation of your co-operation.

#### **DEMOGRAPHIC DATA**

Please respond to each of the items in this section by ticking (v) the response that is appropriate to you.

1. Sex                      Female                      [    ]                      Male                      [    ]

Form:

SHS 1                      [    ]                      SHS 3                      [    ]

School Type:

Mixed School [    ]                      Single sex School                      [    ]

Please in one of the boxes, tick (v) to show how true the item applies to you.

**SCALE 1 – TEST ANXIETY**

Items	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
1. Thoughts of doing poorly in exams interfere with my learning.					
2. I forget facts I really know during exams because I get nervous.					
3. I panic when I have to take an exam which affects my learning.					
4. After an exam, I become so tense that it affects my learning.					
5. I wish exams do not bother me so much so that I can learn.					

6. I study late into the night, the day before examination.					
7. I cannot learn when I am about to write an exams.					
8. I have great difficulty managing the amount of learning (the materials for an examination).					
9. I cannot easily cope with examination tension and manage my learning.					
10. I have trouble finishing my exams because of tension.					
<b>Items</b>	<b>Very True</b>	<b>True</b>	<b>Somehow True</b>	<b>Not True</b>	<b>Not at all True</b>
11. Teachers value my contribution in class which motivates me to learn hard.					
12. I learn regularly in order to answer questions in class.					
13. The way teachers handle the lesson in the class affect					

my learning.					
14. The competence of the teachers in handling class room activities determines my learning.					
15. Mutual respect and good rapport between teachers and students affects my learning.					
16. Deviant behaviour of some of my classmate disrupts my learning.					
17. Monitoring of students academic progress in the classroom motivates me to learn hard.					
18. The behaviour of students towards the academic achievement of the opposite sex in the class determines my learning.					

19. The academic competition in the classroom affects my learning.					
20. Noisy classroom atmosphere interferes with my learning.					
<b>SCALE 3– Parental support</b>	<b>Very True</b>	<b>True</b>	<b>Somehow True</b>	<b>Not True</b>	<b>Not at all True</b>
21. My parents do not get time to monitor my learning because they are full time worker.					
22. My siblings at home disturb my learning because I have to help in taking care of them.					
23. I have enough facilities (like library, computers) at home for learning.					
24. My parents are well educated so they guide me in terms of learning.					

<p>25. My parents provide enough incentives for good academic performance from time to time determines my learning.</p>					
<p>26. I get almost all the materials needed for leaning.</p>					
<p>27. Parents inability to provide my educational needs determines my learning.</p>					
<p>28. Parents interaction with my teachers encourages me to learn hard.</p>					
<p>29. Encouragement from parents determines my learning.</p>					
<p>30. My parents expects me help in taking care of my younger siblings which determines my learning.</p>					



<b>SCALE- 4 PEER RELATIONSHIP</b>	<b>Very True</b>	<b>True</b>	<b>Somehow True</b>	<b>Not True</b>	<b>Not at all True</b>
31. My friends value their academic work which determines my learning.					
32. Peer teaching among my friends affects my learning.					
33. I waste a lot of time with my friends which affect my learning.					
34. My friends help me to obtain most of the materials I learn.					
35. Distractions from my friends interfere with my learning.					
36. Interference from friends makes it difficult to concentrate when I learn.					
37. Acceptance by friends affects my learning.					
38. I find it difficult to combine my learning with					

pressure from friends.					
39. I often have difficulty finding appropriate time to be with my friends which affect my learning.					
40. My classmates who are academically good inspire me to learn hard.					

## APPENDIX B

### Reliability Statistics

<b>Cronbach's Alpha</b>	<b>Cronbach's Alpha Based on Standardized Items</b>	<b>No of Items</b>
.823	.826	21

**APPENDIX C**

**INTRODUCTION LETTER**

**UNIVERSITY OF CAPE COAST**

**FACULTY OF EDUCATION**

**DEPARTMENT OF EDUCATIONAL FOUNDATIONS**

Telephone: 042-3607

TELEX: 2552, UCC, GH

University Post Office

Telegrams & cables: University of Cape Coast.

Cape Coast, Ghana

**THESIS WORK**

**LETTER OF INTRODUCTION**

We introduce to you Ms Gladys Abena Amuaful, a student from University of Cape Coast, Department of Educational Foundations. She is pursuing a master of philosophy (M'Phil) degree in Guidance and Counselling. As part of her requirements, she is expected to work on a thesis entitled: "DETERMINANTS OF STUDENTS' LEARNING BEHAVIOUR IN SELECTED PUBLIC SENIOR HIGH SCHOOLS IN CAPE COAST METROPOLIS OF CENTRAL REGION OF GHANA".

She has opted to make a study at your institution/establishment for the thesis.

We would be most grateful if you could afford her the opportunity to make the study.

Any information provided will be treated as strictly confidential.

Thank you.

Signed for (Dr Y. K. Estey)

**HEAD**