

UNIVERSITY OF CAPE COAST

INFLUENCE OF CLASSROOM MANAGEMENT STRATEGIES OF
JUNIOR HIGH SCHOOL TEACHERS ON ACADEMIC PERFORMANCE
OF STUDENTS IN ASANTE AKYEM NORTH DISTRICT

BY

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This thesis submitted to the Department of Education and Psychology of the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast in partial fulfilment of the requirements for the award of Master of Philosophy degree in Educational Psychology

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DECLARATION

Candidate's Declaration

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

Candidate's Signature..... Date.....

Name.....

Supervisor's Declaration

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

Principal Supervisor's Signature..... Date.....

Name.....

Co-Supervisor's Signature..... Date.....

Name.....

ABSTRACT

The study examined the influence of classroom management strategies of Junior High School teachers on academic performance of students in the Asante Akyem North District. The descriptive survey design was used for the study. Multi-stage sampling technique was used to select 48 teachers and 297 students to respond to the Behaviour and Instructional Management Scale (BIMS). The statistical tools used for data analysis were frequencies, percentages, mean, standard deviation, Pearson's Product Moment Correlation Coefficient (PPMCC), Multiple regression and independent samples t-test. The findings of the study revealed that both students and teachers identified good relationship with students and reinforcement as the most frequently used classroom management strategies. It was found that significant positive relationship existed between reinforcement strategy and academic performance of students and antecedent strategy and academic performance of students. However, no difference existed between teachers who taught in the rural areas and their counterparts who taught in the urban areas in terms of the classroom management strategies they adopted. It is recommended from the study that teachers should focus on classroom management strategies that are effective, like reinforcement. Government should make provision for infrastructural and social amenities in the rural areas so as to allow qualified teachers accept postings to such places to ensure pupils in those areas also receive good tuition for improved academic performance. The culture of constant in-service training for teachers should be maintained by the Ghana Education Service. This will make sure that teachers are exposed to new trends and modern ways of teaching.

KEY WORDS

Influence

Classroom

Management

Strategies

Teachers

Academic

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DEDICATION

To my adorable wife Ms. Bernice Tweneboa and children

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CHAPTER ONE

INTRODUCTION

Background to the Study

It is every teacher's wish to help students to benefit from their teaching, a task which requires a lot of effort and varied strategies in managing students' behaviour in the classrooms. It is imperative that classroom administration systems assume a fundamental part in upgrading students' learning, which involves the exercise to compose and guide classes to accomplish particular objectives (Ahmad, Hussain, Ayub, Zaheer & Batool, 2017). In order to achieve these objectives, every teacher has a responsibility to maintain a positive learning environment in the classroom, which is done through strategies he or she adopts. According to Zhang and Zhao (2010) there are five qualities of an effective classroom which are; security, open correspondence, common enjoying, shared objectives and connectedness.

In the opinions of Jones and Jones (2012); and Van de Grift, Van der Wal, and Torenbeek (2011), effective teaching and learning for effective performance can only take place in a serene and well managed classroom. Effective classroom management strategies support and facilitate effective teaching and learning. Effective classroom management is generally based on the principle of establishing a positive classroom environment to facilitate good academic performance (Wubbels, Brekelmans, Van Tartwijk & Admiraal, 1999). In their opinion, Evertson and Weinstein (2006), classroom management strategies are "the actions teachers take to create an environment

that supports and facilitates both academic and social-emotional learning" (p. 4-5). The concentration of this definition includes the responsibility of the teacher and the use of classroom management strategies (CMS) to motivate students' learning. The importance of classroom management is demonstrated in its highlights across numerous research studies as a major variable that affects students' academic performance (Marzona, 2008). The explanation to this is that, effective teaching and learning triumph on effective classroom management with good performance as the end result. Marzona (2008) opined that classroom management sets a tone in the classroom because of its potential to capture students' attention. This statement is obvious since a classroom which is chaotic and disorganised as a result of poor classroom management is highly unlikely to enhance expansive learning and students' academic performance and might, indeed, inhibit it (Idopise, 2014).

According to Stronge (2018), classroom management differs from one teacher to another because of the teacher's personality, teaching style, preparedness, and number of students in the classroom, thereby making the concept of classroom management very broad and varied. Supporting this assertion, Umoren (2010) indicated that the concept of classroom management is broader than the notion of student control and discipline. He asserted that it includes all the things teachers must do in the classroom to foster students' academic involvement and cooperation in classroom activities to create conducive learning environment. Morse (2012) argued that classroom management involves curtailing learner's disruptive behaviours such as fighting and noise making, close observation, arrangement of classroom learning materials, and response to students who suffer from poor sight

(vision), poor hearing, poor reading, poor writing, poor spelling, shame, dullness, hyperactivity and poor study habit which negatively affect academic performance. When classroom management (CM) is viewed in a wider and holistic sense, incorporating every element of the classroom from lesson delivery to classroom environment becomes important (Earl, 2012).

According to Earl (2012), this includes creating organized and orderly classroom, establishing expectations, inducing students' cooperation in learning tasks, and dealing with the procedural demands of the classroom. This view of classroom management contrasts a more narrow view of classroom management as it deals with just discipline and control. According to Bassey (2012), the wider view of classroom management shows increased engagement, reduction of inappropriate and disruptive behaviours, promotion of students' responsibility for academic work, and improved academic performance of students.

Poorly managed classrooms are usually characterised by disruptive behaviours such as sleeping in class, coming to school late, noise making, miscopying of notes, eating, calling of nicknames, verbal or physical threat to fellow students or the teacher (Ekere, 2016). These disruptive behaviours according to Ekere (2016) disorganise learning processes and hamper academic performance of students. Effiong (2007) suggested that teachers can deal with these disruptive behaviours in the classroom and reduce them to the minimum through effective classroom management so that effective learning can take place. Once teachers are able to effectively reduce or eliminate disruptive behaviours in the classroom, there would be increased academic

attentiveness and engagement which would pave way for better academic performance by students.

In the view of Opoku-Agyemang (2015), taking charge of classrooms today as a teacher, one needs to manage all the situations listed below;

1. Class sizes which are generally larger and classrooms more crowded.
2. Noncompliance which is common.
3. Verbal abuse and use of profanity and obscenities by pupils at all ages.
4. Pupil's problems at home.
5. Involvement in drugs, sex, and gangs.
6. Resorting to violence to make a point or settle an argument.
7. Resisting and challenging teachers and school authority.
8. Being unafraid and unmoved by reprimands and other traditional discipline techniques.
9. Diminished Parental support and involvement in many public basic schools.
10. The increasing number of lawsuits and human right issues directed at teachers, school and Ghana Education Service. (p.38)

All these concerns may influence classroom behaviour as well as academic performance negatively hence the need for Junior High School teachers to adopt strategies to manage them. For instance a study which looked at the impact of class size on students' academic performance, found a statistically significant negative relationship. (Barber & Mona, 2007).

Ameyaw (2011) stated that quality gap in terms of educational performance outcomes persisted in Ghanaian basic schools and seemed to be deteriorating year after year. Oppong-Sekyere, Oppong-Sekyere, and Akpalu, (2013) also

demonstrated that performances of basic school students which included students in the Asante Akyem North District consistently and grossly fell below the least national average of 46.93 generating series of questions that require urgent attention and a probe into the classroom management strategies that public Junior High School teachers in the Asante Akyem North District mostly employ in their classrooms and how these strategies influence academic performance of the students.

This study, therefore, was to examine the classroom management strategies public Junior High School teachers in the Asante Akyem North District employed in their classrooms and how these strategies influenced the academic performance of their students.

Statement of the Problem

The 1992 constitution of the Republic of Ghana under Article 38 makes it mandatory for the Government to provide Free, Compulsory, Universal Basic Education (fCUBE) for all children of school going age. This policy has contributed significantly towards an increase in enrolment rates in Ghanaian public schools (Opoku-Agyemang 2015). It came along with some challenges as well. One of such challenges has to do with the burden of managing large numbers of students in classrooms. Many educators believe that this challenge has the potential of compromising the quality of teaching and learning, hence, the performance of students (Barber & Mona, 2007).

Effective and efficient teaching and learning depends massively on proper classroom management (Jones & Jones, 2012). This situation is not devoid of some other difficulties and challenges faced by teachers. In Ghana, teachers as classroom managers are not adequately equipped with the

necessary resources and pragmatic strategies in the delivery of their duties in most schools especially in deprived communities (Norviewu-Mortty, 2012). As a result, most classrooms are not well managed to facilitate effective teaching and learning.

Henaku and Pobbi, (2017) indicated how crucial classroom management as an important aspect of the educational system was declining in most schools. They observed that various stakeholders in the educational system showed little or no interest in ensuring adequate and proper management of the classroom. This has the potential of affecting learners' conduct and hence performance.

Research findings continuously have shown that one of the keys to success in teaching is the teacher's ability to manage the classroom and to organize instruction (Brophy, 1988; Cakmak, 2008; Emmer, Evertson, & Worsham, 2000). A meta-analysis of the past 50 years of classroom research identified classroom management as the most important factor, affecting student learning (Wang, Haertel & Walberg, 1994). It continues to be one of the top three problems facing public schools (Bushaw & Gallup, 2008). It has been ranked second only to funding as the biggest problem in schools (Bushaw & Gallup, 2008; Rose & Gallup, 2005). It is possibly the most difficult aspect of teaching for many teachers, and indeed causes many problems to teachers (Johns, McNaughton & Karabinus, 1989).

Government Policies from the last two decades including the fCUBE programme, School feeding programme, free uniform and sandals among others have aimed at providing free and accessible basic education to Ghanaians. These policies according to Braimoh (2010), have contributed to

the increasing enrolment rates especially at the basic level of education. They have also come with the burden of managing large class sizes. Adadzi (2006) stated that managing large class sizes lowers the overall educational attainment, especially academic performance of students.

Classroom management (CM) is a critical part of effective and successful instruction. Effective classroom management, which includes well-organised and efficient lesson planning, helps a teacher to teach and pupils to learn (Kamal, 2009). Students perform well in an optimistic classroom atmosphere and an environment in which they feel secured, safe, cared for and involved.

Most studies in Ghana have not yet addressed the issue of classroom management strategies and its influence on academic performance of students, especially in the basic level. For instance, Jones and Jones (2012) looked at how classroom management aided effective teaching and learning. Norviewu-Mortty (2012) considered how teachers were equipped with the necessary resources to teach effectively. And many others also considered other areas of classroom management. For example, (Adadzi, 2006; Sarfo, 2007). But all these studies did not specifically relate the issue of academic performance of students to the classroom management strategies adopted by teachers. This study is, therefore, intended to fill this lacuna.

Purpose of the Study

The findings of numerous studies have shown that teachers play a key role in shaping effective education (Looney, 2011). One of these roles is the teacher's ability to manage the classroom in a way that presents a serene learning environment for effective academic performance. It was, therefore,

the main purpose of this study to examine the classroom management strategies public Junior High School teachers in the Asante Akyem North District employed in their classrooms and how these strategies influenced the academic performance of their students.

Specifically the study examined:

1. the classroom management strategies mostly employed by public Junior High School teachers in the Asante Akyem North District.
2. the extent to which classroom management strategies (Reinforcement, Antecedent behaviour, Good relationship and Punishment) influenced academic performance of public Junior High School students in the Asante Akyem North District.
3. the relationship between classroom management strategies public Junior High School teachers adopted and academic performance of students in the Asante Akyem North District.
4. whether the classroom management strategies adopted by public Junior High School teachers in the Asante Akyem North District differed on account of location.
5. whether the gender of public Junior High School teachers in the Asante Akyem North District influenced the classroom management strategies they adopted.
6. whether there were differences between the academic performance of male and female students.
7. whether location of students (rural/urban) influenced academic performance.

Research Questions

1. What classroom management strategies are mostly employed by public Junior High School teachers in the Asante Akyem North District?
2. To what extent do classroom management strategies (Reinforcement, Antecedent, Good relationship and Punishment) influence academic performance of public Junior High School students in the Asante Akyem North District?

Hypotheses

The following hypotheses were formulated to guide the study:

- H₀₁: There is no statistically significant relationship between classroom management strategies adopted by public Junior High School teachers and academic performance of students in the Asante Akyem North District.
- H_a: There is statistically significant relationship between classroom management strategies adopted by public Junior High School teachers and academic performance of students in the Asante Akyem North District.
- H₀₂: There is no statistically significant difference between the classroom management strategies adopted by teachers in urban and rural public Junior High Schools in the Asante Akyem North District.
- H_a: There is statistically significant difference between the classroom management strategies adopted by teachers in urban and rural public Junior High Schools in the Asante Akyem North District.

H₀₃: There is no statistically significant difference between the classroom management strategies adopted by male and female teachers in public Junior High Schools in the Asante Akyem North District.

H_a: There is statistically significant difference between the classroom management strategies adopted by male and female teachers in public Junior High Schools in the Asante Akyem North District.

H₀₄: There is no statistically significant difference between the academic performance of male and female students in public Junior High Schools in the Asante Akyem North District.

H_a: There is statistically significant difference between the academic performance of male and female students in public Junior High Schools in the Asante Akyem North District.

H₀₅: There is no statistically significant difference between the academic performance of students in rural and urban public Junior High Schools in the Asante Akyem North District.

H_a: There is statistically significant difference between the academic performance of students in rural and urban public Junior Schools in the Asante Akyem North District.

Significance of the Study

The findings of the study would provide information to teachers to effectively manage public Junior High School classrooms in the Asante Akyem North District and hence improve academic performance of students. This is so because the teachers would be able to adopt and implement effective management strategies in their classrooms thereby making learning more profitable to students. The study again would benefit rural and urban

classroom teachers since the report would provide recommendations for improving the quality of their practice and hence performance of their students.

The study would again provide information to guide the Ghana Education Service on the effective strategies to adopt in the management of the classrooms so as to update teachers' knowledge through in-service training. In addition, it is anticipated that the findings of the study when made available would be useful for educational planners and policy makers for planning educational programmes that would address effective management strategies to be adopted in our public Junior High School classrooms that will enhance student's academic performance.

Finally, the findings would provide researchers with information on what needs to be done by way of further research in the area. And also, it would contribute to literature on influence of classroom management strategies on academic performance of students. It would contribute significantly to the literature in Ghana where little research has been done in this area.

Delimitations

The study was conducted in the Asante Akyem North District in the Ashanti Region. The study specifically focused on twelve selected public Junior High Schools. Two schools; one from rural area and the other from urban centre were selected from six circuits out of eight in the District. For comparison purposes, no school from the other two circuits without rural areas was included in the study. The study was also delimited to only four classroom management strategies namely; punishment, antecedent, good relationship,

and reinforcement strategies. The second years in the public Junior High School were involved in the study. The choice of Junior High School two was based on the assumption that the students would be able to read and respond to the items on the research instruments with little or no guidance. Scores of tests in the four core subjects; English, Mathematics, Social Studies and Integrated Science were used as proxy for academic performance.

Limitations

There are few challenges that the researcher encountered during the study. First of it was absenteeism on the part of some students. All the students took part in the tests but some were not present during the administration of the instrument (Behavioural and Instructional Management Scale). This made the researcher visit those schools at different times to administer the instruments to such students which delayed the study a bit.

Again, the population of this study was limited to public Junior High School pupils in the Asante Akyem North District, therefore, the results of the study was not generalised directly to all basic school pupils in Ghana. The results provided insights and a general opinion for this specific sample.

Definition of Terms

Below are some concepts which have been operationally defined.

Classroom Management (CM)

It is ensuring that classrooms are suitable for pupils to achieve set learning objectives.

Academic Performance

This refers to the average score a pupil makes on tests in Mathematics, English Language, Social Studies and Integrated Science constructed by the

Centre for Performance Monitoring and Evaluation on the Junior High School syllabi and used in the study.

Classroom Management Strategies (CMS)

These are a variety of skills and techniques that teachers use to keep students organized, orderly, focused, attentive and academically productive classrooms. These include reinforcement, punishment, antecedent and good relationship.

1. Reinforcement

Encouraging good behaviour by presenting rewards, praises, gifts, kind words etc. after the occurrence of a desired behaviour.

2. Punishment

Presentation of a painful event to decrease or avoid the incidence of undesired behaviour.

3. Establishing good relationship

Relating very well with students to eliminate fear in them.

4. Antecedent strategies

A signal to the student that reveals which behaviour will be expected in a situation. For instance, establishing classroom rules, using prompts and emphasizing appropriate behaviour.

Rural Schools

Rural schools comprised schools Ghana Education Service categorised as lacking electricity, good drinking water, good road, teaching resources such as teaching learning materials, syllabus, textbooks, chalk and good school building with enough classrooms.

Urban Schools

Urban schools were schools Ghana Education Service classified as having electricity, good drinking water, good road, teaching resources such as teaching learning materials, syllabus, textbooks, chalk and good school building with enough classrooms.

Organisation of the Study

The organisation of the study was in five chapters. The first chapter dealt with the introduction of the study; it covered the background to the study, statement of the problem, purpose of the study; research question, significance of the study, delimitation, limitations of the study, definition of terms and organisation of the study.

The second chapter reviewed literature on the issues related to classroom management strategies employed by teachers and the influence of these strategies on academic performance of pupils. The chapter was under the following major headings: Theoretical Perspective, Conceptual Review and Empirical Review.

The third chapter described the methodology employed in collecting data for the study; it included the research design, population, sample and sampling techniques, instruments, data collection procedure and data analyses.

The fourth chapter looked at the data analyses and discussion of findings that resulted from the analyses.

The final chapter was composed of the summary of the study and conclusions implied in the findings as well as recommendations and area for further research.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter focuses on the review of literature that is related to the research problem. The review covered these areas; Theoretical Perspective: Skinner's operant conditioning theory, Canter's assertive behavioural model, and Tolman's cognitive theory of motivation. Conceptual Review: The concept of classroom management, classroom management strategies of teachers, elements of classroom management, the teacher factor and classroom management. Empirical Review: classroom management strategies and academic performance, gender differences in academic performance, influence of location of school (rural/urban) on academic performance, teacher - student relationship and academic performance, influence of classroom management strategies on on-task behaviour, influence of on-task behaviour on students learning.

Theoretical Perspective

This part of the study spells out the theory on which the study is premised. It gives details of the study and why that theory was chosen. The theories on which this study is based are Skinner's theory of operant conditioning, Canter's assertive behavioural model, and Tolman Cognitive Theory of Motivation.

Skinner's Operant Conditioning Theory

Skinner's theory of operant conditioning which is a behaviour modification model was used as a basis for the study. The Classroom management theory of Skinner is said to have been incorporated in the school system in various ways. Most of the behaviour management systems applied in schools are said to be strongly influenced by his work. Skinner's Behaviour Management theory focused on consequences for behaviour. He emphasized reinforcement which according to him increased desired behaviours and decreased unwanted behaviours. He believed that behaviour is shaped by the consequences that followed an individual's actions. He argued in favour of immediate praise, feedback, and reward when seeking to change undesirable behaviour or encourage desirable behaviour in the classroom. Skinner also advocated for teachers to identify and reflect on the environmental effects on students' behaviour (Omomia & Omomia, 2014).

According to Skinner (1974), "Everything we know about operant conditioning is relevant to making behaviour more or less likely to occur upon a given occasion. This is the traditional field of rewards and punishment, but much sharper distinctions can be made in taking advantage of what we know about contingencies of reinforcement" (p.181). He implied that a teacher can control the classroom environment through instantaneous reinforcement. These reinforcements can come in two folds, which are positive (special opportunities, celebrations, candy) and or negative (loss of opportunities, office referrals, in school suspension, out of school suspension) forms to create an environment where each student works productively.

Traditionally, student behaviour management has heavily depended on behaviourism theory, which is primarily based on rewards and punishments as well as reinforcement. Behaviourism mainly focuses on modifying individual behaviour to lead the student to build positive behaviour in the classroom. Behaviourism essentially forces external controls over the student to shape his or her behaviours in a desirable way (Lerner, 2003). Teacher is the dominant person in the classroom and has the responsibility of all ongoing issues in the classroom; from students' motivation to misbehaviours. Teacher exerts control over students. Teacher's job is to mediate the environment where possible, and by incorporating a reward and punishment approach to redirect the student's behaviour when needed. In these teacher-centred classrooms students are passive learners and compliance is valued rather than initiative (Freiberg, 1999).

From the perspective of behaviourism, teachers can easily reach the conclusion that student misbehaviours can be decreased by rewards or punishments. Some educators, however, have criticized behaviourism because of the passive role of the learner while the teacher is in control. For instance, students always sit and wait for teacher directions. Many educators contend that a fundamental deficiency in behaviourism lies in the lack of learners' initiative within the learning process (Freiberg, 1999).

Skinner's operant conditioning in education has five educational innovations attributed both directly and indirectly to operant conditioning principles. They include:

(1) Instructional objectives,

- (2) Programmed instruction (and its offshoot, computer-assisted instruction),
- (3) Mastery learning,
- (4) Contingency contracts, and
- (5) Applied behaviour analysis. (Omomia & Omomia, 2014, P.184)

Operant conditioning works on a system of reinforcement and punishment. Reinforcement is meant for behaviour to be increased, whilst punishment reduces the chances of behaviour occurring again. This means that the right guidelines for punishment should be followed (Mangal, 2012).

The teaching and learning process in the school can be positively enhanced if the actors (in this context, the learners, administrators or principals and teachers) are adequately motivated through rewards. This can be catalyzed through a consistent process of reinforcement. Akinboye (1992) argued that reinforcement is a central concept in human acquisition of skills and performance competence. The skills for teaching, learning and administration are thus sharpened through the process of reinforcement. By extension, it could be argued that reinforcement is any factor which when made to follow a response immediately will increase the probability of the occurrence of the response to a conditioned stimulus or stimulus event (Igbino & Marvelous, 2015). The direct implication is that any consequence that follows behaviour must be contingent upon the behaviour (Elliott, Kratochwill, Littlefield-Cook and Travers, 2000). In applying Skinner's theory in the classroom, we can do the followings: set up reinforcement schedules with our students, especially those with behaviours that need quick intervention to reinforce positive behaviour. For example, if a student gets out of his seat frequently, we can set a timer for, say ten minutes, and each time he

remains on his seat after that duration, a token (reward) is given to him. Another example is the creation (in some occasions with the contribution of students) of a system of positive incentives for the class. This could be by rewarding positive behaviour before punishing negative behaviour. For example, if students are asked to turn in their home work, you reward those who turned in their homework consistently. Those who did not turn in their homework, even without being punished will likely be induced to follow suit with those rewarded for turning in their homework consistently. It is suggested that positive reinforcement should be immediately applied so as to easily associate it with the positive behaviour being rewarded.

The theory of Skinner could be said to be different from that of his predecessors who based theirs on classical conditioning. On his part, he studied operant conditioning. That is voluntary behaviours used in operating on the environment (Mergel, 2011). According to him, he based his operant conditioning on the following mechanisms:

1. Positive Reinforcement or reward: Responses that are rewarded are likely to be repeated. For example good grades reinforce careful study.
2. Negative Reinforcement: Responses that allow escaping from painful or undesirable situations are likely to be repeated. For example, being excused from writing a final examination because of good term work.
3. Extinction or Non-Reinforcement: Responses that are not reinforced are likely to be repeated. For example ignoring student's misbehaviour should extinguish that behaviour.
4. Punishment: Responses that bring painful or undesirable consequences will be suppressed. But they could reappear if reinforcement

contingencies change. For example, penalizing late students by withdrawing privileges will likely stop their lateness (Mergel, 2011 p.89)

In other words, the deep assumption of the theory of behaviourism is that behaviour is determined by a desire to gain positive reinforcement and to avoid negative reinforcement. The consequence is that, positive reinforcement tends to cause behaviours to be repeated. While negative reinforcement motivates behaviour in the attempt to remove or avoid some undesirable effect (Stahlman & Blaisdell, 2011). On their part, Giffith and Hamza (2006) argued that behaviourism is primarily concerned with the consequences of behaviours that are tangible and observable responses or behaviours. Five fundamental steps guide the behaviour change process under the behaviourism guidelines:

1. Set behaviour goals
2. Determine the appropriate reinforcers
3. Select procedures for changing behaviours
4. Implement procedures and record results, and
5. Evaluate progress and revise as needed (Skinner, 1974 p.201)

On the strength of this, Griffith and Hamza, (2006) posited that behavioural principles influence the development of both programmed learning and Computer Aided Instruction (CAI). Skinner's Behaviourist theory has some impact with respect to school evaluation and effective management.

Behaviourists and in particular Skinner, propounded a powerful behavioural approach, the reinforcement theory, for managing and controlling classroom outcomes. According to this theory, an educator who applies it

controls the effect of a student's behaviour by choosing whether or not to follow that behaviour with a positive experience named a reinforcer. Reinforcement depends on whether or not appropriate behaviour occurs. In the classroom, the educators can be the contingency manager by giving or withholding reinforcement selectively, guided by the student's behaviour.

Skinner as cited in Tuckman (1992) defined the basic type of learning described above as "operant conditioning". He explained operant conditioning as learning to perform a specific behaviour based on the occurrence that immediately follows it. Behaviours that are followed by positive consequences increase their frequency and probability of occurrence. People learn to operate in their environment to attain or achieve positive consequences. This principle of reinforcement is a refinement of Thorndile's "law of effect".

Skinner also introduced the concept of a discriminative stimulus. This is a stimulus that can serve as signal or cue in operant conditioning. Rather than having to wait for the operant response to be given on a random basis, the educator can cue the students to behave in a certain way if they want to receive reinforcement. He again talked about Social reinforcers which he referred to as the desirable interactive experiences with other people for example learners. They include praising, smiling, patting on the back, hugging and kissing. Tokens are things that can be converted to a basic form of reinforcer, e.g. gold stars or smiling faces posted in a learner's book; money may also be used in the same manner. Finally, there are activity reinforcers that are enjoyable things to do; e.g. going out to play, having recess and going on a field trip. (Tuckman, 1992)

Skinner stated that certain techniques can be used to achieve the required modification and they include prompting, chaining and shaping. Prompting entails adding discriminative stimuli that are likely to signal the desired response rather than waiting for the required response to occur on a chance basis. For example, an educator may inform the class what behaviour to perform and when to perform it. It is mainly used in reading. Chaining on the other hand involves connecting simple responses in sequence to form more complete responses that would be difficult to learn all at one time. Simple behaviours are joined into a sequence of behaviour, which is then reinforced at its completion. Shaping is used when the desired response (target) is not one the student is already able to perform (i.e. the desired response not in the student's repertoire) or when there is no way to prompt the response. There are two types of shaping, namely, shaping only those behaviours that meet a given criterion; and shaping/reinforcing behaviour that approximates or is closely similar to the target behaviour (Tuckman, 1992, pp. 53-56).

According to behaviourist thinkers, the effective use of reinforcement should make the use of punishment unnecessary. They maintain that the most effective technique for weakening behaviour is to use non-reinforcement, thus to ignore it. Punishment is not a preferred method of changing behaviour or maintaining discipline. According to Skinner as cited in Tuckman (1992, p.61), when bad behaviour is punished, it may merely be suppressed and may reappear later under different circumstances. Ironically, the punisher may serve as a model for future aggressive behaviour on the part of the person being punished. This claim implies that educators who have been subjected to

corporal punishment as a child may as an adult educator also prefer to use corporal punishment.

Tuckman (1992) stated that there are two circumstances when punishment, as a last resort, may be used effectively. Firstly, when undesirable behaviour is so *frequent* that there is virtually no desirable behaviour to reinforce, extreme aggressiveness in a child may leave no room for reinforcement. Secondly, this may be necessary when the problem behaviour is so *intense* that someone, including the child himself may get hurt. Here again, aggressiveness is an example of such intense behaviour. A major concern about the Skinnerian model is that whilst it is effective in teaching students desirable behaviour, it is less successful in teaching them what *not* to do.

The operant conditioning theory provides evidence that suggests that reinforcement and punishment can shape individual's behaviour and influence learning. The researcher, therefore, found this theory relevant to the current study.

Assertive Behavioural Model

Canter and Canter (1976) developed an approach which they termed "assertive discipline" that cannot be described as purely behaviourist in nature, but does contain certain elements of a behaviourist approach. These researchers asserted that an educator who uses assertive discipline has a clear sense of how students should behave in order for them to accomplish their teaching objectives. Assertive discipline is different from many other models in that it provides a system of dealing with behaviour at the time it occurs, through a plan that makes the learners responsible their behaviour and

resulting consequences (Steere, 1988). The essence of assertive discipline is captured in the following quotation: “An assertive educator will actively respond to a child’s inappropriate behaviour by clearly communicating to the child his or her disapproval of the behaviour, followed by what she/he wants the child to do” (Duke & Meckel, 1980 p.13).

Key ideas that form the core of assertive discipline include the fact that students have rights and that they need a caring educator who will provide warmth attention and support. Educators also have rights; they must teach in an environment that is conducive to learning and enjoy support from both parents and learners. Educators must be assertive and communicate their needs freely; they should also provide a model of good behaviour.

Learners have the right to an educator who will be firm, consistent, provide positive encouragement and motivate good behaviour (Canter & Canter, 1992). Learners have a right to learning that calmly and consistently enforce rules of conduct, to learning where an educator makes calm but firm declarations. Educators should also refrain from asking rhetorical questions about misbehaviour and should develop a system for rewarding good behaviour (Steere, 1988).

The educator should be able to communicate to the learner what is wrong and provide a model of good behaviour. Assertive discipline is premised on the notion that the educator’s attitude influences his/her behaviour that in turn influences learners’ behaviour. In illustrating the effectiveness of their model, the Canters distinguished three types of educators: non-assertive, hostile and assertive educators. Non-assertive educators are those who allow themselves to be pushed around and

manipulated by learners; hostile educators err by imposing control in an arbitrary manner. Assertive educators, on the other hand, believe in their abilities and their right to use them to foster learning (Duke & Meckel 1980).

Assertive educators also know when and how to instil good behaviour. Being assertive is different from being aggressive – the goal of assertive discipline is to foster in educators a feeling that they are in control in the classroom. An educator taking calm but firm control shows assertiveness by calmly enforcing agreed-upon rules of conduct. Assertive educators do not express an intention to hurt, but want to help.

The Canters' approach emphasises rules and consequences According to (Steere, 1988) rules should be specific and rules should be visible to all learners. Different charts should be used for different sets of rules. Just as with rules, consequences for violating rules should be explained and be visible to all learners.

To summarise, the emphasis in assertive discipline is on classroom control strategy that places educators in charge in the classroom in a humane and yet firm manner. It is a system that allows educators to invoke positive and negative consequences calmly and fairly and is a technique for dealing with difficult learners and teaching the class as a whole how to behave. The educator should always remain in charge in the classroom, but not in a hostile or authoritarian manner. He/she must take specific steps to teach students how to behave acceptably in the classroom, identify students' personal needs and show understanding and willingness to help, continually striving to build an atmosphere of trust between educator and learners. Assertive discipline was designed primarily for use in the classroom and it cannot be effective without

communication. On this premise the researcher found this theory relevant to the current study.

Tolman's Cognitive Theory of Motivation

Tolman's (1952) approach to motivation emphasised the role of students' thoughts, expectations and understanding of their world. This approach identified two kinds of cognitions that underlie the behaviour of students. These are:

1. the expectation that a behaviour will make the student to reach a particular goal, and
2. the understanding of the value of the goal to the student (Tolman as cited in Chauhan, 2007).

According to the cognitive theory of motivation, the extent to which a student expends his or her effort and persistence on an academic task results from various beliefs, attitudes and perceptions of the student. Among these beliefs are: the extent to which the student values the materials or skills he or she is learning, the student's perceived self-efficacy, and the goals (Weiner as cited in Ozkan, 2003).

The cognitive theory of motivation draws distinction between intrinsic and extrinsic motivation. Intrinsic motivation according to Chauhan (2007) is the tendency to engage in an activity which arises when the resolution of tension is to be found in mastering the learning task itself and the material learned providing its own reward. In other words, with intrinsic motivation, students engage in an activity for its own sake and for sheer joy and satisfaction derived from performing that activity.

Bruner as cited in Mukherjee (2002) identified three distinct forms of intrinsic motivation. These are: curiosity, competence and reciprocity. Bruner explained that curiosity satisfies the need for novelty in children's behaviour, competence, is the child's motive to control the environment to meet his or her needs for survival, and reciprocity is the need to behave as the situation demands. Santrock (2008) maintained that students are intrinsically motivated to learn when they are given choices, become absorbed in challenges that match their skills, and receive rewards that have informational value but are not used to control.

Extrinsic motivation involves doing something to obtain something else (a means to an end). This type of motivation is usually influenced by external incentives such as rewards and punishment. For instance, a student may study hard for an examination in order to obtain a good grade in a course. Students who are extrinsically motivated usually perform an activity not out of interest of the activity, but because they see the performance of the activity as instrumental to some separate goal. Extrinsic motivation in terms of rewards can be useful in two ways. These are; (1) incentive to engage in a given task, in which the goal is to control the student's behaviour, and (2) to convey information about mastery of the task (Bandura as cited in Santrock, 2008). When rewards are offered that convey information about mastery, students' feelings of competence are likely to be enhanced. It is not the reward itself that causes the effect but, rather, the offer or expectations of the reward (Schunk as cited in Santrock, 2008).

Bruner as cited in Sprinthall, Sprinthall and Oja (1994) maintained that learning will be far more long-lasting when it is sustained by intrinsic

motivation than when it is driven by the more transitory push of external reinforcers. Bruner does admit, however, that extrinsic motivation may be necessary to get the learner to initiate certain actions or to get the learning process started. It is in this context that the researcher found this theory relevant to the current study.

Conceptual Review

The Concept of Classroom Management

Classroom management has been defined in many different ways; Tal (2010) defined classroom management as “the ability of the teacher to lead the class toward achieving the socio-emotional welfare and learning of the students” (p.144). Malone and Tietjens (2000) defined classroom management as “how teachers maintain order in a classroom” (p.160). Little and Akin-Little (2013) defined classroom management as ‘a set of procedures that if followed, should help the teacher maintain order in the classroom and involves both antecedent and consequent procedures that can be combined to provide a comprehensive approach to classroom management’ (p.227). Classroom management is basically for the purpose of ensuring that pupils benefit from what is taught for effective academic performance.

Classroom management has consistently been identified as a salient concern for teachers (Willower, Eidell & Hoy, 2017). In addition, a meta-analysis of 50 years of research concluded that classroom management is a powerful component of the overall classroom climate as it impacts the level of student engagement, the frequency of inappropriate behaviour, and, by extension, the quality of student learning (Wang, Haertel & Walberg, 1994).

Although often used interchangeably, classroom management and discipline are not synonymous. The term discipline typically refers to the structures and rules describing the behaviour expected of students and teacher efforts to ensure that students comply with those rules. However, the literature generally defines classroom management as an umbrella term that encompasses teacher efforts to oversee the activities of the classroom including student behaviour, student interactions and learning (Burden, 2000; Evertson & Weistein, 2006; Brophy, 2006). It is operationalised as behavioural tendencies that teachers utilize to conduct daily instructional activities.

According to Umoren (2010), the concept of classroom management is broader than the notion of student control and discipline. It includes all the things teachers must do in the classroom to foster students' academic involvement and cooperation in classroom activities to create conducive learning environment. Brophy (2006) argued that classroom management involves curtailing learner's disruptive behaviours such as fighting and noise making, close observation, arrangement of classroom learning materials, and response to students who suffer from poor sight (vision), poor hearing, poor reading, poor writing, poor spelling, shame, dullness, hyperactivity and poor study habits (p.17). When classroom management is viewed in a more wider and holistic sense, incorporating every element of the classroom from lesson delivery to classroom environment becomes important (Ndiyo, 2011). According to Ndiyo, (2011), classroom management includes: creating organized and orderly classroom, establishing expectations, inducing students' cooperation in learning tasks, and dealing with the procedural demands of the classroom. This view of classroom management contrasts to a more narrow

view of classroom management as it deals just with discipline and control. According to Bassey (2012), the wider view of classroom management shows increased engagement, reduction in inappropriate and disruptive behaviours, promotion of student responsibility for academic work, and improved academic performance of students.

These tendencies reflect the teacher's discipline, communication, and instructional styles. All of these aspects manifest in the teacher's preferences and efforts to attain desirable educational goals. Still, there is no general consensus regarding the specific facets of the construct. Teachers' beliefs and attitudes regarding the nature of student behaviours and how to manage classrooms vary and can play an important role in the determination of their behaviour (Erden & Wolfgang, 2004; Smart, 2009; Willower, Eidell & Hoy, 2017). As teachers form opinions about how classrooms should be managed, they attempt to operationalise their beliefs by institutionalizing a code for classroom interactions and behaviours (Smart, 2009; Urich & Tobin, 2009). Observation of classroom teachers is one excellent way to gain information regarding classroom management beliefs and practices.

However, research suggests other means may also be appropriate and provides evidence of a relationship between teachers' behaviours and their beliefs. Urich and Tobin (2009) described a first-year teacher's ideological evolution from “teacher as comedian” “to” “teacher as social director.” This shift in thinking resulted in changes in teaching behaviour and striking improvements in the classroom environment. Similarly, Smart's (2009) observational study triangulated teacher interviews regarding beliefs with classroom behaviours. Thus, it seems feasible that a link exists between

teacher beliefs and perceptions regarding classroom management style and proclivity to behaviour.

In a study conducted by Stichter, Lewis, Whittaker, Richter, Johnson, and Trussell (2009), teachers who used ineffective classroom management strategies experienced consistent student disturbances and an increased number of verbal interruptions. While it may seem that these disruptions add up to nothing more than mere annoyances, this is certainly not the case. A study conducted by Vitaro, Brendgen, Larose and Tremblay (2005) found that hyperactivity and inattention in Kindergarten was more predictive of high school dropout than aggression or oppositional behaviour.

Classroom Management Strategies of Teachers

Classroom management is a multifaceted concept and views about classroom management strategies can be categorised in various ways. Writers categorise different classroom management approaches based on the different aspects of classroom management.

Burden (2000) stated that the most useful organizer for classroom management is the degree of control that the teacher exerts on the students in the classroom. A continuum showing a range of low to high teacher control illustrates the educational views. Burden grouped the different classroom management approaches under three main headings: The intervening model, the interacting model, and the guiding model.

The Intervening Model

This model consists of high control approaches and it includes behaviour modification, assertive discipline, positive discipline, and behaviourism and punishment

The Interacting Model

This medium-control approach includes logical consequences, cooperative discipline, positive classroom discipline, noncoersive discipline, discipline with dignity, and judicious discipline.

The Guiding Model

This model can also be called low-control approaches and it includes: congruent communication, group management, and discipline as self-control, teaching with love and logic, inner discipline and from discipline to community.

According to Wolfgang and Glickman (1980); Martin and Sass (2010), instructional and behavioural classroom management can be conceptualized as interventionist, noninterventionist, and interactionalist

Interventionist's Classroom Management Model

Purportedly, the interventionist classroom managers are those who seek to manage the classroom by intervening, with a motive to shape student behaviour with consequences in the classroom situation. The theorists identified under this are: Skinner, Bandura, Dreikurs, and Canter. Each of these provides a unique contribution to present understanding of interventionist classroom management.

Noninterventionist Classroom Management Model

Noninterventionist (proactive) classroom management is geared towards planning ahead to extinguish any behavioural issues before they occur in the classroom. The noninterventionist management can be more constructive than the interventionist strategy and should lead to positive behaviour and the development of self-discipline, thus, the learners' moral

behaviour (Erasmus, 2009, p. 8). The noninterventionist may post rules in the classroom, discuss correct ways to act in the classroom, and praise good behaviour. Some of the popular proponents of the proactive (noninterventionist) theory are Rogers, Kounin, and Wong.

Interactionalist Classroom Management Model

The interactionalist classroom management style is a combination of noninterventionist and interventionist styles. Glasser (1997) was the major proponent of this management technique. Glasser's beliefs were based on his two theories: Reality theory and Choice theory. Choice theory allows opportunities for students and teachers to understand one another's individual behavioural differences. Changes and accommodation are made in the classroom once the teacher recognizes how the students would like to be treated.

In Reality theory, redirection of misbehaviour is tackled by employing logical consequences, such as individual improvement plans for students, teacher/student conferences, and providing ways for students to evaluate their own behaviour. Ritter and Hancock (2007) defined the interactionalist, like Glasser (1997), as believing students learn from interacting with peers in their environments. Interactionalists have a shared classroom management strategy versus interventionist and noninterventionist.

In addition, Rogers and Freiberg (1994) identified two approaches based on the locus of control in the classroom as organizer; teacher- and student-centred approaches. They developed a chart comparing and contrasting the aspects of these two approaches. Similar to the classification of Wolfgang and Glickman (1986), these two approaches are the opposite ends of

a continuum; and it is difficult to say that a teacher has just student-centred approach or teacher-centred approach.

However, these classes are useful to discover which orientation is dominant on teacher's classroom management approach. In the chart below, basic strategies used in some key areas of classroom management are presented for both approaches.

Teacher-Centred	Person-Centred
Teacher is the sole leader	Leadership is shared
Management is a form of oversight	Management is a form of guidance
Teacher takes responsibility for all the paperwork and organisation	Students are facilitators for the operations of the classroom
Discipline comes from the teacher	Discipline comes from the self
A few students are the teacher's helpers	All students have the opportunity to become an integral part of the management of the classroom
Teacher makes the rules and posts them for all students	Rules are developed by the teacher and students in the form of a constitution or compact
Consequences are fixed for all students	Consequences reflect individual differences
Rewards are mostly extrinsic	Rewards are mostly intrinsic
Students are allowed limited responsibilities	Students share in classroom responsibilities
Few members of the community enter the classroom	Participants are formed with business and community groups to enrich and broaden the learning opportunities for students

Source: Rogers and Freiberg (1994 p.54)

Traditional classrooms can be called as teacher-centred classrooms that are directly affected by the principles of behaviourist approach which emerged from the work of Skinner. The child is often viewed as the recipient of knowledge and the teacher has control over the students and subject matter. As a result of the behavioural approach to instruction, teachers prefer behavioural classroom management techniques consistent with their way of instruction. The behavioural model requires strong intrusion and management techniques on the part of the teacher (Garrett, 2005).

Antecedent and Consequent Strategies of Behaviour Management

Research suggests that classroom management is most effective when teachers use antecedent rather than consequent methods (Clunies-Ross, Little & Kienhuis., 2008). Consequent methods are used in an attempt to remediate an undesired or inappropriate behaviour after a child has exhibited that behaviour. Examples of consequent methods include: correcting the child, removing the child's privileges, sending the child to time out, giving the child a detention or suspension, or verbally reprimanding the child. While the intent of consequent methods is to decrease inappropriate behaviours, primary use of these methods may actually reinforce inappropriate behaviours (Leflot, Van-Lier, Onghena & Colpin, 2010; Little & Akin-Little, 2008) and discourage appropriate behaviours (Beaman & Wheldall, 2000). A study conducted by Wehby, Tally, and Falk (2004) revealed that this phenomenon may occur because students learn to exhibit inappropriate behaviours in order to escape academic tasks or to obtain teacher attention.

Antecedent methods are preventative and positive in nature; they are used to alter the environment before inappropriate behaviours occur or

intensify and, thus, decrease the likelihood of those behaviours occurring. Examples of antecedent methods include establishing classroom rules and reinforcing appropriate behaviour (Clunies-Ross et al., 2008).

Johnson, (1996) demonstrated the potential outcomes of using an antecedent strategy. Three classroom management interventions were examined in terms of their effectiveness with seventh grade students. The three interventions were:

1. use of a weekly syllabus and academic assessments for individual students
2. self-monitoring, and
3. actively teaching five classroom rules.

All three interventions were linked to an increase in appropriate behaviour and a decrease in inappropriate and disruptive behaviour. However, actively teaching classroom rules was the most effective (Johnson as cited in Kern & Clemens, 2007).

According to Kern and Clemens (2007), antecedent methods have many benefits. One benefit is that the use of these methods decreases the likelihood that the inappropriate behaviours will occur by eliminating or changing the events that precede these behaviours. Decreasing the likelihood of these behaviours is essential for creating an environment that facilitates learning.

Another benefit is that eliminating or changing the events that precede inappropriate behaviours typically leads to an immediate decrease in the number of inappropriate behaviours. Improving the instructional environment is another benefit of antecedent methods; because the events that precede

appropriate behaviours are increased, the likelihood of appropriate behaviours occurring increases which, in turn, leads to increased levels of work completion and student achievement (Kern & Clemens, 2007; Reinke, Lewis-Palmer & Merrell., 2008). At the class wide level, antecedent methods established positive, organized, predictable, and motivating classroom environments (Sugai, Horner and Gresham, as cited in Kern & Clemens, 2007).

Use of Verbal Praise

The use of verbal praise is one specific antecedent strategy that can easily be incorporated into classrooms and has been shown to be effective at increasing appropriate behaviours (Kern & Clemens, 2007), decreasing inappropriate behaviours (Leflot et al., 2010), and increasing overall academic engagement in general education classrooms (Sutherland et al., 2000). Reinke and colleagues (2008) defined praise as “any verbal statement or gesture that indicates teacher approval of desired student behaviour beyond confirmations of correct academic responses” (pg. 319). Verbal praise has also been shown to allow for more instructional time in the classroom, increase students’ intrinsic motivation, facilitate students’ feelings of competence (Sutherland et al., 2000), and increase the appropriate behaviour of students who observe others being praised for appropriate behaviour (Kern & Clemens, 2007).

A study conducted by Wharton-McDonald, Pressley and Hampston (1998) examined the difference between a high-achieving classroom and a lower-achieving classroom in terms of the amount of teacher praise provided to the students. The results of the study showed that students in the high-achieving classroom received more praise for effort and attention given to the

assignment in addition to praise for responding correctly. Furthermore, students in the lower-achieving classroom were rarely praised; when praise was provided it was typically for writing neatly or staying quiet during instruction (Wharton-McDonald et al., 1998).

One of the characteristics of teachers in high-achieving classrooms was the use of effective classroom management, including preventing or positively redirecting inappropriate student behaviours. Another characteristic of teachers in high-achieving classrooms was the use of consistent expectations and consequences; their students were aware of the expectations and the consequences associated with engaging in inappropriate behaviour. Time management was another characteristic of high-achieving classroom teachers; time management included managing transition time, minimizing interruptions by other adults, and maximizing time spent on academic activities. In contrast, teachers of low-achieving classrooms struggled to carry out morning routines and begin academic instruction (Wharton-McDonald et al., 1998).

Classroom Organisation

Classroom management and organisation are intertwined. While rules and routines influence student behaviour, classroom organization affects the physical elements of the classroom, making it a more productive environment for its users. How the classroom environment is organised influences the behaviour in it. For example, actions as simple as colour-coding folders, establishing fixed locations for lab supplies, maintaining folders for students to pick up missed work after being absent, keeping extra copies of “Back to School Night” items to share with new students, and designating specific places for other classroom supplies can have a dramatic effect on classroom

organisation and, consequently, on student learning. While these procedures and a multitude like them are simple matters, they nonetheless can be essential components for a smoothly operating classroom.

Classroom organisation is evident in a room even if no one is present. Furniture arrangements, location of materials, displays, and fixed elements are all part of organisation. Effective teachers decorate the room with student work, they arrange the furniture to promote interaction as appropriate, and they have comfortable areas for working (Rubio, 2009). They also consider student needs in arranging the room by leaving space for wheelchairs to manoeuvre; having walkways so students can access materials, pencil sharpeners, and the trashcan with minimal disturbance to others; and organizing in such a way as to allow the teacher to freely move around the room to monitor student progress (MacLeod, Dodd, Sheard, Wilson & Bibi, 2003).

Teachers are observers of behaviour and understand the rhythm of the classroom. Placing materials near the pencil sharpener may seem like a good idea, until one considers that at the start of a lesson this area may become congested with some students retrieve materials for their group and others waiting to use the pencil sharpener. However, the pencil sharpener and the trashcan may be a good pairing if the pencil sharpener tends to break regularly, spilling its contents on the floor; this way shavings fall into the trash instead. Effective teachers think about the little details that enhance the use of available space in the classroom as well as the big issues.

Elements of Classroom Management

Physical environment of the classroom

The physical classroom environment influences students' learning, participation, and involvement in class activities. Classroom management begins with the physical environment of the classroom itself. This consists of the interior part of the classroom. It includes floor spaces, wall space, students' desk, teachers' desk, cupboard, shelf space and other supplies. Gererd (2007) stated that the way a classroom is laid out, the quality of pupils' work displays, the condition and tidiness of the room all play a part in conveying positive or negative messages to the pupils about your expectations. This makes the management of the physical environment very important to teaching and learning.

Physical environment must be conducive for any effective teaching and learning. In Ghana, most classes in the rural areas are held under trees, cladded and uncladded pavilions, sheds, huts and dilapidated structures. All these do not create conducive atmosphere for proper teaching and learning. Some classrooms are structured close to very noisy environment such as heavy industrial machines, heavy traffic passage and populated market centres. In addition, some classrooms lack adequate physical facilities like pupils desk, teachers desk, cupboard, shelves and others structures for pasting teaching and learning materials.

Psychosocial environment of the classroom

This consists of psychological and social climate of the classroom. In other words, it is the relationship that exists in the classroom. It can be the relationship that exists between the teacher and the students or the students

themselves. This relationship must be cordial and healthy to promote effective teaching and learning atmosphere in the classroom.

One importance of cordial relationships in the school is that the objectives of the school are easily achieved as members realize their common objective and work towards it (Yukl, 2012). It also consists of teachers' ability to control the class through routine activities. The teacher must also be able to control students' attitudes to maintain discipline in the classroom. The teacher's personal attitude is also a factor to the psychosocial climate in the classroom.

Classroom Routines and Procedures

A classroom routine is simply a well-rehearsed response to a teacher's directive. The alternative is usually noise, milling around, and time wasting on the part of students, as well as nagging on the part of the teacher. Teacher's classroom management practices have a significant positive effect on decreasing problem behaviour in the classroom (Oliver, Wehby & Reschly, 2011).

A classroom routine is, therefore, one of a teacher's primary labour-saving devices. Yet, classroom routines are not free. They are not simply to be announced. They must be taught and practised. Acceptable routines need to be determined for the classroom. Disorganization wastes instructional time. When students are not sure of expectations, they often react with insecurity or discomfort and exhibit problem behaviours that take time away from instructional activities. Establishing routines, then, is important. To help students learn the routines, explain each (demonstrate when helpful), allow

students to practice them, provide feedback, and continue to re-teach as necessary, particularly after vacation breaks.

Instructional Time

This is the period allocated purposely for teaching and learning in the classroom. According to Rivkin and Schiman (2015) instructional time may include time scheduled for the purpose of instruction and other activities for children where direct pupil–teacher interaction and supervision are maintained. Classroom activities are pre-planned by the school management and the educational authorities. The teacher is the one who implement these activities directly.

There are a number of behaviours which can affect this negatively. Some of them are teacher absenteeism, lateness, lack of preparation of lessons, misuse of instructional or contact hours. Also, other interruptions such as marking of register, collection of money such as school fees and canteen fees, giving announcements and other information in between instructional hours and sending students on errands. All these reduce the effectiveness and efficiency of the teaching and learning process.

Instructional Materials

These are materials that are needed for the teaching and learning process. According to Sarfo (2007, p.34), instructional materials can be grouped into three; primary (which consist of real objects), secondary (which includes models, pictures and chats) and tertiary (for example. television, radio and computers). All the materials that would be needed by both teachers and students must be pre-planned and gathered by the teacher before the actual lesson, so that effective and efficient lesson can be achieved. This will help the

teacher to use the available materials effectively to cater for all students. It also helps the teacher to repair worn-out materials. Materials that are also needed to be constructed, searched or bought can be obtained before the lesson. This avoids a situation whereby lessons are halted to search for materials or repair parts of equipment since they were not prepared before the lesson.

Motivation of Students

According to Owusu-Banahene (2008), to be motivated means to be moved to do something. Oseyomon and Ojeaga (2011) also defined motivation as an inner drive that activates behaviour and gives it a direction. It is a management tool that managers employ in the process of achieving organizational objectives. Mangal (2012) stated that motivation may be regarded as something which prompts, compels and energises an individual to act or behave in a particular manner at a particular time for attaining some specific goal or purpose.

If learners are not motivated, they may lack the interest in learning to achieve their specific goal or purpose. It is, therefore, the duty of the classroom teacher to assist these students, in other words motivate them to learn. Sometimes lessons may be complex and difficult to achieve by students yet the teacher has to find ways of breaking it to the level of students understanding. Again he/she must use ideal, interesting and effective strategies in presenting lessons. The teacher must also use praises and reward to arouse student's interest in learning.

Smith and Laslett (2002) stated that some teachers feel reinforcement such as reward, is a sign of weakness, if not an admission of defeat.

They, however, stated that it helps to strengthen the frequency, duration and intensity of the desired behaviour. In addition students must be motivated to maintain disciplinary measures in the classroom. All these can be possible through certain theories and principles, and the teacher's ability to apply them effectively.

Classroom Rules

McManus as cited in Smith and Laslett (2002) pointed out that teaching is more than the sum of its parts but it is possible from research, observation and auto-biographical anecdote to discern the rules of classroom management applied by successful teachers. Too often it is assumed that standards of classroom discipline are understood or that students already know how to behave. Furthermore, standards are frequently communicated indirectly rather than directly. This often results in students learning the rules through trial and error, and it also results in more classroom behaviour problems. Therefore, it is important to clearly communicate the classroom rules to students.

Classroom Discipline

Effective student discipline requires effective school management and effective classroom management. Probably the biggest fear a teacher faces is how to deal with classroom discipline. Discipline is the cornerstone of good classroom management. Rose, and Gallup (2005), annual 37th Gallup poll of the public's attitude toward public schools revealed that classroom discipline is considered the biggest problem at school. The study showed also that teachers feel unprepared to deal with disruptive behaviour.

Some scholars believe that dealing with behaviour problems requires no disciplinary measures. Kohn (2011) argued that disciplinary interventions are not only ineffective, but can also be counterproductive. However, research and theory show that a balanced approach, including appropriate disciplinary techniques, is needed to have discipline in the classroom.

Marzano (2004) in his book “Classroom management that works”, pointed out five groups of disciplinary practices. These are listed below:

1. teacher reaction including the teacher’s verbal and physical reaction to disruptive behaviour.
2. tangible recognition including interventions rewarding students for positive behaviour with some kind of symbol.
3. direct cost including practices for direct consequences for bad behaviour.
4. group contingency practices which focus on a group of students who have to reach a certain standard of good behaviour.
5. home contingency strategies in which students’ behaviour is controlled at home. (p.14)

Marzano (2004) concluded that all of these five disciplinary categories resulted in a decrease in students’ disruptive behaviour at all grade levels. However, the lower the grade, the bigger the disciplinary effect of the practices.

Having good classroom discipline involves a number of steps with the first being a clear discipline plan at the start of the year. From the first day at school, teachers must establish reasonable and durable rules and not allow disruptive behaviour. Students have to be informed about the standards of

behaviour and follow them; they have to know that actions that disturb the educational process are not acceptable. Teachers, have to be fair, a good sense of fairness will let teachers treat all students equally. If the class is disrupted, teachers should react immediately taking as little time as possible out of the lesson. Teachers have to have high expectations from students and are within their rights to expect that students will not disrupt the class and will rather behave.

The Teacher Factor and Classroom Management

An effective teaching-learning process cannot take place in the context of a poor classroom management. It can be rightly argued that the teacher is the biggest influence on how well students behave in a classroom. According to Wright, Horn and Sanders (1997), the most important factor directly influencing learning is the teacher. This means that any procedure to optimize school performance should aim to educate teacher effectiveness in the classroom. It is also believed that it is not the quality of the students, the involvement of the parents, or the administration that make the most impact, but the teacher's attitude.

This is premised on the fact that some students tend to live up to the teacher's expectations. In this instance when the teacher expects great things from them, they would surely rise to the challenge. The corollary is that when you expect poor classroom behaviour they would also meet that challenge. It must be appreciated that effective classroom management is probably the most difficult aspect of a teacher's duty and role. It is opined by Austin and Omomia (2014) that it is not simply to teach curriculum content but it is to

also guide, direct and empower students to govern their own behaviour so that their life within a social setting can be an enjoyable and productive one.

The overall value of effective classroom management and its positive effect in guaranteeing the achievement of outstanding educational outcomes is well captured by Emmer and Stough (2011). They argued that the ability of teachers to organize classrooms and manage the behaviour of their students is critical to achieving positive educational outcomes. Although sound behaviour management does not guarantee effective instruction, it establishes the environmental context that makes good instruction possible. Reciprocally, highly effective instruction reduces but does not eliminate classroom behavioural problems.

It is posited by many writers that effective classroom management requires some basic classroom procedures or routine. According to Austin and Omomia (2014), the classroom procedures can be used to provide consistent momentum or transitions. Some of them include entering or leaving the classroom. The procedure involves students coming in quietly, taking out the needed materials for the class, and placing their bags and other items neatly under their desks. In starting the class, the students should be quiet before the teacher walks in. The next procedure which is the taking of role can be accomplished quickly if seats are assigned to each student. It is important to consider the relevance of maintaining order in effective classroom management.

This has become necessary because establishing and maintaining order is central to what educators do. According to Doyle (2011), the underlying assumption is that classroom order encourages student engagement which

supports learning. Without order, a teacher is hard pressed to promote student learning. The implication of this, according to him is that classroom management results in the coupling of order and learning. He therefore, saw classroom management as the progression of strategies that teachers utilize to promote order and student engagement and learning. The consequence of this position is the prompt enhancement of the right learning outcomes. Some proactive principles in maintaining order in classroom management according to Doyle (2011) include developing a coherent list of expected behaviours (usually only four or five rules), equipping students with the skills needed to execute appropriate behaviour, continually assessing the success of an implementation, and creating and sustaining a positive environment in which these can take place.

Embracing the essence of order in classroom management enables the teacher to apply all facets of discipline within the classroom which centres on the three fundamentals of teaching. That is, content, conduct and covenant management. Content refers to the curriculum; conduct has to do with discipline while covenant has to do with relationship (Doyle, 2011). School and classroom management according to specialists in the field of education, aims at encouraging and establishing student self-control through a process of promoting positive student achievement and behaviour. Thus, academic achievement, teacher efficacy and teacher and student behaviour are directly linked with the concept of school and classroom management. This focuses on three major components: content management, conduct management and covenant management.

A research carried out by Froyen and Iverson (2014) showed that a high incidence of classroom disciplinary problems have a significant impact on the effectiveness of teaching and learning. It has been found that teachers facing such issues fail to plan and design appropriate instructional task. They also tend to neglect variety in lesson plans and rarely prompt students to discuss or evaluate the materials that they are learning. In addition, students' comprehension or seat work is not monitored on a regular basis. In contrast, strong and consistent management and organizational skills have been identified as leading to fewer classroom discipline problems (Froyen & Iverson, 2014). On the strength of this, according to Doyle (2011), 'order' in the classroom prompts 'engagement', whereas the teacher uses 'discipline' to curb 'misbehaviour'. The result is 'cooperation'.

He further argued that 'cooperation' rather than 'engagement' (in the sense of involvement with content) is the minimum requirement for student behaviour. Hence, 'engagement' is learning, 'cooperation' is 'passivity'. He further noted that order is not 'absolute silence' or 'rigid conformity' to rules, although these conditions are sometimes considered necessary for specific purpose (e.g. a major test). 'Order' in a classroom simply means that within acceptable limits, the students are following the programme of action necessary for a particular classroom event to be realized in the situation (Doyle, 2011).

It is argued that a tremendous body of research attests to the fact that classroom management/organization and behaviour management competencies significantly influence the persistence of new teachers in their teaching careers (Kwarteng, 2016). The consequence is that new teachers are

quick to express their concerns over lack of competence in handling disruptive behaviour of students (Brouwers & Tomic, 2010). This category of ineffective teachers often report high level of stress and symptoms of burnout concerning their job (Brouwers & Tomic, 2010).

Empirical Review

Classroom Management Strategies and Academic Performance

Researchers such as Greenberg, Putman, and Walsh, (2014) mentioned in their study that students' learning depend to a large extent on the ability of the teacher to properly manage classroom. It may be inferred that a teacher's ability to effectively manage classroom towards learning is a major indicator of a teacher's quality. In an earlier study by Kyriacou (1995) the researcher noted that what makes teaching a particularly demanding activity is the need to monitor the whole variety of concerns that need to be taken account of, if pupils' attentiveness, receptiveness and the appropriateness of the learning experiences are to be maintained.

In a longitudinal study Fergusson, Horwood, and Ridder (2015), reported that conduct problems between the ages of seven and nine years were associated with the following domains after confounding variables such as economic disadvantage, family conflict, child abuse, ethnicity, and gender were controlled for: crime (including violent offenses and imprisonment), substance use (including nicotine and illegal drug dependence), mental health (including major depression/anxiety disorders, antisocial personality disorder, and attempted suicide), and sexual relationships (including 10+ sexual partners, teen pregnancy, and domestic violence). It would not be unreasonable to suppose that a higher number of children with untreated

behaviour problems in a school or district may eventually lead to a higher number of Junior High School drop-outs and a higher number of adolescents with conduct disorder or other serious disorders in that district. Due to all these risks associated with behaviour problems, actions should be taken to improve the behaviour of children in schools.

Evertson and Weinstein (2006) demonstrated that teachers take actions to create a supportive environment for the academic and socioemotional learning of students. They described five types of actions. In order to attain a high quality of classroom management, teachers must;

1. develop caring, supportive relationships with and among students. The importance of developing favourable teacher-student relationships is also expressed by Marzano, Marzano and Pickering. (2003).
2. organise and implement instruction in ways that optimize students' access to learning.
3. encourage students' engagement in academic tasks, which can be done by using group management methods (e.g., by establishing rules and classroom procedures).
4. promote the development of students' social skills and self-regulation. Marzano et al. (2003) referred to this as making students responsible for their behaviour. And finally,
5. use appropriate interventions to assist students with behaviour problems. (p.180)

The last two actions proposed by Evertson and Weinstein (2006) indicated that effective classroom management improves student behaviour. Hence, classroom management is an ongoing interaction between teachers and

their students. Brophy (2006) presented a similar view: “Classroom management refers to actions taken to create and maintain a learning environment conducive to successful instruction (arranging the physical environment, establishing rules and procedures, maintaining students' attention to lessons and engagement in activities)” (p.42). Both definitions emphasize the importance of actions taken by the teacher to facilitate learning among the students.

Certain systems-level interventions such as School-Wide Positive Behavioural Interventions and Supports have been shown to be effective in decreasing the number of office referrals and school suspensions (Luiselli, Putnam, Handler, and Feinberg, 2012). However, Stronge, Ward, Tucker, and Hindeman (2007) contended that a key aspect of any major improvement in school systems and in students' education is changing the behaviour of teachers. Similarly, Leflot, Van Lier, Onghena, and Colpin (2010) suggested improving the “professional functioning” (p.881) of teachers and other professionals in order to prevent and respond more effectively to behavioural difficulties.

The negative consequences of teachers using ineffective classroom management strategies are not limited to only students. In a study conducted by Clunies-Ross and colleagues (2008) workload and student misbehaviour were the two biggest contributors to teacher stress. Furthermore, Hastings and Bham (2003) found that various aspects of student classroom behaviour (e.g., disrespect, lack of student sociability, and lack of attentiveness) differentially predicted various aspects of teacher burnout (e.g., emotional exhaustion, depersonalizing students, and lack of feelings of personal accomplishment).

In the past, classroom management received comparatively little attention in teacher education. This was because it was thought that anybody who called him/herself a teacher could easily manage a classroom (Little, 2005). This means that stakeholders in the educational system did not lay much emphasis on classroom management. They never saw it as a major contributing factor to effective teaching and learning process. Therefore, stakeholders in the educational system laid little emphasis on proper management of physical environment, psychosocial environment, instructional resources and effective way of maintaining discipline which are factors to effective teaching and learning process.

The trend changed through the various reforms by respective governments, especially the 1987 educational reforms by the PNDC government. Agbemabiese (2007), stated that one of the major elements of the reforms was to increase the relevance and efficiency of the educational system by expanding the curriculum of the junior secondary school to provide for academic, cultural, technical, vocational objectives of the reforms to improve the quality, efficiency and relevance of pre-university education by expanding the curriculum of both the primary and Junior secondary schools. He further stated that the reforms can be implemented by the construction of classroom blocks and workshops organised in areas which lacked these facilities as one of the provisions. Since then the perception on classroom management has changed among all stakeholders.

Governments have since been trying to provide adequate facilities. Teacher educational institutions are laying more emphasis on the proper managerial skills of teachers undergoing training. The Ghana Education

Service is also doing its best to organize in-service training workshops for practicing teachers to upgrade their knowledge in classroom management. Individual teachers are also doing their best to upgrade their knowledge and skills on effective classroom management.

Owusu-Banahene (2008) reported that there has been a change in the best way to implement classroom management. He stated that the older view emphasized creating rules and applying them to control learners' behaviour. The newer view focuses more on learners needs for nurturing relationships and opportunities for self-regulations". This means that the concept and implementation of classroom management has changed from a static and rigid to a more diverse, flexible and effective way of managing the classroom. Igbinoba and Marvelous (2015) examined the classroom management differences between teachers in rural settings and those in urban settings and they found that urban teachers were significantly more interventionist than rural teachers in terms of people management.

In another study, Martin and Shoho (2000) investigated the differences in the classroom management approaches of traditionally certified and alternatively certified teachers. The results revealed that teachers in alternative certification programs were significantly more interventionist than were traditionally certified teachers regarding instructional management. However, these alternatively certified teachers were not more interventionist regarding people management or behaviour management. Martin, Yin and Mayall (2006) conducted a study to investigate the differences in classroom management styles of teachers regarding their classroom management training, teaching experience, and gender. The study revealed significant

differences between males and females and between novice and experienced teachers on Instruction Management subscale scores. Females scored more interventionist than males and experienced teachers scored significantly more controlling than the less experienced counterparts.

Sowell (2013) studied the classroom management beliefs and practices of middle school teachers. The purpose of her study was to determine if there were differences in classroom management beliefs and practices of teachers regarding two years of teaching experience or type of teaching certification. The study indicated that neither source of certification nor experience level alone affected teachers' orientation to classroom management. However, teachers with traditional certification and many years of experience exerted significantly less control over classroom activities and learners' behaviours than do the other group with less experience level and different certification type.

Yaşar (2008) compared the classroom management strategies of teachers, intern teachers and senior level practicum students by using the Inventory Classroom Management Style (ICMS). The results indicated that while senior level practicum students were not interventionist, intern teachers were found to be interventionist; and the more experienced teachers were not interventionist again. Garrett (2005) also studied the student-centred and teacher-centred classroom management strategies by employing qualitative research methods. The purpose of her study was to explore the classroom management strategies used by three teachers who apply student-centred approach to their instruction and to examine the relationship between their managerial and instructional approaches. As a result, she found that the way

teachers thought about the relationship between their instructional and managerial approaches was influenced by what they saw as the overall goal of classroom management. While two of them had a classroom management strategy consistent with their way of instruction, one did not.

Foxworthy (2006) utilized the qualitative research techniques to investigate teachers' beliefs about classroom management and the importance of this aspect of teaching. Interviews with the teachers, observations of classes and field notes revealed that participants believed in respect and the notion that students' needs must come first. Also, the significant result of this study for us is that aspects of their beliefs and strategies about classroom management had changed since they began teaching. Participants have two explanations for the reason of this change; gaining experiences or gaining knowledge through professional development.

Gender Differences in Academic Performance

The question of gender differences in intelligence or academic performance has been debated for some time now. Many reasons have been offered as causes of perceived gender differences in learning. These differences may not be attributed to only biological predisposition but to other factors such as cultural expectations and norms. Most cultures in Africa provide different experiences to the two sexes and consequently different opportunities and motivation for learning. The consensus of a large body of research is that no matter what the inherent biological differences, many of the observed differences between males and females can be linked to differences in early socialization experiences (Grossman & Grossman as cited in Slavin, 2009).

The socialization process in some societies is somewhat rigid and gender differences are emphasized. It is not uncommon to see gender stereotypes manifested in the day-to-day social sex roles that are assigned to males and females. It may, therefore, not be surprising that the school being a microcosm of society may consciously or unconsciously perpetuate gender stereotypic behaviours.

It has been reported that teachers consciously or unconsciously often mete out differential treatment to boys and girls in their classrooms (Rubble & Martins as cited in Afuwape & Oludipe, 2008). Block as cited in Sprinthall et al (1994) provided evidence that showed a large array of different expectations that favoured boys. According to her teachers interact more favourably with boys and gave them more positive feedback while directing more criticism at girls. Block's assertion harmonises with the report of Becker as cited in Mari (2007) that teachers spoke more frequently to boys, asked boys more higher-order questions and praised them for quality work done. Block as cited in Sprinthall et al (1994:402) in a study reported, "girls in high achievement condition received the lowest level of supportive, ego-enhancing feedback, they also received significantly fewer laudatory attribution statements and significantly more disparaging attribution statements". Block further noted that teacher negative expectancies can be found at all levels from nursery school to college. In pre-school according to her, boys receive more attention. In college, female intellectual aspirations are taken less seriously by professors. These expectations and the discouragement and denigration of female academic effort may have in Block's words "pernicious effects" (Block as cited in Sprinthall, et al 1994:402).

Ausubel and Robinson as cited in Balarabe & Abdullahi (1996:83-84) exemplified the effects of different social sex roles on academic achievement.

They argued that:

The quite differential social sex roles of boys and girls at all age levels have important effects on their respective adaptations to the school environment ... Beginning in middle adolescence cultural expectations change gradually. Academic achievement becomes a more acceptable male virtue. The female student soon comes to believe that the ability to solve problems in mathematics, science or logic is a uniquely masculine skill. This inevitably makes her motivation to attack such problems quite low. Thus an intelligent female who wants approval from peer group, and realizes that very high scholastic performance is not likely to enhance her popularity, adopts a level of aspiration beneath her real potential.

The views of Ausubel and Robinson are consistent with the assertion by Arigbabu and Mji as cited in Afuwape and Oludipe (2008) that students regard mathematicians and scientists as a special group of people. On this premise, Arigbabu and Mji explained that female students do not see themselves as having the potential to become mathematicians and scientists. Maccoby as cited in Maliki, et al (2009:132) submitted that “members of each sex are encouraged in and become interested in and proficient at, all kinds of tasks that are most relevant to the roles they currently or are expected to play in future”.

Studies have shown that attitudes play a significant role in gender differences in academic achievement. Opolot-Okurut, (2010) found that for all the attitudinal variables (anxiety, confidence and motivation), males had higher mean scores than females. That is, differences in student attitude towards mathematics based on gender were confirmed. Opolot-Okurut explained that attitudes are known to have positive relationship with student achievement and as such males performed better than females in mathematics because of their higher attitude scores.

Findings reported by Wigfield et al, as cited by Brunner et al (2009:391) confirming the typical pattern of gender differences in domain-specific academic self-concepts across age groups (that is higher verbal self-concept for girls and higher mathematics self-concept for boys) support this explanation. However, other studies have drawn a more differentiated picture. In their longitudinal study from grade 1 to grade 12, Jacobs et al, as cited in Brunner et al (2009) observed gender differences in mathematics self-concept to vanish over time, whereas gender differences in verbal self-concept increased in favour of females until grade 9, from which point on they seemed to decrease.

Skaalvik and Skaalvik (as cited in Dramanu & Balarabe 2013) examined the gender differences in academic self-concept and academic achievement of 907 secondary immigrant and non-immigrant adolescents. The study revealed that female immigrants and non-immigrants tended to have significantly higher self-concept and English grades, while male immigrants and non-immigrants tended to have significantly higher mathematical self-concept and mathematics grades. These findings of Skaalvik and Skaatvik

(2004) were supported by Manger and Eikeland (2006). In their study of the effects of mathematics self-concept on girls' and boys' mathematical achievement, Manger and Eikeland found that Norwegian elementary school boys showed significantly higher mathematics self-concept than girls. Boys also had significantly higher mathematical achievement scores than girls. However, controlling for mathematics self-concept produced several interesting results. First, there was no significant effect of gender on overall mathematical achievement. Second, although the gender difference in achievement favouring boys increased with increasing task difficulty, no significant effects of gender were found in sub-sample of difficult tasks. Finally, a significant effect of gender favouring girls appeared in sub-samples of easy tasks and in reutilising well-defined procedural tasks. These results indicated that mathematics performance is an important variable accounting for differences in elementary school girls and boy's mathematical achievement.

Studies on whether academic performance is influenced by gender have produced varied results. While some studies have established gender differences in academic performance, others did not. In a study Dramanu and Balarabe (2013) established a significant difference in the academic performance of male and female students from Ghanaian Junior High School. Dramanu and Balarabe stated that the gender of students correlated with the academic performance of students. Male students in the Junior High Schools in Ghana used for the study performed better than their female counterparts. In another study Zaria, Balarabe and Abdullahi (as cited in Dramanu and Balarabe, 2013) did not find any differences in performance on the grounds of

gender. The results of their study revealed that at both the university staff school and the Local Education Authority Primary Schools no significant differences existed in the academic achievement by gender ($X^2 = 2.547$, $df = 2$, $p = 0.28$; $X^2 = 0.481$, $df = 2$, $p = 0.786$) respectively. At the secondary and university levels, the results of the study were also not significant ($t = -1.789$, $df = 303$, $p = 0.077$, and $t = 0.15$, $df = 136$, $p = 0.880$ respectively). These findings of Balarabe and Abdullahi (1996) agree with the results of a study conducted by Nuthanap (2007). Nuthanap found no significant difference in the academic performance of boys and girls. The results showed that both boys and girls performed on the same level on academic achievement. Nuthanap (2007) explained that the result of the study might be because of present day competitive education in which parents provide equal opportunities and encouragement to both boys and girls. According to Nuthanap, this naturally enhances the level of aspiration, expectation which ultimately increases the competitive spirit between boys and girls.

While the research findings of Ariyo (2011) that a student's gender did not have any influence on the student's performance in physics is in line with the research findings of Balarabe and Abdullahi (1996), Nuthanap (2007) it contradicts the earlier findings of Ariyo (2011) that the gender of a student exerted causal influence on achievement in physics both directly and indirectly.

Hyde as cited in Santrock (2008) summarized the results of forty-four meta-analysis of gender differences and similarities. In most areas, including mathematics ability, communication and aggression, gender differences were either non-existent or small. The report of Hedges and Nowell as cited in

Zemba and Blume (2009) is inconsistent with the findings of Hyde. In a study, Hedges and Nowell reported that in late elementary school, females out-performed males on several verbal skills'; verbal reasoning, verbal fluency, comprehension, and understanding logical relations. Males on the other hand, out-performed females on spatial skills tasks such as mental rotation, spatial perception and spatial visualization.

In a study using visually impaired students in Kenya, Were, Indoshi and Yalo (2010) found that females performed better than their male counterparts. Using the grouped frequency formula, Were, et al (2010) found a mean score of females to be 60.864% while the male's mean score was 57.855%. When a further analysis was done on the calculation of the variance and standard deviation of the two groups, males had a variance of 18.243 and a standard deviation of 4.271. The females on the other hand, had a variance of 14.692 and a standard deviation of 3.833. This information revealed that the female students performed better on the achievement test than their male counterparts.

The results of the study of Were, et al (2010) harmonized with the findings of Brunner, Krauss and Kunter as cited by Brown and Kanyongo (2010) who examined the performance of mathematics items of students in Germany. In their study they compared gender differences in overall mathematics ability and specific mathematics ability. They found that girls slightly outperformed boys on reasoning ability but on specific mathematics ability, boys had a significant advantage over girls.

Studies have also found that males score higher than females on tests of general knowledge, mechanical reasoning and mental rotations. Females on

the other hand scored higher on language measures, including reasoning, writing assessment, (Strand, Deary & Smith as cited in Slavin 2009) and on attention and planning tasks, (Warrick & Naglieri as cited by Slavin, 2009).

Influence of Location of School (rural / urban) Areas on Academic Performance

In a study Dramanu and Mohammed (2017), established a significant differences in the academic performance of students from Urban and Rural Junior High Schools in Ghana. Dramanu and Mohammed stated that there were differences in the academic performance of students on the basis of location of schools (urban and rural). Students from Urban Junior High Schools had the tendency to perform better academically than their counterparts from Rural Junior High Schools. Similarly, Owoeye and Yara (2011) found a significant difference in the academic performance of students from urban and rural secondary schools ($t = 2.23$, $df = 48$, $P < 0.05$). The results of their study showed that students from urban secondary schools had a mean score of 1.9619, while students from rural secondary schools had a mean score of 1.7207. This shows that students from urban secondary schools performed better than their counterparts from rural secondary schools. The findings of this study are consistent with the results of a study conducted by Adepoju (2008) in Oyo. In this study Adepoju found a significant difference in the academic performance of students from urban and rural schools ($t = 2.14$, $df = 98$, $P < 0.05$). While students from urban schools had a mean score of 161.196, their counterparts in rural schools had a mean score of 126.102.

Adeyemi (as cited in Dramanu and Mohammed (2017) in a study in Ondo and Ekiti States of Nigeria found that students from urban schools in the

two states performed better than their colleagues from rural schools (chi-square value of 182.62 was greater than the table chi square value of 3.841 at 0.05 level). His analysis of the 2009 senior secondary certificate examination showed that while a total of 17,068 students from urban schools scored credits and above, 10,538 students from rural schools scored credits and above. This shows that a greater number of students from the urban schools performed better than their counterparts from rural schools. These findings by Adeyemi (2011) were congruent with findings of Etsey (2009). In his study in four regions of Ghana, Etsey (2009) analysed the 2006 Basic Education Certificate Examination (BECE) in selected districts in these regions (Western, Eastern, Greater Accra and Northern). His analysis revealed that students from urban schools in these regions performed better in Mathematics and English than their counterparts in rural schools from rural schools. The analysis showed that students from urban schools had a mean score of 56.6 in Mathematics and 55.2 in English while their counterparts had a mean score of 49.8 in Mathematics and 42.1 in English. Etsey (2009) thus concluded that children in urban districts performed better by 11 percentage points in English and 9 percentage points in Mathematics in the BECE than their rural counterparts.

The findings of Adeyemi (2011) and Etsey (2009) were in contradiction with the findings of Maliki, Ngban and Ibu (2009) who in a study in Bayelsa State of Nigeria interestingly found students from rural schools against all odds performed better in Mathematics than their counterparts from urban schools ($t = 12.51$, $df = 598$, $P < 0.05$). Their findings showed that while students from rural schools had a mean score of 31.81, their urban counterparts had a mean score of 25.36.

In an attempt to find out how the neighbourhood affects the academic achievement of boys and girls, researchers have reported greater effects of the neighbourhood on boys than girls. The reason for this difference according to the researchers may result from the fact that boys spend more time in the neighbourhood than girls (Leventhal & Brooks-Gunn, 2000).

Teacher-Student Relationship and Academic Performance

The quality of the interactions that students have with their teachers predicts later academic success (Pianta, Steinberg & Rollins, 2002). They stated that teachers shape student experiences in school. Beyond the traditional role of teaching academic skills, teachers regulate student activity level, teach communication skills, provide opportunities for students to form peer relations, provide behavioural support, and teach coping skills. Teachers have multiple roles and spend a large amount of time with students. They stated that when teachers have close and positive relationships with students, they are more motivated to spend extra time and energy promoting student success. But when teachers have conflictual and negative relationships with students, they more frequently attempt to control student behaviour and thus hinder efforts to promote a positive school environment for them (Pianta et al., 2002; Hamre & Pianta, 2001).

Furthermore, Hamre and Pianta (2001) stated that students react to their relationships with their teachers. When students perceive that they have close and positive relations with teachers, they are more inclined to trust and like those teachers and thus are more motivated to succeed. In contrast, when students perceive that they have conflictual and negative relationships with teachers, they do not like or trust the teachers, are not motivated to succeed

and may be defiant towards the teachers (Pianta et al, 2002; Hamre & Pianta, 2001).

Many studies have reported that the quality of the relations between teachers and students was associated with student academic performance. Birch and Ladd (1997) found that kindergarten students who had a close and positive relationship with teachers performed better on the Metropolitan Readiness Tests (MRT), which measured the students' letter recognition, visual matching, school language and listening and quantitative language skills. Burchinal et al. (2002) examined preschool through second grade students and found that the correlation between close relationships and higher language skills occurred only for African-American children and only for children with authoritarian parents. Hamre and Pianta (2001) examined the influences of conflictual and negative teacher-student relations on kindergarteners' achievement. Hamre and Pianta (2001) found that students with negative teacher relationships at kindergarten received lower math and language grades and received lower achievement test scores as measured by the Iowa Test of Basic Skills (ITBS) eight years later. Another study examined the influences of negative teacher-student relationship on academic performance among a sample of high school students and found that negative student-teacher relationships were associated with higher school dropout rates for students in the eighth through twelfth grade (Lan & Lanthier 2003).

Overall, multiple studies (Birch & Ladd, 1997; Burchinal et al., 2002; Hamre & Pianta, 2001; Lan & Lanthier, 2003) suggested that the quality of the relationships between teachers and students influenced student academic performance. The specific associations have not been consistent across

studies, however. Some studies reported statistically significant positive associations between close teacher-student relations and academic performance, but no significantly negative associations between conflictual teacher-student relations and academic performance (Birch & Ladd, 1997; Burchinal et al., 2002). Other studies reported statistically significant negative associations between conflictual teacher-student relations with academic performances, but no significantly positive associations between close teacher-student relations and academic performance (Hamre & Pianta, 2001; Lan & Lanthier, 2003). The association between the teacher-student relations and student academic performance is complex, and may differ across students and classrooms characteristics.

First, the influence of the teacher-student relations on student academic performance may vary across grade levels. Generally, students in later grades are beginning to value peer interactions and relations more. Lynch and Cicchetti (1997) found that older students have more positive perceptions of their peer relations than of their relations with parents or teachers. The effects of the teacher-student relations on academic performance found in younger students may be different for older students.

Second, the effects of teacher-student relations on student academic performance may vary as a function of classroom characteristics. Students are developmentally influenced by their ecological context, and classrooms are the primary context in which students develop at school. Students spend a large amount of time interacting within classrooms; hence, the microsystem (i.e., classroom interactions) is instrumental to their academic development (Bronfenbrenner, 1989). However, the examination of whether classroom

context moderates the association between teacher-student relationship and student achievement has yet to be explored.

In a comprehensive review of studies of how elementary and secondary level students learn best, Walberg (1991) concluded that caring interaction between teachers and students is vital to student academic performance. Walberg explained that students who perceive their classroom morale as friendly, satisfying, goal-directed and challenging tend to learn more and thus perform creditably. Those who perceive students cliques, disorganization, apathy, favouritism and friction learn less. This assertion was buttressed by Pressley and McCormick (1995). They opined that students who perceive themselves in classrooms that encouraged incremental improvements use more strategies, seemed more open to challenging tasks, were more positive about their classes and were more likely to believe that improvements follow effort.

Hamre and Pianta (2005) in assessing classroom processes using the Classroom Observational System found that by the end of the first grade, children identified as at-risk based on demographic characteristics (that is maternal education) and functional characteristics (that is behavioural, attention, academics and social) and whose classrooms were rated in the Spring as high in instructional and emotional support showed gain in academic performance. This finding is consistent with the suggestion of Murdock and Miller as cited by Fast, Lewis, Bryant, Bocian, Cardullo, Rettig and Hammond (2010); Patrick, Ryan and Kaplan, (2007) that students who perceive their teachers as caring are more likely to view themselves as academically capable, and set higher educational goals for themselves.

Positive relationship between students and teachers it has been suggested provides a critical developmental resource for children. This is so, because students are more likely to seek help when they need it and develop a wide range of competencies when they feel emotionally supported by teachers (Crosnoe, Johnson & Elder, 2004). Pianta, Belsky, Vandergrift, Houts and Morrison (2008) found that fifth-grade students had higher performance on mathematics tests when their classrooms were rated higher in emotional support. In addition, the effect of emotional support on mathematics achievement according to them was larger than was the effect of the quality of mathematics instruction.

In order for teachers to create classroom environment that is caring, the National Council of Teachers of Mathematics (as cited in Patrick, and Ryan (2003:4) advocated that students be:

Encouraged to share their ideas and to seek clarification until they understand ... To achieve this kind of classroom, teachers need to establish an atmosphere of mutual trust and respect ... when teachers build such an environment, students understand that it is acceptable to struggle with ideas, to make mistakes, and to be unsure. This attitude encourages them to participate actively in trying to understand what they are asked to learn because they know that they will not be criticized personally, even if their mathematical thinking is critiqued.

Evidence in the literature also suggests that teacher understanding and helping friendly behaviours, which involve caring and concern for students,

recognition, and listening significantly and positively relate to fifth grade students' academic enjoyment, liking for mathematics, positive attitudes towards learning mathematics and achievement outcomes (Goh and Fraser as cited in Gonul-Sakiz, 2007). Pierce as cited in Gonul-Sakiz (2007) posited that sincere listening to students' ideas on diverse topics, sharing their enthusiasm in what they value, and talking about things that are bothering them all serve to increase academic engagement and performance of at-risk students in urban middle school environment.

A year analysis of at-risk students' performance outcome in a seventh-grade geography classroom provided evidence that teacher's active and sincere listening accompanied by caring concern for an interest in students, encouragement, and respect increased students' academic performance in geography class (Pierce as cited in Gonul-Sakiz, 2007). These factors according to Pierce, also reduced behavioural problems encountered in the classroom environment, stimulated the feeling of safety and security, increased students' positive school attitude, led to higher classroom attendance, work-completion and greater academic enjoyment.

Pierce's proposition agrees with the argument that affectively positive relationship with teachers and classmates promote a sense of school belonging and a positive student identity. This in turn engenders the will to participate cooperatively in classroom activities and to try hard and persist in the face of challenges (Hughes, Luo, Kwok & Loyd, 2008).

The importance of a caring relationship between teachers and students and the influence of caring interactions on students' academic performance was examined closely in an educational review by Hoy and Weinstein (2006).

Citing the ethnographic work of Valenzuela, (1999) at a high school in California with Latino high school students, Hoy and Weinstein asserted that there was a strong connection between cared for and caring about. The study of Valenzuela showed that when students, especially those who are economically and culturally disadvantaged and at-risk of school failure, feel that they are being cared for by their teachers, they show more concern and care about their school and school work. These findings by Valenzuela (as cited in Hoy and Weinstein 2006) are in harmony with the assertion by Daniels, et al (as cited in Tella 2007) that when teachers are caring and supportive and emphasize the teaching-learning process over the performance outcomes, and when they give feedback, children tend to be motivated to achieve and to expect success.

There is considerable evidence suggesting that the relationship between teacher and students can affect student performance and other educational outcomes. Agba, Iko and Ashibi, (2010) in a study in the Calabar metropolis of Nigeria reported that teacher-student relationship influences to a large extent the performance of students in accounting ($r=0.988$, $df = 878$, $p<0.05$). The findings of Agba, et al (2010) agreed with the report by Abang as cited in Agba, et al (2010) that teachers provide the stimulus that produces the various forms of relationships that exist within the classroom. These relationships according to Abang as cited in Agba et al (2010) influence the attitude developed by the students as well as their performance in the subject taught. A warm, friendly, sympathetic and caring teacher evokes a positive classroom perception.

Studies by Forsbach, Yanowitz and Fiola as cited in Dramanu and Balarabe, (2013) provide evidence that there is a relationship between teacher support and African American adolescent school performance. Their findings generally support the notion that positive teacher-student relationships increase the likelihood of higher student performance among African American youth. The findings of Forsbach, et al (2002) have been affirmed by Hughes, Luo, Kwok and Loyd (2008) who in a three year longitudinal study of first grade students found evidence of reciprocal causal effects between teacher-student relationship quality and student effortful engagement.

Floyd as cited in Clayton (2008) in a study of low income high-achieving African-American high school seniors, who were successful in school, found out that even though the students reported that parental support was more influential, a number of the participants noted that certain teachers provided specific types of support (good relationship). These specific types of support according to the students had a significant influence on their school performance. In the final analysis Floyd concluded that the good relationship established by the teachers confirmed students' ability to achieve (academic performance) and also challenged the students to meet and exceed expectations. Floyd's findings are consistent with that of others (Croninger & Lee, 2001) that suggest that teacher student relationship can be a critical factor in the lives of students whose socio-economic status places them at increased risk for poor school performance.

Effects of Classroom Management on On-Task Behaviour

Currently, a large portion of teachers use consequent rather than antecedent methods of classroom management (Clunies-Ross, Little &

Kienhuis, 2008; Little & Akin-Little, 2008). Consequent methods are used after a child has exhibited an undesired or inappropriate behaviour in an attempt to remediate that behaviour. Examples of consequent methods include correcting the child, removing privileges, or reprimanding the child. Teachers who primarily use consequent classroom management methods are more likely to respond to inappropriate behaviours than appropriate behaviours (Clunies-Ross, Little & Kienhuis, 2008).

While certain situations may necessitate the use of consequent methods, using antecedent methods provides for a larger portion of class time to be used for academic instruction and activities rather than disciplinary actions for individual students (Little & Akin-Little, 2008). Furthermore, research suggests that using antecedent methods of classroom management eliminates most inappropriate classroom behaviours and increases the students' attention to the lesson and appropriate academic activities (Clunies-Ross et al., 2008).

Effects of On-Task Behaviour on Student Learning

A major mediating factor between student learning and classroom management is student engagement. According to Simonsen, Fairbanks, Briesch, Myers, and Sugai (2008), classrooms that are more structured tend to facilitate more appropriate social and academic behaviours. Similarly, research has demonstrated the link between the use of effective classroom management strategies and many positive outcomes, including increased on-task behaviour and academic engagement (Leflot et al., 2010; Reinke, Lewis-Palmer, & Merrell, 2008).

According to Coddling and Smyth (2008), there is a strong positive relationship between the amount of time a student spends actively engaged in learning and student's academic performance. Furthermore, students who spend more time engaging in academic activities often read at higher levels, are better writers, and perform better on standardized tests (Bohn, Roehrig, & Pressley, (2004).

According to the American Psychological Association (APA; 1993), aggression and disruptive classroom behaviour in early childhood contribute to low school performance and inadequate peer relations. Unstructured classroom time increases the likelihood of disruptive behaviour (Little & Akin-Little, 2008), and disruptive behaviour can occupy time reserved for teaching and learning, which directly impacts academics and student performance (Clunies-Ross et al., 2008; Freiberg, Huzinec, & Templeton, 2009).

In order to prevent the likelihood that these disruptive behaviours occur, Little and Akin-Little (2008) contended that academic activities should account for at least seventy percent of classroom time. Based on this research, it would be reasonable to hypothesize that the use of effective classroom management strategies may have a functional relationship with student academic performance. However, although these relationships have been demonstrated, studies controlling for the effect of teacher instruction are scarce (Coddling & Smyth, 2008; Dobbs-Oates, Kaderavek, Guo, & Justice, 2011).

Chapter Summary

This chapter has discussed in detail, literature related to classroom management strategies that teachers employ in their classrooms and their influences on academic performance of students. The key issues highlighted in this chapter included; classroom management strategies teachers' use in their classrooms and how these strategies influence academic performance. Gender differences in academic performance of students, influence of location of school on academic performance, teacher-student relationship and its influence on academic performance. In the context of literature review, the view points and perspectives of several scholars have been used. The contributions of these scholars have provided empirical evidence to the literature available as far as classroom management strategies of teachers and student's performance is concerned. Majority of these literature were not Ghanaian based and therefore the need to conduct more studies that can describe the situation in Ghana. This chapter showed that the success or failure of improving performance depends mostly on adopting appropriate classroom management strategies to manage student's behaviours in Ghanaian classrooms.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter focuses on the methods used in collecting data for the research. It includes the research design, population, sample and sampling technique, instruments, data collection procedure and data analyses as well as the reasons why such design and methods were adopted for this study.

Research Design

Yin (2015) described research design as the structure which guides collecting and subsequently analysing data or as the techniques for doing this. The study collected and subsequently analysed data to examine the influence of classroom management strategies public Junior High School teachers adopted on academic performance of their students in the Asante Akyem North District in the Ashanti Region. This invariably involves finding out the opinions of students on how the classroom management strategies adopted by their teachers influenced their academic performance. Against this background, the descriptive survey design was adopted for this study. The descriptive survey design was again adopted because it produced good responses from a wide range of people (students and teachers). At the same time, it provided a meaningful picture of events and explained students opinions and behaviours on the basis of the data gathered (Best & Khan, 2016). Moreover, the researcher described, explained and interpreted the form of relationships and the extent to which the various strategies predicted

academic performance of students. As an addendum, since a descriptive survey design is concerned with conditions, practices, structures, differences or relationships that exist, opinions held, processes that are ongoing or trends that are evident (Creswell, 2015), a better approach could not have been selected for this purpose. The descriptive survey was again adopted because it was very useful in collecting data from a large number of students (297) and teachers (48) in a relatively short period of time and at a better cost. It was again prudent to choose this design because it aided in the identification of the variables that existed in a given situation (classroom management strategies and academic performance of students in both rural and urban areas), and described the relationships that existed between these variables (Springer, 2010).

Population

A population is the total of all the individuals who have certain characteristics and are of interest to a researcher (Kitchenham, Dyba & Jorgenson 2004). The target population was all form two teachers and form two students in public Junior High Schools in the Asante Akyem North District of the Ashanti Region totalling 426 and 1292 respectively (GES, Asante Akyem North District, 2018). The accessible population was all Junior High School form two teachers teaching the core subjects in public schools and all second year public Junior High School students in 12 selected schools in the Asante Akyem North District. The total number of teachers teaching the core subjects (English, Mathematics, Social Studies and Integrated Science) as well as Junior High School form two students in the 12 selected schools in the district was 179 and 348 respectively. (GES, Asante Akyem North District, 2018).

Teachers teaching English, Mathematics, Social Studies and Integrated Science were used for the study. This was because they taught the core subjects studied by all students in all basic school and hence there was the need to identify the classroom management strategies they adopted. Moreover, Junior High School form two (2) students were specifically targeted because the Junior High School form one (1) students were new in their schools whilst form three (3) students were also busy preparing for their final Basic Education Certificate Examination (BECE). It was assumed that the form two (2) students would be able to read and respond appropriately to the items on the research instruments with little or no guidance. Tables 1 and 2 show the breakdown of the accessible population of urban and rural schools.

Table 1- *Breakdown of the Accessible Population of Urban Schools*

Name of School	N°. of Students	Male	Female
Akutuoaase Presby	42	21	21
Domeabra SDA	46	22	24
Hwidiem D/A	57	22	35
Juansa Methodist	43	20	23
Ananekrom D/A	43	21	22
Brako D/A	38	18	20
Total	269	124	145

Source: GES, Asante Akyem North District, 2018.

Table 2- *Breakdown of the Accessible Population of Rural Schools*

Name of School	N°. of Students	Male	Female
Asenkyem D/A	9	8	1
Mennam D/A	15	9	6
Pataban D/A	15	7	8
Woraponso D/A	13	9	4
Serebuoso D/A	10	3	7
Behwe Dawereso D/A	17	7	10
Total	79	43	36

Source: GES, Asante Akyem North District, (2018)

Sample and Sampling Procedure

Sample and sampling procedure are crucial issues in qualitative and quantitative research, which seeks to make statistically based generalisations from the study results to the wider world (Fox, Hunn & Marthers, 2007). According to Fox, Hunn and Marthers (2007), to generalise in this way, it is essential that both the sampling method used and the sample size are appropriate, such that the results are representative, and that the statistics can discern associations or differences within the results of a study.

In this regard, 48 teachers and 297 students were selected for the study. In all, a total of 345 participants were involved in the study. This sample size was selected with the help of Krejcie and Morgan (1970) table for determining sample size from a known population. According to them, a target population of about 1292 should have a sample size of at least 297.

The multistage sampling technique was used to select the participants for the study. First, all public Junior High Schools in the Asante Akyem North District totalling 48 were grouped into eight circuits. Six circuits out of eight were purposively selected for the study. These circuits were selected because they had both rural and urban areas for comparison purposes. Two schools each from the six circuits; one from rural area and the other from urban centre were randomly selected. This was so because the schools found in rural areas had similar characteristics so as those in urban centres. In all 12 schools; 6 from rural areas and 6 from urban centres were used for the study. The teachers who taught the four core subjects from the 12 schools were all purposively selected to participate in the study. This approach was adopted because the study used the core subjects as proxy to academic performance

and these teachers taught the subjects. The total number of teachers who participated was 48.

In selecting the students for the study, the proportional sampling technique was used. The researcher divided the Junior High School form two population of each selected school by the total population of all the Junior High School form two students in the selected schools and multiplied it by the total sample size needed for the study. This helped the researcher to obtain a proportional representation from the participating schools. The researcher adopted this sampling technique because it was observed that the schools found in urban centres had more form two (2) students than those in the rural areas. After obtaining the total number of students to be selected from each school, they were put into two groups (male and female). The researcher then used the lottery sampling method to select a proportional number of boys and girls from each school. This was done by letting both boys and girls pick yes or no papers separately. This sampling procedure was used because there was the need to select a proportional number of males and females to participate in the study. Students who picked yes were used for the study in each school. Below is the formula used to select the sample size proportionately from the accessible population.

$$S = \frac{m}{M} \times N \quad \text{Where}$$

S represents the number of students selected from each school

m represents the total population of form two students in each school

M represents the total population of form two students in all the 12 selected schools

N represents the total number of students needed to conduct the study

Tables 3 and 4 show the breakdown of the sample size of the students.

Table 3 - *Breakdown of the Sample Size of Urban Schools*

Name of School	N ^o . of Students Selected	Male Students Selected	Female Students Selected
Akutuoase Presby	$42 \div 348 \times 297 = 36$	$21 \div 348 \times 297 = 18$	$21 \div 348 \times 297 = 18$
Domeabra SDA	$46 \div 348 \times 297 = 39$	$22 \div 348 \times 297 = 19$	$24 \div 348 \times 297 = 20$
Hwidiem D/A	$57 \div 348 \times 297 = 49$	$22 \div 348 \times 297 = 19$	$35 \div 348 \times 297 = 30$
Juansa Methodist	$43 \div 348 \times 297 = 36$	$20 \div 348 \times 297 = 17$	$23 \div 348 \times 297 = 19$
Ananekrom D/A	$43 \div 348 \times 297 = 36$	$21 \div 348 \times 297 = 18$	$22 \div 348 \times 297 = 18$
Brako D/A	$38 \div 348 \times 297 = 32$	$18 \div 348 \times 297 = 15$	$20 \div 348 \times 297 = 17$
Total	228	106	122

Source: Field Survey, (2018)

Table 4 - *Breakdown of the Sample Size of Rural Schools*

Name of School	N ^o . of Students Selected	Male Students Selected	Female Students Selected
Asenkyem D/A	$9 \div 348 \times 297 = 8$	$8 \div 348 \times 297 = 7$	$1 \div 348 \times 297 = 1$
Mennam D/A	$15 \div 34 \times 297 = 13$	$9 \div 348 \times 297 = 8$	$6 \div 348 \times 297 = 5$
Pataban D/A	$15 \div 34 \times 297 = 13$	$7 \div 348 \times 297 = 6$	$8 \div 348 \times 297 = 7$
Woraponso D/A	$13 \div 34 \times 297 = 11$	$9 \div 348 \times 297 = 8$	$4 \div 348 \times 297 = 3$
Serebuoso D/A	$10 \div 34 \times 297 = 9$	$3 \div 348 \times 297 = 3$	$7 \div 348 \times 297 = 6$
Behwe Dawereso D/A	$17 \div 34 \times 297 = 15$	$7 \div 348 \times 297 = 6$	$10 \div 348 \times 297 = 9$
Total	69	38	31

Source: Field Survey, (2018)

The figures obtained in Tables 4 and 5 were rounded up to the nearest whole. This was so because the study used human subjects.

Data Collection Instruments

The instruments used to collect data for the study were academic performance tests in the four core subjects studied at the Junior High Schools in Ghana and the Behavioural and Instructional Management Scale (BIMS) by Martin and Sass (2010). The standardised scale which originally had 24 items with Cronbach's alpha coefficient of 0.83 was adapted for the study (Sass, Lopes, Oliveira & Martin 2016). The scale was used to assess classroom management strategies teachers employed. This scale is a psychometrically reliable instrument that measures a teacher's insight into their style of classroom management. The scale contained items of recommended classroom management concepts: Behavioural Management and Instructional Management strategies. A five-point answer scale ranging from "strongly disagree" to "strongly agree" was employed for scoring. The scale was adapted for both teachers and students. The scale for teachers and students had two sections. Section A had 5 items and focused on the demographic data of teachers. Section B contained 25 items on classroom management strategies teachers employ in their classrooms. The scale for students was divided into two sections. Section A was composed of 3 items which focused on demographic data of the students. Section B addressed classroom management strategies. The scale for students had 37 items.

Academic performance tests were administered to measure students' performance. The test items were constructed by the Centre for Performance Monitoring and Evaluation, a consultancy centre in Accra and were based on

the Junior High School two syllabi in Mathematics, English Language, Social studies and Integrated science. The mean score of each pupil in the four subjects were computed and used as the academic performance of the students.

Academic Performance Test: Mathematics

This was a forty-five minutes test and was made up of thirty (30) objective items. The test items were made up of a stem and four options from which the respondents were expected to select the correct response. All the test items carried equal marks and were scored out of one hundred marks

Academic Performance Test: English Language

This test consisted of four sections (A-D) and had thirty (30) items. Section 'A' required students to choose the option which most suitably completed each sentence. This section had fifteen items. There were five items in Section 'B'. These focused on synonyms. Items in section 'C' required students to choose from the options the word or phrase that best explained the underlined group of words. Section 'D' contained antonyms. All the items on the test carried equal marks and were scored out of one hundred. The test was written within forty-five minutes.

Academic Performance Test: Social Studies

This test consisted of twenty-five items. The items had a stem and four options from which the respondents selected the most appropriate answer. The test was written within thirty minutes and was scored out of one hundred marks

Academic Performance Test: Integrated Science

This assessment test was made up of 25 objective items. Each of the items consisted of the stem and four options from which the respondent

selected the most appropriate option that met the demand of the stem. The test was written in thirty minutes and was scored out of one hundred

Validation of Research Instruments

In order to determine both the face and content validity of the BIMS, it was given to my supervisors for their assessment, comments and suggestions. The academic performance tests in Mathematics, English language, Social Studies and Integrated Science were constructed by the Centre for Performance Monitoring and Evaluation, a consultancy organisation in Accra that constructs test items for Junior High Schools in Ghana.

Pilot Study

The Behavioural and Instructional Management Scale (BIMS) was pilot tested at Agogo Presbyterian Basic School 'B' and Adiemra D/A Junior High Schools all in the Asante Akyem North District of the Ashanti Region of Ghana on 12TH March, 2019. This exercise was done to establish the internal consistency reliability of the instrument. This was done in order to identify if there were any difficulty, ambiguity, poorly worded items or if instructions to the respondents were not clear. Any reported ambiguity or difficulties in the items were corrected before the final instrument was administered for data collection.

The instruments were administered to forty five (45) Junior High School form two students 25 from Agogo Presbyterian Basic 'B' School and 20 from Adiemra D/A Junior High School. The BIMS for teachers was also administered to fifteen (15) public Junior High School form two teachers who were teaching the core subjects in the schools. The choice of forty five (45) Junior High School form two students and fifteen (15) teachers was because

the researcher felt they could help strengthen the instruments for the study. The data was subjected to computer analysis to establish a Cronbach's Alpha. The results of the pilot tests are shown in Table 5 below.

Table 5-Reliability Measures of BIMS Scales for Teachers and Students

Scales	Cronbach's alpha coefficient
BIMS for Teachers	0.90
BIMS for students	0.67

Source: Field Survey, (2018)

The results in Table 5 showed that the values obtained from the analysis of the pilot study were above the minimum acceptable reliability alpha value of 0.6. On this basis, the BIMS for teachers and students were used to collect data for the study.

Data Collection Procedures

Permission was sought from the District Directorate of Education to visit the schools. After the initial visit, a rapport was established to afford the researcher the opportunity to carry out the research. Permission was also sought from the head teachers to meet the pupils. The researcher personally administered the instruments with two trained research assistants. At each of the Junior High School selected for the study, all the selected pupils were gathered in a classroom. The purpose of the study was explained to them after which the research instruments were distributed to them.

Data was collected through the use of pseudonyms. The researcher and the assistants first numbered the pupils who participated in the study as well as the Behavioural and Instructional Management Scale (BIMS) and ensured that the BIMS was answered according to the order of the arrangement. The same

arrangement was used to conduct the test. This was done to allow the same pupil who answered the BIMS numbered one also answered the academic performance test instruments numbered one in all the four core subjects.

On the first day, the academic performance test in mathematics was the first test administered. It was followed by the academic performance test in English Language. A break time of fifteen minutes was given to students. The respondents were expected to spend 45 minutes each on the Mathematics and English Language tests. Teachers were given the BIMS to complete on the first day.

On the second day, the academic performance tests in Social Studies and Integrated Science were administered to the respondents. The final instrument that was administered was the BIMS for students. The respondents were expected to spend 30 minutes on each of the tests and 25 minutes on the BIMS. The researcher and the two assistant researchers spent eight days to finish administering the instruments.

Scoring of Instruments

The items on the Academic Performance Tests in Mathematics, English Language, Social Studies and Integrated Science tests were scored out of one hundred (100) marks. Each of the test items on the Social Studies and Integrated Science had a maximum score of four (4). In these tests, a student could score a maximum of 100, (4×25) marks and a minimum of zero 0, (0×25) . The test items on the Mathematics and English Language was scored by dividing the obtained mark of the student by 30 and multiplied by 100. On this test, a student can score a maximum of 100, $[(30 \div 30) \times 100]$ marks and a minimum of zero 0, $[(0 \div 30) \times 100]$. The mean score of each student in the four

subjects was computed and used as proxy for the academic performance of the student.

Data Analysis Procedures

The study employed a number of statistical tools to facilitate the organization, analysis and interpretation of the data collected. Simple percentages and frequencies were used to analyse items on the questionnaire that focused on the demographic data of respondents. Specifically, section A was analysed using simple percentages and frequency tables. Descriptive statistics such as means and standard deviations were used to explain responses and inferences were drawn to answer research question one. The Multiple regression was used to analyse data used to answer research question two. The first hypothesis was tested using Pearson's Product Moment Correlation Coefficient (PPMCC). This allowed the researcher to examine the relationship between academic performance and classroom management strategies (CMS) Junior High School teachers adopted. It also helped the researcher to explore the forms of these relationships and determined the strength of the influence of the strategies on academic performance. Hypotheses two, three, four and five were tested using the independent samples t-test. This test was chosen to examine the differences between the groups (male/female, rural/urban) students and teachers with regard to academic performance and classroom management strategies (CMS) teachers employed.

Ethical Issues

This part spells out the ethical standards that were observed in the study. Much of the discussion is devoted to how those standards were

observed by means of protecting data confidentiality and careful scrutiny of the data released to other researchers and the public. Participants were not forced to take part in the study so their participation were based on their willingness to respond to the questions. They were assured that any information they provided would be kept confidentially and would be used for academic purpose only. Again participants were told not to indicate their names on the instruments and the test papers to ensure anonymity.

The instruments were submitted to the Institutional Review Board of the University of Cape Coast (IRB) for approval before they were administered. The privacy and confidentiality of participants were considered by not revealing any participant's response or identity to any person.

Plagiarism is one of the ethical issues observed. There was no theft or misappropriation of intellectual forgery of any form or the substantial unattributed copying of another's work. All articles, theories and instruments that were used in this study, which were properties of other people were duly recognised and acknowledged. As addendum, there was no falsification of any kind. There was no manipulation of any research material, instruments, processes and changing of results or omitting results to give a non-accurate data in the research records.

In sum, the researcher was very vigilant about the issues that could bring doubt about to the authenticity of the study and therefore considered seriously the ethical standards that safeguard the conduct of research.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results and discussion of the study. All data gathered for the study were organized, analysed and followed by discussions of key issues relating to the findings of the study. The main objective of the study was to find out the classroom management strategies that public Junior High School teachers in the Asante Akyem North District employ most in their classrooms and how these strategies influence academic performance of their students.

Two research questions and five hypotheses framed this study. These were the: classroom management strategies mostly employed by teachers in public Junior High Schools in the Asante Akyem North District, the extent to which classroom management strategies (Reinforcement, Antecedent, Good relationship and Punishment) influenced academic performance of students in public Junior High Schools in the Asante Akyem North District, relationship between classroom management strategies adopted by teachers in public Junior High Schools and academic performance of students in the Asante Akyem North District, whether the classroom management strategies adopted by teachers in public Junior High Schools in the Asante Akyem North District differed on account of location, whether the gender of teachers in public Junior High Schools in the Asante Akyem North District influenced the classroom management strategies they adopted, whether there were

differences between the academic performance of male and female students, whether location of school (rural/urban) influenced the academic performance of students.

In all, 48 teachers and 297 students participated in the study, bringing to a total of 345 respondents. Two research questions and five hypotheses formed the basis on which the data collected were analysed. The analysis covered the demographic data of the respondents, the research questions and the hypotheses.

Section A: Demographic Data

This part of the analysis looked at the bio data of the participants in the study. This was put into two categories namely; teachers bio data and students' bio data.

Teachers' Demographic Data

The first variable considered here was gender of the respondents. Below is a tabular representation of their response.

Table 6 - *Gender Distribution of Teachers*

Gender	Frequency	Percent
Male	23	47.9
Female	25	52.1
Total	48	100.0

Source: Field Survey, (2018)

Table 6 presents the gender of teachers who took part in the study. Results show that females dominated the study with a frequency of 25 respondents, representing 52.1% whereas males were 23 respondents, representing 47.9%.

The next demographic data considered by the study was the age of teachers who took part in the study. Table 7 presents the results.

Table 7- *Age Distribution of Teachers*

Age	Frequency	Percent
18-24	5	10.4
25-30	30	62.5
31-35	8	16.7
36-40	4	8.3
41-45	1	2.1
Above 45	0	0
Total	48	100.0

Source: Field Survey, (2018)

As shown in Table 7, most of the teachers were within the age group 25-30 with a frequency of 30 respondents, representing 62.5%, followed by the 31-35 year group whose frequency was 8 respondents, representing 16.7%, then 18-24 year group with a frequency of 5, representing 10.4%, those within the age group 36-40 years followed with a number of 4 respondents, representing 8.3% and only 1 respondent for 41-45 years representing 2.1%. No respondent was above 45 years.

The academic qualification of the teachers was also determined by the researchers. This is indicated in Table 8.

Table 8 - *Academic Qualification of Teachers*

Academic Qualificatio	Frequency	Percent
Diploma	32	66.7
First Degree	16	33.3
Masters	0	0
Total	48	100.0

Source: Field Survey, (2018)

From Table 8, two basic qualifications were attained by the respondents with Diploma dominating with the frequency of 32 respondents (66.7%) whereas first degree holders were only 16 representing 33.3% of the respondents. No respondent, however, had Masters qualification.

The researcher again considered the location of the teachers. The results are presented in table 9.

Table 9 - *Location Distribution of Teachers*

Location	Frequency	Percent
Rural	24	50
Urban	24	50
Total	48	100

Source: Field Survey, (2018)

The results from Table 9 show that 24 teachers representing 50% were selected from rural areas. Equally 24 teachers representing 50% were also chosen from urban centres in the district. This means that there was an equal distribution of teachers from both rural and urban areas.

Bio data of Students

The gender of students who took part in the study was also determined by the researcher. Table 10 presents the results.

Table 10 - *Gender Distribution of Students*

Gender	Frequency	Percent
Male	144	48.5
Female	153	51.5
Total	297	100.0

Source: Field Survey, (2018)

As indicated in Table 10, 153 of the respondents were females representing 51.5%, whereas males were 144, representing 48.5%. This means that females were more than males in the student sample.

The next demographic data considered was the age of the students who took part in the study. The results from the analysis are as indicated in Table 11.

Table 11 - *Age Distribution of Students*

Age	Frequency	Percent
Below 14	181	60.9
Above 14	116	39.1
Total	297	100.0

Source: Field Survey, (2018)

The ages of students were put into two categories; students below 14 years and those who were 14 and above years. Results show that students below 14 years were 181, representing 60.9% whereas those who were 14 and

above years were 116, representing 39.1%. This means that students who were below 14 years were more than students who were 14 and above years in the student sample.

The last demographic data considered was the location of the students who took part in the study. The results are shown in Table 12.

Table 12 - *Location Distribution of Students*

Location	Frequency	Percent
Rural	69	23.2
Urban	228	76.8
Total	297	100

Source: Field Survey, (2018)

As shown in Table 12, 69 students representing 23.2% who participated in the study were from rural areas whereas 228 students representing 76.8% were selected from urban centres in the district. This means that students from urban centres who participated in the study were more than those from rural areas. This was so because the form two students' population in urban areas in the district was greater than those in the rural areas hence this proportional sample selection.

Section B: Analysis of Main Data

Research Question 1

What classroom management strategies are mostly employed by public Junior High School teachers in the Asante Akyem North District?

Research question one was intended to identify the classroom management strategies mostly adopted by teachers in public Junior High

Schools in the Asante Akyem North District. Both students and teachers responded to the items on the BIMS that provided responses to this question. The items on the BIMS were categorised as reinforcement, antecedent, good relationship and punishment. The result of the analysis is presented in Tables 13 and 14 respectively.

Table 13 - *Analysis of Results from students perspective of mostly used*

Classroom Management Strategies

CMS	N	M	SD	Rank
Good relationship	48	4.33	.67	1 st
Reinforcement	48	4.22	.66	2 nd
Antecedent	48	4.00	.72	3 rd
Punishment	48	2.78	.83	4 th
Overall mean		3.80	2.88	

Source: Field Survey, (2018)

The results in Table 13 revealed an overall mean of 3.80 and a standard deviation of 2.88 as the mostly used classroom management strategy from student's perspective. The study results revealed that "good relationship strategy" ($M=4.33$, $SD=.67$) was agreed by students as a classroom management strategy mostly used by their teachers and was ranked 1st. It was found that "reinforcement strategy" ($M=4.22$, $SD=.66$) was mentioned by students as the second most used classroom management strategy. It was observed further that "antecedent strategy" ($M=4.00$, $SD=.72$) was agreed by students as the third used classroom management strategy. However, "punishment" ($M=2.78$, $SD=.83$) was submitted by students as the least classroom management strategy used by their teachers.

Teachers were required to indicate the classroom management strategies they mostly used. The data presented in Table 14 is a summary of their responses.

Table 14 - *Analysis of Responses by teachers on the mostly used Classroom Management Strategies*

CMS	N	M	SD	Rank
Good relationship	297	4.01	.69	1 st
Reinforcement	297	3.85	.68	2 nd
Punishment	297	3.65	.69	3 rd
Antecedent	297	.50	.06	4 th
Overall mean		3.02	0.53	

Source: Field Survey, (2018)

The results in Table 14 showed an overall mean of 3.02 and a standard deviation of 0.53 from the perspective of teachers on the classroom management strategies mostly used in their classrooms. It was revealed that “good relationship strategy” ($M=4.01$, $SD=.69$), “reinforcement” ($M=3.85$, $SD=.68$), “punishment” ($M=3.6$, $SD=.69$) were mostly used by teachers as classroom management strategies in their classroom. “Antecedent” ($M=.50$, $SD=.06$) was least used by the teachers. It can be concluded that teachers perceived antecedent as the least classroom management strategy used in the classroom.

Research Question 2

To what extent do classroom management strategies influence academic performance of public Junior High School Students in the Asante Akyem North District?

Research question two sought to find out the extent to which classroom management strategies influenced the academic performance of students in public Junior High Schools in the Asante Akyem North District. To answer the question, Multiple regression was used. The results of the analysis are presented in Table 15.

Table 15 - *Analysis of Results of Influence of Classroom Management*

Strategies on Academic Performance of Junior High School students

Variables	R	R ² Change	t-value	p. value
Constant			10.661	.000
Reinforcement	.283	.080	-4.844	.000
Punishment	.065	.041	3.703	.000
Antecedent	-	-	.187	.852
Good relationship	-	-	-.883	.378

Source: Field Survey, (2018) Dependent variable-test scores

The results in Table 15 showed that reinforcement as a classroom management strategy significantly predicted academic performance of students ($R = .283, p < 0.05$). This implies that reinforcement strategy accounted for 8.0% of the variation in academic performance of Junior High School students. It was also found that punishment as a classroom management strategy significantly influenced academic performance of students ($R = .065, p < 0.05$). Punishment as a classroom management strategy explained 4.1% of the variation in the academic performance of Junior High School students. However, antecedent and good relationship as classroom management strategies were found not to significantly influence academic performance of students.

Hypothesis 1

H₀: There is no statistically significant relationship between classroom management strategies adopted by public Junior High School teachers and academic performance of students in the Asante Akyem North District.

H_a: There is a statistically significant relationship between classroom management strategies adopted by public Junior High School teachers and academic performance of students in the Asante Akyem North District.

The purpose of this hypothesis was to find out the relationship that existed between classroom management strategies used by teachers in public Junior High Schools and the academic performance of students. To test this hypothesis, the independent variables, classroom management strategies (reinforcement, antecedent, good relationship and punishment) were correlated with the dependent variable, which was the academic performance of students. The result is presented in Table 16:

Table 16 - *Correlation Matrix of Classroom Management Strategies Adopted by Teachers and Students' Academic Performance*

CMS	1	2	3	4	5
1. Academic performance	-				
2. Reinforcement strategy	0.47**	-			
3. Antecedent strategy	0.44*	0.32	-		
4. Good relationship	-0.45*	0.51	0.41	-	
5. Punishment strategy	-0.12	0.33	0.54	0.22	-

** Significant P < 0.01

* Significant P < 0.05

The results in Table 16 revealed that there was a statistically significant positive relationship between reinforcement as a classroom management strategy and academic performance of Junior High School students in the Asante Akyem North District ($r = .47$, $df = 48$, $p < 0.01$). Also, the results showed a statistically significant positive relationship between antecedent as a classroom management strategy and academic performance of Junior High School students in the Asante Akyem North District ($r = .44$, $df = 48$, $p < 0.05$). Again, the results indicated that there was a statistically significant inverse relationship between good relationship as a classroom management strategy and academic performance of Junior High School students in the Asante Akyem North District ($r = -.45$, $df = 48$, $p < 0.05$). The results did not establish a statistically significant relationship between punishment as a classroom management strategy and academic performance of Junior High School students in the Asante Akyem North District ($r = -.12$, $df = 48$, $p > 0.05$). The results showed that most of the classroom management strategies adopted by teachers teaching in public Junior High Schools correlated with the academic performance of students. On account of this finding the null hypothesis that there is no statistically significant relationship between classroom management strategies adopted by public Junior High School teachers and academic performance of students in the Asante Akyem North District was rejected.

Hypothesis 2

H_0 : There is no statistically significant difference between the classroom management strategies adopted by teachers in urban and rural public Junior High Schools in the Asante Akyem North District.

H_a: There is statistically significant difference between the classroom management strategies adopted by teachers in urban and rural public Junior High Schools in the Asante Akyem North District.

The focus of this hypothesis was to test whether a significant difference exists between the classroom management strategies of teachers in urban and rural public Junior High Schools in Asante Akyem North District. The independent samples t-test was conducted and the result is presented in Table 17.

Table 17 - *Independent Samples t-test of Urban and Rural Teachers with regard to Classroom Management Strategies adopted*

Location	N	M	SD	t-value	df	p-value
Urban	24	3.72	.677			
				.356	46	.263
Rural	24	3.78	.430			

Source: Field Survey, (2018)

The results in Table 17 showed that teachers from rural schools ($M=3.78$, $SD=.430$) and teachers from urban schools ($M=3.72$, $SD=.677$) did not differ in terms of classroom management strategies they used. Further, the results established a t-value of 0.356 and a p-value of 0.263. The analysis, therefore, showed that there was no statistically significant difference between the classroom management strategies adopted by teachers in urban and rural junior high schools in the Asante Akyem North District. The null hypothesis which states that there is no statistically significant difference between the classroom management strategies adopted by teachers in urban and rural public Junior High Schools in the Asante Akyem North District was retained.

Hypothesis 3

H₀: There is no statistically significant difference between the classroom management strategies adopted by male and female teachers in public Junior High Schools in the Asante Akyem North District.

H_a: There is a statistically significant difference between the classroom management strategies adopted by male and female teachers in public Junior High Schools in the Asante Akyem North District.

Hypothesis three sought to find out whether there was a difference in the classroom management strategies of male and female teachers in the Asante Akyem North District. The independent samples t-test was conducted and the result is presented in Table 18.

Table 18 - *Independent Samples t-test of Gender and Classroom*

<i>Management Strategies</i>						
Gender	N	M	SD	t-value	df	p-value
Male	23	3.81	.654			
				.722	46	0.669
Female	25	3.69	.467			

Source: Field Survey, (2018)

It was found that male teachers ($M=3.81$, $SD=.654$) and female teachers ($M=3.69$, $SD=.467$) did not differ in the classroom management strategies they used. Also, the results showed a t-value of 0.722 and a p-value of 0.669. The analysis, therefore, showed no statistically significant difference between the classroom management strategies adopted by male and female teachers. The null hypothesis which states that There is no statistically significant difference between the classroom management strategies adopted

by male and female teachers in public Junior High Schools in the Asante Akyem North District was retained.

Hypothesis 4

H₀: There is no statistically significant difference between the academic performance of male and female students in public Junior High Schools in the Asante Akyem North District.

H_a: There is statistically significant difference between the academic performance of male and female students in public Junior High Schools in the Asante Akyem North District.

This hypothesis was intended to find out whether there were differences between the academic performance of male and female students in public Junior High Schools in the Asante Akyem North District. To achieve this; the academic performance of the selected subjects was transformed and combined. The independent samples t-test was conducted and the result is presented in Table 19.

Table 19 - *Independent Samples t-test of Academic Performance of Male and Female Students*

Gender	N	M	SD	t-value	df	p-value
Male	144	49.10	11.44			
				2.290	295	.006*
Female	153	50.79	11.18			

Source: Field Survey, (2018) * Significant, P < 0.05

The findings from Table 19 showed that female students ($M=50.79$, $SD=11.18$) performed higher than male students ($M=49.10$, $SD=11.44$). In addition, the t-value from the results was 2.290 and a p-value of 0.006. The

analysis, therefore, showed a statistically significant difference between the academic performance of male and female students in the Asante Akyem North District. The null hypothesis which states that there is no statistically significant difference between the academic performance of males and female pupils in the Asante Akyem North District is therefore rejected. It could be concluded that there is a statistically significant difference between the academic performance of male and female students in the Asante Akyem North District. Female students performed better than their male counterparts.

Hypothesis 5

H₀: There is no statistically significant difference between the academic performance of students in rural and urban public Junior High Schools in the Asante Akyem North District.

H_a: There is statistically significant difference between the academic performance of students in rural and urban public Junior Schools in the Asante Akyem North District.

Hypothesis five sought to establish whether there were differences in the academic performance of students in rural and urban public Junior High Schools in the Asante Akyem North District. To achieve this, the academic performance of the selected subjects was transformed and combined. The independent samples t-test was conducted and the result is presented in Table 20.

Table 20 - *Independent Samples t-test of Academic Performance of Students from Rural and Urban Areas*

Location	N	M	SD	t-value	df	p-value
Rural	69	38.19	6.32			
				12.025	295	.000*
Urban	228	53.54	10.00			

Source: Field Survey, (2018) * Significant, P < 0.05

The findings from Table 20 showed that students from urban schools ($M=53.54$, $SD=10.00$) performed higher than students from rural schools ($M=38.19$, $SD=6.32$) Further, the data showed a t-value of 12.025 and a p-value of 0.000. The analysis showed a statistically significant difference between the academic performance of students in rural and urban public schools. The null hypothesis which states that there is no statistically significant difference between the academic performance of students in rural and urban public Junior High Schools in the Asante Akyem North District was rejected.

Discussion

The study found four major classroom management strategies mostly used by teachers in public Junior High Schools in the Asante Akyem North District. These were reinforcement, antecedent, good relationship and punishment. Both teachers and students confirmed that these strategies were employed in the classrooms. This is in line with Oliver, Wehby and Reschly (2011), who identified the four mentioned strategies as being basic in classroom management. The study revealed, according to the response from teachers, that punishment was the least used strategy whereas the response from students placed punishment as the third used strategy. The antecedent

classroom management strategy was tagged by students as the least used strategy by their teachers. The study found good relationship as the mostly used strategy followed by reinforcement strategy as mentioned by both teachers and students. It was brought out that these strategies were not used in any order to manage the classroom.

The correlation analysis between classroom management strategies and academic performance had reinforcement and antecedent classroom management strategies positively correlating significantly. This means that the more teachers reinforced students' behaviour in the classroom, the higher their academic performance; likewise, when teachers used antecedent strategy, the students exhibited positive academic performance. Brannon (2010) agreed to this and stated that classroom management is concerned with a course of action of teachers' behaviour and activities that are basically anticipated that would develop student co-operation and consideration in classroom and so when used appropriately, it aids performance positively. In a similar discussion, Freiberg (2013) alluded that classroom management is concerned with a course of action of teachers' behaviour and activities that were basically anticipated that would develop student's co-operation and consideration in classroom to enhance their academic performance. A fairish teacher has certain essential information and capacities, which are used to help students academically and to ensure that the right behaviour is elicited for positive response (Harden & Crosby, 2000). The teacher is, however, seen as the most basic component in executing every single informative change at the grassroots level. It is in line with this that Harmer (2008) asserted that the educational capacities, data of the theme, capacity and aptitudes of instructing

and the commitment of the teachers have capable influence on the teaching learning process.

The results further indicated that establishing good relationship with students and punishment strategies on the other hand inversely correlated with academic performance of students. This means that the more good relationship as a strategy was employed, the lower the students performed academically. This could be as a result of the fact that there was the tendency for misinterpretation of the good relationship to be an avenue of freedom and relaxation. The notion could be that “my teacher will not do anything to me because he is liberal on me”. This misinterpreted notion could breed relaxation in students and not take their academic work seriously, thereby affecting their performance highly. The findings of this study was not in line with the assertion by Pianta, Steinberge and Rollins (2002) that the quality of the interactions that students have with their teachers predicted later academic success. Going by this statement, one would expect that establishing good relationship with students will have a good impact on their academic perform. However, good relationship strategy rather had a negative influence on students’ performance. In addition, Pianta, et al. (2002) stated that teachers shape students experiences in school. Beyond the traditional role of teaching academic skills, teachers regulate students’ activity level, teach communication skills, provide opportunities for students to form peer relations, provide behavioural support, and teach coping skills. Teachers have multiple roles and spend a large amount of time with students. They stated that when teachers have close and positive relationships with students, they are more motivated to spend extra time and energy promoting student success.

But when teachers have conflictual and negative relationships with students, they more frequently attempt to control students' behaviour and thus hinder efforts to promote a positive school environment (Pianta et al., 2002; Hamre & Pianta, 2001). However, empirically as portrayed by this study, close and positive relationship with students rather seemed to make them relaxed. Martin and Sass (2010) opined that teachers' classroom management styles do not always yield the desired results. Some methods may affect students' achievement negatively. Their opinion is in line with this study result that some strategies like establishing good relationship and punishment influenced the academic performance of students negatively.

The study did not find a statistically significant difference between the classroom management strategies employed by rural and urban teachers to manage their classes. The implication is that teachers in the urban and rural Junior High Schools used similar classroom management strategies. This means that location of the teachers (rural school or urban school) did not have any influence on the classroom management strategies they adopted in the Asante Akyem North District. What could have accounted for this is the fact that teachers teaching in urban and rural schools all qualified as teachers after being trained in colleges of education as professionals. During their training the teachers were exposed to a host of school, class and student management strategies. This training did not discriminate against who was to teach in which school. It was a universal exposure to all prospective teachers. In addition to this, the Ghana Education Service, from time to time organises refresher courses for teachers in all schools to expose them to new trends and methods in teaching and classroom management strategies. These in-service

training courses were not discriminatory in their course contents. This result affirmed the findings of Demirdag's (2015) research on teaching which stated that classroom management and discipline were primary concerns to teachers regardless of where they found themselves. On their part, Pianta, Hamre and Allen (2012) revealed that teacher education programmes nowadays were making a determined attempt at developing effective methods for maintaining discipline and to prepare teachers to making effective classroom management decisions. All these teachers were exposed to the same knowledge that helped them discharge their duties effectively without recourse to where they taught.

The study also did not find any statistically significant difference between the classroom management strategies adopted by male and female teachers in public Junior High Schools. This study result is in line with the findings of a study by Sarfo, Amankwah, Sam and Konin (2015). Their study found that male and female teachers did not differ in terms of classroom management strategies they adopted in public Junior High Schools in Ghana. This may be because the teachers were all exposed to the same curriculum and were trained on the use of the same classroom management strategies in their schools. As indicated by Leu and Price-Rom (2006), teachers and the quality of their teaching were widely recognised as the most critical of many important factors that combined to create overall quality of education. In the case of quality of delivery, the teacher's concern was how to impart knowledge to the student, regardless of his or her gender. In line with Leu, Forzani and Kennedy (2013) teacher's gender is not a determinant of his or her ability to effectively manage the classroom for a successful learning

outcome. This statement is a direct revelation of the insignificant nature of gender difference in classroom management strategies adopted by teachers.

The study found a statistically significant difference in academic performance between male and female students in the Asante Akyem North District. The result of the study revealed that female students performed better than their male counterparts. This result is in line with Were, Indoshi and Yalo (2010) who established a significant difference in the academic performance of male and female students in Kenya. Were, et al (2010) found that females performed better than their male counterparts. Using the grouped frequency formula, they found a mean score of females to be 60.864% while the male's mean score was 57.855%. When a further analysis was done on the calculation of the variance and standard deviation of the two groups, males had a variance of 18.243 and a standard deviation of 4.271. The females on the other hand, had a variance of 14.692 and a standard deviation of 3.833. This information revealed that the female students performed better on the achievement test than their male counterparts.

The results of the study of Were, et al (2010) harmonized with the findings of Brunner, Krauss and Kunter as cited by Brown and Kanyongo (2010) who examined the performance of Mathematics items of students in Germany. In their study they compared gender differences in overall Mathematics ability and specific Mathematics ability. They found that girls slightly outperformed boys on reasoning ability.

Finally, the results of the study showed a statistically significant difference between the academic performance of students in rural and urban public Junior High Schools. The results showed that students from urban

schools performed better than their counterparts from rural schools. The result is consistent with Ajayi, (2013) who found a statistically significant difference between the academic performance of students in urban and rural public Junior High Schools. Dramanu and Mohammed (2017) also established a significant difference in academic performance of students from Urban and Rural Junior High Schools in Ghana. Dramanu and Mohammed stated that there were differences in the academic performance of students on the basis of location of schools (urban and rural). Students from Urban Junior High Schools had the tendency to perform better academically than their counterparts from Rural Junior High Schools. Similarly, Owoeye and Yara (2011) found a significant difference in the academic performance of students from urban and rural secondary schools. The results of their study showed that students from urban secondary schools had a mean score greater than their counterparts from rural secondary schools. This shows that students from urban secondary schools performed better than their counterparts from rural secondary schools.

The findings of this study are again consistent with the results of a study conducted by Adepoju (2008) in Oyo. In the study Adepoju found a significant difference in the academic performance of students from urban and rural schools. The difference in academic performance among the students may be due to the concentration of more qualified teachers posted to the urban schools as against those in rural areas. Akiri and Ugborugbo (2008) concluded that provision of education in rural areas is faced with difficulties and problems such as: qualified teachers refusing appointment to isolated villages; villagers refusing to send their children to school because they are

dependent on them for help; parents hesitated to entrust their daughters to male teachers: lack of roads, books and teaching materials.

Again, school environment may be classified into urban, semi-urban and rural. This classification sometimes goes a long way to influence government distribution of social amenities like electricity, water, hospital and educational institution. It is a common knowledge that many of these social amenities are concentrated in urban areas than rural areas and so rural schools face a difficulty of exposure to new trends in education as well as getting qualified teachers to accept postings to those places. A typical example is a situation where the pupils learn information and communication technology (ICT) without computers or sometimes there are computers but no electricity supply. In such a situation, the students will have to learn in the abstract, a subject that requires more practice and sit for the same examination with those who have the privilege to learn it practically. In such a situation, there will obviously be a difference in results between these two students.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this chapter, the summary and conclusions drawn based on the results of the study were presented. Also, the recommendations and suggestions for further research were also considered.

Summary

This study established the classroom management strategies adopted by public Junior High School teachers in the Asante Akyem North District and how these strategies influenced academic performance of their students. The descriptive survey design was used for this study. Two research questions and five hypotheses were formulated to guide the study. The multi-stage sampling technique was used to sample 48 teachers and 297 students to respond to the Behavioural and Instructional Management Scale (BIMS). Academic performance tests were also administered to measure students' performance. Descriptive statistics such as means and standard deviations were used to explain responses and inferences were drawn to answer research question one. Multiple regression was used to analyse data on research question two. The first hypothesis was tested using Pearson's Product Moment Correlation Coefficient (PPMCC). Hypotheses two, three, four and five were tested using the independent samples t-test.

Key Findings

The study identified two classroom management strategies that were mostly adopted by teachers in public Junior High Schools in the Asante Akyem North District. These were; good relationship and the use of reinforcement. The classroom management strategies adopted by teachers had a significant influence on the academic performance of students.

The study also established a significant positive relationship between reinforcement and antecedent as classroom management strategies and academic performance of students. An inverse relationship was found to exist between good relationship as a classroom management strategy and academic performance of students.

The results of the study did not show any statistically significant difference between the classroom management strategies adopted by teachers in urban and rural Junior High Schools in the Asante Akyem North District. Similarly, the study did not establish any statistically significant difference between the classroom management strategies adopted by male and female teachers in public Junior High Schools in the Asante Akyem North District.

Furthermore the study established a statistically significant difference between the academic performance of male and female students. The results showed that female students performed better than their male counterparts.

Finally, the findings of the study revealed a statistically significant difference between the academic performance of students in urban and rural public Junior High Schools in the Asante Akyem North District. The results showed that students from urban schools performed better than their counterparts from rural schools.

Conclusions

In line with the findings of the study, the following conclusions were drawn.

Firstly, it is concluded that Antecedent and Reinforcement are classroom management strategies that influence academic performance positively in the Asante Akyem North District.

Again the study concludes that male and female teachers in the Asante Akyem North District do not differ in the classroom management strategies they adopt.

Finally, it is concluded that there is inequality in academic performance between male and female students in rural and urban areas in the Asante Akyem North District.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Teachers in the Asante Akyem North District should continue to use reinforcement and antecedent strategies in their classrooms since they play a dual role of managing students' behaviour and positively relating well with academic performance of students as established by the study. However, they should be circumspect with the use of good relationship as a classroom management strategy since it may be misinterpreted or abused and can lead to low academic performance of students.
2. It is recommended that teachers should create enabling environment for male students to catch up academically with their female

counterparts since the study established that females performed better than their male counterparts academically.

3. Asante Akyem North District Directorate of education should organise workshops on regular basis for teachers to upgrade their skills and knowledge in managing the classrooms. This will help them to continually show the same level of professionalism in managing their classrooms irrespective of their location and gender.
4. To bridge the dichotomy in urban rural students' performance, it is recommended that the Ministry of Education together with the Ghana Education Service and the District Assembly should as a matter of urgency try to upgrade the facilities as well as providing learning resources in Junior High Schools in the rural areas to the standards of schools in the urban areas.

Suggestions for Further Research

1. Future research should consider if the use of classroom management strategies is influenced by the teacher's tenure of service.
2. Again, future studies should find out if the teacher's age affects his or her use of classroom management strategies. The age of teachers in this case could be categorized into three namely young age, middle age and old age.
3. Also, the academic background of the students' parents could be considered by future researchers when the academic performance of students is being considered.

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APPENDICES

APPENDIX A

A Letter from Ethical Review Board

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA



Our Ref: CES-ERB/ucc-edu/13/19-08
Your Ref:

Date: March 4, 2019

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

Chairman, CES-ERB
Prof. J. A. Omotosho
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0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
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Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
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The bearer Maxwell Owusu Kontor, Reg. No. ED/EPs/17/0001 is an M.Phil. / Ph.D. student in the Department of Education in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / She wishes to undertake a research study on the topic:

The influence of classroom management strategies of Junior High School teachers on the academic performance of students in the Asante Akyem North District.

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/her proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

APPENDIX B

Introductory Letter

**UNIVERSITY OF CAPE COAST
COLLEGE OF DISTANCE EDUCATION
GRADUATE STUDIES UNIT**

Tel No: 03320-91217
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University Post Office
Cape Coast

Our Ref: CoDE/ G.7/I/vol.1/21

10th January, 2019

TO WHOM IT MAY CONCERN

Dear Sir,

LETTER OF INTRODUCTION – OWUSU MAXWELL KONTOR

The bearer of this letter Mr. Owusu Maxwell Kontor, with student registration number ED/EPS/17/0001 is an M.Phil (Educational Psychology) student of the College of Distance Education, University of Cape Coast. He is currently conducting a research on the topic: *Influence of classroom management strategies of JHS Teachers on Academic performance of pupils in Asante Akyem North District.*

We would be grateful if you could assist him with any information that may be relevant to the study he is undertaking.

We appreciate your co-operation.

Thank you.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Eddiebright J. Buadu'.

Eddiebright J. Buadu (PhD).
(Co-ordinator)

APPENDIX C

Permission Letter from Ghana Education Service

GHANA EDUCATION SERVICE

ASANTE-AKIM NORTH DISTRICT

DISTRICT EDUCATION OFFICE
P. O. BOX 38
ASANTE AKIM NORTH
AGOGO

In case of reply the number and
Date of this letter should be quoted



REF: GES/ASH/AAND/.....

31st January, 2019.

REPUBLIC OF GHANA

MR. Owusu Maxwell Kontor
U. C. C.
CAPE COAST
C/R.

Dear Sir,

PERMISSION TO COLLECT DATA FROM
SOME SCHOOLS WITHIN THE DISTRICT

I introduce to you Mr. Owusu Maxwell Kontor, a final year Master of Philosophy student from the University Of Cape Coast, who has requested for permission to conduct a study on "*Influence of classroom management strategies of JHS teachers on academic performance of pupils in Asante Akyem North District*".

May you give him the necessary cooperation during his interaction with the students.

Thank you.

ERNEST KWADWO AFARI
DISTRICT DIRECTOR OF EDUCATION

APPENDIX D

UNIVERSITY OF CAPE COAST- COLLEGE OF DISTANCE

EDUCATION

Behavioural and Instructional Management Scale (BIMS) for students

Dear respondent,

I am a student of the above mentioned university conducting a study on classroom management strategies and students’ academic performance. I would therefore appreciate it if you could respond to the questions below as it pertains to you. You are assured that information gathered will be used for academic purposes only.

SECTION A: DEMORAPHC DATA

Please tick (√) the most appropriate as it pertains to you.

1. Sex A. Male () B. Female ()
2. Age A. Below 14 () B. Above ()
3. Name of school.....

SECTION B: Below are items on student’s opinion on Strategies their teachers’ adopt in the classroom.

Instruction: Please indicate your opinion by ticking (√) the most appropriate as it pertains to you using the following keys:

1=Strongly Disagree 2=Disagree 3=Neutral 4. Agree 5=Strongly Agree

S/N	Reinforcement	1	2	3	4	5
1	My teacher praises me when he/she wants me to keep exhibiting good behaviour in class					
2	My teacher gives me gifts if I exhibit good behavior in class					

3	My teacher uses different kinds of rewards to encourage good behavior in class					
4	My teacher uses kind words to encourage us to put up good behavior in class always					
5	My teacher praises me when i behave well during lessons					
6	My teacher uses rewards to encourage good classroom behavior instead of punishment					
7	My teacher rewards me for good behavior in the classroom					
Good relationship						
8	My teacher relates very well with me in class					
9	My teacher engages me in active discussion					
10	My teacher always encourages me to feel comfortable and he/she helps me when I have problems					
11	My teacher calls me by my name and ask me questions during lesson					
12	My teacher knows my level of understanding and he teaches to suit me					
13	My teacher always encourages good interaction among pupils during or after lesson					
Antecedent						
14	My teacher always intervenes when I talk at inappropriate times during class					
15	If I talk to a friend in class, my teacher moves me away from that friend					
16	My teacher uses my inputs to create classroom rules					
17	My teacher allows me to get out of my seat without permission					
18	My teacher is strict when it comes to					

	complying with rules and regulation in class.					
19	My teacher firmly redirects me back to the topic when I lose concentration in class					
20	My teacher insists that I follow the rules at all times in class					
21	My teacher closely monitors my behaviour during class					
22	If my behaviour is defiant, my teacher demands that I comply with the classroom rules					
23	My teacher uses prompts to make me behave well in class					
24	My teacher allows me to participate in setting classroom rules and procedures, and this makes me comply and behave well in class					
25	When my teacher provides quick prompt responses to inappropriate behaviours in class, the behaviour reduces					
26	My teacher pastes rules and procedures governing the class at a visible place to remind pupils of good behaviour in class					
27	My teacher teaches expected and unexpected behaviour and this makes me exhibit appropriate behavior all the time					
28	My teacher teaches rules and routines in class					
	Punishment					
29	My teacher uses punishment to control misbehaviour in class					
30	My teacher almost always punishes me whenever I misbehave during lessons					
31	My teacher likes using cane in class					
32	My teacher uses punishment to deter others from misbehaving					

33	My teacher punishes me for poor performance in class					
34	If I talk in class, my teacher sends me out of the classroom					
35	My teacher strongly limits my talking in classroom					
36	My teacher does not allow me to get out of my seat when I misbehave in class.					
37	If my behaviour is defiant, my teacher disciplines me.					

1=strongly disagree 2=disagree 3=neutral 4. Agree 5=strongly agree

S/N	Statement	1	2	3	4	5
1	I believe a pupil should be rewarded for good behaviour					
2	I strongly believe rewards help pupils to exhibit good behaviour always in class					
3	I reward students for good behaviour in the classroom					
4	I use different kinds of rewards to encourage good behaviour of pupils in class					
5	If pupils are rewarded, it makes the right kind of behaviour reoccur					
6	Kind words as rewards encourage pupils to put up good behaviour in class always					
7	I sometimes reward pupils with gifts to encourage good behavior					
8	I also use verbal rewards to encourage good classroom behavior					
9	I insist that pupils in my classroom follow the rules at all times					
10	I closely monitor off task behavior during class					
11	If a student's behavior is defiant, I demand that they comply with my classroom rules					
12	I spell out what kind of behavior is expected of pupils to them in classroom					
13	I make sure pupils exhibit the appropriate behavior as					

	per my rules					
14	When students deviate from the right kind of behavior, I ensure they are put back on track to exhibit the expected behavior.					
15	I relate with my pupils in different ways during teaching and learning					
16	I engage students in active discussion about issues related to real world applications just to get closer to them					
17	I use student input when creating student projects					
18	The use of punishment is more effective method of instructional strategy					
19	I punish my pupils to discourage an unwanted behavior in the classroom					
20	I almost always use punishment whenever I am teaching					
21	Presenting a painful event reduces the incidence of undesired behavior					
22	Pupils are easily controlled through the use of punishment					
23	When a pupil exhibits undesired behavior and gets punished, it serves as deterrent to others					
24	When pupils are punished for poor performance, it makes them work harder					
25	Punishment makes instructional session easier					

APPENDIX F

CENTRE FOR PERFORMANCE MONITORING AND EVALUATION
ACADEMIC PERFORMANCE TEST
SOCIAL STUDIES 1
OBJECTIVE TEST

Answer all questions in this paper by shading the correct answer on the shading sheet provided. Shade only one answer. Erase completely if you want to change the option selected.

TIME ALLOWED: 30 MINUTES

1. The head of the nuclear family is the.....
 - A. abusua panin
 - B. father
 - C. mother
 - D. elder brother

2. Law and order help the community in all the following ways *except*.....
 - A. promoting peace.
 - B. following proper way of doing things
 - C. promoting stability and good governance.
 - D. promoting conflict.

3. Law and order can be disrupted at school if pupils
 - A. report at school in time.
 - B. do their home work.
 - C. disobey rules and regulations.
 - D. do not disturb in class.

4. Law and order is maintained in the community by the.....
 - A. vigilante
 - B. police.
 - C. warder
 - D. counsellor

5. The natural environment include all the following *except*.....
 - A. houses.
 - B. relief features.
 - C. land.
 - D. water bodies.

6. The land is made from all these *except*.....
 - A. weathered rocks.
 - B. dead leaves.
 - C. water.
 - D. papers.

7. Water bodies help man in all the following *except*.....
- A. provision of food.
 - B. means of transportation.
 - C. irrigation of farm lands.
 - D. producing papers
8. The dependency ratio of Ghana as of the year 2000 was.....
- A. 58:42
 - B. 42:58
 - C. 61:39
 - D. 56:44
9. The part of the population which falls within 20-59 years is the.....
- A. race force.
 - B. great force.
 - C. poll force.
 - D. labour force.
10. Obuasi is to gold as is to diamonds.
- A. Awaso
 - B. Akwatia
 - C. Konogo
 - D. Tarkwa
11. The things surrounding us constitute our
- A. locality
 - B. environment
 - C. community
 - D. location
12. The destruction of the natural things around us through our activities cause.....
- A. social degradation
 - B. human degradation
 - C. environmental degradation.
 - D. unit degradation.
13. The destruction of the natural things around us can be put into all the following *except*.....
- A. air pollution.
 - B. community degradation.
 - C. land degradation.
 - D. water pollution.

14. Which of the following will NOT take place when trees are cut?
- A. A lot of sand is produced.
 - B. Amount of rainfall reduces
 - C. Quality of air reduces.
 - D. Erosion increases.
15. Which of the following is part of our natural surroundings?
- A. Roads.
 - B. Houses.
 - C. Rocks.
 - D. Furniture.
16. We refuse to protect the natural things around us because we think.....
- A. we are causing harm to the government.
 - B. nature should take care of itself.
 - C. God will not punish us.
 - D. we are very sensible.
17. Destruction of the natural surroundings can lead to all the following *except*
- A. increase in temperatures.
 - B. contamination of rain water.
 - C. proper growth of vegetation.
 - D. drying of water bodies.
18. Bye-laws are made and used by the.....
- A. executives
 - B. district assemblies
 - C. legislature.
 - D. judiciary
19. Bills are written into legal language by the.....
- A. Registrar General's Department.
 - B. Accountant General's Department.
 - C. Auditor-General's Department
 - D. Attorney-Generals' Department.
20. The final stage of law making is the
- A. presidential accent
 - B. last stage of reading
 - C. parliamentary debate of bill
 - D. member proposing bill to parliament.
21. In the modern community, law and order is maintained by the.....
- A. executive.
 - B. legislature.
 - C. assembly member.
 - D. police and courts.

22. Rules made for the purpose of controlling and regulating social behaviours is.....
- A. bye-law
 - B. law
 - C. customs
 - D. directives
23. Military governments make.....
- A. decrees.
 - B. degrees.
 - C. rules.
 - D. Regulations.
24. Rules and regulations for schools are made for schools by all of the following *except*.....
- A. Board of Governors of the school.
 - B. students in schools
 - C. Parent-Teacher Associations.
 - D. Ghana Education Service.
25. In agriculture, technology is helping in all the following ways *except*
- A. X-rays development.
 - B. building of silos.
 - C. making fertilizers.
 - D. developing seeds.

MARKING SCHEME – SOCIAL STUDIES

- | | |
|-------|-------|
| 1. B | 14. A |
| 2. D | 15. C |
| 3. C | 16. B |
| 4. B | 17. C |
| 5. A | 18. B |
| 6. D | 19. D |
| 7. D | 20. A |
| 8. A | 21. D |
| 9. D | 22. B |
| 10. B | 23. A |
| 11. B | 24. B |
| 12. C | 25. A |
| 13. B | |

APPENDIX G

CENTRE FOR PERFORMANCE MONITORING AND EVALUATION
ACADEMIC PERFORMANCE TEST
INTEGRATED SCIENCE 1
OBJECTIVE TEST

Answer all questions in this paper by shading the correct answer on the shading sheet provided. Shade only one answer. Erase completely if you want to change the option selected.

TIME ALLOWED: 30 MINUTES

1. Each row of the periodic table is known as
 - A. column
 - B. period
 - C. group
 - D. actinides
2. The metallic element that is a free-flowing liquid at room temperature is.....
 - A. sodium
 - B. manganese
 - C. mercury
 - D. aluminium
3. All metals, *except one* of the following, react with dilute hydrochloric acid producing hydrogen.
 - A. Zinc
 - B. Copper
 - C. Iron
 - D. Lithium
4. The systematic name for HNO_3 is.....
 - A. dioxonitrate (III) acid
 - B. trioxonitrate (V) acid
 - C. trioxonitrate (IV) acid
 - D. trioxonitrate (VI) acid
5. The chemical formula which correctly represents Potassium Sulphide is.....
 - A. KS
 - B. K_2SO
 - C. K_2S
 - D. KS_2

6. The average weather condition of a place refers to.....
- A. pressure
 - B. climate
 - C. humidity
 - D. temperature
7. The type of vegetation found in most parts of the Greater Accra Region is.....
- A. rain forest
 - B. sudan savanna
 - C. coastal shrub and grassland
 - D. guinea savanna
8. The agency responsible for providing information on weather to the general public in Ghana is
- A. statistical service
 - B. meteorological department
 - C. education service
 - D. population studies.
9. Which one of the following is not a living tissue?
- A. Potato
 - B. Cellophane
 - C. Cassava
 - D. Plantain
10. The factor(s) that affect(s) the rate of diffusion is / are.....
- I. particle size
 - II. type of fluid
 - III. temperature
- A. I and II only
 - B. III only
 - C. I and III only
 - D. I, II and III
11. The human activity that involves diffusion is.....
- A. preserving fish in salt
 - B. burning of mosquito coil
 - C. preparing jam out of orange juice
 - D. producing pure water from sea water
12. Conduction of electricity is associated with metals because of the movement of.....
- A. free protons
 - B. free electrons
 - C. ions
 - D. atoms

13. The instrument used to measure the potential difference across a resistor in an electrical circuit is the.....
- A. galvanometer
 - B. rheostat
 - C. meter bridge
 - D. voltmeter
14. Solar cells obtain energy from.....
- A. magnets
 - B. the sun
 - C. chemicals
 - D. the wind
15. The vector of yellow fever disease is.....
- A. culex mosquito
 - B. aedes mosquito
 - C. anopheles mosquito
 - D. housefly
16. Which of the following organisms is an endoparasite?
- A. Flea
 - B. Tick
 - C. Tape worm
 - D. Louse
17. The pest that mostly damages cereal in storage is.....
- A. aphids
 - B. weevils
 - C. beetles
 - D. caterpillars
18. The property of a metal that makes it possible for it to be beaten into different shapes is called.....
- A. conductivity
 - B. malleability
 - C. ductility
 - D. resistivity
19. Which of the following statements about non - metal is true?
- A. They are ductile
 - B. They are malleable
 - C. They have high density
 - D. They share valence electron easily
20. A non - reactive metal can be identified from other metals because its surface is.....
- A. hard
 - B. smooth
 - C. shiny
 - D. rough

21. Substances that are consumed during a reaction are called.....
- A. products
 - B. reactants
 - C. polymers
 - D. suspension
22. Endothermic reaction is a reaction in which
- A. more energy is taken in than given off
 - B. more energy is given off than taken in
 - C. less energy is taken in than given off
 - D. no energy is given off
23. More cattle is reared in the northern Ghana than in the southern Ghana because
- A. the north is cooler for animal
 - B. there is greater demand for meat in the north
 - C. there is extensive grassland in the north
 - D. the pasture grass in the south is of low nutrient
24. A prediction of what the weather will be like in the near future is known as.....
- A. weather forecast
 - B. weather chart
 - C. weather map
 - D. weather pattern
25. Which of the following instrument is usually *not* found in a weather station?
- A. Rain gauge
 - B. Anemometer
 - C. Thermometer
 - D. Hydrometer

MARKING SCHEME SCIENCE

- | | |
|-------|-------|
| 1. B | 15. B |
| 2. C | 16. C |
| 3. B | 17. B |
| 4. B | 18. B |
| 5. C | 19. D |
| 6. B | 20. C |
| 7. C | 21. B |
| 8. B | 22. A |
| 9. B | 23. C |
| 10. D | 24. A |
| 11. B | 25. D |
| 12. B | |
| 13. D | |
| 14. B | |

APPENDIX H

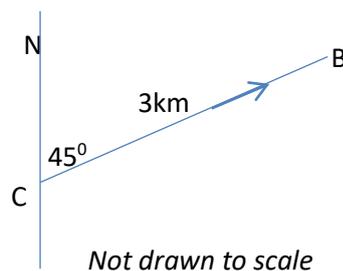
CENTRE FOR PERFORMANCE MONITORING AND EVALUATION
ACADEMIC PERFORMANCE TEST

MATHEMATICS TEST FOR BASIC EIGHT (8) PUPILS

Instruction: You are to answer all the questions by either circling or ticking (✓) the correct answer.

Time Allowed: 45 Mins

- Which of these instruments will you use to measure angles?
 - Compasses
 - Dividers
 - Protractor
 - Set squares
- What is the gradient of a straight line that joins the points Q (4, 5) and P (3, 2)?
 - $\frac{1}{3}$
 - $\frac{1}{2}$
 - 2
 - 3
- Which of these shapes has no line of symmetry?
 - a circle
 - an isosceles triangle
 - a parallelogram
 - a rectangle
- In the diagram below the bearing of town B from C is.....



- 045°
- 145°
- 225°
- 256°

5. I am a quadrilateral with two lines of symmetry. My diagonals bisect at right angles. What is my name?
- Kite
 - Rectangle
 - Rhombus
 - Square
6. Express $\begin{pmatrix} 5\text{km W} \\ 3\text{km N} \end{pmatrix}$ as Cartesian components.
- $\begin{pmatrix} -5 \\ 3 \end{pmatrix}$
 - $\begin{pmatrix} 5 \\ -5 \end{pmatrix}$
 - $\begin{pmatrix} 5 \\ 3 \end{pmatrix}$
 - $\begin{pmatrix} -5 \\ -3 \end{pmatrix}$
7. Which of these statements expresses the thought that “Ben’s age in the next 3 years will be greater than 40”?
- $3x > 40$
 - $x - 3 > 40$
 - $X+3 < 40$
 - $40 < x + 3$
8. Arrange the following rational numbers in descending order: $\frac{3}{8}, \frac{1}{3}, \frac{5}{12}$
- $\frac{1}{3}, \frac{3}{8}, \frac{5}{12}$
 - $\frac{1}{3}, \frac{5}{12}, \frac{3}{8}$
 - $\frac{5}{12}, \frac{3}{8}, \frac{1}{3}$
 - $\frac{3}{8}, \frac{1}{3}, \frac{5}{12}$
9. If $y = \sqrt{2}^{1/4}$, find the value of y .
- $\frac{2}{3}$
 - 1.5
 - 2.2
 - 3.6
10. Leondel was given GH¢150.00 as commission for selling GH¢1000.00 worth of items. Calculate his commission percentage.
- 11%
 - 13%
 - 15%
 - 17%

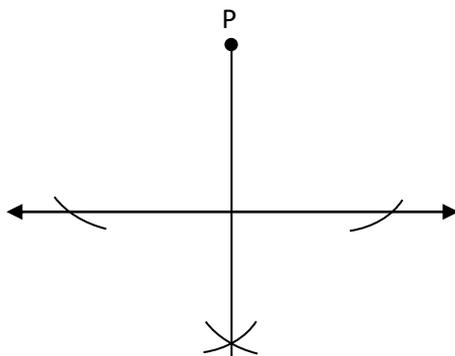
11. The volume of a cuboid is 24cm^2 . If it is 2cm wide and 3cm high, calculate how long it is.
- A. 4cm
 B. 5cm
 C. 6cm
 D. 7cm
12. Dorcas travelled from cape Coast to Kumasi. She travelled half ($1/2$) of the journey by lorry, $3/10^{\text{th}}$ of the journey by taxi and the rest by foot. What fraction of the journey did she travel by foot?
- A. $4/5$
 B. $5/10$
 C. $1/5$
 D. $1/4$

Use the mapping below to answer questions 13 and 14

P	1	2	3	4	5
↓	↓	↓	↓	↓	↓
Q	2	5	8	11	■ ...

13. What is the rule for the mapping?
- A. $x \rightarrow x + 3$
 B. $x \rightarrow 2x - 3$
 C. $x \rightarrow 3x - 1$
 D. $x \rightarrow x^2 - 1$
14. What is the image of 5 in the mapping?
- A. 2
 B. 3
 C. 5
 D. 14
15. What property of addition is defined by $(a + b) + c = a + (b + c)$?
- A. Associative
 B. Inverse
 C. Commutative
 D. Distributive
16. Find the cost of 10 pens and 5 pencils if each pen cost GH¢20.00 and each pencil cost GH¢ 18.00.
- A. GH¢290.00
 B. GH¢920.00
 C. GH¢280.00
 D. GH¢38.00

17. Kofi's father bought a car that cost GH¢1,295.00. He paid an initial deposit of GH¢650.00. How much does Kofi's father owe?
- A. GH¢620.00
 B. GH¢652.00
 C. GH¢625.00
 D. GH¢645.00
18. Find the value of n in $\frac{3}{n} = \frac{24}{\quad}$
- A. 12
 B. 48
 C. 32
 D. 60
19. List the elements of the following set
 $P = \{x: 2 < x < 10\}$
- A. {2, 3, 4, 5, 6, 7, 8, 9, 10}
 B. {3, 4, 5, 6, 7, 8, 9, 10}
 C. {3, 4, 5, 6, 7, 8, 9,}
 D. {2, 3, 4, 5, 6, 7, 8, 9}
20. Which of these best describes the given construction?



- A. Constructing the bisector of a line
 B. Bisecting a line
 C. Constructing a perpendicular to a given line from a point outside
 D. Constructing a parallel line to another line

The marks scored by 8 pupils in Mathematics test are: 3, 7, 8, 5, 4, 8, 4, 8.
 Use this information to answer questions 21 and 22

21. What is the mode mark?
- A. 5
 B. 6
 C. 7
 D. 8

22. What is the probability that a pupil chosen at random scored 4 marks?
- A. $\frac{1}{2}$
 - B. $\frac{1}{8}$
 - C. $\frac{2}{47}$
 - D. $\frac{1}{4}$
23. Find the median of the following marks:
10, 6, 2, 12, 4, 3
- A. 4
 - B. 5
 - C. 6
 - D. 10
24. Express $\frac{2}{5}$ as a percentage.
- A. 20%
 - B. 25%
 - C. 40%
 - D. 80%
25. 30 men dig a pit in 21 days. How many days will 14 men take to dig the pit, working at the same rate?
- A. 50
 - B. 45
 - C. 35
 - D. 25
26. Kofi is 2 years older than Ama. If the sum of their ages is 16, find Ama's age.
- A. 7 years
 - B. 9 years
 - C. 14 years
 - D. 18 years
27. How many edges has a cube?
- A. 12
 - B. 8
 - C. 6
 - D. 4
28. Find the simple interest on GH¢15,000.00 at a rate of 20% per annum for 5 years.
- A. GH¢50,000.00
 - B. GH¢30,000.00
 - C. GH¢15,000.00
 - D. GH¢10,000.00

29. The diameter of a circular tray is 28cm. Find the area of the tray.
A. 44cm^2
B. 88cm^2
C. 154cm^2
D. 616cm^2
30. Express 25 as a percentage of 75.
A. 33.3%
B. 50%
C. 100%
D. 300%

MARKING SCHEME MATHEMATICS

- | | | |
|-------|-------|-------|
| 1. C | 11. A | 21. D |
| 2. D | 12. C | 22. D |
| 3. C | 13. C | 23. B |
| 4. A | 14. D | 24. C |
| 5. C | 15. A | 25. B |
| 6. A | 16. A | 26. A |
| 7. D | 17. D | 27. A |
| 8. C | 18. C | 28. C |
| 9. B | 19. C | 29. D |
| 10. C | 20. C | 30. A |

APPENDIX I

CENTRE FOR PERFORMANCE MONITORING AND EVALUATION
ACADEMIC PERFORMANCE TEST
ENGLISH LANGUAGE TEST FOR BASIC EIGHT (8) PUPILS
LEXIS AND STRUCTURE
SECTION A

Instruction: Answer all questions. From the alternatives lettered A to D, choose the one which most suitably completes each sentence.

Time Allowed: 35 Mins

1. I'd rather at home than go to the cinema.
A. have stayed
B. stay
C. stayed
D. staying

2. All but David late for the meeting.
A. are
B. had
C. have
D. is

3. It's about time the school its meals services.
A. as improved
B. have improved
C. improved
D. improves

4. Roberta is not hostilethe idea of change as such.
A. from
B. on
C. to
D. with

5. She tries to keep abreastany developments.
A. in
B. of
C. to
D. with

6. All the fans dancedthe tune of the music.
A. by
B. to
C. upon
D. with

7. The sound of the word suggestsmeaning.
 - A. it
 - B. its
 - C. it's
 - D. its'
8. It is good to honour our.....
 - A. father-in-laws
 - B. fathers-in-law
 - C. fathers-in-laws
 - D. father-in-laws'
9. Neither Daniel nor Icoming for the party.
 - A. am
 - B. are
 - C. is
 - D. were
10. The high cost of textbookseducation expensive.
 - A. does make
 - B. have made
 - C. make
 - D. making
11. The people of this statethe best you can ever get this year.
 - A. are
 - B. having
 - C. is
 - D. was
12. The sun rises from the east,?
 - A. does it
 - B. doesn't it
 - C. is it
 - D. isn't
13. The cat tail was trapped has been freed.
 - A. that
 - B. which
 - C. who
 - D. whose
14. William as well as his brothers.....swimming.
 - A. are liking
 - B. like
 - C. likes
 - D. were liking
15. Dodge's fondnessAmerican rice was well known.
 - A. for
 - B. of
 - C. to
 - D. with

SECTION B

Instruction: Choose from the alternatives lettered A to D the one which is nearest in meaning to the underlined word in each sentence.

16. They are Ashantis but their kinsmen live in Brong Ahafo.
A. Chiefs
B. Emperors
C. Family
D. Workers
17. The Titanic sank on her maiden voyage.
A. Adventurous
B. Final
C. First
D. Original
18. After the match, it was obvious that the referee was biased.
A. Favourable
B. Generous
C. Lenient
D. Partial
19. Afari's resolute opposition to new working methods was difficult to overcome.
A. Constructive
B. Forceful
C. Steadfast
D. Vigorous
20. Doreen implored her parents not to send her away to school.
A. Advised
B. Disturbed
C. Encouraged
D. Entreated

SECTION C

In each of the following sentences a group of words has been underlined. Choose from the alternatives lettered A to D, the one that best explains the underlined group of words.

21. They made complete pig of themselves at the dinner. This means that they.....
A. Acted foolishly
B. ate too much
C. behaved stupidly
D. were greedy

22. In spite of his boasting, Robert's proved to be a **chicken-hearted fellow**. This means that Robert was
- A. coward
 - B. mean
 - C. stupid
 - D. weak
23. They had had a couple of drinks and were **in high spirits**. This means that they were
- A. Anointed
 - B. Drunk
 - C. Happy
 - D. Spiritual
24. Auntie wouldn't **give in** until she received a full apology. This means that she wouldn't.....
- A. Agree
 - B. Rest
 - C. Keep quiet
 - D. Surrender
25. It is possible that the Manager **pulled the wool over our eyes**. This means that the manager
- A. Approached us
 - B. Deceived us
 - C. Enlightened us
 - D. Trusted us

SECTION D

In each of the following sentences, a group of words has been underlined. Choose from the alternatives lettered A to D the one that is most nearly opposite in meaning the underlined group of words.

26. The **affluence** of the Ghanaian politicians contrasts with the.....of the masses.
- A. paucity
 - B. poverty
 - C. suffering
 - D. unimportance
27. Lydia is too **mean** to buy him a car.
- A. Generous
 - B. Greedy
 - C. Miserly
 - D. Poor

28. In any group, there are people who display apathy and others who show a lot of.....
A. enthusiasm
B. patience
C. respect
D. tolerance

29. One of the twin was as daring as the other was.....
A. rational
B. secretive
C. timid
D. wicked

30. Relations between the two leaders are said to be very cordial.
A. Calm
B. Hostile
C. Painful
D. Warm

MARKING SCHEME ENGLISH

1. B	11. A	21. D
2. A	12. B	22. A
3. C	13. D	23. C
4. C	14. C	24. D
5. D	15. B	25. B
6. B	16. C	26. B
7. B	17. C	27. A
8. A	18. D	28. D
9. A	19. D	29. C
10. C	20. D	30. B