



Classroom Control Techniques and Pupils' Academic Performance in Basic Science and Technology in Public Primary Schools in Ekeremor Local Government Area, Bayelsa State

Benjamin Woke Wadiⁱ

Department of Early Childhood and Primary Education, Faculty of Education
Ignatius Ajuru University of Education Port Harcourt, Rivers State, Nigeria.

Femodein Newmanⁱⁱ

Universal Basic Education Authority Ekeremor, Bayelsa State, Nigeria.

Abstract

The need to improve learning and academic performance of pupils in Basic Science and Technology prompted this study. Two research questions and two hypotheses guided the study. The study adopted a correlational research design. The population of the study comprised four thousand, two hundred and thirty six (4,236) primary five pupils in the 56 public primary schools in the study area. The sample size of three hundred and ninety six (396) primary five pupils was drawn using simple random sampling technique. The instrument for data collection was a Classroom Control Techniques (CCT) and Basic Science and Technology Achievement Test (BSTAT). The instrument was validated by experts in the field of Early Childhood and Primary Education and Educational Foundation while the reliability of the instrument was established using Cronbach alpha method. The reliability correlation coefficient of 0.92 was obtained for sections A and B with an overall reliability coefficient of 0.89. Three hundred and eighty four dully completed questionnaires were used for data analysis. The analysis was carried out using Pearson product moment correlation. Findings revealed that there was a negative and low relationship between teacher classroom discipline and academic performance of pupils in basic science and technology in primary schools. Also, there was a positive and high relationship between teacher-pupils' relationship and academic performance of pupils in Basic Science and Technology in primary schools in Ekeremor local Government Area, Beyelsa State. Base on the findings, the researcher concluded that ensuring more closeness, warmth and interaction between pupils and teachers can improve pupils' academic performance in basic science and technology in Ekeremor Local Government Area, Bayelsa State. Primary school administrators should provide training and re-training programmes for teachers in primary schools through workshops, seminars and conferences to up-date their classroom management skills. This will enable teachers to effectively select appropriate classroom control techniques as the need arises.

Keywords: Classroom, Control Techniques, Pupils, Academic Performance, Basic Science and Technology, Public, Primary Schools, Nigeria.

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INTRODUCTION

The quality of any nation depends on the educational development of the citizens. In Nigeria, the standard of education is not only determined by academic staff, administrative services, library services, curriculum structure and infrastructure, but most importantly by academic performance of the students (Tsinidou, 2006).

Academic performance is the outcome of education, that is, extent to which a student, teacher or institution has achieved their educational goals. Academic performance is commonly measured by examinations or continuous assessment; though, there is no general agreement on how it is best tested or which aspects are most important. Academic performance refers to the ability of students to study, remember facts and be able to communicate their knowledge verbally or through writing (Mwaniki, 2012). In other words, academic performance refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. Academic performance in this study refers to performance in tests and examinations.

For instance, a student who has an A in school examination is said to have performed better academically than one that has a B in the same examination. Students who have achieved high academic performance are more likely to be employed, have stable employment, earn higher salaries, be less dependent on social assistance, and less likely to engage in criminal activity thus becoming active citizens in future. These suggest that for Nigerian education system to prepare young people adequately for the challenges and demand of the 21st century, academic performance should not be downplayed as it builds students' confidence, gives them higher self-esteem, help them identify broad career fields, lower depression and makes students feel happy. Students also become socially inclined and less likely to engage in anti-social behaviours. This implies that academic performance of a student is the most important indicator of ability that the school can offer its students. Academic performance is measured using several indicators, but there is no general agreement on how it is best tested or which aspects are most important.

Previously, the most commonly used predictors of academic performance are measures of intelligence quotient (IQ) test (Afsheen, Rabia & Sajid, 2011). Non-cognitive predictors include family, school, society and emotional factor among others. Afsheen, Rabia and Sajid (2011) further identified test scores or marks assigned by teachers as indicators of academic performance. These marks or grades assigned by teachers could either be high or low which means that academic performance could either be good or bad (Mishra, 2012). Furthermore, academic performance of students could depend largely on the interaction of the learners, environmental variables, the nature of subject matters, and the teacher classroom control techniques.

The academic performance of pupils in Basic Science Technology has been a major concern to administrators, educators, teachers and parents. This is because it is at the basic level of education that, the foundation of building sound scientists begins. If the foundation is not well developed, then, other levels will suffer. The academic performance of pupils in science technology at the higher level is an indication of a faulty foundation. Basic science, like any other subject, has its own peculiar terms, and need special attention to be mastered by learners at the basic level of education. But the situation is not encouraging as there is academic performance of pupils in the subject (Cornelius-Ukpepi, Esu & Ndifon, 2017).

The academic performance among pupils have led experts and all those interested to put a stop to this academic performance to come up with a lot of variables that could effectively assist

pupils Nwadinigwe and Azuka-Obieke (2012). These variables could include teacher classroom control techniques. Classroom control techniques are activities or measure the teacher can use to maintain discipline in the class. Little and Akin-Little in Hughes (2010) defined class control techniques as sets of procedures that the teacher uses to establish and maintain conditions to enable learners achieve instructional objectives efficiently. Classroom control sets a tone in the classroom that captures students' attention – as a necessity for effective teaching and learning. A classroom which is chaotic and disorganized, with disruptive pupils as a result of poor class control is highly unlikely to enhance expansive learning and students' academic performance.

Classroom control techniques as postulates by Kaushar (2013) include teacher classroom discipline, teacher effective communication and teacher-pupil relationship. Others are effective time management, the good behaviour game technique, corporal punishment, and preventive technique (Eisenman & Cushman, 2015).

Teacher's classroom discipline is the ability of a teacher to help his or her pupils to submit themselves willingly to disciplinary influences in the classroom. It is the application of those influences which secure right conduct of the students in class without disturbances. Essien (2010) stated that class discipline is used to check offences which are bad among students in the class and to train the character of the students in the school and in the class to enhance learning.

Similarly, teacher's success in classroom control is related to the quality of his or her relationship with pupils. Good teacher-pupil relationships enable pupils to feel safe and secure in their class and provide framework for learning important social and academic skills. Good teacher-pupil relationships are classified as exhibiting closeness, warmth, and interaction thereby providing a secure base from which pupils can explore the classroom and school setting (Nwazor & Nwaukwa, 2015). Fairchild and McQuillin (2010) posited that the more teachers know about their pupils, the better the rapport the teacher has with them, and the more likely pupils are willing to obey class rules, pay attention in the class and learn.

Classroom control techniques could have some relationship with pupils' academic performance. According to Kosir and Tement (2014), teacher-pupils relationships were predictors of pupils' academic performance. In support, Tomlinson and Jarvis (2014) revealed that there was a relationship between teachers' use of discipline and reward and pupils' academic performance. It is against this background that this study was carried out to ascertain class control techniques and pupils' academic performance in basic sciences and technology in public primary schools in Ekeremor Local Government Area, Bayelsa State.

Statement of the Problem

Unsatisfactory academic achievement among primary school pupils in Nigeria has posed concern to parents, teachers, educational administrators and government for years. For instance, the academic performance of pupils in Basic Science Technology had made it difficult for majority of the pupils to go on to higher level of learning in recent times.

One suspects that this unsatisfactory academic achievement may be attributable to pupils' indiscipline in the classroom and inability of teachers to employ good classroom control techniques. The school supervisors however, have observed that primary school teachers are not properly controlling their class as expected which is the cause of pupil's poor academic performance in both internal and external examination.

Similarly, the researcher has observed that in spite of poor academic performance of primary school pupils in basic science and technology in Bayelsa State especially Ekeremor

Local Government Area, very few empirical studies have been carried out to ascertain the relationship between classroom control techniques and pupils' academic performance. Based on the aforementioned, the problem of this study is to ascertain the relationship between classroom control techniques and pupils' academic performance in basic science and technology in public primary schools in Ekeremor Local Government Area, Bayelsa State.

Purpose of the Study

The main purpose of this study was to ascertain classroom control techniques and pupils' academic performance in basic science and technology in public primary schools. Specifically, this study ascertained:

- The relationship between teacher classroom discipline and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State.
- The relationship between teacher-pupils' relationship and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State.

Research Questions

The following research questions guided the study:

- What is the relationship between teacher classroom discipline and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State?
- What is the relationship between teacher-pupils' relationship and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

- There is no significant relationship between teacher classroom discipline and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State.
- There is no significant relationship between teacher-pupils' relationship and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State.

LITERATURE REVIEW

Concept of Classroom Control Techniques

Classroom control is key to academic success of the student. In a situation where effective classroom control was lacking, there is bound to be indiscipline in the class and teaching and learning would be disrupted or affected adversely. Oliver and Reschly (2007) noted that classroom control is a factor that influences academic performance in schools. Classroom control techniques are activities or measures teachers use to prevent disruptive behaviour so as to

improve instructional delivery and students' learning and academic performance of students. It is a difficult aspect of teaching for many teachers. Classroom control techniques are crucial in classrooms because they support the proper execution of teaching practices. Classroom control techniques can be explained as set of actions and directions that teachers use to create a successful classroom environment that helps students to achieve given learning requirements and goals (Soheili, Alizadeh, Murphy, Bajestani, Ferguson & Dreikurs, 2010).

Classroom control techniques are strategies the teachers use to control or modify students' actions in the classroom (Mearney, Plax, Richmond & McCroskey, 2010). If control techniques are not employed, the teacher's ability to enhance pupils learning may be significantly reduced. That is, the teacher must be perceived to have control potentials and must be able to "apply" that potential to consistently obtain student on-task behaviours in learning situations. Thus, classroom control is critical to teaching effectiveness and classroom management. Mearney et al. further viewed classroom control techniques as those control strategies that teachers employ to change student behaviours. That is, methods teachers use to encourage students to comply with their demands.

Yildiz (2017) stated that teachers can increase students' on task study behaviours by using class control techniques such as identifying and teaching classroom rules, monitoring student behaviours, rewarding appropriate student behaviours, and disciplining students with inappropriate behaviours. Teachers who use class control techniques that have been proven to be effective manage their classroom better and positively affect student achievement and behaviours.

Academic performance

Academic performance refers to the ability of students to study, remember facts and be able to communicate their knowledge verbally or through writing (Mwaniki, 2012). In other words, academic performance refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. Academic performance refers to how well a student is accomplishing his or her tasks and studies (Scott, 2012). Grades are certainly the most well-known indicator of academic performance. Grades are the student's "score" for their classes and overall tenure. Grades are most often a tallying or average of assignment and test scores and may often be affected by factors such as attendance and an instructor opinion of the student as well. Grading systems vary greatly by country and school, common scales include a percentage form 1-100, lettering systems from A-F, and grade point averages (GPA) from 0-4.0 or above.

According to Ward, Stocker and Murray-Ward in Erickson (2011), academic performance refers to the outcome of education; the extent to which the student, teacher or institution have achieved their educational goals. Academic performance is the ability to study and remember facts and being able to communicate one's knowledge verbally or written on paper (Answers, 2010). It refers to a person's performance in a given academic area (e.g. reading or language arts, mathematics, basic science) and other areas of human learning. Academic performance relates to academic subjects a child studies in school and the skills the child is expected to master in each (Kathryn, 2010). It refers to excellence in all academic discipline, in a class as well as extra-curricular activities. It includes excellence in sporting behaviour, confidence, communication skills, and others. In the context of this study, academic

achievement refers to the extent to which primary school pupils have achieved mastery of the objectives of the basic science they are exposed to in school.

Teacher Classroom Discipline and pupils' Academic Performance

Students do not automatically know how to behave in all settings and situations. Therefore, teachers must make sure to teach acceptable behaviour through use of classroom discipline. However, the starting point is for the teacher to have written discipline plan that clarifies rules, positive recognition, and corrective actions. Rules state exactly how students are to behave. A disciplined student is that student whose behaviours, actions and inactions conform to the predetermined rules and regulations of the school (Ali, Dada, Isiaka, & Salmon, 2014). However, discipline ideally means more than adhering to rules and regulations and entails the learner's ability to discern what is right or wrong (Gitome, Katola, & Nyabwari, 2013).

Discipline is a means to bring control, train to obedience and order or drill. Cotton in Herbert (2009) defined discipline as a form of regulation of children and the maintenance of order in the school. Discipline refers to generally as a personal attribute characterized by obedience, politeness, social competence (ability to get along with other students), orderliness, and academic efficiency (competence in undertaking academic tasks and obligations). Discipline is widely acknowledged to be essential for creating a positive classroom climate conducive to sound learning (Masitsa, 2013). It is a basic requirement for successful teaching and learning in schools and a subject of concern for teachers (Eshetu, 2014). According to Gitome et al. (2013), where there is good discipline, there is improved academic performance. In other words, discipline is vital for students' academic performance (Njoroge & Nyabuto, 2014).

Furthermore, it is necessary for effective classroom control and accomplishment of its goals (Nakpodi, 2010). Lack of discipline is called indiscipline. Therefore, indiscipline can be seen as any action considered to be wrong and not generally accepted as proper in a set up or society (Omote, Thinguri, & Moenga, 2015). Among students, according to Ali et al., it is any form of misbehaviour which a student can display in several ways (disobedience, destruction of school property, poor attitude to learning, immoral behaviour, lateness, truancy, dirtiness, being quarrelsome, use of abusive or foul languages or rudeness).

The use of punishment by teachers is to instill discipline and is meted on student who violates the agreed rules and regulations in schools. It is administered to bring about a desirable change in behaviour and therefore improving school discipline, if commensurate with the offense committed (Okumbe in Ehiane, 2014). However, the experience in recent times is that there are situations where a student who commits an offence, can easily go unpunished. Nevertheless, in most primary schools some forms of punishments are unfair and undeserved like corporal punishment in schools involving severe caning, suspension, expulsion, branding and mutilation of students (Encarta, 2009).

Docking in Ehiane (2014) in his opinion on application of punishments in schools in the United Kingdom observed that, some punishments are appropriate and constructive while others are not desirable, baseless and instead intended to instill fear. This idea is also in agreement with Canter, (2010) who argued that although discipline remains one of the most common problems for teachers, some punishments such as corporal punishments should not be used because no evidence suggests that they have produced better results academically, morally or that it improves school discipline.

According to Ehiane (2014), punishments are expected to enforce compliance when students are under the care of teachers. Ehiane stated that punishments in a school system are expected to teach students the relationship between their behaviours and the outcome or accountability for their mistakes. However what really occurs on the ground is that unwanted behaviours are on the increase despite the presence of these punishments. Ehiano further posited that teachers are worried about the aggression being directed to them by both students and their parents. This has resulted into some students being expelled, others suspended, forced to do hard labour at school, chased out of classes all of which seem to affect their academic performance. The author agreed that some forms of punishments like corporal punishment could lead to physical injury if teachers are not careful in its administration. This would lead to absence from schools and consequently reducing the academic performance of the injured students.

Baumard, (2010) shared the same opinion but argued that punishment is a means of controlling disruptive behaviour. He further stated that if punishment is the logical result of misconduct, the student is likely to accept it without resentment. Teachers need always realize the appropriateness of punishment before initiating it. Uniform punishment can be an effective way of controlling students' behaviour if students, teachers and school administrators know and understand that punishment are firm, fair and consistent. Ideally, schools set discipline for the proper governing of the various lifestyles of students that is, the dos and don'ts. Okumbe in Ehiane (2014) opined that regulations on the other hand are authoritative disciplines with a course of law intended to promote discipline in school. Hernandez and Seem, (2004), argue that the operation of schools' is directly influenced by the way the schools' administered students disruptive behaviour. They further explained that the parameters for students' behaviour and academic expectations must be clearly stated to students. If the teacher fails to clearly established rules and consequences are ambiguous and incidents of students' disruptive behaviour will further affect academic performance.

According to Mpisso in Herbert (2009), various types of disciplinary measures used by teacher to control their class in Africa include the reprimand, bawling out, ridiculing sarcasm, belittling, name calling, withdraw of privileges, social isolation, demotion, putting placards around the offenders neck, standing or kneeling in front of class, exercise drills such as raising arms while carrying weight, expulsion from the class and detention or keeping students after school. Mwaniki (2012) stated that Caning, Sending student out of class, Forgiving/Ignoring the disruptive behavior, Giving special/extra assignment to a student, remedial work, Threats and forcing students to drop subject are main disciplinary measures teachers used to control their classes.

Teacher classroom discipline is divided into three types: preventive, supportive, and corrective. Charles (2013), although the teacher may find one category more suitable to his or her personal teaching style than another, circumstances will often call for alternate disciplinary approaches. When developing own classroom management plan it is important, therefore, to carefully consider the appropriate role of each type. Preventive Discipline involves teachers establishing expectations, guidelines and rules for behaviour during the first few days of class. Clearly explaining expectations is an essential component to preventive discipline. The goal of preventive discipline is to provide proactive intervention to potential disruptive behaviours by clearly explaining to students what behaviours are and are not appropriate. A preventive discipline technique includes guideline regarding talking in the class, homework or language use in the classroom measures taken to preempt misbehavior by keeping students engaged. Supportive discipline measures taken to assist students with self-control by helping them get

back on task while Corrective discipline are measures taken when students are not following classroom or school rules.

Supportive discipline is distinct from punishment in that it provides a student with suggestions and option for correcting behaviour before a consequence is necessary. Reminders, redirection and nonverbal communication are all examples of supportive discipline. Corrective discipline refers to a set of consequences delivered to students following an infraction. Corrective discipline technique include engaging in a verbal altercation with a student, placing students in a time out

Teacher-pupils' Relationship and Students' Academic Performance

Good teacher-pupils' relationships in the classroom involves the appropriate levels of dominance, cooperation, and awareness of high-needs students. Dominance is defined as the teacher's ability to give clear purpose and guidance concerning student behaviour and their academics. By creating and giving clear expectations and consequences for student behaviour, this builds effective relationships. Such expectations may cover classroom etiquette and behaviour, group work, seating arrangements, the use of equipment and materials, and also classroom disruptions. Assertive teacher behaviour also reassures that thoughts and messages are being passed on to the pupils in an effective way. Assertive behaviour can be achieved by using erect posture, appropriate tone of voice depending on the current situation, and taking care not to ignore inappropriate behavior by taking action (Ellen, 2012).

Positive teacher-pupils' relationships promote a sense of classroom belonging and encourage students to participate cooperatively. Pupils develop confidence to experiment and succeed in a learning environment where they are not restricted by the fear of failure. Teachers are able to assist pupils with motivation and goal setting, and students can turn to them for advice and guidance. Hattie (2015) identified some of these strategies to enhance teacher-student relationship to include teaching strategies, classroom discussion, classroom cohesion, teacher expectation, teacher immediacy, teacher credibility and classroom behaviour. Establishing a positive and supportive classroom environment, combined with productive relationships between teachers and their students, will provide a platform in which pupils are encouraged and motivated to grow both academically and personally.

Nwazor and Nwaukwa (2015) stated more closeness, warmth and interaction between students and teachers so as to improve students' learning, achieve, and effective class control technique. Teacher-student relationships in the classroom, research in this area has approached this topic in a number of ways. One prevailing view in the literature has been through the perspective of the classroom as a social system, in which social processes such as the development of relations and interactions between pupils and teachers influence areas such as pupil and teacher expectations, classroom management, and teacher self-efficacy (Pianta, 2009). To further expand on this notion, Pianta pointed out that viewing the classroom as a relationship system offers teachers a wider array of conceptual and practice tools to address social and management concerns than are offered by a focus on discrete operant techniques.

In other words, analyzing teacher-pupil relations in the classroom management context can allow for an expanded focus on effective classroom management strategies which take into account the effect of classroom interactions and relations. To draw on the area of teacher-pupil interactions in the classroom further, teacher-student relationships can also be characterized as teacher behaviour at the level of interactions (Wubbels, 2014). In particular, there are various

factors (such as teacher and pupil characteristics and classroom environment) which influence teacher-pupil interactions, and can in turn affect the quality of the teacher-student relationship. Wubbels extended this notion by characterizing teacher-pupil relationships through a combination of agency (the notion that someone is individuated, dominant, has power and control) and communion (someone who is social, shows love, union, friendliness, and affiliation (Gurtman, 2009).

Through this characterization, teachers can offer a controlled environment that is structured and has clear expectations, along with an environment that sends pupils the message of empathy and mutual respect (Wubbels et al., 2014). The literature on teacher-pupil relationships also draws on the attachment theory, which suggests that caring and nurturing relationships between teachers and their pupils play a role in overall pupil behaviour and classroom management (Weinstein, 2011). This area of study encourages teachers to see misbehaving pupils as children who need support and care from a caregiver, which a teacher may provide to a student within the classroom context (Weinstein, 2011; Riley, 2009).

With the proper care and support, along with a sense of safety and security, pupils can be encouraged to participate in class, be more motivated to learn, and become more self-confident and engaged in the classroom (Weinstein et al., 2011; Wubbels, 2014), making them more manageable for teachers. In this sense, providing caring and supporting relationships may also foster a higher-quality relationship between the teacher and their students (Harris, 2008).

Most of the literature regarding classroom management emphasized the need for teachers to build positive, high quality relationships with their pupils if they are to effectively manage their classrooms. For instance, Everston and Weinstein (2012) identified teacher-student relationships as an important theme in classroom management literature, also citing that developing these relations is an important and essential task to managing a classroom. Much of the research on pupil-teacher relationships and classroom management has found that the quality of pupil-teacher relations is an important element for managing student behaviour. One of the concepts used to 'measure' the quality of the pupil-teacher relationship is the sense of relatedness between both the teacher and the student (Furrer & Skinner 2013).

A sense of relatedness can include feelings of belonging, inclusion, acceptance, importance, and interpersonal support (Furrer & Skinner, 2013) areas which are deemed to contribute to a high quality relationship and a positive classroom environment (Thijs, Koomen, & Leij, 2008). This notion of relatedness can also be seen in terms of the extent to which teachers are able to foster positive connections with their students (connectedness) on an emotional level (Wubbels, 2014). A high sense of relatedness (or connectedness), in turn, has been found to be linked to important academic outcomes, including self-efficacy, success expectations, achievement values, positive effect, effort, engagement, interest in school, task goal orientation, and school marks (Furrer & Skinner, 2013), which in turn have been found to reduce problem behaviour and increase greater student participation and attendance in the classroom (Brackett, 2011).

Conversely, Furrer and Skinner (2013) noted that a sense of disaffection, in which the quality of the pupil-teacher relationship is low, causes the student to become "alienated, apathetic, rebellious, frightened, or burned out, which turn students away from opportunities for learning, thereby, being less compliant and engaged with the classroom environment and subsequently making class control more difficult for the teacher.

THEORETICAL FRAMEWORK

The study is anchored on Skinner's Operant Conditioning Theory and Canter Model of Assertive Discipline

Skinner's Operant Conditioning (1960)

The theory of Operant Conditioning was propounded by B.F. Skinner in 1960. The theory is based upon the idea that learning is a function of change in overt behaviour. According to Skinner, changes in behaviour are a result of individuals' responses to events, or stimuli that occur in their environment. When a stimulus-response (S-R) pattern is rewarded, the individual is conditioned to respond similarly in the future. The key to Skinner's theory is reinforcement, or anything that strengthens the desired response. This could include praise, good grades, a reward or even a feeling of accomplishment. Of course, negative reinforcement occurs when a stimulus results in increased response when it is withdrawn. The central tenet of Skinner's work is that positively reinforced behaviour will reoccur. This is why information is presented in small amounts. Responses can be reinforced, and reinforcement will be applied to similar stimuli.

Skinner's work in operant conditioning has been integrated into both classroom management and instructional development. When applied to programmed instruction, the following should occur:

- Practice should occur in a question-answer format that exposes students to information gradually through a series of steps.
- The learner should respond each time and receive immediate feedback.
- Good performance should be paired with secondary reinforcers like praise, prizes and good grades.
- Instructors should try to arrange questions by difficulty so the response is always correct, creating positive enforcement.

Relevance of Skinner's Operant Conditioning to Effective Class Control and Learning

There are many obvious ways that Skinner's work has been directly incorporated into modern school systems. Though rewards were utilized for good behaviour long before Skinner, many classroom control techniques utilized in today's classrooms are influenced by his theories. Teachers utilize discipline, immediate praise, feedback when seeking to change problematic student behaviour, and some even use "token economies" to reward students in a systematic way. The teacher should apply discipline in controlling the pupils in the classroom in order to ensure order, effective teaching and learning.

Canter Model of Assertive Discipline

The Assertive Discipline Model is an approach to classroom management developed by Lee and Marlene (1976). It involves a high level of teacher control in the class. It is also called the "take-control" approach to teaching, as the teacher controls their classroom in a firm but positive manner. The approach maintains that teachers must establish rules and directions that clearly define the limits of acceptable and unacceptable student behaviour, teach these rules

and directions, and ask for assistance from parents and/or administrators when support is needed in handling the behaviour of students. The underlying goal of assertive discipline model is to allow teachers to engage students in the learning process uninterrupted by students' misbehaviour.

Part of this approach is developing a clear classroom discipline plan that consists of rules which students must follow at all times, positive recognition that students will receive for following the rules, and consequences that result when students choose not to follow the rules. These consequences should escalate when a student breaks the rules more than once in the same lesson. But (except in unusual circumstances) the slate starts anew the next day.

The main Assumptions of Assertive Discipline Model include:

- Students will misbehave.
- Students must be forced to comply with rules.
- Teachers have needs, wants and feelings and the right to teach without interruption by students misbehaving.
- Punishment will make students avoid breaking rules and positive reinforcement will encourage good behavior.

METHODOLOGY

Research Design

Correlational research design was adopted for the study. According to Nworgu (2015), correlational study is the type of study that seeks to establish what relationship exists between two or more variables. Nworgu also stated that it indicates the direction and magnitude of the relationship between the variables. Correlational research design is considered suitable for this study because it enables the researcher to determine the correlation between class control techniques and pupils academic performance in basic science in public primary schools in Ekeremor Local Government Area, Bayelsa State.

Area of the Study

This research study was carried out in Ekeremor Local Government Areas, Bayelsa State which is one of the eight Local Government Areas in the state. It borders Delta State and has a coastline of approximately 60 km on the Bight of Bonny. Its headquarters are in the town of Ekeremor in the northeast of the area. It has an area of 1,810 km² and a population of 270,257 at the 2006 census. Though the people of Ekeremor are well known for their exploits in fishing and other agricultural activities, their interest in education cannot be overemphasized as evidenced in the large number of primary and secondary schools in the area.

Population of the Study

The population of this study consisted of four thousand, two hundred and thirty six (4,236) primary five pupils in the 56 public primary schools in Ekeremor Local Government Area, Bayelsa State. (Source: Bayelsa State Basic Education (DSBE) as at 25th July, 2018).

Sample and Sampling Technique

The sample size of this study was three hundred and ninety six (396) primary five pupils. The sample size is drawn using simple random sampling technique. A simple random sample is a subset of individuals (a sample) chosen from a larger set (a population). Each individual is chosen randomly and entirely by chance, such that each individual has the same probability of being chosen at any stage during the sampling process, and each subset of the individuals has the same probability of being chosen for the sample. First, the simple random sampling technique was used to select 25 public primary schools from the local government. Secondly, 18 primary five pupils were selected from each of the 56 primary schools given a total of 396 pupils. This gave a sample 10% of the population

Instrument for Data Collection

The instrument titled “Classroom Control Techniques (CCT) and Basic Science and Technology Achievement Test (BSTAT) was used for this study. The CCT has two sections A and B. Section A and B contain 10 and 7 items on teacher classroom discipline, and teacher-pupils relationships structured on a 4 point rating scale of strongly agree (SA) = 4, agree (A) = 3, disagree (D) 2 and strongly disagree (SD) = 1.

On the other hand, Basic Science and Technology Achievement Test (BSTAT) was derived from end of second term primary five examination result 2017/2018.

Validation of the Instrument

The instrument was validated by experts in the field of Primary Education Studies and Measurement and Evaluation. These experts were requested to critique the instruments for the appropriateness of the language used, suitability and content coverage, which is limited to face and content validity of the instrument. They made suggestions and corrections after which some items were added and some dropped.

Reliability of the Instrument

The researcher administered 20 copies of the instrument to primary five pupils in public primary schools in Yenagoa Local Government Area, Bayelsa State who were not part of this study. The data collected were used to establish the reliability of CCT using Cronbach Alpha. The data obtained from the analysis yielded reliability coefficients of 0.90 and 0.92 for sections A and B respectively and an overall reliability coefficient of 0.89 which was adjudged reliable in accordance with the recommendation of Ogundare (2008) that reliability coefficient of 0.7 or above is an acceptable reliability value.

Administration of the Instrument

The researcher personally administered copies of CCT to the respondents in their schools with the help of four research assistants who were adequately briefed on the method of administration and collection. Each research assistant covered five primary schools while the researcher covered

the remaining five schools. On the spot method of completion and retrieval were adopted. The exercise lasted for one week which ensured a high response rate as 384 copies of the questionnaires were correctly filled and returned giving a percentage return rate of 97.

Method of Data Analysis

Pearson product moment correlation coefficient was used to answer the research questions and employed in testing the hypotheses at .05 level of significance. For the purpose of data analysis, each of the instruments used were scored. The four-point rating scale was used in scoring the respondents' responses for each item. In testing the hypotheses, any hypothesis with p-value lesser than 0.05 ($p < 0.05$) was rejected while a hypothesis with p-value greater than 0.05 was accepted. Data were analyzed using Statistical Package for Social Science (SPSS) version 23.0.

RESULTS

Research Question 1: What is the relationship between teacher classroom discipline and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State?

Table 1: Correlational analysis between teacher classroom discipline and academic performance of pupils in basic science

Variables	N	r
Teacher Classroom Discipline Basic Science and Technology	384	-.48

Table 1 shows a Pearson's coefficient (r) of -.48 which indicates a negative relationship between teacher classroom discipline and academic performance of pupils in basic science. This means that as the value of one variable goes up, the value of the other variable goes down. Data in Table 1 further shows there is low relationship between teacher classroom discipline and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State since r-value is less than 0.50.

Research Question 2: What is the relationship between teacher-pupils' relationship and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State?

Table 2: Correlational analysis between teacher-student relationship and academic performance of pupils in basic science

Variables	N	r
Teacher-pupils' Relationship Basic Science and Technology	384	.920

Table 2 shows a Pearson's coefficient (r) of .920 which indicates a positive relationship between teacher-pupils' relationship and academic performance of pupils in basic science. This means that as the value of one variable goes up, the value of the other variable also increases. Data in

Table 2 further reveals that there is high relationship between teacher-pupils' relationship and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State since r-value is above 0.70.

Hypothesis 1: There is no significant relationship between teacher classroom discipline and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State.

Table 3: Correlation coefficient of the relationship between teacher classroom discipline and academic performance of pupils

Variables	R	p-value	Remark
Teacher classroom discipline	-.480	.000	Significant
Academic performance			

S – Significant correlation at 0.05 level of significance.

The correlational analysis between teacher classroom discipline and academic performance of pupils in basic science presented in Table 3, ($r(384) = -.48$; $p = .000$) show that the relationship between teacher classroom discipline and academic performance of pupils in basic science and technology is significant since p-value of .000 is less than 0.05 level of significant on which the hypothesis was stated. The null hypothesis of no significant relationship is therefore rejected.

Hypothesis 2: There is no significant relationship between teacher-pupils' relationship and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State.

Table 4: Correlation coefficient of the relationship between teacher-pupils' relationship and academic performance of pupils

Variables	R	p-value	Remark
teacher-student relationship	.920	.001	Significant
Academic performance			

S – Significant correlation at 0.05 level of significance

The correlational analysis between teacher-pupils' relationship and academic performance of pupils in basic science presented in Table 4 ($r(384) = .920$; $p = .001$) show that the relationship between teacher-student relationship and academic performance of pupils in basic science is significant since p-value of .001 is less than 0.05 level of significant on which the hypothesis was stated. The null hypothesis of no significant relationship is therefore rejected.

DISCUSSION OF RESULTS

Relationship between Teacher Classroom Discipline and Academic Performance of Pupils

Findings of the study revealed a negative and low relationship between teacher classroom discipline and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State. This means that the higher the teacher classroom discipline of

the pupils, the lesser the pupils will experience academic performance. This finding is in consonance with that of Canter (2010), who revealed that teacher classroom discipline such as corporal punishments does not improve students' discipline and academic performance. Ehiane (2014) revealed that some forms teacher classroom discipline such as corporal punishment increases students' absence from schools and consequently reducing their academic performance.

Relationship between Teacher-pupils' Relationship and Academic Performance of Pupils

Findings of the study showed that there is a positive and high relationship between teacher-pupils' relationship and academic performance of pupils in primary schools in Ekeremor Local Government Area, Bayelsa State. This finding concurs with that of Hattie (2015), who revealed that teacher-pupils' relationship has a positive significant relationship on pupils, academic performance in both internal and external examinations. In agreement, Nwazor and Nwaukwa (2015) reported that more closeness, warmth and interaction between teachers and students improve students' learning, and academic performance in skilled-based subjects. Furthermore, Weinstein (2011) disclosed that a significant relationship exists between teachers-pupils' relationship and students' overall classroom behaviour and academic performance. Supporting this view, Rebreaan (2012) revealed that teacher-pupils' relationships have positive significant effect on pupils' academic performance.

CONCLUSION

Effective classroom control together with good quality lesson notes can make the students to achieve maximally. It is the responsibility of the teacher to control the class using effective class control techniques to ensure that pupils obey class orders, pay attention in the class, learn, and performance high academically. The findings of the study revealed that teacher-pupils' relationship have positive and high relationship with the academic performance of pupils in basic science and technology in primary schools while teacher classroom discipline have a negative and low academic performance of primary school pupils. Based on these findings, the research concludes that ensuring more closeness, warmth and interaction between pupils and teachers can improve students' learning and academic performance both in internal and external examinations.

This study would be of immense benefit to the teachers, pupils, school administrators, parents and future researchers. The teachers will benefit from the findings in that it would highlight the need for teachers to adopt class control techniques that will promote effective teaching and learning in order to improve the academic performance of students. It will propel teachers to be flexible in the use of classroom control techniques since no technique is effective by itself but must be combined with others to achieve the desired goal.

The pupils would benefit from the findings of this study in that it will lead to more conducive or favourable learning in the class. This is because; teachers' use of different class control techniques will help to eliminate pupils' disruptive behaviours which will enhance their interest in class subject. This could encourage them to learn more effectively so as to improve their academic performance. The findings of this study will also create needed awareness to school administrators on whether classroom control techniques adopted by teachers have relationship with academic performance of pupils. This could guide them in designing classroom

management programmes to re-train teachers in the use of these techniques to enhance teaching and learning.

Finally, the findings of this work would fill the gap in knowledge and provide possible solutions to some of the practical and theoretical problems that exist within teachers and the student on academic performance in basic science in primary schools in Ekeremor Local Government Area, Bayelsa State. Future researchers could find the information provided in this study important when conducting a study in related areas.

Recommendations

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

- Primary school teachers should improve their relationship with pupils to ensure pupils' confidence in the teachers. This will make pupils to pay more attention to the teachers any time they are delivering instructions in the classroom.
- Primary school administrators should provide training and re-training programmes for teachers through workshops, seminars and conferences to up-date their classroom management skills. This will enable teachers to effectively select appropriate class control techniques as the need arises.
- Administrators of primary schools should carry out regular classroom supervision of teachers to ensure that teachers use effective classroom control techniques to ensure pupils pay attention and learn effectively.

REFERENCES

- Afsheen F., Rabia, I., & Sajid H. A. (2011). Emotional intelligence and transformational leadership: Finding gender differences. *World Applied Sciences Journal*, 14(11), 1734-1743.
- Ali, A. A., Dada, I. T., Isiaka, G. A., & Salmon, S. A. (2014). Types, causes and management of indisciplinary acts among secondary school students in Shomolu Local Government Area of Lagos state. *Journal of Studies in Social Science*, 8(2), 254 -287. Retrieved from <http://www.infinitypress.info/index.php/jsss/article/download/790/379>.
- Answers (2010). Academic achievement. Wikipedia, the free encyclopedia School Library Retrieved on 30th January, 2013 from: <http://en.wikipedia.org/wiki/school-library>.
- Baumard, P. (2010). *Tacit Knowledge in Organizations*, London: Sage Publishing Company.
- Brackett, M. A. (2011). Classroom emotional climate, teacher affiliation, student conduct. *Journal of Classroom Interaction*, 46(1), 27-36.
- Canter, L. & Canter, M. (2010). *Assertive discipline: A take-charge approach for today's educator (2nd Ed.)*. Sell Beach, CA: Lee Canter & Associates.
- Canter, L. & Marlene, C. (1976). *Assertive discipline: A take-charge approach for today's educator*. Los Angeles, CA: Canter and Associates INC.
- Charles, C.M. (2013). *Building classroom discipline (sixth Edition)*. USA: Allyn & Bacon. Reprinted.
- Cornelius-Ukpepi, B. U., Esu, G. O., & Ndifon, R. A. (2017). Learner diversity and academic achievement of primary school pupils in basic science in Calabar Education Zone of Cross River State, Nigeria. *Journal of Education and Practice*, 3(9), 59-70.

- Ehiane, O. S. (2014). Discipline and academic performance (a study of selected secondary schools in Lagos, Nigeria). *International Journal of Academic Research in Progressive Education and Development*, 3(1), 181–194. Retrieved from http://hrmars.com/hrmars_papers/Discipline_and_Academic_Performance.pdf.
- Eisenman, G. S. E. & Cushman, C. A. (2015). Bringing Reality to Classroom Management in Teacher Education. *Professional Educator. Academic Search Complete*, 39(1), 1–12.
- Eisenman, G., Edwards, S. & Cushman, C. A. (2015). Bringing reality to classroom management in teacher education. *Professional Educator*, 39(1), 1-12.
- Ellen, C. (2012). classroom management and teachers: the effects of rewards and punishments on behavior and learning. UNIVERSITY OF DELAWARE. Retrieved from: <http://ematusov.soe.udel.edu/final.paper.pub/pwfsfp/0000013e.htm>
- Encarta (2009). Discipline. Redmond, WA: Microsoft Corporation
- Erickson, E. (2011). *Psychosocial theory of human development*. Retrieved June, 23, 2011. From <http://www.agrange.edu/responses/pdf/citations/nursing/adolscnets%20seflesteem.pdf>.
- Eshetu , A. A. (2014). Indiscipline problems of high school students: The case of Ethio-Japan Hidassee Secondary School (Addis Ababa, Ethiopia). *Journal of Education and Practice*, 5(37), 23-28. Retrieved from <http://www.iiste.org>
- Essien, A. (2010). What teacher educators consider as best practices in preparing pre-service teachers for teaching mathematics in multilingual classrooms. *Perspective in Education*, 28(4), 32-42.
- Evertson, C. M. & Weinstein, C. S. (Eds.) (2012). *Handbook of classroom management. Research, practice, and contemporary issues*. Mahwah, NJ: Larence Erlbaum Associates.
- Fairchild, A. J. & McQuillin, S. D. (2010). Evaluating mediation and moderation effects in school psychology: A presentation of methods and review of current practice. *Journal of School Psychology*, 48, 53–84.
- Furrer, C. & Skinner, E. (2013). Sense of relatedness as a factor in children’s academic engagement and performance. *Journal of Educational Psychology*, 95, 148-162.
- Gitome, J. W, Katola, M. T. & Nyabwari , B. G. (2013). Correlation between students’ discipline and performance in the Kenya Certificate of Secondary Education. *International Journal of Education and Research*, 1(8), 1 – 10. Retrieved from <http://www.ijern.com/journal/August-2013/33.pdf>
- Gurtman, M. B. (2009). Exploring personality with the interpersonal circumplex. *Social Psychology Compass*, 3, 1e19. <http://dx.doi.org/10.1111/j.1751-9004.2099.00172.x>.
- Harris, K. R. (2008). Teacher–student support, effortful engagement, and achievement: A 3-year longitudinal study. *Journal of Educational Psychology*, 100(1), 1-14.
- Hattie, J. (2015). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. London & New York: Routledge.
- Herbert, K. (2009). *The influence of discipline management by head teachers on students’ academic performance in selected private secondary schools of Busiro County in Wakiso District*. (Published Matsers degree thesis), Makerere Univeristy.
- Hernandez, T. J & Seem, S. R (2004). A safe school climate: A Systemic approach and the school counselor. *ASCA, Professional School Counseling*, 7(4), 256-262.
- Hughes, K. (2010). *The effect of classroom management strategies on math fluency growth rate*. (Published Ph.D. Dissertation), Oklahoma State University.
- Kaushar, M. (2013). Study of impact of time management on academic performance of college students. *Journal of Business and Management*, 9(6), 59-60.

- Košir, K., & Tement, S. (2014). Teacher-Student Relationship and Academic Achievement: A Cross-Lagged Longitudinal Study on Three Different Age Group. *European Journal of Psychology of Education*, 29(3), 409-428. DOI 10.1007/s10212-013-0205-2.
- Rebrean, L. M. (2012). The Effects of Teacher-Student Relationships on Academic Achievement – a College Survey. *Ștefan cel Mare University of Suceava, Romania*.
- Masitsa, G. (2013). Discipline and disciplinary measures in the Free State township schools: Unresolved problems. *Acta Academica*, 40(3), 234 - 270. Retrieved from http://reference.sabinet.co.za/sa_epublication_article/academ_v40_n3_a10
- Mcearney, P., Plax, T. G., Richmond, V. P., & McCroskey, J. C. (2010). Power in the Classroom VII: Linking Behavior Alteration Techniques to Cognitive Learning. *Communication Education*, 36, 1-12. <https://doi.org/10.1080/03634528709378636>
- Mishra, P. (2012). A study on the effect of emotional intelligence on academic achievement of Jaipur senior secondary students. *International Journal of Educational Research and Technology*, 3(4), 25-28.
- Mwaniki, F. (2012). *Influence of classroom management on student academic performance in history and government in public secondary schools in Embu East District*. (Published MASTERS Degree projects), University of Nairobi.
- Nakpodia, E. D. (2010). Teachers' disciplinary approaches to students' discipline problems in Nigerian secondary schools. *International NGO Journal*, 5(6), 144-151. Available online at <http://www.academicjournals.org/INGOJ>
- Njoroge, P. M., & Nyabuto, A. N. (2014). Discipline as a factor in academic performance in Kenya. *Journal of Educational and Social Research*. 4(1), 289-307. doi:10.5901/jesr.2014.v4n1p289
- Nwadinigwe, I. P., & Azuka-Obieke, U. (2012). The Impact of Emotional Intelligence on Academic Achievement of Senior Secondary School Students in Lagos, Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(4), 395-401.
- Nwazor, J. C. & Nwaukwa, F. C. (2015). Towards more effective vocationalisation of Business Education in tertiary institutions in south east zone of Nigeria. *Journal of Education and Practice*, 6(25), 41-48.
- Nworgu, B. G. (2015). *Educational research, basic issues and methodology*. Nsukka, Enugu: University Trust Publishers.
- Oliver, R., & Reschly, D. (2007). *Effective classroom management: Teacher preparation and Professional development*. Washington: Vanderbilt University press.
- Omote, M. J., Thinguri, R. W., & Moenga, M. E. (2015). A critical analysis of acts of student indiscipline and management strategies employed by school authorities in public high schools in Kenya. *International Journal of Education and Research*, 3(12), 1-10.
- Pianta, R. (2006). Teacher-child relationships and early literacy. In D. Dickinson & S. Neuman (Eds.), *Handbook of early literacy research*, 2, 149-162. New York: Guilford Press.
- Riley, P. (2009). An adult attachment perspective on the student-teacher relationship & classroom management difficulties. *Teaching and Teacher Education*, 25(5), 626-635.
- Scottt, D. (2012). Meaning of academic performance. Retrieved from: http://www.ehow.com/about_6398585_meaning-academic.
- Skinner, B.F. (1968). *The technology of teaching*. New Jersey: Prentice Hall.
- Soheili, F., Alizadeh, H., Murphey, J. M., Bajestani, H. S., & Ferguson, E. D. (2015). Teachers as leaders: The impact of Adler-Dreikurs classroom management techniques on students'

- perceptions of the classroom environment and on academic achievement. *Journal of Individual Psychology*, 71(4), 440-461.
- Thijs, J. T., Koomen, H. M. Y., Roorda, D. L., & Ten Hagen, J. (2009). Explaining early teacher-child interactions: An interpersonal theoretical approach. *Submitted for publication*.
- Tomlinson, C., & Jarvis, J. M. (2014). Case studies of success: Supporting academic success for students with high potential from ethnic minority and economically disadvantaged backgrounds. *Journal for the Education of the Gifted*, 37, 191–219.
- Tsinidou, M. (2006). Evaluation of the factors that determine quality in higher education: An empirical study. *School Psychology Review*, 31, 378–393.
- Weinstein, C. M. (2011). *Handbook of classroom management: research, practice, and contemporary issues*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Wubbels, T., Brekelmans, M., den Brok, P., Wijsman, L., Mainhard, T., & van Tartwijk, J. (2014). Teacher-student relationships and classroom management. In E. Emmer., & E. Sabornie (Eds.), *Handbook of classroom management* (2nd Ed.). New York: Routledge.
- Yildiz, N. G. (2017). Classroom management and student achievement: A study on five elementary classrooms¹². *JESI - Anadolu Journal of Educational Sciences International*, 7(1), 155-183.

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ⁱ **Benjamin Woke Wadi** is a lecturer in the Department of Early Childhood and Primary Education, Faculty of Education, Ignatius Ajuru University of Education Port Harcourt, Rivers State, Nigeria.

ⁱⁱ **Femodein Newman** is of the Universal Basic Education Authority Ekeremor, Bayelsa State, Nigeria.