

An Investigation into the Effect of the Interconnection Between the Diverse Teaching Methods with Focus on Lecture Method and the Academic Achievement of Senior Secondary School Students in Koidu City, Sierra Leone

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Abstract: This study was to explore the relationship between the teachers' teaching methods and the academic performance of senior secondary school students in Koidu City, Sierra Leone. It intends to find out the best method for instruction in schools and how effective they might be. The researcher started with a literature review that took its foundations from existing works by various scholars in the field of education.

This research work used mixed-method approach, which combines with quantitative and qualitative surveys. 80 respondents were targeted, which includes 50 students, 25 teachers and 5 Principals of the five selected secondary schools of study. The research also revealed some of the causes of poor performance of the students in their external examinations: lack of teaching materials, poor salary, lack of motivational factor, indiscipline of students, overcrowded classrooms, shortage of qualified teachers, and lack of conducive learning environment.

Furthermore, this study may be considered significant in several ways: it helps to increase the teachers' level of awareness and understanding of the use of most of the instructional techniques and when necessary to apply them. The findings of this work will provide the teachers with feedback on their teaching competencies in the use of different teaching methods.

Keywords: Teaching Methods, Academic Performance, Instruction, Education, Motivational Factor, Indiscipline, Competence.

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I. INTRODUCTION

Education is the process of training and developing the knowledge, skill, mind and character of the people. It is also the means by which the hidden potentials of individuals are developed so that they might be very useful to themselves, their families and the society at large. Therefore, there is a great need to improve the quality of education that students receive, which are determined by the quality of teachers, who helps others to acquire knowledge, values and competences in their academic performance. As a result of this, good and

quality teaching and learning are necessary for students' academic performance.

Teaching method refers to the overall approach a teacher uses in the classroom. A teacher's choice of teaching methods should not only be based on what works best for him/her, it also depends on the subject area, school values, class demography and students' needs. Thus, this research work is an attempt to contribute possible and positive solutions to the already existing intellectual challenges of teaching-learning situation of the post-primary education in

the Koidu City, Sierra Leone with special reference to the senior secondary school students. Many educated authors, over the years, have researched and propounded possible solutions to the challenges of the teaching methods of teachers in relation to the learning ability of students.

Despite the importance of teaching methods, many schools in Koidu City still struggle with challenges such as overcrowded classrooms, limited teaching aids, and lack of teacher training etc., which often force teachers to rely on teacher-centered methods that may not effectively engage learners. This in turn, may contribute to the persistent issue of poor academic performance among student in various subjects especially in core areas like Mathematics, English Language, and Science.

Previous research has also shown a strong link between teaching methods and student outcomes. However, there is a noticeable gap in localized studies that focus specifically on secondary schools in Koidu City, taking into contextual realities of the region- such as the teacher preparedness, resource availability, and classroom dynamics. Therefore, understanding how teaching methods influence academic performance in this specific context is crucial for informing educational policies for teacher training programs, and classroom practices that are relevant and effective.

Due to the importance of education in Sierra Leone's curriculum, effective teaching is very compulsory and essential for the students' academic achievement and performance.

Poor academic performance can be caused by some of the following: shortage of quality teachers, lack of teaching materials, automatic promotion, and age of the learners. To have adequate knowledge of how teaching methods affect students' learning will help educators to select techniques that improve teaching quality, effectiveness, and accountability to learners and the public.

Therefore, the teachers are encouraged to support student's active participation in their learning through the selection of suitable teaching methods. This therefore requires the teacher's ability to balance between what is taught and how it is taught this is because teachers' teaching method has a lot to do with the academic performance of students in a school.

A. Aim of the Study

The major aim of the study is to explore the relationship between different teaching methods and academic performance of the senior secondary school students in Koidu City, Sierra Leone. It also investigated how various teaching methods affect the academic performance of the senior secondary school students in Koidu.

➤ *Specifically, the Study was Sought to Achieve the Following Objectives:*

- To identify the various teaching methods used in the selected senior secondary schools in Koidu city.

- To determine the effectiveness of the various methods employed in the various senior secondary schools.
- To examine students' performance under the various methods mentioned above.
- To determine the most effective method that facilitated better academic performance in senior secondary school students.

B. Research Questions

➤ *The Research Questions for this Study are:*

- What are the various teaching methods used in the senior secondary schools?
- What are the implications of the various methods used in the selected secondary school?
- What are the students' performance using these various methods?
- What is the most effective method that facilitates better academic performance?

II. LITERATURE REVIEW

Learning and teaching, are the two most difficult experiences of human being, and are considered to have exceptional natures as well. Many scholars have tried long to explain the phenomena during which we 'teach' and 'learn'.

A. Evolution of Teaching Method

The evolution of teaching methods is a way of reflecting on different changing views on how people learn and also how knowledge should be delivered. It shows how teaching methods have developed from being rigid and teacher-centered approach, to more flexible and learners- centered learning. Educators or Instructors should strive to discover the best tips and techniques for the learner's attainment of knowledge. Excellent academic performance of learners towards reaching their full potential is the desire of a good instructor. Good instructors desire to help learners explore deeper into acquiring skills and knowledge that is being transmitted. A pertinent question is; what teaching methods best suit the actualization of the desired goal? Also, are there simple changes we need to make to help the children achieve more, or to help them easily overcome commonly experienced barriers to learning?

Therefore, it has since been the aspiration of many educators such as the Roman educator Quintilian, to find ways to encourage students to use their intelligence and to help them learn during the medical educational era. Comenius in Bohemia created an illustrated textbook of things that children will be familiar with in everyday life and used it to teach children. In the 19th century, an era of compulsory education, the Prussian educational system adopted a model that required classroom management skills to be incorporated into the teaching processes. Then in the 20th century, newer teaching methods incorporated the use of television, radio, internet, multimedia and other modern devices. Some educators believe that the use of technology while instructing

the learners is not a substitute for methods that inspire critical thinking and a deeper desire to learn in the learners.

B. Analysis of Teaching Methods

Teaching is the process of attending to people's need, experiences and feelings so as to learn a particular thing. It involves using different approaches which can take the following forms: questioning, listening, giving feedback, explanation, demonstration, checking and testing understanding and capacity, and facilitating learning activities, such as note taking, discussion, writing assignments, simulations and sharing experiences with learners.

Teaching is one of the oldest professions in the world. It is indeed the mother of all professions because practitioners in other professions are taught by teachers. The term teaching method takes into consideration, teaching standards, instructional guidelines, pedagogy and management strategies which can be used for classroom instruction. Teaching can simply be defined as a process of guiding students' learning by addressing their needs, experiences, and emotions.

C. Types of Teaching Method

There exist a number of teaching methods that the teachers can commonly use in teaching their students. Some of the teaching methods include: Activity Method, Collaboration Method, Discussion Method, Demonstration Method, Experimental Method, Group Method, Questioning Method, Hybrid Method, Inquiry –based Method, Lecture Method, Project or Assignment Method, and Storytelling teaching methods etc. We shall briefly discuss on some of the teaching methods and discuss in detail the lecture method which is the mostly used method of teaching in Koidu City.

➤ The Teaching Methods are Basically Classified as

- Teacher -centered approach
- Students -centered approach
- Content- centered approach

✓ Teacher-Centered Methods

In this method, the teachers are the main authoritative figure. The students are considered as 'empty vessels' that only receive and acquire knowledge from their teachers through lectures without active engagement and participation.

✓ Student-Centered Method

In this method of teaching, the learner is the focus of the teaching process. They are the active participants, asking questions, discussing and exploring on the giving topic. The teacher's major role is to coach, direct and facilitate students learning. The teachers also measure students learning, achievement and performance through formal and informal methods of assessment such as group projects, and class participation.

✓ Content- centered approach

Content-centered method is a teaching method that focuses on supplying information to students in a structured, systematic, and organized way. This method lays more emphasize on the delivery of content through lectures, and textbooks. By providing a solid foundation of content knowledge, this method aims to support students in developing higher-order thinking skills and achieving deeper levels of understanding. Having listed the above teaching methods, more emphasis will be made on Lecture method which is the commonly used method.

D. Lecture Method

Lecture method can be defined as a cornerstone of education. It can be defined as a method whereby the teacher verbally delivers information to a large group of students or learners. Lecture method is mostly valuable when covering a large amount of material within a limited time. Also, this method introduces the students to different perspectives and historical contexts which helps to generate intellectual curiosity and helps to deepen in them an urge for exploration through other learning activities.

However, this method has been criticized by different scholars. One of the most frequent complaints is its inactive nature towards the student's achievement and performance. In this method, students are often seen playing the receptive role, such as taking notes without active participation. This can therefore lead to shallow understanding and poor retention of what had been taught. Research by Bligh (2000) pointed out the need for active listening and engagement strategies to make lecture method more attractive and educative. Furthermore, the lecture method is more beneficial for auditory learners, while students who learn best through visual or kinesthetic methods may not enjoy the method.. The "one-size-fits-all" approach can fail to address the diverse learning needs of individual students.

Furthermore, critics like Felder and Brent (2009) strongly oppose relying solely on lecture method, they argue that lecture method encourages surface learning and fail to promote critical thinking skills for the student effective performance. They supported active learning approaches that will encourage and promote students participation, problem-solving, and collaborative learning. Indeed, various studies have affirmed the benefits of active learning methods over traditional lectures. Michael (2006) gave a broad review of a research that shows that active learning techniques constantly lead to improved student performance, deeper understanding, and greater engagement. Some of these techniques include group discussions, problem-based learning, and case studies, which require students to actively participate in the learning process.

Lecture teaching method is one of the oldest forms of instruction in education. In this method, the teacher presents information verbally to a large group of students, with limited opportunities for interaction. This method has been in existence for centuries, it dates back to the medieval universities in Europe. Many educators and scholars have debated the effectiveness of the lecture teaching method.

Some argue that this method is the best way to deliver information to a large group of people, while others believed that this method is outdated and therefore it cannot engage students effectively. As a result of this, we will explore the different views of other scholars on the lecture teaching method, including the opinions of various writers who have also written in favor or against this method.

Smith (2022), in his study of *"The Power of the Lecture: Why it Still Works,"* argues that lectures are effective way to deliver content and engage students in their learning process. However, his opinion was criticized because he failed to address the potential drawbacks of passive listening and the lack of student engagement that follows while using this traditional lecture method. In contradiction to Smith opinion, Patel (2020), in her article *"Beyond the Lecture: Embracing Active Learning,"* Challenges the notion that lecture is the most effective to engage students and to promote deeper learning. She advocates that teaching methods should put into consideration the techniques that also promote interactive and experiential teaching techniques that will contribute into good academic performance of the students.

Johnson (2017), highlighted different benefits of using lecture methods in communicating and passing information to the learners and in building a foundational knowledge base. His opinion was criticized since his notion does not provide the practical strategies for incorporating active learning while using lecture method. Kim (2022) was totally against the use of lecture method. In her research paper titled *"Rethinking Pedagogy: Moving Beyond Lectures"* emphasized on the limitations of passive listening and information retention while using lecture method. She supported a teaching method that will advocate and promote student-centered and collaborative learning environments and which will be beneficial for the students' academic performance.

Wang (2015) was of the opinion that lecture method is an efficient and effective way to deliver information to large groups of students and to ensure consisted content delivery. However, he fails to address the potential limitations of lecture method in promoting active learning and student constant learning, growth and participation, Wu (2019) in her research paper *"Breaking the Lecture Habit: Strategies for Effective Teaching,"* challenges dominance of the lecture method. She was of the opinion that even though lecture method is good for teaching a large group of students, that lecture method is monotonous and uninspiring for student's academic performance. She advocates and encourages varied and engaging teaching methods that also promote and encourage active learning as well as critical thinking.

However, having considered the different views and opinions of the above writers and many others that weren't pinned down, that wrote in favour or against lecture method as the best teaching methods in academic performance of the students, the researcher has the following input and observations, to make to balance her findings. In as much as lecture method remains highly valuable especially looking at its positive contributions, considering the trend of this present 21st century learners, it could be said that lecture method is

very useful and important in content delivery but it should not be used alone. The educational instructors are encouraged not to rely solely on lecture method. Using only lecture method may lead to low student engagement and participation, limited critical thinking.

Lecture method can work better when it is combined with other teaching styles. Teaching should be flexible, and should be based on students' needs. Lecture method often leads to passive learning and does not suit all learners, especially those who learn best by doing, discussing or exploring. Lecture method can easily lead to student disengagement especially when the topic is abstract and when the teacher talks for a long time without interaction with the students.

In conclusion, in as much as lecture method offers certain advantages, it is far from being the 'best' method of teaching. The modern change in education demands a method that is more of student-centered approach that supports and promotes active learning and accommodates to various learning styles. A positive approach of this method has to do with integration of this method with other interactive activities, thus, group work, demonstration, discussion, are the most effective way to foster deep understanding, critical thinking, and a lifelong learning in the lives of the learners. The lecture method therefore, should be viewed not as the primary vehicle for learning, but rather as a valuable tool within a larger pedagogical toolbox.

While lecture method can be seen as an efficient way to deliver information to a large audience and provide a structured overview of a subject, they also have limitations in terms of promoting student engagement, critical thinking, and active learning. It is essential for educators to consider the strengths and weaknesses of the lecture teaching method and incorporate a variety of teaching strategies that will help them to meet the diverse needs of students in today's classrooms. By combining lectures with hands-on activities, discussions, and group work, instructors can create a more dynamic and engaging learning environment that supports student success and promotes deeper understanding of the material.

E. Advantages and Disadvantages of Lecture Method

The lecture methods which is the oldest, easiest and widely form of teaching has advantages and disadvantages. Below are some of them.

➤ Advantages of Lecture Method

- The lecture can be taped, filmed, or printed for future use.
- It is more economical and can be used among large number of students.
- It saves time and the main aim of this method is to cover the syllabus.
- It is the simplest method and does not require any arrangements.
- It helps the student to be familiar to most teachers and their fellow students.
- It is easy to plan and deliver.

- It helps the student to communicate face –to- face with their instructor and clarify their doubts.
- The student has the opportunities of sharing their experiences with the instructor.
- It is good for introducing new topics.

➤ *Disadvantages of Lecture Method*

- It is difficult to maintain student interest and attention for a full hour of lecture.
- Lecture information can be forgotten easily, during and after the lecture.
- It encourages student dependence on the teacher.
- The instructor needs adequate preparation in terms of the topic.
- It is against the principle of learning by doing.
- It limits student engagement and interaction.
- It can be boring if poorly delivered.
- It brings lack of interest or decline due to lack of participation.
- It is a one way form of communication.

F. Skills Needed to Prepare the Lecture Method

While making the lecture method effective and enjoyable, there are various skills which need to be put into practice. The instructors are not only required to possess adequate knowledge and competencies in terms of the subjects that they are imparting or about to teach the students, but they also need to take into considerations various factors, for instance, they are to provide factual information and answer the questions that the students might ask them. Therefore, the teachers must ensure that they clarify all the problems and difficulties that the students might encounter at the course of content delivery. The following skills when properly used by the instructors will not only make lecture method important and beneficial, it will also enable student learning, development and experience towards their academic performance. The following skills are needed to make lecture method more educative.

➤ *Communication Skills*

In the course of implementation of the lecture method, communication skills are regarded to be of utmost significance. In the communication processes, the teacher passes information, the receivers understand and express their responses and the teacher also is expected to give feedback to the learners. Within the course of entire lecture method, the communication processes need to take place in an appropriate manner.

Furthermore, there are various factors that need to be taken into consideration, such as making use of polite languages and decent words, common languages, and eye contact. Therefore, learning will be understood, when the communication skills is put into practice in a well-ordered manner.

➤ *Time Management Skills*

In educational institutions at all levels, the lectures are organized in accordance to the timings, hence, when the

instructors are preparing their lectures, they need to take into consideration the timings. When the lessons are lengthy, they usually are completed in more than one lecture. On the other hand, when the lessons are short, they can be completed in just one lecture. When the time gets over, the instructors need to continue with the lecture in the next class. Therefore, it is comprehensively understood, when the time management skills will be put into practice in a well-organized manner, the instructors and students will contribute in an efficient manner in leading to enrichment of the use of the lecture method.

➤ *Problem Solving Skills*

Within the course of understanding of lesson plans, preparing assignments, reports and projects and in participating in other academic activities, the students might experience some problems. Hence, the students as well as the instructors need to be well-aware in terms of handling problem solving skills. There are various factors that need to be taken into considerations while settling or handling problems.

When the instructors up-grade these skills, they are able to provide solutions to the problems experienced by the students at the course of their learning. On the other hand, when students understand these skills, they are able to solve their problems on their own. Therefore, it can be stated, that when the problem solving skills are put into practice in a well-organized manner, the instructors and students will contribute significantly in leading to enhancement of the lecture method.

➤ *Creative Skills*

Creative skills are the skills that are put into operation by the instructors to carry out their duties in a creative manner. When the teacher is imparting knowledge and understanding to the students they also need to be very creative. Creative skills enable the teachers and students to improve their knowledge and understanding by applying interesting ways to provide solutions to their problems.

These skills enable the individuals to look at things from a unique perspective. In other words, it is the ability to consider something from the exceptional perspective. Furthermore, the individuals will be able to devise modern, technical and scientific ways in providing solutions to various types of problems, especially in the achievement of academic goals (Doyle, 2020). Therefore, it can be stated that when the creative skills are put into practice in an efficacious manner, the instructors and students will contribute positively in leading to enhancement of the lecture method.

G. Impact of Teaching Methods and Student Performance

Teaching methods play a vital role in shaping and assessing the academic achievement of the students. The way a teacher delivers his or her subjects influences how the students will understand, retain and apply knowledge that has being communicated to them..

The teacher is a very influential factor when the issue of student's performance is put on discourse. Hence whatever method the teacher employs to make his or her lesson comprehensible to the student should be that which is both

time - saving and can achieve the objective for instruction, because whatever the student learns in the class would be brought to play in the assessment hall.

The teacher also knowing that all his/her students do not have the same level of cognitive understanding and differing personalities, must choose a method that involves all members of the class so that the students can relate on a personal basis with the topic that is being taught. Research has proven that the students are at better recalling from memory when they take part in and see, with the almost accurate recalling of real-life application of skills, learnt at a higher level of performance is put up by the students during assessment. Therefore, the schools and the teachers must adapt methods that are based on the needs of the students.

H. Care in the Classroom

Most educators agreed that incorporating care into their practice is one of those things that are important for working effectively with students (Gay, 2010). Caring teachers believe in each student's ability to achieve, and shape the learning process by placing students' needs at the forefront of their practice (Lumpkin, 2007). Therefore, teachers, who value, develop and sustain caring teacher-student relationships provide schools with a solid foundation to build on when implementing approaches aimed at improving student outcomes (Mihalas, Morse, Allsopp, & Alvarez-McHatten, 2009). Noddings (2012) declared the ethic of caring as being relational and based on the premise that the carer is attentive to the cared-for, and therefore is receptive to and tries to understand the expressed needs of the cared-for.

In order for the relation to be caring, both parties must contribute positively to achieve it. A failure on the part of either the teacher or the learner, may prevent the aim of caring. Also, although there may still be a relation, but an encounter in which each party feels something toward the other, it is no longer a caring relation. This manner of caring is one of the major pillars of culturally relevant teaching for ethnically diverse students and it manifest itself in the form of teacher attitudes, expectations, and behaviors about students human value intellectual capacity (Gay, 2010).

Findings revealed that students held six major interpretations of caring. These interpretations were caring as control, caring as equality, caring as forgiveness, caring as talking and listening, caring as knowing students, and caring as good teaching. These findings are important because when teachers genuinely care, students sense it and respond by optimizing their commitment to learning and putting reaching their fullest potential (Lumpkin, 2007).

Furthermore, Alder (2002) later conducted a study that examined how caring relationships are created and maintained between middle school students and their teachers. Using interviews, focus groups, and classroom observations, 12 students provided their perceptions of caring relationships with teachers. Findings of this study shows that caring as control, caring as equality, caring as forgiveness, caring as talking and listening, caring as knowing students,

and caring as good teaching, all should be considered in the classroom management.

I. Effective Methods of Teaching Students

To identify the effective methods for teaching students of secondary schools has traditionally been a challenging endeavor. The critical task of identifying practices that promote efficacy in the learning process of the secondary school students has remains ongoing. Over the past ten years, there has been increased interest in examining ways to enhance the academic performance of students who are culturally, ethnically, racially and linguistically diverse. Historically, many students have experienced limited academic success and disproportionate rates of suspension and expulsion in their educational journeys (Gregory, Skiba, & Noguera, 2010). Therefore, the need to increase understanding of how students learn best and effective ways of teaching them is imperative.

➤ Factors to be considered before Choosing a Particular Teaching Method

The following factors are to be considered before choosing a particular teaching method that must be well suited to meet the learning needs of the students:

➤ Learner Oriented Method (Heuristic Approach)

Learners should be encouraged by the teacher to be protagonists of their own learning. This makes them take the lead in their learning process, while the teacher gently guides the entire teaching and learning activities. Majority of teachers consider the choice of method as a means where they exercise exclusive monopoly and domination. This conception is wrong as their choice of method would influence their learners. Therefore, learners' interest, age, level, background needs, behaviour, weakness, and conceptual ability should be put into consideration while selecting the relevant method.

➤ Teacher Familiarity with Content

The teacher exposes learners to new knowledge and communicates meaningfully to them from his or her own knowledge and wisdom for proper learning of the subject matter. This demands competency from the teacher in any method selected and this requires the teacher's ability to expose learners to proper knowledge.

Every teacher is also unique both in personality and behaviour. While some teachers may participate honourably in certain environment, conditions, and situations, another may fail woefully under the same condition. For example, some teachers are motivated intrinsically whereas some are motivated extrinsically. Therefore, the teacher must be familiar with a particular method before using it as a tool to disseminate information to the pupils for proper teaching and learning process.

➤ Suitability and Appropriateness of the Subject Matter

Subject matter refers the content to be taught or administered. No matter how wonderful the strategy used by a teacher is, if the method is not in line or does not synchronize with the topic, little or no success will be

achieved. The teacher should use creativity and innovation in whatever methods he wishes to adopt in order to promote significant learning and sustain the positive behaviour change.

➤ *Suitability of Available Resources*

Resources refer to the instructional materials employed in the teaching and learning process. The choice of a teacher in deciding what resource material to use, (particular text or reference material) depends on the availability and suitability of the text. Adesanya (2006) indicated that some basic criteria, standards or principles should be considered before the selection of any teaching method such as: objectivity of the lesson, nature of the subject matter, learner's characteristics, class size, availability of teaching materials, time allocation, teacher's competence and learning environment.

➤ *Sitting Arrangement:*

The sitting positions for the students should be rearranged from time to time in order to suit the methods or techniques used. Change of sitting positions are also important to ensure that pupils feel at ease to participate more actively in the learning hence, learning environment must be attractive and stimulating to the pupils for proper learning to take place.

➤ *Time Allocation:*

The time allotted for the subject on the time-table should be considered in the selection of teaching method. Adesanya (2006) further explained that a teacher, who has a limited time, may want to please, favour or indulge in lecture method due to its attributes or qualities.

III. RESEARCH METHODOLOGY

Research design can be defined as the structured plan that guides how research study is conducted. This study employed a mixed methods design (quantitative and qualitative). The researcher adopted a mixed method design because it helped her to gain a comprehensive and deeper understanding of the research problem. It also helped the researcher to have a holistic view of the issue being studied. Mixed method design also helped her to compare her findings so as to determine the accuracy and credibility of the work. The area of this study is Koidu City. Koidu City is located in Kono District in the Eastern province of Sierra Leone. Koidu

City is the largest city and administrative capital of Kono District. It is one of the most prominent urban centers in the region. Koidu city is a major urban and commercial center known for its rich diamond and mining and growing population. The city has a diverse population which comprises of various ethnic groups with Kono people being the predominant ethnic group. Koidu is characterized by both urban and rural settlements. It serves as a center for commerce, education and administration in the district.

In terms of education, Koidu City hosts several government and private schools, making it appropriate area for educational studies to take place. Koidu City also faces a lot of educational challenges; some of the challenges are overcrowded classrooms, limited teaching material, and lack of qualified teachers etc., thus making it valuable for doing this research work.

The five focused schools as listed below are part of the schools in Koidu city. They are part of the prominent and well-known schools in terms of academic performance, discipline and increase in population. They are part of the government assisted schools in the District. These schools have diverse student population from both urban and rural communities. They comprises of both junior and senior secondary schools. They operate under the supervision of the Ministry of Basic and Senior Secondary Education (MBSSE).

These schools were carefully chosen because of their significance in the District educational development and achievement in terms of classroom conditions, infrastructure and learning materials. The schools were also selected based on their employed number of teachers, number of students, and year of establishment. All these contributed positively in the academic performance of the students.

➤ *The area of the Study was:*

- Koidu Girls Secondary School (KGSS)
- St Patrick Boys Secondary School (SPBSS)
- Islamic Secondary School Koidu (ISKK)
- Elizabethan Secondary School (ESS)
- Koidu Secondary School (KSS)

A. *Sample Size and Procedures*

Table 1 Showing the Number of Students, Teachers and Principals and Their Gender (Male/Female)

School Categories	Students			Teachers			Principals		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
KGSS	0	10	10	3	2	5	0	1	1
SPBSS	10	0	10	5	0	5	1	0	1
ISSK	5	5	10	3	2	5	1	0	1
ESS	5	5	10	2	3	5	1	0	1
KSS	0	10	10	2	3	5	1	0	1
TOTAL	20	30	50	15	10	25	4	1	5

Koidu City has 10 well recognized Senior Secondary schools, both private and Government assisted schools. The targeted Population for this research work comprised of all the 10 recognized and approved senior secondary schools, and all the teachers and Principals in these schools. The total population of SSS 111 students in the 10 selected senior secondary school is 390 students. Specifically, the study focuses on the SSS 111 Science stream students only. Due to time and logistical constraint, the accessible population includes 50 students, 25 teachers and 5 Principals in the five schools in Koidu City, Sierra Leone. The Population of the study consists of students in the Senior Secondary Schools Science stream and teachers of both genders; male and female.

The researcher focused on science stream only because of the student's poor performance in external examinations. The researcher also narrowed her study population to SSS 111 science only to ensure content consistency, reliability and validity in her research findings.

A. Sampling technique

The sampling technique used in this research work is convenience sample. Convenience sampling is a non-probability sampling technique where participants are selected based on their availability, proximity, or willingness to participate, rather than random selection. This method involves recruiting participants who are readily available, convenient and willing to participate in the study. Thus, the participants were selected by their Principals based on their availability, commitment and readiness.

We had a total no of 10 science students, 5 teachers and 1 Principals from each of the 5 schools totaling to 50 students, 25 teachers and 5 Principals. Of the 50 students used for our research purpose from 5 different schools, 30 were female while 20 were male. Those of the teachers were 10 female and 15 male teachers. The Principals were 1 female and 4 male. The teachers and Principals were within the age range of 30 to 50 years and had work experience of 5 years and above. The researcher used science educators because science teachers' often use diverse methods so as to support student's creativity, understanding and participation.

B. Sources of Data Collection

Data collection method is the process of gathering information or data from a reliable sources to answer the research questions. The researcher gathered data from the primary and the secondary data sources.

C. Primary data collection methods

The primary data source is firsthand information obtained from the original source. This method of data collection is more reliable and has more confidence level of decision-making. It involves collecting original data directly from firsthand sources or information. This Primary data collection is qualitative and quantitative method. The qualitative sources deal with field observation, interview, and informal discussions, while the quantitative data source is interview with questionnaires.

➤ Secondary Data Collection Method

Secondary data collection method is a second hand information sources. It involves the use of already existing data that has already been collected by others. This includes reports, journals, text books and dissertation documents. The researcher obtained relevant information from reputable journals, books, different articles, periodicals, proceedings, magazines, newsletters, newspapers, websites, and other sources were also considered.

D. Instrument for Data Collection

This research work adopted the following instrument for data collection:

➤ Interviews

Interview is a face –to-face or virtual conversation where the researcher asks questions to get in-depth responses. It can be structured (set questions), semi- structured or unstructured. The semi-structured interview is usually conducted in a face-to-face setting, this allows the researcher to seek new insights, ask questions, and suggestions from students, and teachers and the Principals.

Interviews allow the researcher to have an in-depth understanding about the condition of the environment. It was used when the researcher wanted to compare the data obtained from other primary and secondary data sources.

➤ Questionnaires

The Questionnaire is a written set of questions given to respondents to fill out. It can be open –ended (explanatory) or closed- ended (multiple choice, Likert scale) questions. It is useful in collecting data quickly from a large number of people. Questionnaires is the main tool for gaining primary information in practical research, this is because the researcher can choose on the sample and the types of questions to be used. In this dissertation therefore, each respondent is requested to reply to an identical list of questions so that bias is prevented. The questionnaire provided valuable data which was necessary to achieve the dissertation objectives. Thus, the questionnaires developed were based on a five-item Likert scale.

➤ The Students' Questionnaire

The students' questionnaire had four sections. Section A was about student background information, which includes: name, sex, age, class, tribe, religion, culture, parents etc. The second section contains questions item on students' preferred teaching methods and why, who is your favorite teacher and why, who is your most disliked teacher and why, your choice of career in the future and why, who is your role model in the school and why, challenges in the classroom, how is what they learned in the classroom applicable to their daily life? In the third section, questions were measured on a five-point Likert Scale, (i.e. strongly agree-5, agree-4, neutral-3, disagree-2, strongly disagree-1). The fourth section contained question items on the measures that could be put in place to maintain standard teaching methods. The questions in all the sections other than the second section are open-ended.

➤ *Teachers' Questionnaire*

The teachers' questionnaire had four sections. Section A was about the background information of the teachers, while the second section contains question items on Teachers' preferred methods of teaching, management of the cultural differences in the students, when and how to use a particular teaching method, how exposed and experienced they are in the field of teaching.

The questions in the third section were measured on a five-point Likert Scale, (i.e. strongly agrees – 5, agree – 4, Neutral -3, disagree – 2, strongly disagree – 1). The fourth section contains question items on the measures that could be put in place to improve on the system of teaching for an excellent performance of students academically. The questions in all the sections other than the second section are open-ended.

The researcher used interviews so as to have deeper and detailed insight, experiences, views and understanding of the participant views, experience and perception on the research topic.

➤ *Observations*

Observation is an important aspect of science. It involves watching and recording behaviors, actions or events as they happen. Observational research findings are considered to have a strong validity because the researcher was able to collect detailed information about a particular behavior. In this dissertation, the researcher used observation method as one of the tools for collecting information. The researcher made more than 10 specific observations of teaching environments and lessons in the study areas. The researcher used observation as part of data collection instrument so as to witness different teaching practices and to gain more insights into the application of teaching methods especially lecture methods of teaching in the classrooms.

➤ *Focus Group Discussion*

Focus Group Discussion (FGD) is a quantitative data collection method where a small group of participants meet to discuss on a specific topic. The aim is to explore student's opinions, ideas, experiences, attitude and perceptions with different teaching methods and how these methods affect their understanding and academic performance. The participants were shared into 5 different groups with 10 students from each secondary school including the boys and the girls. In summary, the Focus Group Discussion shows that Lecture method is better than all the other methods because it gives the teacher full control of the classroom and it encourages the students to develop the attitude of note taking, listening skills and to be more focused and attentive .

➤ *Tools for Data Analysis*

To discuss the key research objectives, this research work used qualitative and quantitative methods and also the combination of primary and secondary sources. The data collected was and analyzed descriptively using tables and percentages. This was done to show clarity and to draw valid conclusions and recommendations on the basis of the findings.

➤ *Statistical Package For The Social Science (SPSS)*

SPSS was used by the researcher to store, organize and present data using variety of statistical techniques. The researcher used SPSS for quantitative data analysis and Microsoft Excel for the tables. The aim for using them was to gain insights, analyze data and calculate its frequencies accurately.

➤ *Qualitative Analysis (Thematic Analysis)*

Qualitative analysis involves examining non –numeric data to understand qualities, attributes and meanings. This method is used to identify, analyze, and also interpret data, such as open ended questionnaire responses and interviews. The aim was to analyze the respondents views and experiences on the most frequently used teaching methods and it's impact on the academic performance of the students.

➤ *Descriptive Statistics*

Descriptive analysis deals with understanding and summarizing the main aspects of data. This was done by calculating the frequency tables and its percentages. The aim of using it is to summarize the responses from the respondent's on teachers teaching methods and its effect on the academic performance of the students.

E. Validity and Reliability of Instruments

➤ *Validity of Instruments*

Validity refers to the act of checking or proving the accuracy of something. In this study, the instrument were administered to different respondents and the responses were checked to see if the questions were interpreted the same or differently by different respondents.

The questionnaires were carefully prepared based on the research objectives. This shows that all the main aspect of the research study which includes identification of various teaching methods, its effectiveness in students' performance and the most effective methods in students' performance were clearly examined.

Also, a pilot study was conducted in two secondary schools. The results were not included in the final sample of this work. The information, feedback and contributions received from this pilot exercise helped the researcher to get more insight on the different teaching methods and its contribution on students' academic performance. The researcher also collected data from qualified sources; this helped to validate the findings,

➤ *Reliability*

Reliability is used to show the consistency, stability and dependability of something of research instrument. It indicates the extent to which a measurement or test can be repeated with similar results. Therefore, a pilot survey and a test-retest method were carried out to assess if these instruments yielded the same or fairly or closely same results at different times when administered to the similar group of participants. Therefore, reoccurring problems such as lack of teaching materials, unqualified teachers, lack of teacher's motivation, poor salary, overcrowded classroom, indiscipline

of students etc. also contributed to the poor academic performance of senior secondary school students.

IV. RESULTS

A. Phase one: Quantitative Interpretation of Results

➤ Analysis of Questionnaires

A total of 80 questionnaires were distributed; 50 questionnaires was disseminated to randomly selected 50 students while 25 others were dispersed to 25 teachers and 5 to the Principals. All the 80 questionnaires were completed and collected and serve as the starting point for computing the results.

The data gathered through the questionnaire was analyzed using frequency counts. Also, the subjects' responses for each individual question were put together to

find the highest frequency of occurrence, this means the number of times that a particular response occurs. Therefore, the qualified responses to the questions are then presented in percentage forms. This analysis is presented in tabular and figure forms. The researcher used tables and figures containing a variable and in some cases, she combined two or more variables in a single table. Variables included were: age, gender, education, residence, class, and years of service, achievements and return of questionnaire.

We had a population sample of 50 students, 25 teachers and 5 Principal of both male and female gender; 10 students and 5 teachers from each school. In the gender distribution, from the student respondents, we had 20 male and 30 female while the teachers were composed of 15 male and 10 female.

B. Student Respondents

Table 2 Age Distribution

Age	Frequency	Percentage %
14	3	6%
15	10	20%
16	8	16%
17	6	12%
18	14	28%
19	9	18%
Total	50	100%

➤ Distribution of Respondents by Age

Table 4.2.1 presents the result of the ages of the student respondents. From the result, it is evident that the ages of the (students) respondents range from ages 14 to 19. Those of 14 years are 3 in number (6%), followed by those of 15 years that are 10 in number (20%), the respondents at the age of 16

are 8 in number (16%), the age of 17 is about 6 persons (12%). Students of 18 years old are 14 in number (28%) and finally, students of 19 years are 9 (18%). From the aforementioned, it is evident that the majority of the respondents who took part in this research are 18 years old.

Table 3 Gender Distribution

Category	Frequency	Percentage %
Male	20	40%
Female	30	60%
Total	50	100%

➤ Distribution of Respondents by Gender

The ratio between the number of males and females of our student respondents is referred to as the gender ratio. This ratio is shaped by biological, social, technological, cultural, and economic forces. And in turn the gender ratio itself has an impact on society, demography, and the economy. Table 4.2.2 specifies the distribution of student respondents' base on gender. From the head count, it became obvious that the number of the female respondents is more than the male

respondents. Out of the 50 respondents, the female respondents were 30 (60%) in number while the male respondents were 20 (40%). It is evident that the female respondents were more in number. With this, (not sufficient evident) one can infer or presume the conclusion that the Koidu City Senior Secondary Schools have more female students compared to the male students. However, there is unequal representation of the male and female students in the Senior Secondary Schools.

Table 4 Education Distribution

Level	Frequency	Percentage %
SSS 3	50	100%
Total	50	100%

➤ *The Educational Level Distribution of the Respondents*

In the questionnaire, the researcher proposed that the respondents indicate their individual level of education. From the data collected, it shows that all the respondents were in the SSS 3 science stream level. This implies that all the respondents were competent and reliable in providing relevant and useful data for this work.

Table 5 Students' Residence Distribution

Residence	Frequency	Percentage %
Urban Area	38	76%
Rural Area	12	24%
Total	50	100%

➤ *Distribution of Respondents by Residence*

The students used for this experiment emerged from different communities. Some of them live in the heart of the Koidu City while some others travel several miles from the nearby villages to the city to attend classes every day. The provision of school buses by the present state government has made it a bit easier for those students settling in the villages around the Koidu City to attend classes. Many preferred traveling the far distances because of the general believe that

a good and sound education is only obtainable in the urban settlement. From the statistics of our research, it is proven that most of our student respondents, about 76%, live in the urban area of the Koidu City while the others, 24%, live in scarcely populated areas in villages and generally, these are places where people with low social economic income reside. Those in the urban area are pupils whose parents/guardians had better social-economic opportunities.

Table 6 Academic Attainment Level of Students Distributed

Gender	High	Average	Low	Total
Boys	14	12	09	35
Girls	09	02	04	15

➤ *Academic Attainment Level of Pupils*

For the purpose of attaining a reasonable result, the researcher made further inquiry into the academic performance of the respondents. This helped to verify the credibility of the answers of the respondents. With this in mind, students' learning activities and experiences at the SSS

3 level were grouped in different levels of academic performance concentrating on their performance at different subjects taught based on teachers' assessment of the pupils in a given term. In this study, 14 boys and 09 girls were high achievers, 12 boys and 02 girls were average achievers while 09 boys and 04 girls were low achievers.

Table 7 Questionnaire Procedure Distribution

School	Number of Questionnaires Issued	Number of Questionnaires Returned
Koidu Girls Secondary School	10	10
St. Patrick Boys Secondary School	10	10
Islamic Secondary School Koidu	10	10
Elizabethan Secondary School Koidu	10	10
Koidu Secondary School	10	10

➤ *Return of Questionnaire*

The process of distribution and collection of questionnaire was a total success as it was on the spot completed by pupils and collected from students at due time.

The response and cooperation of the staff was a great success. The questionnaires were closely examined and assessed to complete the necessary summary.

Table 8 Identified Challenges of Effective Learning

Challenges	Frequency	Percentage %
Shortage of qualified teachers	16	32%
Poor learning facilities	13	26%
Overcrowded classrooms	10	20%
Lack of teaching materials	4	8%
Nonconductive learning environment	7	14%
Total	50	100%

➤ *Identified Challenges of Effective Learning from the Student Respondents*

The students were able to identify some of the challenges they encounter that affect the learning process negatively, these are the main challenges: they complained of

the shortage of qualified teachers, overcrowded classrooms, lack of teaching materials, lack of good learning environment, lack of learning facilities like the standard library, labs and sports equipment.

A. Teacher Respondents

Table 9 Distribution of Respondents by Age

Age	Frequency	Percentage %
30-35	6	24%
36-40	8	32%
41-45	6	24%
46-50	5	20%
Total	25	100%

➤ *Distribution of Respondents by Age*

The age distribution of the teachers ranged from 30 to 50 years. Those who are within the age bracket of 30-35 years were 6 in number which is about 24% of the respondents. About 8 of the teachers' age were within 36-40 year, that is, 32%. We had 6 of them whose ages were in the circle of 41-

45 that amounts to 24%. The oldest of them are fewer in number, they were but 5 whose ages ran within 46-50. They are counted to be 20% of the respondents. The researcher discovered that most of the secondary school teachers were younger in age which presupposes that they are inbuilt with little of teaching experience.

Table 10 Distribution of Respondents by Gender

Category	Frequency	Percentage %
Male	15	60%
Female	10	40%
Total	25	100%

➤ *Distribution of Respondents by Gender*

Gender is important in decision-making, communication, and preferences for the approval of interventions. Gender roles, identity, relations, and

institutionalized gender affects the way in which an implementation strategy works in an institution. We had 15 male respondents which amounts to 60% and the female respondents are 10 in number which is about 40%.

Table 11 Years of Teaching Experience

Years	Frequency	Percentage (%)
5-7	5	20%
8-12	9	36%
13-15	6	24%
16-20	5	20%
Total	25	100%

➤ *Years of Teaching Experience*

Without adequate evidence to support the notion that new teachers perform less than qualified teachers, this work therefore contributes to the evidence by examining relationship between teachers' years of experience and their teaching quality. The results showed no evidence of lower teaching quality for beginning teachers (0-3 years' experience); however, there was some proof of not measuring up to standard in teaching quality for teachers who have 4-5 years' of teaching experience. The findings suggest that professional learning would benefit all teachers in improving quality teaching experience.

Teachers with teaching experience from 5-7 years were 5 in number. They amount to 20% of the respondents. 9 of the respondents, 36%, had 8-12 years of teaching experience. 6 of them had taught in the classroom from 13-15 years. These six persons measures 24% of the respondents. Those with the teaching experience of about 16-20 years were 5 in number, two of them had taught in two or more other schools before gaining employment in their present place of work. They are made up of 20% of the respondents. Let's showcase the findings in the table and figure.

Table 12 Most Preferred Teaching Method

Teaching Methods	Frequency	Percentage%
Demonstration	7	28%
Discussion	5	20%
Lecture	7	28%
Questioning	6	24%
Total	25	100%

➤ *Most Preferred Teaching Method*

Teaching methods are procedures that educators use to facilitate the teaching process, so as to help students feel engaged and interested in the material. With the right teaching methods, educators can create an enjoyable and productive classroom experience for students where they can learn important academic and social skills to last a lifetime.

There are many frameworks that a teacher could use to support students with different interests, abilities and learning styles. Though there are many different forms of teaching, this research paper work presents four major methods of teaching: Demonstration, Discussion, Lecture and Questioning techniques.

Table 13 The Purpose of Teaching as a Profession.

Purpose of Teaching	Frequency	Percentage %
Could not find desired job	6	24%
Alternative source of income	5	20%
As a hobby	3	12%
For survival	7	28%
Have passion for teaching	4	16%
Total	25	100%

➤ *The Purpose of Teaching as a Profession.*

The function of teachers is to help and encourage students learn more by educating and teaching them and by establishing a scenario in which students will learn effectively. The teachers shows a complex set of roles, and this vary from one society to another and from one motivational factor to another. Our point here is that, teachers

perform differently with the influence of their perception of teaching as a career, alternative means of survival, passion etc. The point here is that some of the teachers will generally prefer other job to teaching, thereby, having little or no passion for the teaching profession. The table below indicates different reasons why the respondents went into teaching.

Table 14 Challenges of effective Transmission of Knowledge

Challenges	Frequency	Percentage (%)
Poor salary	5	20%
Lack of teaching equipment	6	24%
Lack of motivational factors	6	24%
Indiscipline of students	8	32%
Total	25	100%

➤ *Challenges of Effective Transmission of Knowledge*

From the responses gotten in the questionnaire and an oral interview with the teacher respondents, we have been able to point out some of the challenges affecting the delivery of knowledge to the students which includes poor salary, poor teaching equipment, indiscipline on the side of the students and lack of motivational factors.

due to poor preparation or not being qualified as a teacher. Some feel intimidated by the feedbacks coming from the students, especially the smart once who easily identify the flaws of their teacher. In some cases, students tend to lose interest in an ongoing lesson and fall asleep, making noise, or not being able to answer common questions. Moreover, the researcher observed that the movement was too much on the part of the students, some went out to answer phone call. Boring teachers make students to lose interest in learning. About two teachers happen to derail often from their topic of discussion by telling long unrelated stories during class hours, thereby, denying the students the relevant knowledge they were supposed to acquire within the lesson.

C. *Observation*

Sometimes researchers will go to a certain place to watch and examine what is happening in that setting and document what they see. This qualitative method is referred to as observation. Observation therefore, is a way of gathering data or information by watching people, events, or noting physical characteristics in their natural setting. The researcher used an open kind of observation which indicates that the subjects were aware of her presence. Similarly, the researcher was opportune to observe 10 different lessons from the five schools of our research location. She identified some challenges of effective learning within the classroom.

It was discovered that some teachers pay more attention to the brighter students, neglecting the need to carry everyone along. One of the teachers used abusive words on the young kids, making them think less of themselves. Some teachers tend to transfer aggression on the students. Possibly displeasure from home or lack of good pay from the school makes them aggressive which is being vented on the innocent learners. Moreover, some teachers are lazy to make their notes, thus copying directly from the phone and text book.

First, from a kin observation, the researcher discovered that some teachers lack confidence in themselves probably

Table 15 Does the Use of These Method Improve the Academic Performance of the Students?

Response	Frequency	Percentage (%)
Strongly agree	26	52%
Agree	15	30%
Neutral	9	18%
Disagree	0	0%
Strongly disagree	0	0%
Total	50	100%

➤ *What are the Various Teaching Methods Used in the Senior Secondary School?*

The common teaching methods used by the teachers include: Demonstration, Discussion, Lecture and, Questioning methods.

- *The Table and Figure Below Shows the Statistics of the Respondents.*

Table 16 Does the Use of These Methods Have an Implications in Student's Performance?

Response	Frequency	Percentage (%)
Strongly agree	30	60%
Strongly disagree	9	18%
Neutral	11	22%
Disagree	0	0%
Strongly disagree	0	0%
Total	50	100%

Table 17 Does the Use of These Methods Improve the Academic Performance of the Students?

Response	Frequency	Percentage (%)
Strongly agree	32	64%
Strongly disagree	12	24%
Neutral	6	12%
Disagree	0	0%
Strongly disagree	0	0%
Total	50	100%

Table 18 Does the Use of These Methods Facilitate Better Academic Performance?

Response	Frequency	Percentage (%)
Strongly agree	41	82%
Strongly disagree	8	16%
Neutral	1	2%
Disagree	0	0%
Strongly disagree	0	0%
Total	50	100%

D. Phase two: Qualitative Interpretation of Results➤ *Solutions towards the Poor Relationship between Teaching Methods and Academic Performance of Students.*

From the quantitative analysis of the data obtained from the questionnaires and observation, we have been able to identify some challenges that affect the teaching and learning procedures in senior secondary schools which include: poor learning environment, poor salaries, lack of qualified teachers, low self-esteem of the teachers, lack of motivational factors, indiscipline on the side of the students, overcrowded classrooms etc. All of these challenges create barriers that hinder effective teaching and learning process, therefore, resulting to poor academic performance of the students.

The academic performance of the students is one of the current educational problems of the public especially in

public examination and schools examinations This gave belief to the claim that the problem of under achievement among school children has persisted in many subject areas. This also confirmed that the academic achievement and success of students in both secondary and post-secondary school is alarming. It is obvious that the school administration has a lot of work to do thus; this research work is focused more on the role of the teachers who are the primary and direct transmitters of knowledge to the students.

➤ *A Teacher*

A teacher is a very important resource in any educational system. Good buildings, good environment and equipment, special services and others can provide favorable learning but the learning experiences must be directed by competent teachers who are well qualified. The success of any teaching and learning process which influences students' academic performance depend on how effective, devoted and

efficient the teachers are. Teachers influence is always felt in every aspect of the society.

No nation ever rises above the quality of its teacher, this illustrates the vital position teacher occupies in the society. The quality of a teacher has a positive correlation with student achievement in school. Teachers touch the lives of children with varying ability levels, including those with significant disadvantages. The low academic performance of students in Sierra Leone could be attributed to low quality of teachers. Scholars have also buttressed that students' achievement is determined by a high-quality teacher. It is however generally agreed that teachers have positive effects on students learning. Therefore, the quality of education and performance of students depends solely on the teachers.

➤ *Teacher Self-Efficacy*

The teacher self-confidence is the belief a teacher has about his or her own ability in undertaking certain teaching tasks or the belief a teacher has about his or her capability to achieve a specific teaching goal. Teachers' self-efficacy is the set of beliefs a teacher holds regarding his or her own abilities and competences to deliver properly and influence student behavior, performance and achievement regardless of outside influences or obstacle. It involves confidence in one's teaching skills, strategies and resources. Therefore, teachers in Koidu City are expected and encouraged to have a high teacher confidence in themselves and also believe that all students are teachable, regardless of their background.

The teachers with a high level of teacher self-efficacy will stand firm in their teaching and may persevere in difficult time to assist and encourage all students so as to gain their academic potential. Self-efficacy will always affect teachers' level of efforts and persistence when learning difficult tasks. Also, a teacher who lacks self-confidence will tend to avoid dealing with the students' academic problems. Instead he or she may put more effort to calm his or her own emotional distress. A teacher is expected to trust in his or her own ability to teach the students perfectly well. The students perform well in their studies when they are fully involved to solve problems during class activities.

Hence, teachers should avoid partiality in selection of teaching methods especially on areas in which they specialized. This should be avoided so as to help student improve in their academic performance (Adunola, 2011). Teachers should always make their classroom very conducive for learning; this will help to motivate and encourage students' learning experiences. Moreover, teachers should implement the use of various teaching methods, this will help to keep students always engaged and motivated throughout the learning process.

E. Summary of Findings

It is obvious that students' academic performance in the Koidu City Senior Secondary Schools is worthy of concerns and teachers have lots of roles to play to improve it. This paper highlights the essence and importance of Teaching Methods/Techniques/Strategies in obtaining students success. Teacher and student-centered approach as well as

technology are necessary for ensuring teaching effectiveness (positive outcome of learning). Also, an important educational construct, teachers' self-efficacy is seen as very important to the effectiveness of any classroom teacher. It is very important because through it teachers are more resilient in their teaching and can tackle challenges relating to helping students reach their academic potential. The fifth chapter contains the summary, conclusion and recommendation of the work.

V. DISCUSSION OF FINDINGS

The purpose of this research work was to explore the relationship between teaching methods and the academic achievement and performance among senior secondary school students in the Koidu City, of Sierra Leone. The poor academic performance of students in the public exams (WASSCE) and the university fresher prompted the urge to unravel the modes of imparting knowledge to students of secondary schools. Having in mind the existence of various forms of teaching methods, the research focused on exploring into the relationship between teaching methods and the academic performance on senior secondary school students.

This research work suggests that teachers are expected to promote better learning by applying appropriate teaching methods, because the academic performance of students depends more on the instructors' mode of transmitting knowledge to them. A good instructor with a bad mode of transmitting knowledge produces uneducated learners. It is at the instance when the teacher adopts a suitable teaching method that good performance could be obtained from the students. The incidence of ineffective teaching in senior secondary schools has resulted in poor achievement in examinations. This necessitated the need for a more effective and result-oriented process of acquiring knowledge.

Based on the following reasons, this research work may be considered important: It will improve teacher's awareness and understanding of the use of different teaching methods. It will motivate teachers to have deeper knowledge on 'how', 'where' and 'when' to use different teaching methods. Although this research work is focused on the senior secondary schools and was limited to 5 secondary schools in Koidu City, it will also benefit other educational instructors.

There were also some constraints like insufficient funds, limited time and a few number of respondents used in acquiring the data. A set of questionnaires were prepared, distributed, and collected upon completion. The data obtained from the questionnaires serve as working documents used to validate the assumptions made. The reactions of the respondents were collected, arranged, and analyzed by a simple percentage collection.

VI. CONCLUSION

The most crucial and important academic activities is devising and using adequate methods and techniques for secondary school teaching. Depending on each teacher's qualities, expertise and legal of pedagogical knowledge, the

implementation of the teaching process can vary from one teacher to another. Senior secondary school education is a process that includes young persons of different abilities, characters, and motivations, who come from different family and cultural backgrounds. The general motive for teaching is to encourage every student to develop interests in learning. In order to make the most of such diversity and be able to offer quality teaching to every student, more profound changes in the selected teaching approach need to be made.

RECOMMENDATIONS

The researcher makes the following recommendations which will be relevant to the students, instructors, school administration, policy makers, and the government at large. These recommendations will help to improve and to produce quality teachers. It will also help to boost student academic achievement and performance.

- The Government should entrust the administration of schools to qualified and capable personnel, who are able to supervise their teaching staff to come up with the global standard of teaching, with the view of settling the problem of poor examination and poor performance of secondary school students in the region.
- The Ministry should provide instructional materials for schools or provide them with funding to purchase them, as well as admonish the teachers on the importance of improvising instructional materials.
- The Ministry of Education Science and Technology should take into consideration the qualification, ability and willingness of personnel among other things before recruiting teaching staff.
- The Ministry of Education Science and Technology should encourage the use of technology to enhance students' engagement, collaboration and learning.
- The Ministry and Principals should promote collaboration between teachers, students and parents, by promoting a culture of interaction and shared responsibility for student learning.
- The Principal should encourage the parents to be involved in their children's learning process, by providing support and guidance where and when necessary.
- The Principal and teachers should encourage the students to be protagonists of their learning process, taking active roles in the learning process by exploring topics of interest and working alone and with their pairs to achieve desired outcomes.
- The teachers should be confident enough to teach any topic within their areas of specialization. They should not see any student as *unteachable*, no matter the circumstance of that individual.
- Teachers should be exposed to different workshops, seminars and in-service training, so as to provide them with opportunities for professional development, which will enable them to stay up-to-date with best practices in teaching and learning.

SUGGESTIONS FOR FURTHER STUDY

➤ *The Following are the Suggestions for Further Studies. they Include:*

- Exploring other teaching methods as a strategy of improving the academic performance of students in schools.
- Broader Geographic Scope – Future studies can expand beyond Koidu City to include rural and urban schools across different regions in Sierra Leone for broader comparative analysis.

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