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## **Assessment of Factors Influencing the Performances of Pupils in Mathematics at West Africa Senior Secondary Certificate Examination Level in Bo District Sierra Leone.**

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### **ARTICLE DETAILS**

**Research Paper**

**Keywords:**

*Factors, Performance,  
West Africa, Secondary  
School, Examination.*

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### **ABSTRACT**

The study was set up to assess the factors influencing the performance of pupils in Mathematics at the WASSCE level in Sierra Leone. To achieve this, a case study targeted six senior secondary schools in Bo district, Southern Province of Sierra Leone. Participants were purposefully chosen, and only those pupils who had taken the 2023 WASSCE Mathematics and their teachers who taught Mathematics at the WASSCE level were selected for this research, which comprises 180 pupils, 36 Teachers, and 4 WACE officers were also targeted. The research design for the study was a Stratified random selection survey. A close-ended structured questionnaire for the Pupils and teachers and interview schedule for the teachers, head of departments for mathematics, and the principals. The information was gathered through questionnaires, document analysis, interviews, and observation. The questionnaire helped the researchers to have a broader view of the research problem. They were also physically administered by the researchers, which facilitated the return rate of 100%. Statistics were employed as the method of data analysis. The results showed that inappropriate teaching methods, pupils' negative attitudes towards mathematics, lack of teaching experience by some teachers, lack of parental involvement in the school activities, lack of commitment by

teachers, no proper monitoring by administrators, and lack of adequate teaching and learning facilities are some of the causes of poor performance in Mathematics at WASSCE level. Additionally, challenges such as a poor teaching environment, poor management of the mathematics department, lack of qualified teachers, inadequate self-practices by pupils, and impoverished mathematics background of pupils contributed to the poor performance in mathematics at the WASSCE level. The study recommended that the Ministry of Education and the school administrator should organize regular programs such as seminars, workshops, conferences, provisions and management of Mathematics instructional materials and service training for the teachers to improve their competence and apply any method that will fit a particular topic in Mathematics for better pupils' performance and to update their knowledge on the new development in other areas of specialization. Caters for qualified teachers, Improvement on teachers' salaries, proper monitoring, encouragement, and involvement of parents in school activities. Lastly, the researcher recommends future research on factors influencing pupils' mathematics learning.

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## **Introduction**

Education is something that makes a man self-reliant and selfless. It is a process that involves the harmonious development of the individual to modify human behavior, attitude, and thinking. It plays a tremendous role in the country's cultural, economic, and social development. It includes all the knowledge and experiences acquired during infancy, childhood, adolescence, youth, manhood, and old age. Education is the touchstone of the civilization of a country. It is an integral part and basis of human life (Claudia, 2015).

Education in Sierra Leone is an instrument of "excellence" that affects national development. It has witnessed active participation by non-governmental agencies, communities, and individuals, as well as government interventions. Therefore, the nation should spell out unequivocal terms of the philosophy and objectives that underlie its investment in education.

(F. Mukhtari, 2017).

Every culture on earth has developed educational knowledge based on mathematics. In some cases, this mathematics has spread from one culture to another. International mathematics is now predominant and has quite a history (Amazigbo, 2010; Edukugho, 2010). It has roots in ancient Egypt and Babylonia and proliferated in ancient Greece. Mathematics was first written in ancient Greek and later translated into Arabic. At about the same time, some of India's mathematics was translated into Arabic. Later, mathematics was translated into Latin and became the mathematics of Western Europe. It became the world's mathematics for hundreds of years (Joyce, 1998).

Mathematics is a Greek word that means 'things that are learned.' It was further defined by Majasa in 1995 as the science of counting, measuring, and describing shapes and objects. It also deals with logical reasoning and quantitative calculations. Mathematics is a subject recognized as the foundation of science and technology with which a nation will only become prosperous and economically independent. This becomes the importance of mathematical competence of all learners at all levels of education and the reason for making it compulsory and one of the leading core subjects in schools. This importance is accorded to their cognition of its vital role in society.

(Keshab prasad poudel, 2017).

Over the past decade, mathematics teaching and learning have degenerated into the realm of rote memorization, the outcome of which leads to satisfactory formal ability but does not lead to fundamental understanding or greater intellectual independence (Courant & Robbins, 1996). Teaching mathematics is about educating learners, and for the learners to be educated mathematically, they must acquire mathematical knowledge, skills, and abilities that will enhance the applicability of concepts learned effectively. (Adepoju, 2011; Ugwu, 2001).

Mathematics instruction should be improved globally, especially in third-world settings like Sub-Saharan Africa. Different aspects create significant problems in the field of mathematics instruction. Most research has indicated that in a context, the teaching and learning process of mathematics is very critical and that the present-day teaching of Mathematics is far from needing to be more has a complaint against the teaching of Mathematics. It could be more exciting, exciting, and valuable from the learners' point of view. (Ola, 1998).

Established in 1952, the West Africa Examination Council (WAEC) was established by law to determine the examinations required in the public interest in the English – speaking West African countries, to conduct the tests, and to award certificates comparable to those of equivalent examining authorities internationally ([www.waecsierraleone.org](http://www.waecsierraleone.org)). WAEC is saddled with the responsibility of conducting examinations for pupils in Sierra Leone at the end – six years of primary schooling – National Primary

School Examination (NPSE), three years of junior schooling – Basic Education Certificate Examination (BECE), and three years senior schooling – West African Senior Schools Certificate Examination (WASSCE) – of the education. The number of years this examination body has spent has made it very experienced in this task (URT, 2010; Popoola & Olarewaju, 2010; Umar, 2013).

The current WASSCE curriculum requires pupils to take 8 – 9 subjects, with English Language and Mathematics as core Subjects. The WAEC has been the only examination body in this country for several decades, especially for ordinary-level (O – O-level) examinations. This, in turn, made it gain public trust and confidence. However, the public trust and experience never stopped some people from criticizing the council. In the early 21st century, some Sierra Leoneans were complaining about the increase in the registration fee after the ten years of rebel war, and some were complaining about the candidates' failure rate from 2010 to 2018. Some wanted an Indigenous examination body to perform the same task as WAEC, and others enjoyed the pupils' performances in the examination (2020, ESP report).

### **Statement of the Problem**

Over the years, the majority of pupils that attempt the May / June WASSCE have been recording poor performance, Generally, especially in core subjects like English, Mathematics, science subjects (Chemistry et al.), Geography, etc. (unijerps.org)

The growing rate of poor performance among pupils in WASSCE has injected worry into the minds of those concerned about Sierra Leone youths. In a town or district, or country where a more significant number of youths are school dropouts, social vices such as armed robbery, raping, cultism, kidnapping, and others will be on the increase (Akpo & Jita, 2012).

Many concerned citizens have expressed concerns about pupils' performances, focusing on the English language and mathematics. Governments, educational agencies, and parents yearly bemoan the dwindling performance of their pupils in these examinations. Poor performance in mathematics has become extremely nauseating to stakeholders owing to the importance of mathematics in the educational development of pupils. (FUJEF, 2020).

Although there had been woeful and declining performance levels in mathematics at WASSCE in the country, there needed to be more focus on why this malaise continues and what needs to be done in looking at the stakeholders that are responsible for such malaise.

### **Aims of the study**

This study investigates the factors influencing pupils' performances in mathematics at the WASSCE level in some selected senior secondary schools in Bo district, Southern Region of Sierra Leone.

**The following specific objectives are pertinent to this study:**

- To find out the Pupils' and the teachers' perceptions about the factors influencing pupils' performance in mathematics at the WASSCE level and the influence of school
- To determine the challenges pupils and teachers face in teaching and learning Mathematics at the WASSCE level and how these influence the pupils' performances in the exam.
- To advance strategies to enhance/ improve pupils' performance in mathematics exams at the WASSCE Level.

**Methodology**

This research focuses on a mixed method for gathering data. Bo District Sierra Leone, as a case study, a descriptive and analytical case study, aims to evaluate the impact of A.I. on higher education. Using an adequately structured form questionnaire study demographic, 180 randomly selected students were chosen from the targeted demographic at the Njala University campus in Sierra Leone, the case study location.

**Design of Sampling and Data Collection Process**

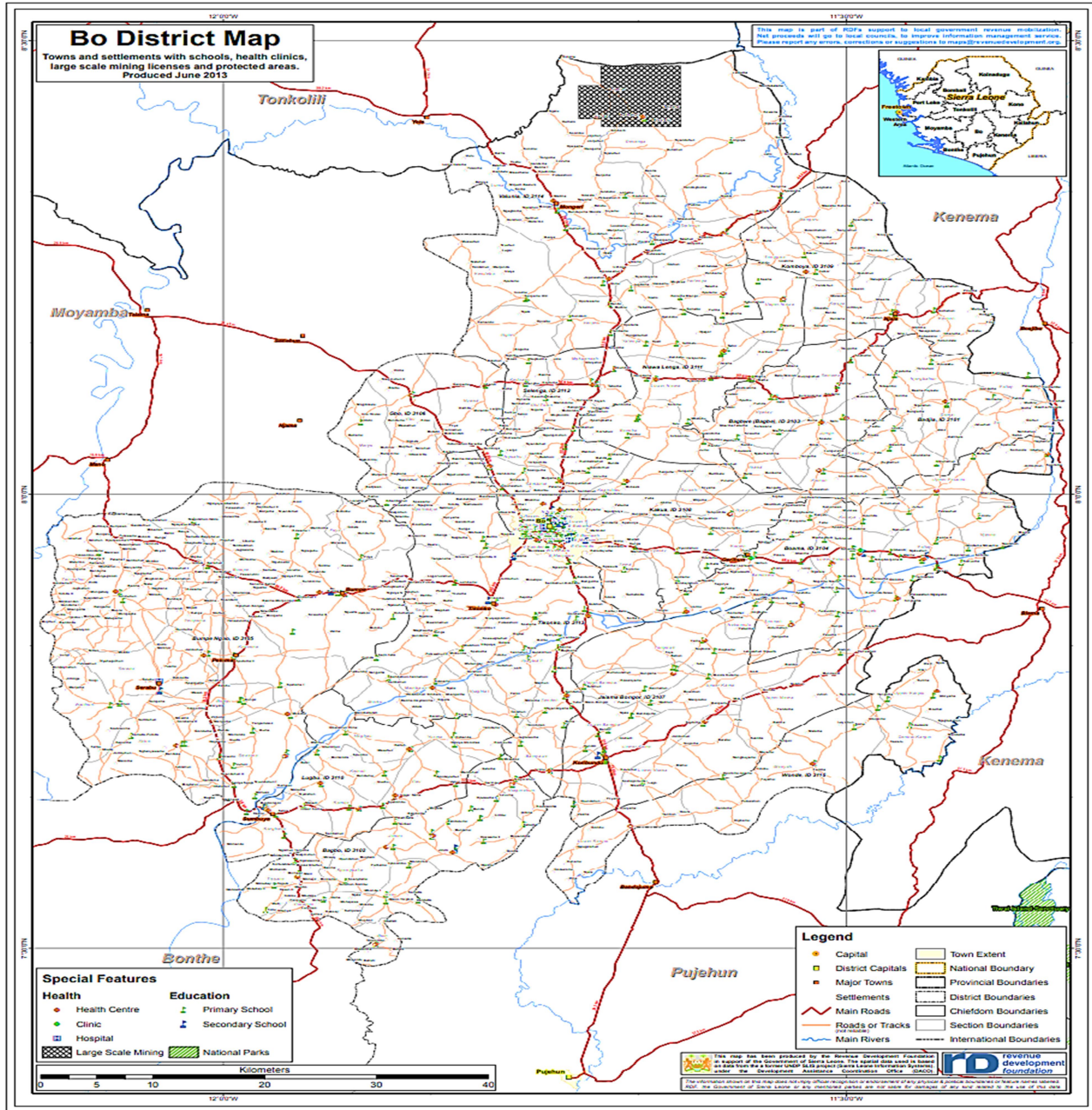
For this research, primary and secondary sources of data were gathered. Primary data was obtained directly from respondents using a devised method (a semi-structured form questionnaire and critical informants interview guide). Several resources, such as publications, journals, and online resources, were used to collect secondary data. This was carried out to give the investigation a strong basis and to direct the researcher throughout the investigation.

**Data Analysis Procedure**

According to Kothari (2004), data analysis is the process of editing, coding, classifying, and tabulating collected data. The process involves operations that summarize and organize the collected data from the field. Since the study involved qualitative and quantitative data, the data analysis process was done in two ways.

Data collected from the document analysis was sorted to extract relevant information that formed the results and discussion aspect of the article. The Descriptive Statistical Analysis was done using the computer program Statistical Packages for Social Sciences (SPSS) and Microsoft - Office Excel (2019) data analysis package to predict the factors influencing the pupils' performances in mathematics at the WASSCE level in Bo district. These are the software that is used to analyze quantitative information. The process involved coding data and sorting, and a conclusion was drawn. The results are presented in simple frequency tables and figures.

Secondly, the qualitative data obtained using interviews, observation, focus group discussion, and documentary reviews were analyzed by considering major themes to extract relevant information. This helped the researcher to make the description of the data collected from the field based on research objectives and derived a conclusion on what to take regarding its usefulness.



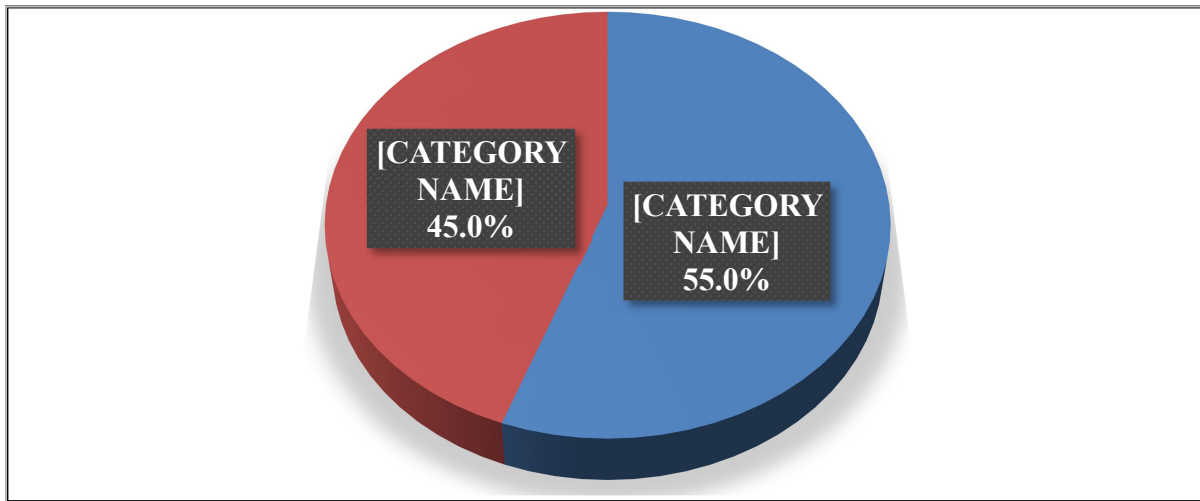
Map depicting the case study: Bo District Sierra Leone

**Results and Findings**

**Objective 1: To assess the demographic characteristics of the pupils and teachers in the schools.**

Demographic Characteristics of the Pupils and Teachers in the Schools

This section presents the demographic aspects of the respondents, especially those that have a significant bearing on the interpretation of data collected on the various objectives of the study. Accordingly, the main demographic features of the respondents featured in this section include the Gender of both the pupils and the teacher, the ages of both pupils and teachers, etc.



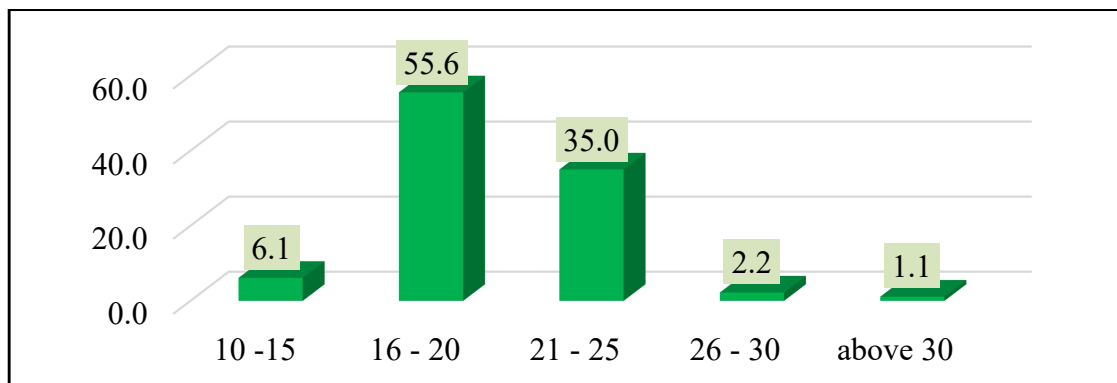
Source: Field data

N = 180

**Figure 2: Distribution by percentage of the Gender of pupils**

Figure2. depicts the distribution by percentage of the Gender of pupils. From the study, out of 180 pupils, 55.0% were male, while 45.0% were female, which shows that more males took part in the research than females because some of the females were fairer in mathematics than the males.

**Figure 3: Distribution by percentage of the age range of the pupils in the schools**

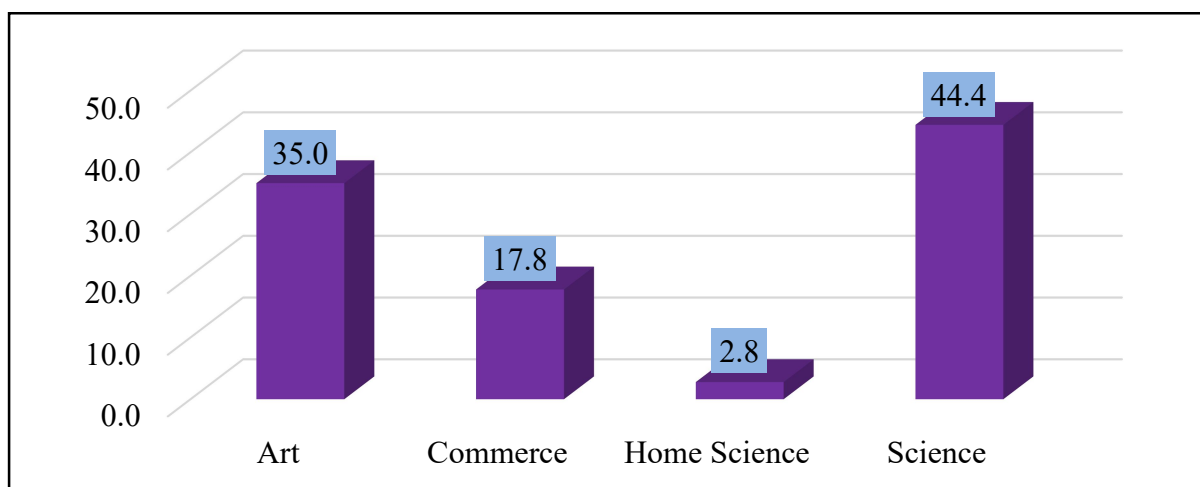


Source: Field data

N = 180

Figure 3. shows the distribution by percentage of the age range of the pupils in the different schools. From the study, 6.1% of the pupils were age range 10 – 15, 55.6% 16 – 20, 35.0% 21 – 25 years, 2.2% 26 – 30, and 2 (1.1%) were above 30 years. This shows that most respondents are in the age bracket of 16 – 20 who are mainly within WASSCE classes and are ready to take such exams if they do not fail. This is within the required age bracket for senior secondary school pupils in Sierra Leone.

**Figure 4: Distribution by percentage of the faculties of the pupils**

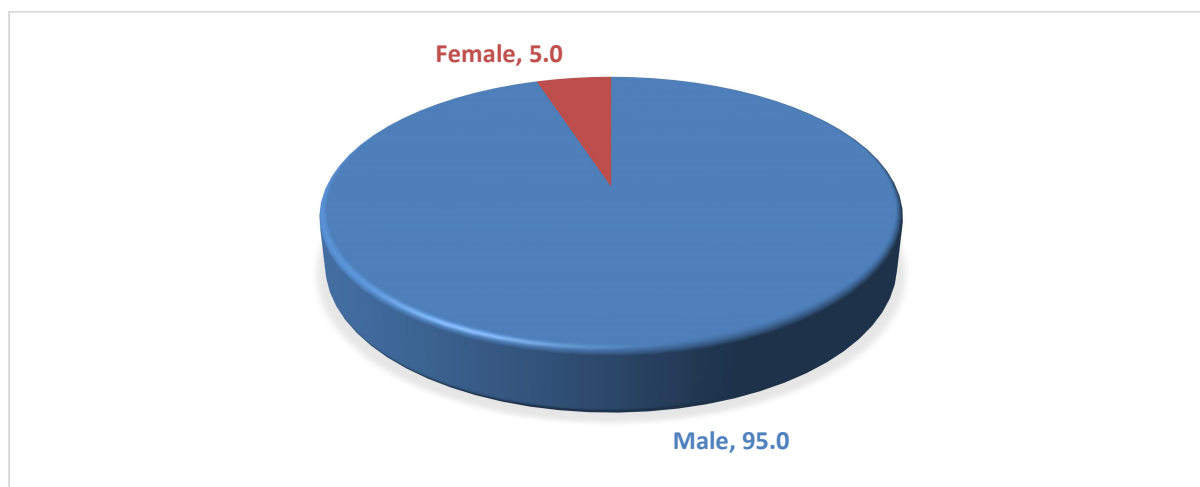


Source: Field data

N = 180

Figure 4. reveals the distribution by percentage of the number of pupils in each of the faculties. From the study, 35.0% of the pupils were enrolled in the Art faculty, 17.8% in the commerce faculty, 2.8% in the home sciences faculty, and 44.4% in the sciences faculty.

**Figure 5: Distribution by percentage of the Gender of teachers**



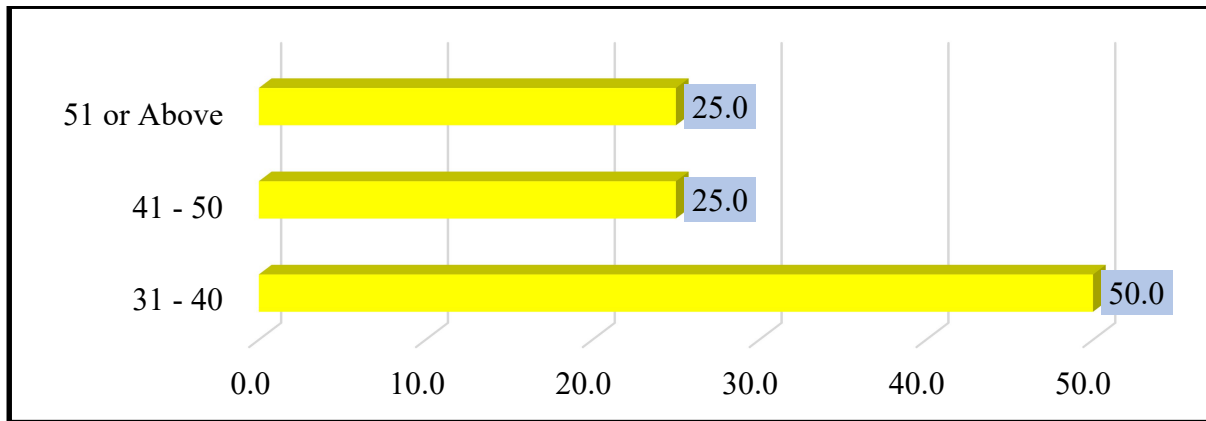
Source: Field data

N = 40



Figure 5. depicts the distribution by percentage of the Gender of teachers. From the study, 95 % were male, while 5% were female.

***Figure 6: Distribution by percentage of the age range of teachers in the schools.***

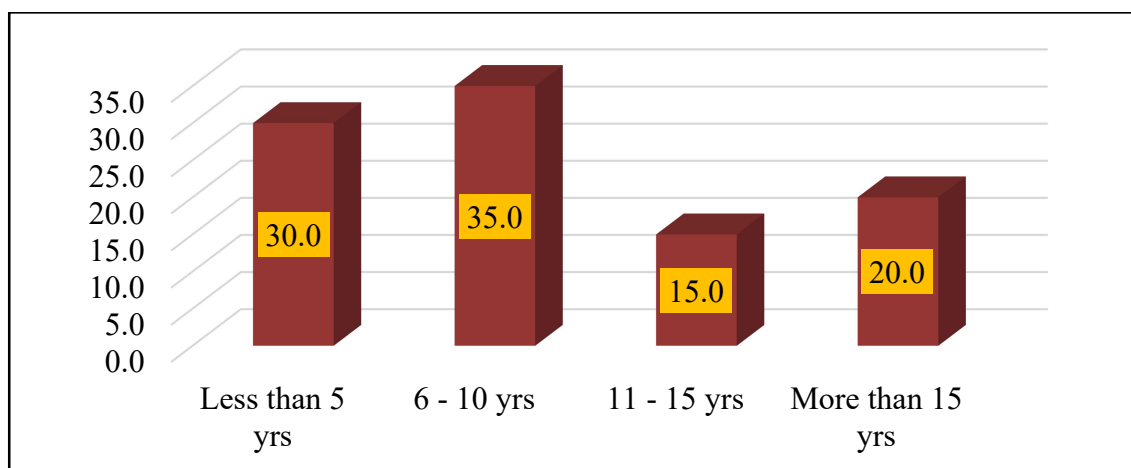


Source: Field data

N = 40

Figure 6. shows the distribution by percentage of the age group of the pupils in the different schools. From the study, 50.0% of the teachers' age range is 31 – 40, 25.0% is 41 – 50, and 25.0% is 51 and above years. According to the statistics from Figure 4.2, the mean age of the teachers is 1.87. This falls between the ages of 31 and 40. This is within the required age bracket for senior secondary school students in Sierra Leone.

***Figure 7: Distribution by Percentage of the Teaching Experience***



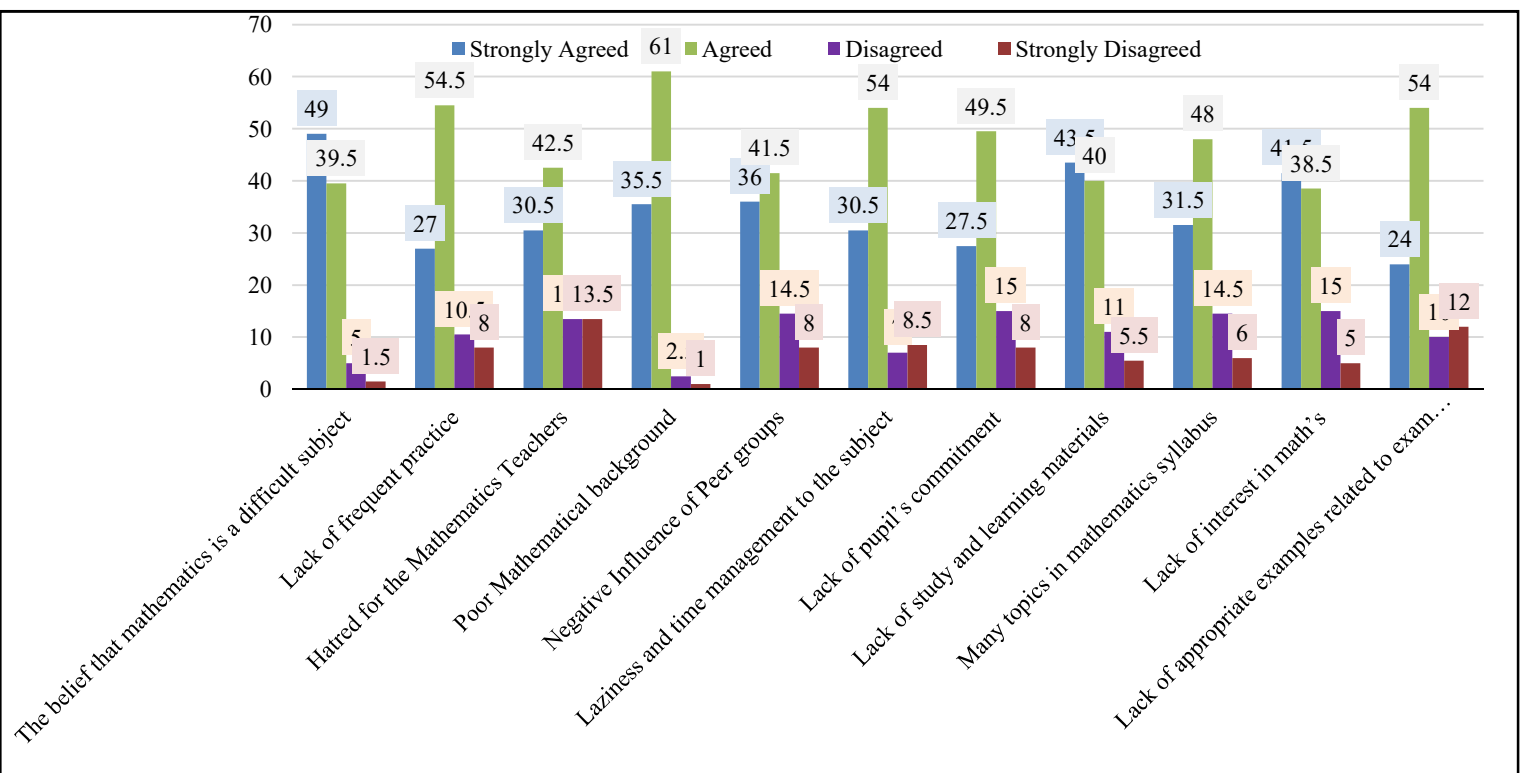
Source: Field data

N = 40

Figure 7. shows the distribution by percentage of the teaching experience of the various teachers. In the responses, most teachers indicated they had been teachers between 6 - 10 years; this category constituted 35.0% of the respondents. This group was followed by the category that served as teachers for less than five years, which constituted 30%. Those who served more than 15 years also constituted 20%. The last category comprised 15% who had served as teachers for only 11 – 15 years. This confirmed that most teachers were found to be in their active years of service. It is also an indication that the availability of less experienced teachers in the senior secondary school's mathematics could significantly impact the student's academic performance in the subjects.

**Objective 2: To examine the perceptions about the factors influencing pupils' performance in mathematics at the WASSCE level and the influence of school.**

**Figure 8: Distribution by percentage of pupils and teachers' view on the role of pupils as a cause for poor performance in Mathematics at WASSCE Examinations**



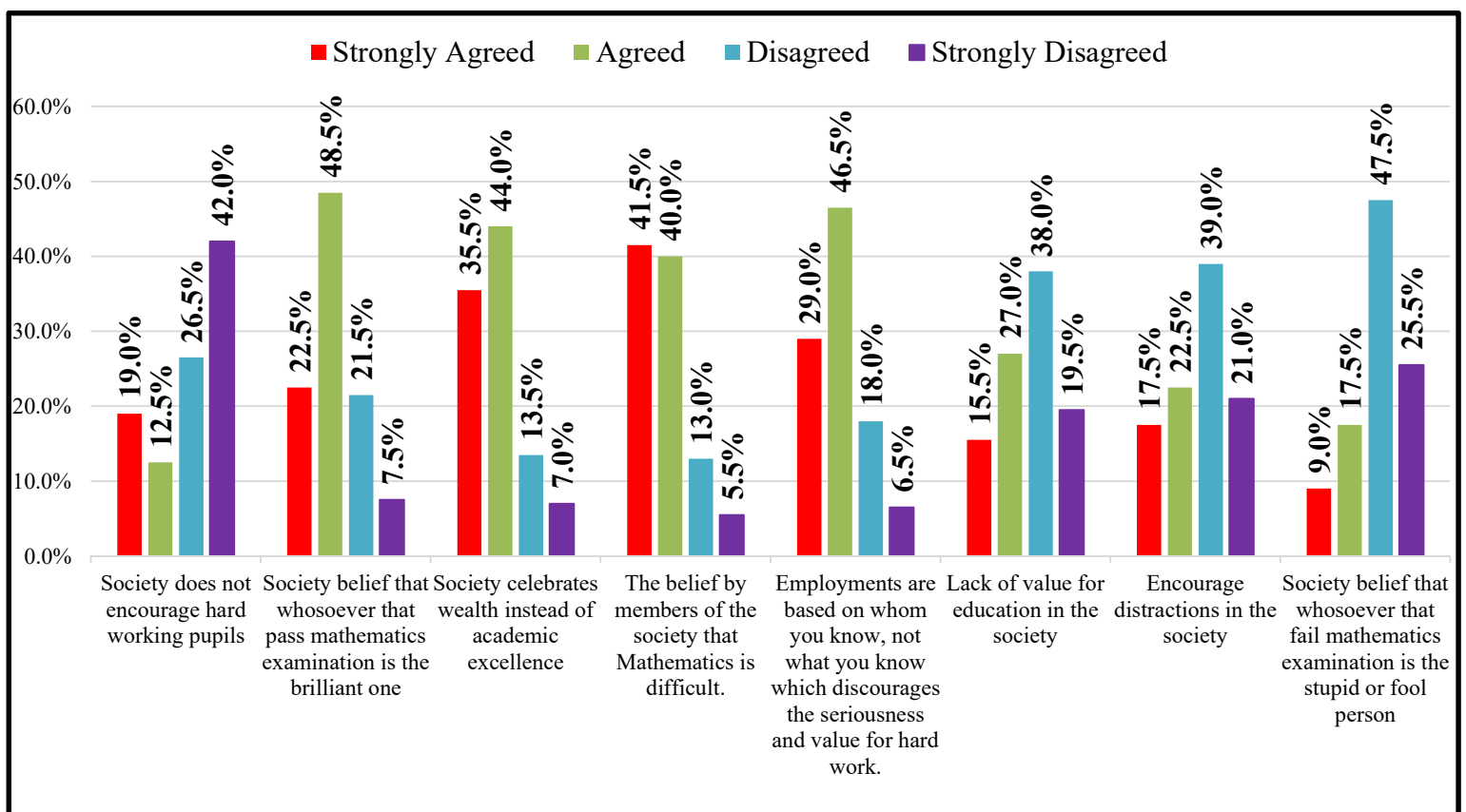
Source: Field data

N = 220

Figure 8. depicts the distribution by percentage of the pupils and teachers' view on the role of pupils as a cause for poor performance in Mathematics at WASSCE Examinations. From the study, the belief of pupils that mathematics is complex was strongly agreed upon by 49.0%, 39.5% agreed, 5.0% disagreed,

and 1.5% strongly disagreed. Lack of frequent practice on mathematics problems by pupils was strongly agreed to by 27.0%, 54.5% agreed, 10.5% disagreed, and 8.0% strongly disagreed. Hatred for mathematics Teachers by pupils was strongly agreed to by 30.5%, 42.5% agreed, 13.5% disagreed, and 13.5% strongly disagreed. The poor mathematical background of pupils was strongly agreed to by 35.5%, 61.0% agreed, 2.5% disagreed, and 1.0% strongly disagreed. The negative Influence of Peer groups on pupils was strongly agreed to by 36.0%, 41.5% agreed, 14.5% disagreed, and 8.0% strongly disagreed. The pupils strongly agreed on the laziness and time management of the subject 30.5%, 54.0% agreed, 7.0% disagreed, and 8.5% strongly disagreed. Lack of Pupil commitment was strongly agreed to by 27.5%, 49.5% agreed, 15.0% disagreed, and 8.0% strongly disagreed. Lack of study and learning materials on mathematics was strongly agreed to by 43.5%, 40.0% agreed, 11.0% disagreed, and 5.5% strongly disagreed. The view of pupils that the mathematics syllabus has many topics was strongly agreed to by 31.5%, 48.0% agreed, 14.5% disagreed, and 6.0% strongly disagreed. Lack of interest in mathematics by pupils was strongly agreed to by 41.5%, 38.5% agreed, 15.0% disagreed, and 5.0% strongly disagreed. Lack of appropriate examples related to exam questions practiced by pupils was strongly agreed to by 24.0%, 54.0% agreed, 10.0% disagreed, and 12.0% strongly disagreed.

**Figure 9:** *Distribution by the percentage of the pupil's and teachers' view on the role of society as a cause for poor performance in Mathematics at WASSCE Examinations*



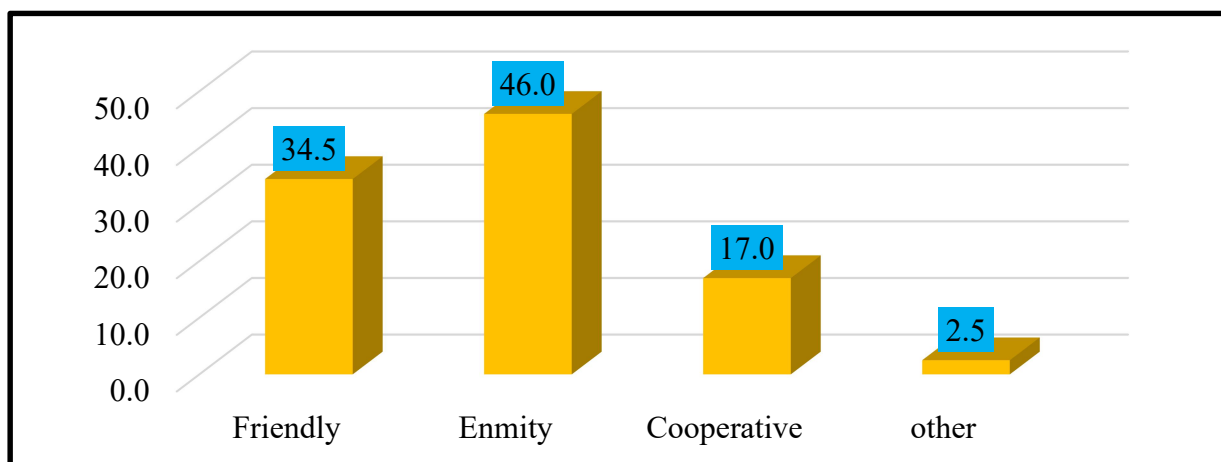
Source: Field data

N = 220

Figure 9. depicts the distribution by percentage of the pupils' and teachers' views on the role of society as a cause for poor performance in mathematics at the WASSCE Examination. From the study, the lack of encouragement of pupils to work hard was strongly agreed upon by 19.0%, 12.5% agreed, 26.5% disagreed, and 42.0% strongly disagreed. Society believes that whosoever passes the mathematics examination is the brilliant one; this was strongly agreed to by 22.5%, 48.5, 21.5%, and 7.5% strongly disagreed. Society celebrates wealth instead of academic excellence. This was strongly agreed to by 35.5% strongly agreed, 44.0% agreed, 13.5% disagreed, and 7.0% strongly disagreed. The belief by members of society that Mathematics is difficult is strongly agreed to by 41.5%, 40.0 agreed, 13.0% disagreed, and 5.5% strongly disagreed. Employments are based on whom you know, not what you know, which discourages the seriousness and value of hard work was strongly agreed to by 29.0% strongly agreed, 46.5% agreed, 18.0% disagreed, and 6.5% strongly agreed. Lack of value for education in society was strongly agreed to by 15.5 strongly agreed, 27.0 agreed, 38.0 disagreed, and 19.5 strongly disagreed. Societal distractions were strongly agreed to by 17.5, 22.5% agreed, 39.0% disagreed, 21.0% strongly agreed. The belief that whosoever fails the mathematics examination is the stupid or fool person was strongly agreed by 9.0%, 17.5% agreed, 47.5% disagreed, and 25.5% strongly disagreed.

**OBJECTIVE 3: To determine the challenges teachers and pupils face in teaching and learning Mathematics at the WASSCE level and how these influence the pupils' performances in the examination.**

*Figure 10: Distribution by the percentage of the Teacher-Pupil relationship in mathematics classes*



Source: Field data

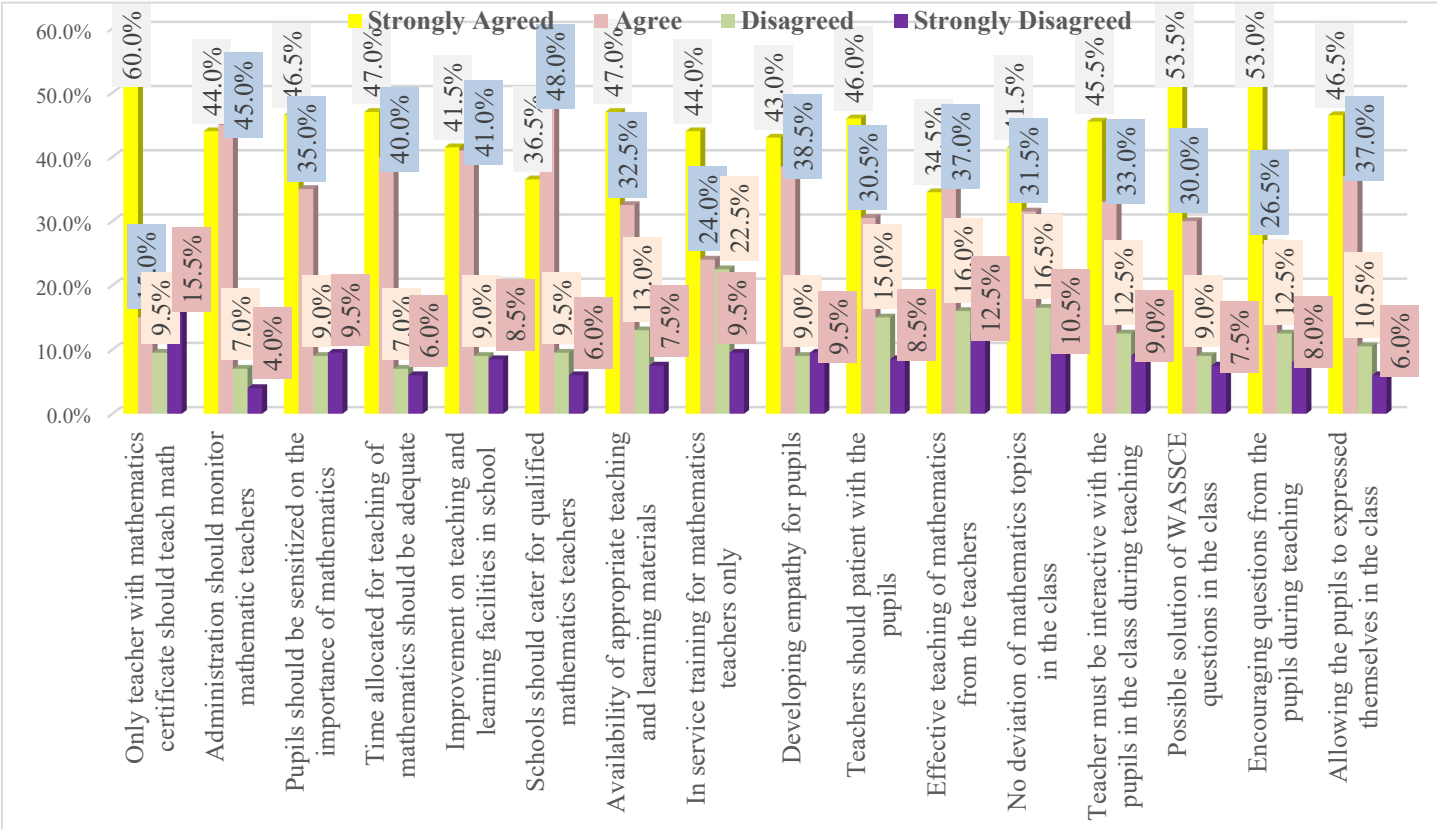
N = 220

Figure 10. show the distribution by percentage of the relationship between teachers and pupils during mathematics classes. 34.5% said they are friendly, 46.0% said they are enemies, 17.0% said they cooperate in class, but 2.5% said their relationship is beyond the listed items.

Hannula (2003) also asserts that negative attitudes toward pupils are generally ascribed to Their characteristics and behavior, thus hiding the teachers' responsibility to mold their character. These findings concur with Aaronson (2003), who posited that pupils taught by highly qualified teachers have significance performed better than those taught by poorly graduated teachers.

***Objective 4: To advance strategies to enhance or improve pupils' performances in the Mathematics Examination at the WASSCE Level.***

**Figure 11: Distribution by the percentage of the Strategies to improve the performance of Pupils in**



### mathematics examination

Source: Field data

N = 220

Figure 11. show the distribution by percentage of the agreement rating to presented strategies to be used to mitigate the situation of poor performances pupils in Mathematics at WASSCE. These are some of the strategies suggested by pupils and teachers on how to reduce or put a stop to the poor performances of pupils in mathematics at the WASSCE level. From the study, allowing only mathematics graduate teachers to teach mathematics in the school was strongly agreed to by 60.0% strongly agreed, 30.5% agreed, 9.0% disagreed while 1 0.5% strongly disagreed. The Administration should monitor mathematics teachers was strongly agreed to by 44.0%, 45.0% agreed but 7.0% disagreed while 8.0% strongly disagreed. The sensitization of pupils of how important the subject is to the livelihood and in the different faculties, 46.5% strongly agreed, 35.0% agreed, 9.0% disagreed while 9.5% strongly disagreed. That time should be allocated to mathematics periods during teaching time and examination time was strongly agreed to by was strongly agreed to by 47.0%, 40.0% agreed 7.0% disagreed and 6.0% strongly disagreed. The improvement in teaching and learning facilities in schools was strongly agreed to by 41.5%, 41.0% agreed, 9.0% disagreed and 8.5% strongly disagreed. That schools should cater for qualified mathematics teachers 36.5% strongly agreed, 48.0% agreed, 9.5% disagree and 6.0% strongly disagreed. Regarding the availability of appropriate teaching and learning materials for the teachers and the pupils was strongly agreed to by 47.0% 32.5% agreed, 13.0% disagreed while 7.5% strongly disagreed. The need for in – serves training for mathematics teachers was strongly agreed to by 44.0%, 24.0% agreed each term of the academic year but 22.5% disagreed and 9.5% strongly disagreed because of the sponsorship for the program. The need to develop empathy for pupils in class while teaching mathematics was strongly agreed to by 43.0% and 38.5% agreed because it serves as love to the pupils but 9.0% disagreed and 9.5% strongly disagreed. The need for teachers to exercise patience with pupils was strongly agreed to by 51.0% and 40.5% agreed that teachers should be patient with the pupils in class when teaching mathematics but 5.0% disagreed and 3.5% strongly disagreed.

### **Discussion of findings:**

**Objective 1:** To assess the demographic characteristics of the pupils, teachers, and administrators. The study reveals that the ratio of males to females for pupils was 5.5: 4.5. this shows more males than females in the samples investigated because when the researcher told the pupils about the topics, many females were shy about the subject. The age range of the pupils was from 16 to 20, which is typical for

all senior secondary school pupils at that level of education according to the educational system in the country. These were in a position to respond to the research items appropriately. The status of the teachers could be better because 80% of them are not pin code, and most of them are part-time teachers and have between 5 to 10 years of teaching experience; they are effective in their teaching because of other engagement in different schools.

**Objective 2:** The factors influencing the pupils' performances were categorized into seven, which are the role of pupils, the roles of teachers, the roles of parents, the roles of school administration, the roles of society, the roles of government, and the roles of the examination body. The pupils' roles are crucial to their education; the Pupil believe that mathematics is difficult because they have a poor foundation in the subject, and most teachers can't get frequent practice or appropriate related examination questions with them and because of this, they hate some of their mathematics teacher (Ibrahim Kuyateh, student NISS). Laziness and time management make them not to be a commitment to the subject; most of the pupils spend more hours on WhatsApp, TikTok, Instagram, etc., rather than their books to study, and most of them don't have studying and learning materials at home. (Mr. Williams, Vice Principal of QRS).

**Objective 3:** In every teaching and learning process, there are challenges that both the teachers and learners encounter. The overall performance of the teachers in the schools is rated from good to bad, at 3.5:6.5, which is a significant cause of the poor performance of the pupils. The school's administration's lack of attention to mathematics is high compared to other subjects, leading to poor performance in mathematics because there is no proper attention given to the subject in some schools as a core subject. Most teachers face difficulties teaching mathematics because it's not their specialty, and pupils do because of their teachers' need for proper knowledge.

**Objective 4:** To every problem, there is an answer. There are strategies to be taken to Improve pupils' mathematics performance. The subject must be taught by a teacher with a certificate or Bachelor of Science in Mathematics only so the pupils will love and learn better. However, the school administration should monitor these teachers for effective teaching with adequate time allocated.

### **Conclusions**

The study was done in the southern part of the country, in the Bo district, and the results fully represent the study; the reason is that pupils all over the country take the WASSCE exam and are generally influenced by the same issues. It has been asserted that the high rates of failure noticed yearly in public



examinations are only a symptom of a pervasive national failure syndrome. The performance of pupils in the Senior Secondary Examination in Sierra Leone has remained an issue of concern to all stakeholders. With a population of over two thousand pupils and more than one hundred teachers, and a sample of two hundred who were drawn and served as respondents in this study, the researcher employed the mean method of data analysis and came out with the conclusions: Based on the findings of the study.

### **Recommendation**

The performance of pupils in senior secondary school has remained an issue of concern for all stakeholders (Olawepo, 2004). The report by Adesina (1990) on the survey of the performance of candidates in science subjects over the years revealed a discernible decline. This perennial decline has remained a concern to science educators, mathematicians, and mathematics educators (Abisogun-Alo, 2004). To the best of the researcher's knowledge, no study has investigated the causes of the failure of pupils in Mathematics among secondary school pupils in the Bo district. This is the gap that this study sets out to fill. Having formulated four research questions to guide the study, the researcher, after reviewing the literature, set out on a survey mission, using pupils and teachers themselves as respondents to elicit information from them and analyze the following:

### **The Pupils**

- The study highly suggests that pupils take in hand their perception and feedback towards their teachers' teaching methods in order for the teachers to effectively bring into line their way of teaching to the pupils' way of learning.
- For pupils to learn effectively, they need to be flexible by using strategies outside their preferences to meet the demands of the challenging environment. Pupils must be ready to be guided in mathematics using learner-centered methods, which is a very effective way of teaching. Pupils must not be lazy by not doing self-practice daily. They must also be encouraged to actively participate in classroom activities for an enjoyable and satisfying learning outcome. Pupils should create enough time for personal practice of mathematics questions in order for it to be part of them.

### **The Mathematics Teachers**

- The researcher recommends that mathematics teachers consider pupils' cultural and learning backgrounds when choosing instructional strategies. They should align teaching methods with pupils' assessed learning needs and capabilities.



- Teachers may attempt to find a balance of teaching strategies rather than teaching Pupils; hence, only some understand the subject, and at last, many fail the subject. They may realize the importance of recognizing learning styles, identifying pupils' differences, and adjusting the teaching methods accordingly.
- By doing that, teachers can deliver content clearly, making every Pupil understand mathematics and motivating pupils, leading to better performance in mathematics.

### **The Parents**

- Parents should limit the domestic chores their children do at home to enable them to devote more time to their studies and should serve as mentors to their children by encouraging them in class work. They should be involved in pupils' school activities and encourage them, not just paying school.
- It should also be stressed that parents have a significant role in their children's educational development. They should complement the government's laudable efforts in providing reading materials for their children. While at home, they should monitor the activities of their children closely. They could do this by ensuring that their children devote more time to reading their books and doing their assignments and spend less time watching movies.

### **The School Administrator**

- School administrators are recommended to ensure the availability of instructional materials and facilities for the execution of different teaching methods that are aligned with the teaching methods and pupils' learning in classrooms.
- Effective teaching and learning can only be achieved in the presence of those instructional materials.

### **The Government**

- The government should encourage the youth to study mathematics at tertiary levels by giving them scholarships and other incentives so that there will be enough mathematics teachers in the schools and ensure that qualified mathematics teachers (i.e., those with teaching professions, e.g., B.Ed., BSc (Edu) M. E.D., MSc. Ed. are employed to handle the mathematics lessons in our schools.
- Again, as a matter of urgency, the government should employ more teachers for secondary schools to ensure efficiency and optimal performance.

## References

- Ahmad Muchlisin Natas Pasaribu, A. P. (2020). Analyzing the Involvement of Human Resource and People in Sport in Medan City, North Sumatera Province. <https://core.ac.uk/download/344986140.pdf>
- IMPACT OF LEAVE POLICY ON THE EFFICIENCY OF CIVIL SERVANTS IN NIGERIA. <http://dr.lib.sjp.ac.lk/handle/123456789/9421>
- Gnawali, Y. P. (2024). Causes of Poor Performance in Mathematics at School Education Examination (SEE). Ganeshman Darpan. <https://doi.org/10.3126/gd.v9i1.68537>
- Analysis Of Students Performance In West African Senior Certificate Examinations And National Examination Council In Secondary Schools (A Case Study Of Katsina Local Government Area). [https://projectslib.com/project/analysis-of-students-performance-in-west-african-senior-certificate-examinations-and-national-examination-councilin-secondary-schools-a-case-study-of-katsina-local-government-area/?add\\_to\\_wishlist=44629](https://projectslib.com/project/analysis-of-students-performance-in-west-african-senior-certificate-examinations-and-national-examination-councilin-secondary-schools-a-case-study-of-katsina-local-government-area/?add_to_wishlist=44629)
- Adeshina, A. N. G., Alhaji, I. M., Auta, A., & Ahmed, U. (2014). An Investigation of the Reliability of Senior Secondary School Certificate Examination (SSSCE) Results in Gombe Metropolis, Gombe State, Nigeria. <https://core.ac.uk/download/234636357.pdf>
- Akiknola B, (2006). Factors contributing to poor performance among Pupils in secondary schools, Sun's Ray, Nigeria.
- Akindutire I.O. & Ekundayo H.T. (2013). Teacher education in a democratic Nigeria: Challenges and the way forward. *Educational Research*, 2012; 3(5): 429–435.
- Akinsola, M.A et al, (2005). Subject Method: Mathematics. N.T.I PDE. Book 7, Kaduna. National Teachers Institute. (Lecture Note)
- Counseling for national development. Retrieved from <http://www.eurojournal.com/ejss> on August 28th, 2010.
- Aworanti, O. A. (2010). Why Candidates Fail in Public Examinations, paper presented at The Federal Ministry of Education National Stakeholders Consultative Meeting on Improving Performance in Public Examinations at the National Universities Commission (NUC)
- Bandura A. (2013). Perceived Self-efficacy in Cognitive Development and Functioning. *Educational Psychologist*, 28(2): 117– 148.
- Education sector Development Program (ESDP), 2011, education sector performance report
- Bdullahi Kaigama, Zainab Ibrahim Ciroma & Ali Mohammed (2019) - Survey into the Causes of Consistent Failure in SSCE in English Language in Yobe State: A Study of Yobe, Zamfara,



Abia and Edo States' Secondary School. Lecturer, The Federal Polytechnic, Damaturu, Yobe State, Nigeria. International Journal of Linguistics, Literature, and Translation (IJLLT) ISSN: 2617-0299 www.ijllt.org

Chauhan, V. (2002). Survey of causes of failure in Mathematics at 10 +2 stage M. Phil dissertation on submitted to H.P. University, Shimla.

Cohen, L., Manion, L. & Morison, K. (2005). Research Methods in Education (5th Edition).  
Routledge Falmer: USA

Francis Kafata and Dr. Serah K. Mbetwa (2016). An Investigation into The Failure Rate in Mathematics and Science at Grade Twelve (12) Examinations and its Impact on the School of Engineering: A Case Study of Kitwe District of Zambia. International Journal of Scientific & technology research volume 5, issue 08, August 2016, issn 2277-8616

Fajemidagba, M.O. (1986). Mathematical word problem solving: An analysis of errors committed by Pupils. The Nigerian Journal of Guidance and Counseling 2 (i), 23-30.

Joyce, D.F. (1998). History of Mathematics, <http://alepho.clarku.edu/~djorce/mathlist.html>.

Keshab Prasad Poudel (2017). Detrimental factors for poor performance in mathematics

Oladele, J.O. (2005). Fundamentals of Educational Psychology. Johns Lad. Freetown. Oluremi,

URT, (2008). A Performance of Audit Report on School Inspection Programme for Secondary Schools in Tanzania: A Report of the Controler and Auditor General of the United Republic of Tanzania. Dar es Salaam