INFLUENCE OF EXTRA LESSONS ON THE PERFORMANCE OF LEARNERS IN MATHEMATICS IN SECONDARY SCHOOLS:

CASEOFSOROTI MUNICIPAL SECONDARY SCHOOLS

BY

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THIS RESEARCH REPORT SUBMITTED TO THE FACULTY OF SCIENCE AND EDUCATION FOR THE STUDY LEADING TO A PROJECT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE EDUCATION BUSITEMA UNIVERSITY

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DECLARATION

I WINNIE BYANYIMA declare that this research report titled INFLUENCE OF EXTRA LESSONS ON THE PERFORMANCE OF LEARNERS IN MATHEMATICS IN SECONDARY SCHOOLS is mine.

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APPROVAL

This project report was done under my supervision.

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DEDICATION

I thank GOD who successfully enabled me to complete the entire course and the research. I dedicate this project to my beloved parents Mrs. Christine Akiror even my lovely brothers and sisters. special thanks to my supervisor DR. ASAPH KEIKARA MUHUMUZA for his tireless effort towards achieving my degree and through the entire course. I thank everyone who has put effort through my education to this level including my dear colleagues and friends may God bless you and fulfill the desires of your hearts and supply your needs according to his riches in glory.

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ABSTRACT

We use the Hierarchical Linear Model to analyze the current state of extracurricular tutoring time for secondary school students and its impact on academic performance using UNEB data from SOROTI district in UGANDA. The study discovered that the effect of extracurricular tutoring time on academic performance is a non-linear relationship that initially declines and then increases, indicating that subject-specific tutoring has a threshold effect. When tutoring time

exceeds a certain threshold, academic performance improves qualitatively. However, when mathematics tutoring time exceeds a certain threshold, the gap in mathematics scores between students from different family backgrounds widens, resulting in educational inequality. The effect of school curriculum time on student achievement is a non-linear relationship that begins with an increase and then declines. When compared to off-campus tutoring time, in-school curriculum time can more effectively improve on student academic performance.

CHAPTER ONE

BACKGROUND OF THE STUDY

Education is a crucial predictor of individual productivity and economic development, according to policy makers in developing countries. Many parents think that students' academic progress would suffer as a result of the crowded atmosphere in normal schools. A result they send them to private school where the instructor may work with them personally to help them better understand their studies and succeed at school. On the other hand, I think that private lesson outside the school hours is taxing on children and may harm their academic progress. Due to time constraints, the breadth of curriculum and the given time to unwind rather than being burdened with additional lessons. If they are compelled to attend private schools, they may acquire a bad attitude towards learning, which will harm their academic achievements. Furthermore, private courses outsides of school hours are too costly for many parents. Although private lessons may be financially demanding for many parents, it is thought that cognitively inferior students will benefit immensely from them. Private lesson has emerged as a parallel education industry in several nations providing supplemental teaching to children enrolled in public schools. According to data presented by Hai-Auh dang f. Rogers on the preference of lesson in the 23bdeveloping and industrialized nations. Almost all of them provide or just re-instated private lesson to 25-90% of students at various level of schooling. Policy makers have hard varied reaction to private lesson. It is over looked in some nation and vigorously monitored in other. Private lessons have been forbidden in some nation such as Cambodia, Korea, etc. at different periods, claim that it disrupts the public education system and fails to improve academic achievement or create human capital due to concern that it exacerbates social economic inequities. In this context, a private lesson is described as a free based session that gives supplemental teaching to students in academic areas that they are studying in the regular school system

1.0 INTRODUCTION

EXTRACURRICULAR tutoring, dubbed “shadow education” in international academic circles (Bray 1999), has grown rapidly in Uganda’s urban and rural areas over the last two decades, with approximately 200,000 extracurricular tutoring institutions, thousands of students enrolled in tutoring, and thousands of teachers employed by tutoring institutions (Li, Yang et al. 2022). With the implementation of the balanced compulsory education policy and the burden reduction policy, the time spent in school by primary and secondary school students has been reduced significantly, while after-school homework has been significantly reduced, and after-school time has been significantly increased. This an increasing number of compulsory education students to engage in extracurricular tutoring after school and during the holidays in order to enhance their academic performance or develop their talents in order to gain an advantage in future competition for higher education or employment, thereby expanding the on-campus competition to off-campus tutoring institutions (Xue, Li et al. 2021). Learning time is critical in educational activities, and extracurricular tutoring time is becoming an increasingly significant part of students’ learning time. However, nothing is known about the effect of students’ extracurricular tutoring time on their academic achievement. Therefore, who devotes the most time to after-school tutoring? How does extracurricular tutoring time affect kids’ academic performance? Is spending more time on extracurricular tutoring beneficial? Does the discrepancy in the amount of time spent on extracurricular tutoring by secondary school students exacerbate the inequality in educational outcomes? To address the above questions, we use the results of the 2019 and 2020 performance in UNEB IN Soroti district to examine the current state of secondary school students’ tutoring time and the impact of tutoring time investment on academic achievement using statistical descriptions and a hierarchical linear model. We then make recommendations based on the findings of the study.

1.1 STATEMENT OF THE PROBLEM

The goal of extending the designated study hours for students is to enhance their academic performance and overall educational outcomes. This study seeks to evaluate the impact of

additional lessons on the academic success of secondary school children. In recent year, there has been a notable proliferation of private lesson centers and a growing trend of parental and student interest in supplementary education.

Firstly, extra lessons differ from regular classroom lessons in terms of timing, delivery mode, and the intensity of effort. They typically occur outside regular school hours, such as early mornings, evenings, or weekends. The personalized nature of extra lessons, which often involve smaller groups or one-on one sessions, allows for more focused and tailored instruction. This can address individual student weaknesses and cater to different learning paces and styles, which might not be feasible in a standard classroom setting.

The importance of extra lessons is underscored by their potential to improve students' understanding of the subject matter, boost their grades, and build their confidence. These lessons provide a flexible learning environment that can adapt to the unique needs of each student, thereby fostering better academic outcomes.

Despite their benefits, the adoption of extra lessons in schools faces several challenges. One significant issue is the additional cost, which can be prohibitive for some families, making these lessons less accessible to all students. Furthermore, there are regulatory and policy constraints in some regions that limit or discourage the practice of extra lessons, aimed at ensuring equity and preventing undue pressure on students.

This study aims to investigate these barriers and propose strategies to help schools effectively integrate extra lessons into their educational programs. By addressing issues such as cost, accessibility, and regulatory constraints, this research seeks to make extra lessons a viable option for all students. Ultimately, the goal is to remove obstacles and support schools in embracing the practice of extra lessons, ensuring that all students have the opportunity to benefit from enhanced learning support

1.1.1 THE GENERAL OBJECTIVES

To determine the effect of extracurricular tutoring time investment on the academic performance of secondary schools' students

1.1.2 THE SPECIFIC OBJECTIVES

- To view the literature of students who attend extra lessons with their performance compared to those who do not attend extra lessons.

- To analyze the current state of extracurricular tutoring time of secondary school students in secondary schools
- To evaluate the effects that private lesson has on students' academic performance
- To implement the use of extra lessons in secondary schools

1.2 SCOPE OF THE STUDY

This study will find out if extra lessons improve students' academic achievement. The study will also examine if students attend who attend extra lessons perform better than those who don't attend extra lessons, the study will evaluate the effect of private lessons have on student academic performance

1.2.1 GEOGRAPHY SCOPE

This study is basically based on the research carried out in the secondary schools located in Soroti district

1.2.2 TIME SCOPE

This study took three months, the research started in January, data was collected, analyzed and in the second month a proposal was generated and the third month the research was implemented

1.2.3 COST SCOPE

It took 250,000 Uganda shillings whereby I used it on transport cost, data, printing of paper and hiring of the laptop

1.3 SIGNIFICANCE OF THE STUDY

The purpose of the study is to examine effect of extra lessons on the academic achievement in mathematics in secondary school students hence the study will be significant to school administration, parents etc. as it will expose them to the need of the weak students in their various schools and encourage parents to seek extra lessons for the students lagging behind

1.4 DEFINITIONS OF TERMS

Private lessons/extra lessons/extracurricular tutoring

- This is a free based lesson that provides supplementary instructions to children in academic subjects
- They study in the main stream education system.

Academic Performance

- Is the measurement of student's achievements across various academic subjects?

A secondary school

- Refers to the stage of formal education that follows primary education and precedes higher education it is typically offered to students between the edges of 14 and 18 years, although the specific age range may vary depending on the educational system and country.

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter delves into a comprehensive review of existing literature on influence of extra lessons on the performance of learners in Mathematics, drawing insights from various sources

including journals and prior projects. The aim is to assess the contributions, weaknesses and gaps in the learning Of Mathematics,

Providing a theoretical and practical understanding of influence of Extra Lessons on Mathematics.

In this chapter we are going to describe factors that affect learners in their academic performance, we shall also talk about the attitudes toward math, outcomes of learning mathematics, business that use mathematics, also addressing students learning gaps in mathematics. This will be based on the journals, articles, library books that have been tested and proved by different number of people.in return this is Going to help find out the gaps, problems that are mostly faced by teachers and students. A variety of research and rules can be created to administer Extra lessons in Mathematics in Schools. There are many students that are still seeing mathematics as a hard subject. However, creating these extra lessons will provide students with extra time to learn mathematics, see mathematics in a simpler way, and also have the desire to continuously love the subject.

2.1 WHAT IS MATHEMATICS

Mathematics consist of three parts like all other subjects that's to say assumptions, properties and applications. These three terms extract the definitions of mathematics.

Carl friedrich gauss referred mathematics as the queen of science but unfortunately students fear from this queen, although the subject is very essential to the growth of many other disciplines. The science of mathematics depends on the mental ability.it is the means to develop the thinking power and reasoning intelligence, which sharps the mind and makes it creative.in this article it says development of human beings and their culture depend on the development of mathematics. This is why it's known as the base of math of human civilization.(Yadav 2017)

It is also the language of all material science and the Centre of all engineering branches which revolve around it. There for mathematics is also the past, present and future of all science.

(Courant, Robbins et al. 1996)

2.2 THE IMPACT OF EXTRACURRICULAR TUTORING ON ACADEMIC PERFORMANCE: A CASE STUDY OF SECONDARY SCHOOLS IN CHINA

In China due to its continuous development shadow education has gradually emerged and evolved in the past 20 years. we can us the shadow education input and output to measure the advantages and disadvantages of students' participation in extra-curricular classes. Based on the data of 2014 Chinese family panel studies (CFPS). This paper uses the multiple logit regression model to analyze the impact of shadow education expenditures. (Yuan Zhang 2020)

According to Jere Behrman and the team they say concern over the implication of such activities for child development and educational inequality has led to global rise of public provision of after-school learning support. However, little is known about inter-actions of public after-school activities and house hold investments in children's learning. they built a model that integrates

public and private inputs to produce student achievement through two competing mechanisms-diminishing returns to total inputs and complementarity between public and private inputs. When diminishing returns dominate complementarity, the modal predicts the substitution away of private inputs due to increases in public inputs for all households, although the extent of crowding-out is smaller and therefore the test score gains are larger for children from disadvantaged family backgrounds facing higher costs of private inputs. They also implemented a randomized controlled after-school tutoring experiment in rural china where many children are left-behind by both parents reported large and significant reductions in the amount of tutoring received at home, whereas tutees living apart from both parents reported much smaller, and often insignificant, reductions, they found that tutees' math scores improved significantly, and more for children living without parents, although there is no evidence for improvement in tutees' end line reading scores. This shows that there is still need more need to improve the input and for better output hence implementing the extra lessons in mathematics (Behrman, Fan et al. 2020)

2.3 EXAMINING THE EFFECTIVENESS OF PRIVATE TUTORING ON ACADEMIC ACHIEVEMENT: A META-ANALYSIS

Private tutoring has been welcomed by populations worldwide. However, there is a lack of synthesis of relevant experiment research. A three-level metal-analysis model and the robust variance estimation method we fitted to synthesize 78 effect sizes of 22 experimental studies (involving 6750 participants) in recent 20 years. The result of this research showed medium overall effect sizes in the single-group pretest-posttest (SPP), independent-groups posttest (IP) AND INDEPENDENT-GROUPS pretests-posttest (IPP) (Zhang and Liu 2022)

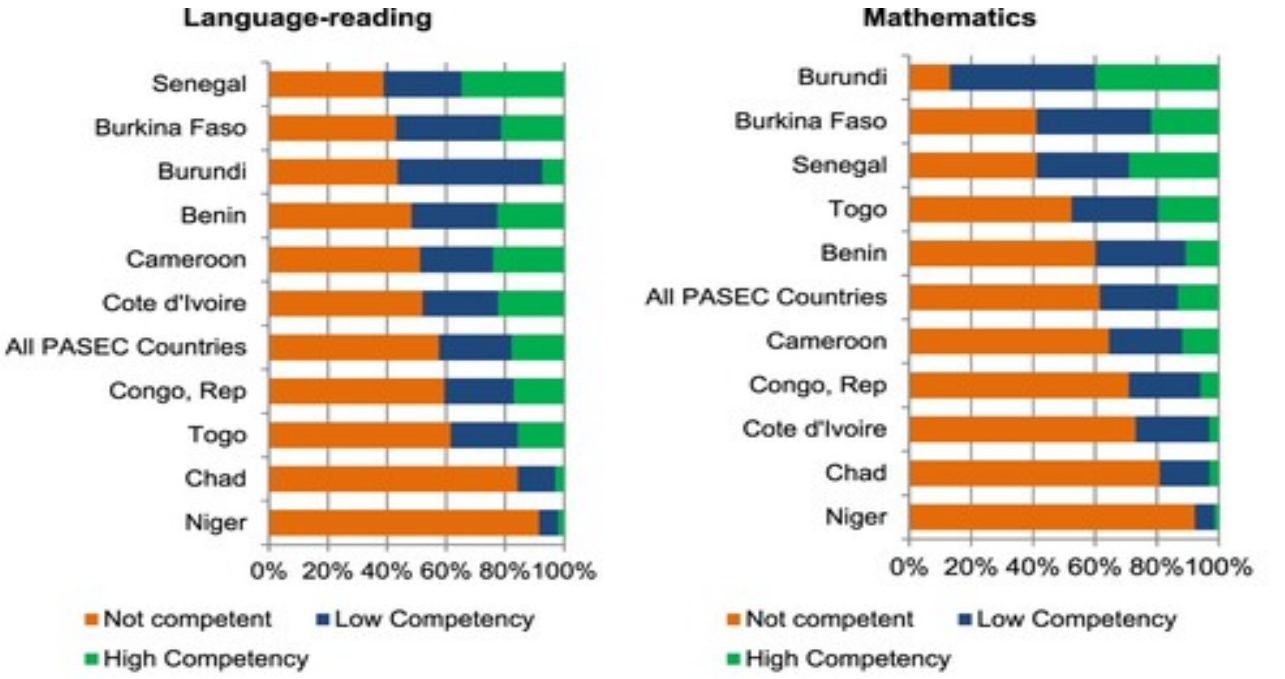
Private tutoring also known as the shadow education was made to improve academic achievement, however, the previous studies have come to different conclusions regarding its effectiveness. In this article study was conducted secondary analyses using data of two longitudinal studies (approx. 8000 secondary school students) and investigated the effects of private tutoring duration and different levels of tutors' formal qualifications on subject-specific grades and test scores in 4 schools. OLS-regression analyses showed neither a systematic positive effect of a longer duration of tutoring nor of higher qualified tutors when prior knowledge, motivational and sociodemographic variables were controlled for. (Ömeroğulları, Guill et al. 2020)

2.4 THE ROLE OF EXTRACURRICULAR TUTORING IN SHAPING ACADEMIC ACHIEVEMENT: EVIDENCE FROM SOUTH KOREA

Korean educational success is largely attained by the role-played baby parents, and to a lesser extent by the school factors. Parental involvement in education beyond the family's socioeconomic status is found to have strong relationship with student achievement; they also say shadow education is the major factor that explains the US. -Korea achievement gap where it is negatively related with student achievement in the United States. Whether the finding indicates the causal relationship needs to be further examined. in other words, the question remains whether shadow education causes Korean students to achieve higher and U.S. Students to achieve lower, or whether there exists the issue of self-selection, where in Korea, high achievers participate in shadow education to excel higher and in the U.S, low-achievers participate in shadow education for remedial purposes. This shows that there is still a big Gap to influence extra lessons of mathematics for students. (Park 2013)

2.5 PRIVATE TUTORING AND ITS IMPACT ON MATHEMATICS PERFORMANCE: EVIDENCE FROM SUB-SAHARAN AFRICA

In the Figure 2.1 below it shows language reading and mathematical scores



Source : Author using PASEC 2014 database

Note: Competency levels are based on PASEC data. Referring to the database and PASEC methodological report, by subject, competency levels are code as follow: (a) for reading test, "not competent" refers to levels 0–2 in the original coding, "low competency" to level 3, and "high competency" to level 4; For mathematics test, "not competent" refers to levels 0–1 in the original coding, "low competency" to level 2, and "high competency" to level 3.

FIGURE 2.1 *Shows language reading and mathematical score from Sub-Saharan Africa*

This means Beyond the percentage PASEC Assessment implies that millions of student's complete primary education without acquiring the basic skills in reading and Mathematics, such as a number recognition, arithmetic, geometry and problem-solving which are considered as crucial for further education in the field of Mathematics. (Kadio 2023)

By incorporating extra lessons for mathematics this will help students who have not got a deeper understanding to carry out more revisions and test hence helping them from struggling to understand Mathematics but rather like it.

2.6 EXPLORING THE RELATIONSHIP BETWEEN EXTRACURRICULAR TUTORING AND STUDENT ACHIEVEMENT: A CASE STUDY IN UGANDA

Students are also found of printing out books in order to take them home for reading. This gave a snapshot of KITENGESA library in Uganda to be developed. This brought an impact to see how a village library will promote students reading culture. In Uganda only 18 percent of girls and 20 percent of boys are enrolled in secondary school, and this group of students (ages 13-17) is particularly vulnerable to a wide range of social and economic challenges. (Dent 2012)

the outcomes of this research greatly show that there is need of adding extra lessons of mathematics I order to make students understand and be well versed with mathematics

2.7 WHAT IS MATHEMATICS THINKING AND WHY IS IT IMPORTANT

Mathematics is important in three way and that's to say mathematical thinking is an important goal of schooling. Also, mathematical thinking is important as a way of learning mathematics, and lastly mathematical thinking is important for teaching mathematics. According to (Stacey 2006)

Mathematical thinking is important as a way of learning mathematics

According David Tall he speaks about how mathematical thinking can be observed in ways like expressions, how we hear someone speak mathematically, how we see moving objects, how we think about mathematical symbols as processes or mental objects, He also says understanding of historical growth of the subjects. They offer new ways of making sense of 'math wars' in which different approaches to mathematical ideas cause debates over which is preferable or even correct. This will help to influence extra lessons in the performance of learners in mathematics

2.8 STUDENTS' ATTITUDE TOWARDS MATHEMATICS

Students' attitudes towards mathematics are very much related to their attitude towards problem solving in general. They add that negative attitudes need to be overcome, so that later in life, students will not suffer from poor problem-solving skills. It is important to master problem-solving skills as these skills are essential for dealing competency without everyday life. Students

must have positive attitude towards problem solving if they are to succeed. Also, the article continues to state that solving problem requires patience, persistence, perseverance and willingness to accept risks. This clearly shows that in order to make students persevere they need to be added extra lessons in mathematics that will guide them how to be patient. Hence influence in extra lessons of mathematics (Mohd1, et al. 2011)

METHODOLOGY

3.0 INTRODUCTION

The purpose of this chapter is to outline the methodology used in the study investigating the influence of extra lessons on the performance of learners in mathematics. This study aims to determine the effect of applying the Contextual Teaching and Learning approach to student interest and student achievement in mathematics. The research design used in this study is a quantitative type with a descriptive evaluation design. Which allows for the systematic collection and analysis of data to evaluate the effectiveness of the approach.

Participants: The participants in this study included four headmasters, four fifth-grade teachers, and fifth-grade students from Soroti secondary Data Collection Methods: The data for this study will be collected through observation, interviews, and documentation.

Data Analysis: Quantitative descriptive data analysis was used to analyze the collected data. The results of this study will demonstrate the effectiveness of the Contextual Teaching and Learning approach in improving student interest and achievement in mathematics. The methodology utilized in this study is a quantitative type with a descriptive evaluation design. Therefore, the evaluation model used is a logic model. influence of Extra Lessons on the Performance of Learners in Mathematics:

3.1 AREA OF STUDY

This study was conducted in Soroti subcounty which is located in Soroti District along Soroti-SERERE road in Eastern Uganda.

3.2 POPULATION AND SAMPLING

This study involved three respondents from whom data was collected they include, header teacher from Soroti municipal secondary school, one teacher madam praise and Mr. OKWALINGA.

3.3 DATA COLLECTION METHOD

3.3.1 OBSERVATION

This method was used to get firsthand information by seeing how the children related when they were given to solve some mathematical equations during classes, but most of them seemed to be

not well versed with the question yet it was a question that most of the students could answer. This gave a clear indication that students are still struggling to understand on how to solve the question. And on my finding, it was only two people got the answer right.

3.3.2 FOCUS GROUP DISCUSSION

This involved selecting specified group of people to discuss specific topics and understand the participant's views. Here the I formed a group of discussion between students in different classes that is form three and form four. This helped me to gather information among these different classes to see how they are struggling with solving equation of mathematics.

CHAPTER FOUR

RESULTS

4.1 GENDER COMPOSITION OF THE RESPONDENTS.

In this study, we examined the gender composition of the respondents to provide insights into the demographic characteristics of the sample population. The data used for analysis are drawn from Soroti municipal Secondary School.

Table 4.1 *Shows gender distribution of respondents.*

Gender	Percentage (%)
Male	3.5%
Female	6.5%

The demographic breakdown enabled the researcher to analyze any disparities or similarities in tutoring habits, academic achievements, and the effects of extracurricular activities on academic performance among male and the female students. Such analysis was crucial for designing targeted interventions and policies aimed at addressing educational inequalities and promoting equal opportunities for all students.

Moreover, understanding the gender composition of the sample population is essential for interpreting the findings regarding the impact of extracurricular tutoring time and school curriculum time on academic performance, as discussed in subsequent sections.

The hierarchical linear modal utilized in this study allowed a comprehensive analysis of the relationship between extracurricular tutoring time, school curriculum time and academic performance while considering various demographic factors, including gender. Through this analysis, we aim to provide insights that contribute to the understanding of educational dynamics and inform strategies for enhancing academic outcomes and reducing educational disparities.

4.2 AGE GROUP

The researcher analyzed the impact of additional lessons on the academic success of secondary school children across different age groups. Understanding how age influences the effectiveness of additional instruction is crucial for designing targeted interventions and policies that cater to the diverse needs of students at different developmental stages.

Table 4.2 *Shows age group distribution of the respondents*

Age (years): Under 15
15
16
17
Over 17

Impact of additional lessons on academic success:

4.2.1 UNDER 15 YEARS

Analysis showed the younger students in this age may benefit significantly from additional lessons, especially when provided free of charge by schools however, there might be diminishing returns if the additional lessons are paid for, as financial constraints may limit access for some students.

The researcher collected data from three students under age of 15 years where by she found out that English subject that was being taught by Madam Tracy decided to offer extra lessons at a free cost this helped one of the students I interviewed to excel in English, where as in Geography the teacher Ariong joseph decided to charge students some fee for extra lesson this made some students to pass highly more than the others. The table below shows different ages of under 15 years old with their performance

Table 4.2.1 *Shows respondents under 15 years with their score*

STUDENT NAME	**AGE**	**SUBJECT**	**SCORE**
Omagor asuman	13	English	75%
Oluk Simon	14	Geography	70%

Akiror jane	13	Geography	55%

4.2.2 15 YEARS

Students at this age are often preparing for important examinations. The impact of additional lessons on academic success may vary depending on individual motivation and the quality of instruction received. Students who can afford private lessons may have a slight advantage, but the difference might not be substantial compared to those who rely solely on school-provided study hours. This can be seen by the performance of students who were taught privately and those that did not get the private study in the table below.

Table 4.2.2 *Shows respondents with Age of 15 Years and their Score*

NAME	SUBJECT	TYPE LESSON	SCORE
ATIM JESCA	MATHMEMATICS	PRIVATE	80%
AKELLO SARAH	MATHEMATICS	SCHOOL-PROVIDED	66%

4.2.3 16 YEARS

With increasing academic demands students in this age group may find additional lessons beneficial, particularly in subjects where they struggle. However, there may be a trade-off between attending additional lessons and engaging in other extracurricular activities or personal interests.

This is due to the tight time table that is provided by schools this makes them to attend classes throughout the day and when they are done with studying they are still involved in some sports activities here is the Figure 4.2.3 below

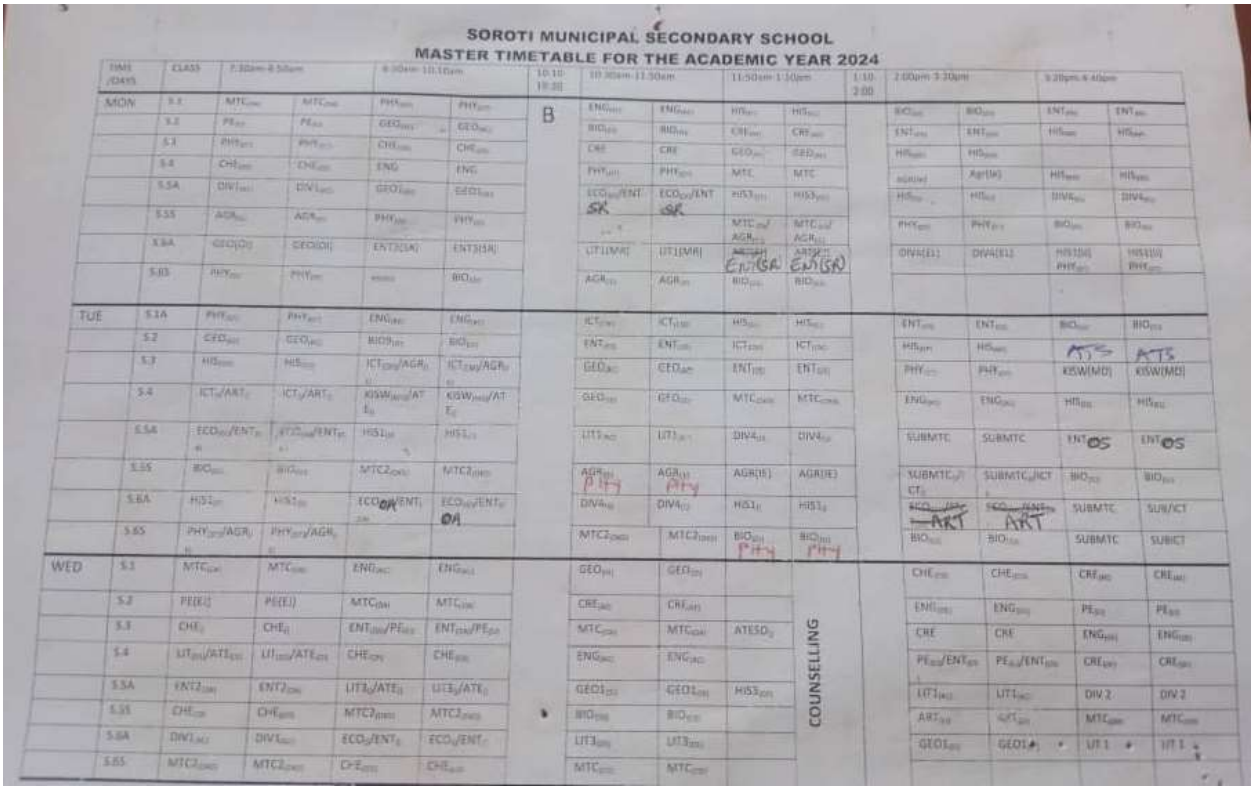

SOROTI MUNICIPAL SECONDARY SCHOOL
MASTER TIMETABLE FOR THE ACADEMIC YEAR 2024

FIGURE 4.2.3 *Showing time table of Soroti Municipal Secondary School*

4.2.4 17 YEARS

As students approach the end of their secondary education, the impact of additional lessons may become more pronounce, especially for those aiming for higher education or competitive career paths. However, the financial burden associated with private lessons could widen educational inequalities among students from different socio-economic backgrounds.

I also interviewed one student who explained to me that she has found challenges paying even her tuition due to the loss of her parents. This made her to start a business where by she delays to report to school in order to get enough tuition and pay for her school fees. This has made her not to get money for extra lesson thus leading to her poor performance.

4.2.5 OVER 17 YEARS

For students over 17 years old, the effectiveness of additional lessons may depend on their academic goals and career aspirations. Those planning for university entrance exams or vocational training may find additional lessons crucial for achieving their objectives.

The researcher also interviewed a student who went for Medicine and Surgery entry exams. And he said that by having some addition lessons during his Secondary study made him acquire

additional knowledge hence making him pass his Entrance exams at school of medicine with score of 75%

4.3 PERCEPTIONS OF STUDENTS AND PARENTS:

4.3.1 YOUNGER STUDENTS

Parents of younger students may view additional lessons as essential for building a strong academic foundation. However, they may have concerns about the cost and potential impact on their child's overall well-being and development.

4.3.2 OLDER STUDENTS

Parents and students in the later stages of secondary education may perceive additional lessons as necessary for achieving academic goals and securing future opportunities. However, they may also be more aware of the financial implications and seek affordable alternatives or scholarships.

4.3.3 SOCIO-ECONOMIC FACTORS

ACCESS TO ADDITIONAL LESSONS

Socio-economic factors, such as family income and parental education level, significantly influence access to additional lessons. Students from affluent families may have more resources to invest in private lessons, giving them an advantage over their peers from less privileged backgrounds.

IMPLICATIONS FOR POLICY AND PRACTICE

EQUITABLE ACCESS

Policies should aim to ensure equitable access to additional lessons particularly for students from disadvantaged backgrounds. This may involve providing subsidies or scholarships to make private lessons more accessible.

QUALITY OF INSTRUCTION

Emphasis should be placed on the quality of instruction in both school-provided study hours and private lessons. Schools should strive to offer effective supplementary support, while private lesson centers should adhere to high educational standards.

PARENTAL ENGAGEMENT

Educating Parents about the importance of balanced study habits and the potential drawbacks of excessive reliance on additional lessons can help foster a supportive learning environment at home.

By considering the age-specific dynamics of additional lessons, policymakers and educators can develop targeted strategies to maximize the benefits of supplementary education while minimizing its potential drawbacks, thereby promoting academic success for all secondary school children.

4.3 EDUCATION STATUS OF THE RESPONDENTS

The researcher examined the educational status of the respondents to provide insights into the demographic characteristics of the sample population. Understanding the educational background of the respondents is essential for contextualizing the analysis of the impact of additional lessons on academic success and for identifying potentials disparities in educational outcomes based on parental education levels.

Table 4.3 *shows the distribution of respondents based on the education status of their parents or guardians.*

PARENTAL LEVEL	Percentage of Respondents
Primary education	15%
Secondary education	45%
Vocational Training	15%
Bachelors' degree	18%
Master Degree	4%
Doctoral Degree	2%
Other (specify)	1%
Total	100%

4.3.1 PRIMARY EDUCATION

Parents or guardians with primary education as their highest qualification may have limited resources educational opportunities. Their ability to support their children academically may be constrained, potentially affecting their access to additional lessons and academic success.

4.3.2 SECONDARY EDUCATION

Parents or guardians with secondary education may have a better understanding of the importance of education and may actively seek additional support, such as private lessons to supplement their children's learning. However, financial constraints may still pose challenges for accessing additional educational resources.

4.3.3 HIGHER EDUCATION

Parents or Guardians with higher education qualifications, such as bachelor's master's or doctoral degrees, may have greater resources and knowledge to support their children's academic success.

IMPLICATIONS

EQUITY IN EDUCATION

Understanding the educational status of the respondents' parents or guardians allows for the identification of potential disparities in access to educational resources and opportunities policymakers can use this information to design targeted interventions aimed at promoting equity in education.

PARENTAL INVOLVEMENT

Parents or Guardians with education levels may play a more active role in supporting their children's academic development. Schools and educational institutions can leverage this parental involvement to enhance student learning outcomes through collaborative efforts

RESOURCE ALLOCATION

Educational institutions can allocate resources more effectively by considering the educational status of the respondents' parents or guardians. This may involve providing additional support or

financial assistance to students from families with lower educational qualifications to ensure equal access to educational opportunities

4.4 HOW LONG THE TEACHERS HAVE BEEN TEACHING EXTRA LESSONS

The researcher explored the duration of teachers' experience in teaching extra lessons, providing insights into the expertise and stability of the educators involved in supplementary education.

The duration of teachers' experience in teaching extra lessons is categorized into the following groups.

Less than 1 year, 1-5 years, 6-10 years, over 10 years

Table 4.4 *Shows Duration of teachers' Experience in teaching extra lessons*

Experience Duration	Percentage of Teachers
Less than 1 year	3%
1-5 years	25%
6-10 years	30%
Over 10 years	42%

ANALYSIS

4.4.1 LESS THAN 1 YEAR

Teachers with less than one year of experience in teaching extra lessons may still be gaining familiarity with the supplementary education landscape. They may have innovative approaches but may lack the depth of experience compared to more seasoned educators.

4.4.2 1-5 YEARS

Educators with 1-5 years of experience have likely developed a solid foundation in teaching extra lessons. They may have refined their methods and strategies over time and are well-versed in addressing the needs of students seeking additional support.

4.4.3 6-10 YEARS

Teachers who have been teaching extra lessons for 6-10 years bring a wealth of experience to their role. They have likely encountered various challenges and have honed their skills in providing effective supplementary instruction.

4.4.4 OVER 10 YEARS

Educators with over 10 years of experience in teaching extra lessons are seasoned professionals in the field. They possess extensive knowledge, expertise, and insight into effective teaching methods, making them valuable assets in the supplementary education sector.

IMPLICATIONS

QUALITY OF INSTRUCTION

Teachers with longer experience in teaching extra lessons may offer higher quality instruction due to their accumulated expertise and refined teaching methods.

STABILITY AND CONTINUITY

Schools and private lesson centers should prioritize retaining experienced teachers to ensure stability and continuity in the provision of supplementary education services.

PROFESSIONAL DEVELOPMENT

Continuous professional development opportunities should be provided to teachers at all experience levels to keep them updated with the latest pedagogical techniques and educational trends.

STUDENTS' OUTCOMES

The duration of teachers' experience may impact student outcomes, with more experienced educators potentially yielding better academic results for their students.

4.5 TYPES OF TEACHING

The researcher categorized the various types of teaching method used in providing extra lessons to secondary school students. Understanding the different teaching types helps in assessing the effectiveness and suitability of each approach in supporting students' academic success.

Teaching types refer to the methods and approaches employed by educators in delivering extra lessons. These may include:

- Traditional classroom teaching: Conventional teaching methods involving lecturers, textbook-based learning and assignments.

- Interactive teaching: Engaging teaching methods that encourage student participation such as group discussions, problem-solving activities and interactive multimedia resources.
- One-on-one tutoring: individualized instruction tailored to the specific needs of each student, providing personalized attention and support.
- Online teaching: instruction delivered remotely via online platforms, utilizing video conferencing, digital resources, and interactive tools.
- Blended learning: a combination of traditional classroom teaching and online learning, incorporating both face-to-face instruction and digital resources.
- Experiential learning: hands-on learning experiences that allow students to actively engage with concepts through experiments, projects and real-world application.

4.5.1 ANALYSIS

TRADITIONAL CLASSROOM TEACHING:

This method provided a structured learning environment but was lacking individualized attention and engagement.

INTERACTIVE TEACHING:

Encouraged active participation and critical thinking skills but required more resources and preparation.

ONE-ON-ONE TUTORING:

Offered personalized support and targeted instruction, but was not feasible for all students due to resource constraints.

ONLINE TEACHING:

Provided flexibility and accessibility but required students to have reliable internet access and digital literacy skills

BLENDED LEARNING:

Combined the benefits of face-to face interaction with the flexibility of online resources, offering a balanced approach to learning

EXPERIENTIAL LEARNING:

Fostered hands-on engagement and deeper understanding but required additional time and resources for planning and implementation.

EFFECTIVENESS OF TEACHING METHODS:

Assessing the effectiveness of different teaching types helped educators and policymakers determine the most suitable approaches for supporting students' academic success.

RESOURCE ALLOCATION:

Schools and educational institutions needed to allocate resources effectively to support a variety of teaching methods ensuring, ensuring all students have access to quality education.

STUDENT ENGAGEMENT:

Understanding the preference and learning styles of students helped educators tailor their teaching methods to maximize engagement and learning outcomes.

PROFESSIONAL DEVELOPMENT:

Educators required training and support to effectively implement various teaching methods, especially those that are innovative or technology-driven.

By examining the different types of teaching methods used in extra lessons, educators and policymakers made informed decisions to enhance the quality and effectiveness of supplementary education for secondary school students.

Table 4.5 *Shows: Pros and Cons of Different Teaching Methods*

Teaching Method	**Pros**	**Cons**
Traditional Classroom	Structured environment	Lacks individualized attention
Interactive Teaching	Encourages participation and critical thinking	Requires more resources and preparation
One-on-One Tutoring	Personalized support	Not feasible for all students

		due to resource constraints
Online Teaching	Flexibility and accessibility	Requires reliable internet access and digital literacy skills
Blended Learning	Combines face-to-face interaction with online resources	Requires a balanced approach
Experiential Learning	Hands-on engagement and deeper understanding	Requires additional time and resources for planning and implementation

4.6 CHALLENGES FACED BY TEACHERS

The researcher identified and described the various challenges encountered by teachers in providing extra lessons to secondary school students. Understanding these challenges was crucial for addressing issues that may hinder the effectiveness of supplementary education.

Challenges faced by teachers in providing extra lessons included:

- Limited Resources: insufficient teaching materials, facilities or funding for supplementary education programs.
- Large class sizes: difficulty in providing individualized attention and support to students in crowded classrooms.
- Time constraints: Balancing extra lesson preparation with other teaching responsibilities and personal commitments.
- Students' motivation: engaging students who may lack interest or motivation in attending extra lessons
- Parent expectations: managing high expectations from parents regarding their childs academic progress and performance.
- Technological issues: dealing with technical problems or limitations when implementing online or blended learning methods.

- Assessment and evaluation: ensuring fair and effective assessment of student progress and learning outcomes.
- Teacher burnout: coping with stress and fatigue from teaching additional hours outside of regular school hours

4.6.1 ANALYSIS

LIMITED RESOURCES:

Teachers struggled to provide quality education when resources such as textbooks, teaching aid, or facilities are lacking.

LARGE CLASS SIZES:

Teachers found it challenging to meet the diverse needs of students when classes are overcrowded, impacting individualized learning opportunities.

TIME CONSTRAINTS:

Balancing extra lesson preparation with regular teaching duties and personal commitments led to stress and compromised effectiveness.

STUDENT MOTIVATION:

Teachers faced difficulty in engaging students who are reluctant or disinterested in attending extra lessons, affecting overall participation and outcomes.

PARENTAL EXPECTATIONS:

High expectations from parents regarding their child's academic performance added pressure on teachers to deliver results, potentially affecting their teaching approach and well-being.

TECHNOLOGICAL ISSUES:

Teachers encountered challenges with technology, such as internet connectivity issues or lack of access to digital resources, hindering the implementation of online or blended learning methods.

ASSESSMENT AND EVALUATION:

Ensuring fair and effective assessment of students' progress was challenging, especially when resources for evaluation where limited or when students vary widely in their abilities.

TEACHER BURNOUT

Teaching additional hours outside of regular school hours led to burnout and exhaustion among teachers, impacting their effectiveness and well-being.

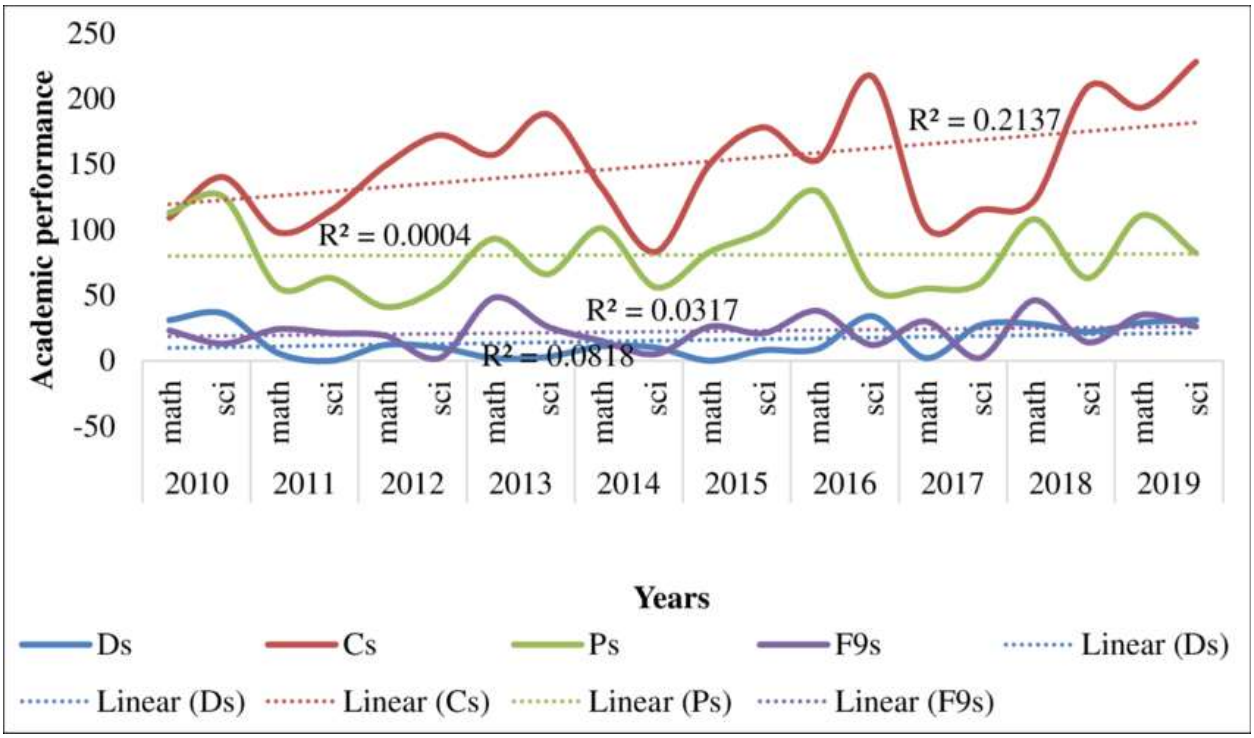


Figure 4.6 *ACADEMIC PERFORMANCE OF SCIENCE SUBJECT*

Poor academic performance in science subjects continues to be a major setback in schools of developing countries, despite several interventions to curb the vice. This study investigated the trend in academic performance in mathematics and integrated science (Alfred, Oriangi et al. 2023).

4.6.2 IMPLICATIONS

POLICY AND RESOURCE ALLOCATION:

Policymakers should allocate sufficient resources and support to address the challenges faced by teachers in providing extra lessons, ensuring the quality and effectiveness of supplementary education programs.

PROFESSIONAL DEVELOPMENT:

Teachers benefited from training and support in managing large class sizes, addressing student motivation issues and implementing technology effectively in their teaching practices.

COLLABORATION AND SUPPORT:

Schools, parents and educational stakeholders should work together to manage expectations, provide support and create a conducive learning environment for both teachers and students involved in extra lessons.

Understanding these challenges faced by teachers in providing extra lessons, educators and policymakers can develop strategies to overcome these obstacles and improve the quality and accessibility of supplementary education for secondary school students.

4.7 REASONS WHY TEACHERS CONTINUE TO PROVIDE EXTRA LESSONS

The researcher explored the motivations and reasons why teachers continue to offer extra lessons to secondary school students despite facing various challenges. Understanding these factors are essential for recognizing the value of supplementary education and its impact on students' academic success.

Teachers continue to provide extra lessons for several reasons, including:

Commitment to student success: teachers are dedicated to ensuring their students' academic success and view extra lessons as an opportunity to provide additional support and help students may face in understanding certain concepts or subjects, ensuring comprehensive learning and mastery of key skills.

Meeting parental expectations: Teachers recognize that parents often expect additional academic support for their children and may feel a responsibility to meet these expectations to ensure positive relationships with parents and maintain trust.

Supplementary income: some teachers rely on income from extra lessons to supplement their salaries, especially in regions where teacher salaries may be relatively low or where there are limited opportunities for additional income.

Professional fulfillment: many teachers find satisfaction in helping students succeed and enjoy the opportunity to engage with students outside of the regular classroom setting, fostering meaningful connections and relationships.

4.7.1 ANALYSIS
COMMITMENT TO STUDENT SUCCESS:

Teachers are driven by a desire to see their students succeed academically and may go the extra mile to ensure their students receive the support they need.

ADDRESSING LEARNING GAPS:

Teachers recognize that some students required additional help to fully grasp certain concepts, and extra lessons provide an opportunity to address these gaps in understanding.

MEETING PARENTAL EXPECTATIONS:

Teachers understood that parents often expect additional academic support for their children and may feel obligated to provide this support to maintain positive relationships with parents.

SUPPLEMENTARY INCOME:

For some teachers, offering extra lessons is way to supplement their income, especially in regions where teacher salaries may not adequately cover living expenses.

PROFESSIONAL FULFILLMENT:

Many teachers found fulfillment in helping students achieve their academic goals and enjoy the opportunity to build rapport with students outside of the regular classroom environment.

Table 4.7*: Comparison of 2020 and 2019 Candidates' Performance in mathematics*

SUBJECT	No. of Cands.	2020			No. of Cands	2019		
		PERCENTAGE AT				Percentage AT		
		2	6	8		2	6	8
Mathematics	329,453	3.9	37.9	67.2	330,080	3.9	32.6	60.7
Geography	329,380	1.9	55.8	80.4	329,929	3.8	66.6	85.3

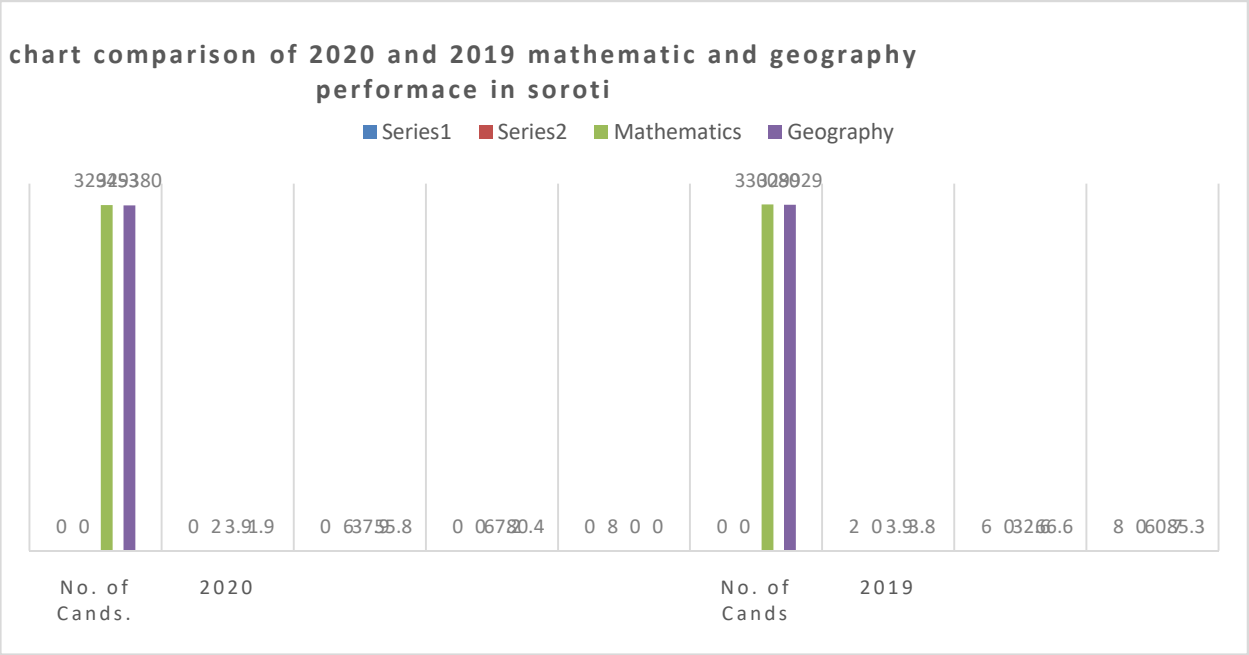


Figure 4.3 *Shows Comparison of 2020 and 2019 of mathematics and geography performance in soroti*

There is an overall improvement in performance in the large entry subjects except in Geography.

4.7.2 IMPLICATIONS

Recognition of teachers' dedication: acknowledging teachers' commitment to student success through the provision of extra lessons reinforces the importance of their role in supporting students' academic development.

Support for teachers: providing resources, training, and incentives for teachers to offer extra lessons can help sustain their motivation and ensure the quality of supplementary education programs.

Parent-teacher collaboration: encouraging open communication and collaboration between parents and teachers can help align expectations and ensure that students receive the support they need both inside and outside the classroom.

Understanding the motivations behind teachers' continued provision of extra lessons sheds light on the value of supplementary education and its positive impact on students' academic success.

4.8 WHY TEACHERS STOPPED HAVING EXTRA LESSONS

Teachers stopped offering extra lessons for various reasons, including: workload and burnout: teachers experienced excessive workload and burnout from teaching additional hours outside of regular school hours, leading them to prioritize their well-being and reduce extra commitments.

Lack of time: teachers found it increasingly challenging to balance their teaching responsibilities, personal commitments, and the demands of providing extra lessons, especially if they have limited time available.

Financial compensation: teachers felt that the financial compensation they receive for providing extra lessons does not adequately compensate for the time and effort involved, leading them to discontinue offering these services.

Policy changes: changes in school policies, curriculum requirements, or administrative priorities affected the availability or feasibility of teachers providing extra lessons

Lack of student interest: teachers discontinued offering extra lessons if there is insufficient student interest or attendance, making it difficult to justify the time and effort invested.

4.9 CHALLENGES FACED WHILE TEACHING OTHER SUBJECTS.

Teachers faced various challenges when teaching subjects that are not their primary area of expertise, including:

Limited subject knowledge: teachers lacked comprehensive knowledge and understanding of the subject matter, making it challenging to deliver accurate and engaging lessons

Difficulty in lesson planning: planning lessons for unfamiliar subjects was time-consuming and required additional research and preparation to ensure the content is appropriate and aligned with curriculum standards.

Maintaining student engagement: it was challenging to keep students engaged when teaching subjects that the teacher is less familiar with, as students may sense a lack of confidence or enthusiasm from the teachers.

Assessment and feedback: assessing student progress and providing constructive feedback was difficult when teaching unfamiliar subjects, as the teacher may struggle to accurately evaluate student understanding and performance.

Resource limitations: the researcher had limited access to teaching materials, resources, and support for subjects outside of their specialization, making it difficult to effectively deliver lessons and support student learning.

4.9.1 ANALYSIS

LIMITED SUBJECT KNOWLEDGE:

The researcher struggled to convey complex concepts or answer student questions accurately when teaching subjects outside their expertise, which undermined the effectiveness of instruction.

DIFFICULTY IN LESSON PLANNING:

The researcher found it challenging to create engaging and effective lesson plans for subjects they are less familiar with, leading to potential gaps in student learning.

MAINTAINING STUDENT ENGAGEMENT:

Without a strong command of the subject matter, the researcher had difficulty capturing students' interest and enthusiasm, resulting in disengagement and reduced learning outcomes

ASSESSMENT AND FEEDBACK:

The researcher struggled to accurately assess student understanding and provide meaningful feedback when teaching unfamiliar subjects which hindered student progress and growth.

4.9.2 IMPLICATIONS

PROFESSIONAL DEVELOPMENT:

The researcher benefited from ongoing professional development opportunities to enhance their knowledge and skills in subjects outside their specialization, enabling them to deliver more effective instruction.

COLLABORATION AND SUPPORT:

collaborative planning and support from colleagues, curriculum specialists, and educational resources helped teachers navigate the challenges of teaching unfamiliar subjects more effectively.

CURRICULUM FLEXIBILITY:

schools should consider providing teachers with flexibility in curriculum delivery and assessment to accommodate varying levels of subject expertise and support teachers in meeting student learning needs.

Addressing the challenges faced by teachers when teaching other subjects required a concerted effort from schools, administrators, and educators to provide the necessary support, resources, and professional development opportunities.

CHAPTER FIVE

RESULTS AND DISCUSSION

In this chapter, we discuss the findings presented in the previous chapter and provide insight into the study. The researcher examined the significance of the results, address key themes and patterns, and consider their broader implications for policy, practice, and future research.

5.1 SUMMARY OF FINDINGS

The researcher conducted an in-depth analysis of various factors related to extracurricular tutoring time for secondary school students in SOROTI UGANDA, including gender composition, age group, educational status of respondents, duration of teachers' experience, types of teaching, challenges faced by teachers, reasons for discontinuing extra lessons and challenges faced while teaching other subjects. other subjects the key findings include:

- According to the graph in ***Figure 4.3*** Above tutoring time has a non-linear relationship with academic performance, indicating subject-specific thresholds. his is seen on the improvement of performance from 2019 and 2020
- According to the **Table 4.1 and Table** 4**.3** Disparities exist in access to extracurricular tutoring based on gender and parental education levels, highlighting the need for equitable policies.
- According to FIGURE 4.2.3 Teachers encounter challenges such as workload, resource limitations, and difficulties teaching subjects outside their specialization when providing extra lessons.

5.2 DISCUSSION OF KEY FINDINGS

Impact of extracurricular tutoring time: The researcher's study revealed a non-linear relationship between extracurricular tutoring time and academic performance, indicating a

threshold effect where academic performance initially declines before improving beyond a certain threshold. This suggests the importance of balanced tutoring time and the need to avoid over-reliance on extracurricular tutoring.

Gender composition and educational status: The researcher found disparities in access to extracurricular tutoring based on gender and parental education levels. Addressing that all students have access to additional support regardless of their background.

Challenges faced by the researcher: The researcher countered various challenges when providing extra lessons, including workload, limited resources, and difficulties in teaching subjects outside their specialization. Addressing these challenges is essential for sustaining high-quality supplementary education program in ***figure 2***

5.3 IMPLICATIONS FOR POLICY AND PRACTICE

Equitable access to supplementary education: Policymakers should prioritize policies that ensure equitable access to extracurricular tutoring, particularly for students from disadvantagedbackgrounds. This may involve providing subsidies, improving resource allocation, and offering targeted support to students in need.

CHAPTER SIX
CONCLUSION AND RECOMMENDATION

6.1 CONCLUSION

This research delved into the landscape of extracurricular tutoring for secondary school students in Uganda, analyzing data from Soroti municipal secondary school. The investigation encompassed various dimensions, including gender composition, age groups, educational status,

teaching experience, teaching types, challenges faced by teachers, reasons for discontinuing extra lessons, and challenges in teaching.

6.2 RECOMMENDATIONS

Drawing from the study's findings, the following recommendations are proposed:

6.2.1 FOR POLICYMAKERS

- **Equitable access:** Enact policies to ensure equitable access to extracurricular tutoring, particularly for students from disadvantages backgrounds. This may involve providing subsidies and targeted support programs.
- **Regulation:** Implement regulations to monitor the quality of extracurricular tutoring services, ensuring compliance with educational standards and student well-being.
- **Teacher support:** Allocate resources for professional development programs aimed at supporting teachers in addressing challenges related to providing extra lessons and teaching unfamiliar subjects.

6.2.2 FOR EDUCATORS

- Balanced approach: adopt a balanced approach to education that prioritizes both academic success and holistic development, integration extracurricular activities effectively into the curriculum.
- Collaboration: Foster collaboration among teachers, parents, and students to create a supportive learning environment that promotes academic achievement and well-being.

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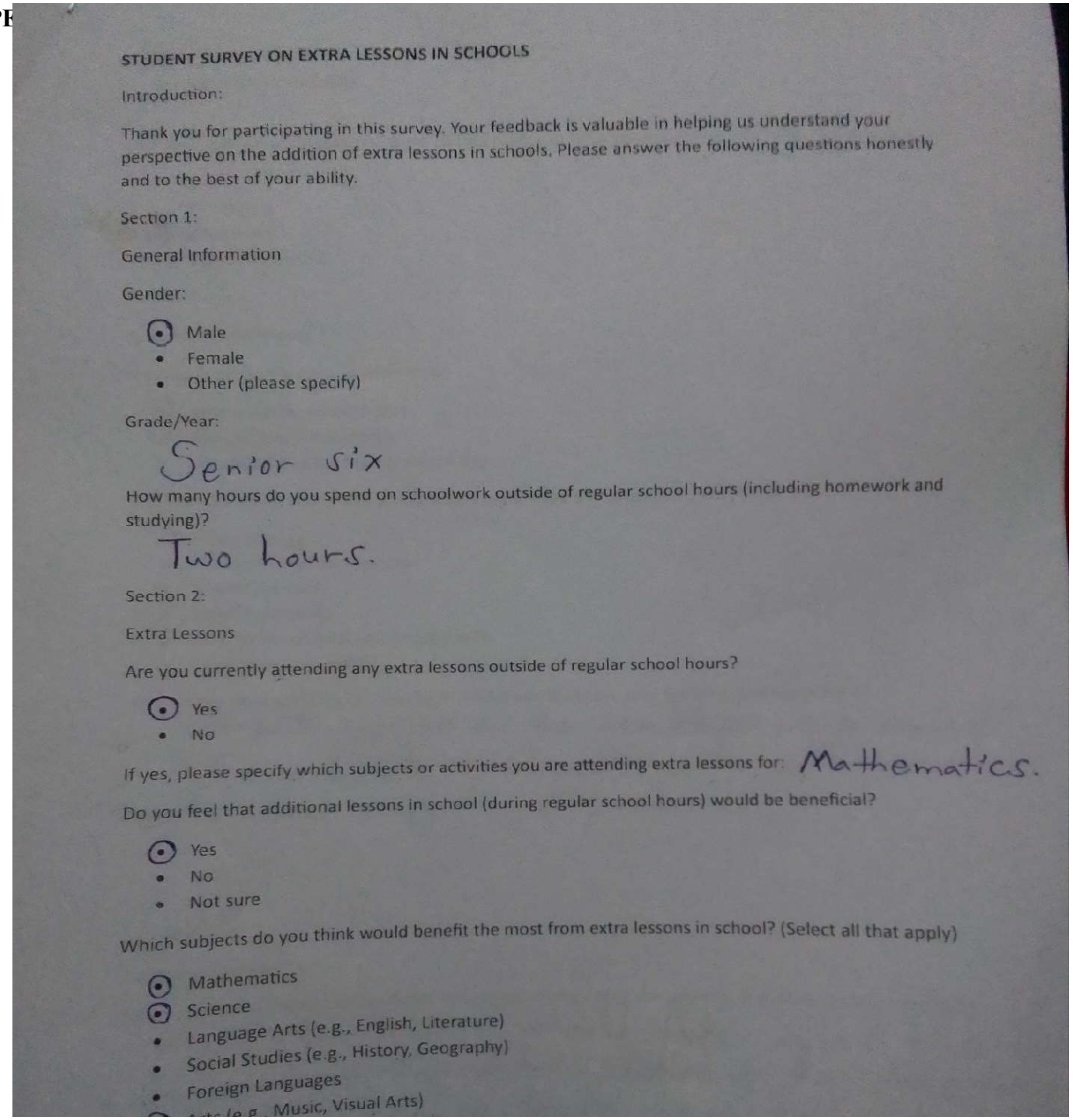


STUDENT SURVEY ON EXTRA LESSONS IN SCHOOLS

Introduction:

Thank you for participating in this survey. Your feedback is valuable in helping us understand your perspective on the addition of extra lessons in schools. Please answer the following questions honestly and to the best of your ability.

Section 1:

General Information

Gender:

- (•) Male
- Female
- Other (please specify)

Grade/Year:

Senior six

How many hours do you spend on schoolwork outside of regular school hours (including homework and studying)?

Two hours.

Section 2:

Extra Lessons

Are you currently attending any extra lessons outside of regular school hours?

- (•) Yes
- No

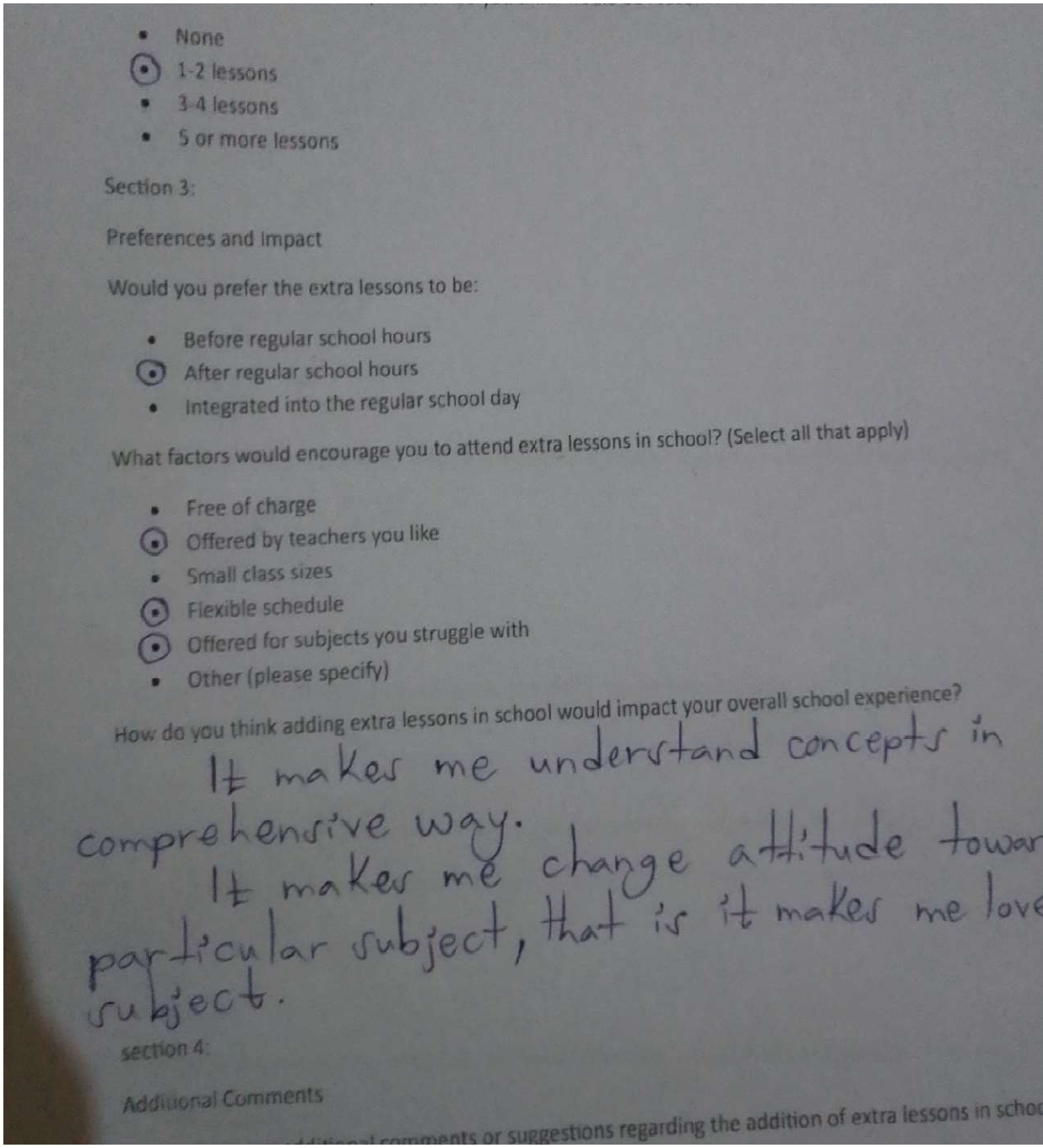
If yes, please specify which subjects or activities you are attending extra lessons for: Mathematics.

Do you feel that additional lessons in school (during regular school hours) would be beneficial?

- (•) Yes
- No
- Not sure

Which subjects do you think would benefit the most from extra lessons in school? (Select all that apply)

- (•) Mathematics
- (•) Science
- Language Arts (e.g., English, Literature)
- Social Studies (e.g., History, Geography)
- Foreign Languages
- Music, Visual Arts)



- None
- 1-2 lessons
- 3-4 lessons
- 5 or more lessons

Section 3:

Preferences and Impact

Would you prefer the extra lessons to be:

- Before regular school hours
- After regular school hours
- Integrated into the regular school day

What factors would encourage you to attend extra lessons in school? (Select all that apply)

- Free of charge
- Offered by teachers you like
- Small class sizes
- Flexible schedule
- Offered for subjects you struggle with
- Other (please specify)

How do you think adding extra lessons in school would impact your overall school experience?

It makes me understand concepts in comprehensive way.
It makes me change attitude towar particular subject, that is it makes me love subject.

section 4:

Additional Comments

...comments or suggestions regarding the addition of extra lessons in schoo

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