Bishop Stuart University

Availability of Teaching Materials and Teachers' Preparedness In The Implementation of Lower Secondary Curriculum in Government Aided schools in Mbarara City South, South Western Uganda

BY

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Declaration

I Muramuzi Samuel, declare that this dissertation entitled Availability of teaching materials and teachers' preparedness in the implementation of Lower Secondary Curriculum in Government Aided Schools in Mbarara City South, Western uganda, is my original work and has never been submitted to any University or other higher institutions of learning for any academic award.

Signature.................................. Date 02/05/2025

Samuel Muramuzi

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Approval

I approve that this dissertation entitled Availability of Teaching Materials and teachers' Preparedness in the Implementation of Lower Secondary Curriculum in Government-Aided Schools in Mbarara City South, Western Uganda, has been done by Muramuzi Samuel under our supervision and is ready for submission.

Signed ………………………………………… Date 7/5/2025

Dr. Enock Barigye

(University Supervisor)

Signed ………………………………………… Date 5/5/2025

Rev. Dr. Judith Arinaitwe

(University Supervisor)

Dedication

This dissertation is dedicated to my beloved wife Nshemereirwe Betty Kots and my Children Samson, Samantha, Trevor, Michelle and Ebenezer who sacrificed all family pleasures and quality time for the sake of supporting my studies. May God through Jesus Christ reward them richly.

Acknowledgment

I thank Almighty God, who blessed me with all the resources that I needed for this course and who brought me safely through to this very end. May his name be glolified! Amen!

I thank my beloved wife and children for allowing me to leave them. I wish to thank my supervisors who accepted to supervise me. They encouraged me all the time, offered academic guidance and insight.

I thank my friends for their moral and financial support in enabling me to complete this research. Theycould always remind me that I had a research study to do and that I could do it. Your positive attitude helped me so much.

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List of Acronyms

AYP	Annual Yearly Progress
ICT	Information Communication Technology
MoE&S	Ministry of Education and Sports
NCDC	National Curriculum Development Centre
NCE	National Council Executive
NCHE’	National Council for Higher Education
NMTEDRP	National Mid-and-long Term Education Development and Reform Plan
S/S	Secondary Schools
UCE	Uganda Certificate of Education
UNEB	Uganda National Examinations Board
UNESCO	United Nations Educational, Scientific aand Cultural Organisations
USA	United States of America
USE	Universal Secondary Education

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Abstract

The study aimed to investigate the availability of teaching materials and teachers' preparedness for implementing the Lower Secondary Curriculum in government-aided schools in Mbarara City South, Uganda. Specifically, it assessed available materials, teacher preparedness, and the relationship between these factors. Using a descriptive survey design, the study targeted participants, including teachers, headteachers, and directors of studies, with a sample size of 134 was utilized in the study. Data was collected using questionnaires and interview guides, analyzed using SPSS for descriptive statistics, and presented thematically. Findings revealed that while teachers displayed strong preparedness with lesson planning and adherence to guidelines (mean scores >4.0), material shortages, particularly ICT tools and science equipment, hindered effectiveness. Qualitative insights reported the need for increased government funding, retooling of teachers, and infrastructural improvements. The study concluded that systemic challenges, such as inadequate resources and overcrowding, affect curriculum implementation and recommended targeted investments in teaching resources, professional development, and policy adjustments to enhance educational outcomes.

Chapter One: Introduction

Introduction

The study examined the availability of teaching materials and the teachers' preparedness in the implementation of the Lower secondary school curriculum in Government Aided Schools in Mbarara City South, Western Uganda Uganda. Therefore, the chapter presents background of the study, statement of the problem, general objective. Specific Objectives and research questions, hypothesis, scope of the study, significance of the study and conceptual framework.

Background of the Study

Historical Perspective

Globally, effective curriculum implementation depends on access to adequate resources and teacher readiness. Fullan (2007) emphasized that curriculum reforms often fail due to poor teacher preparation and insufficient instructional materials. In developed countries, investments in teacher training and teaching aids have significantly enhanced curriculum delivery. However, challenges persist in low-resource settings. For example, UNESCO (2014) reported that insufficient teaching materials in developing countries hinder effective learning outcomes.

In Africa, the availability of teaching resources and teacher preparedness remains a critical issue due to inadequate funding, large class sizes, and poor teacher training programs (Orodho, 2013). In Uganda, the introduction of the Lower Secondary Curriculum by the National Curriculum Development Centre (NCDC) in 2020 aimed to emphasize competency-based learning. However, teachers' limited preparedness and inadequate access to teaching materials have posed significant challenges (NCDC, 2020).

Payne (2000) states that families living in poverty often place high value on material possessions. They do not hold teachers in high esteem mainly because teachers are not well-paid for their work. While there are many negative factors contributing to the declining status of teachers, there are also aspects that regard them positively. According to Ng (2006), "school teacher dignity" arises from the community's positive attitude towards a teacher's work and the social respect given to those who follow their calling to teach. This respect comes from their ability to teach students and foster a love of learning, reflecting a reward system that prioritizes intrinsic rewards over material ones. These intrinsic rewards are crucial for maintaining teacher satisfaction and preventing stress and burnout (Ng, 2006).

Ng (2000) also notes that many teachers feel that standardized testing and accountability measures limit their ability to create engaging lessons and build relationships with students, which are necessary for experiencing the intrinsic rewards of motivating students to learn. Teachers find hands-on activities and student-initiated projects, which are vital for student engagement, to be increasingly rare due to the growing emphasis on accountability. This causes concern among teachers about losing the freedom to be creative and foster creativity in their students.

Formal education was first initiated by voluntary Missionary Organizations in Uganda during the colonial period around the 1880s. The Government involvement in formal education began in the colonial period following a report in 1922 by the Phelps-Stokes Fund. The small groups of people that accessed education in th 1920s and 1930s were children of tribal chiefs, aristocracy and the clergy. The government started being active in education in 1925 that continued until 1950.

After independence, Uganda had healthy developing economy and education was in the hands of government but two decades of civil unrest affected education sector. Education burden of the youth and children was on parents and guardians. The children of the poor were left out and those who had started primary cycle dropped out.

Between 1971- 1976, after the expulsion of the expatriate teachers, there was manpower vacuumed before fleeing local teachers in education. There was a recovery and renovation policy of deteriorating education in Uganda. The facilities were delipidated during two decades of civil wars. Permanent structures lacked renovations, and large numbers of primary school learners were in temporary shelters. Teaching materials like textbooks, teacher guides, and lesson plan books were not existent. Few teachers remaining were underpaid and demoralized and others fled the country.

In 1986, the government appointed the education/ commission that started the policy of Universal Primary Education (UPE). This helped learners from all families poor, middle-income, and rich access primary education.

In 2007, the Ugandan government introduced Universal Secondary Education policy that made it possible for post primary learners to access education for free. Government recruited teachers and provided teaching materials in the whole country.

In 2020, the Ministry Of Education and Sports (MOES) started the implementation of competence based curriculum. This started with senior one, the first cohort was examined in 2024.

Hursh (2005) explains that states are mandated not to only evaluate all students but also to break down test scores for various student subgroups, including those defined by race, economic status, gender, and special education needs. These subgroup test scores must be compared to the state standards to determine if the group is achieving Adequate Yearly Progress (AYP). Schools face serious consequences if they fail to meet AYP. If a school does not meet AYP for two consecutive years, it will be designated as needing improvement, and parents will have the option to transfer their children to a higher-performing school. Schools that fail to meet AYP for three consecutive years must offer community-based supplemental services such as tutoring, after-school programs, remedial classes, or summer school, all funded by the school (Hursh, 2005). Schools that fail to achieve AYP for four consecutive years are required to either replace the entire school staff or implement a new curriculum.

In Mbarara City South, like other regions in sub-Saharan Africa, government-aided schools face resource constraints and gaps in teacher professional development, impacting curriculum implementation. These challenges underscore the need for targeted interventions to enhance both resource availability and teacher preparedness.

Theoretical Perspective

This study was based on instructional design theory; is a set of design theories that pertain to various aspects of Carr-Chellman, 2009). According to this theory, the instruction process for learning should clearly spell out the expected learning outcomes which determine instructional product. In order to achieve the expected products this theory contends that there must be sufficient preparation by the instructor. This preparation involves, process of organizing the subject content from which collection of the instructional materials in this context they include textbooks, computers, internet sources, real objects and laboratory materials are determined as required in the new curriculum activities. Having prepared well with required materials then a teacher can confidently proceed for instructional-implementation. The extent to which the teacher has prepared for implementation of the learning outcomes defines way forward for instructional-evaluation (Muhangi, 2019). Basing on the above theory and the expectation for the learning process there was a need to assess the learning process in Mbarara City South, western uganda. in line with available learning materials and the extent to which the teachers were adopting them in the implementation of learning. According to (Amadioha W, 2019), it is important to document the available learning materials in schools, in Mbarara City South, western uganda. No studies have documented available materials required in the learning process for a teacher-centered lesson as required in the lower secondary school curriculum lesson.

Conceptual Perspective

According to (Al-Huda et al., 2021), curriculum is a standard-based sequence of planned experiences where students practice and achieve proficiency in content and applied learning skills. Curriculum is the central guide for all educators as to what is essential for teaching and learning so that every student has access to rigorous academic experiences. The structure, organization, and considerations in a curriculum are created in order to enhance student learning and facilitate instruction (Mulenga., 1993). All over the world countries have reviewed the curriculum several times (Mccormick & James, 2018). In Africa, formal education was introduced by European and Arabs which largely focusing on their demands like labor during colonization rein (Evans & Acosta, 2020). In Uganda, formal education was first introduced by missionaries in the 18th century (Walker, 1917). For several years it has been undergoing reviews to meet the ever changing society demands (Bazilio, 2020). For any review in the curriculum it demands resources like text books, laboratory equipment and retooling of teachers in order to meet the targeted learning outcome of the curriculum review.

Curriculum implementation refers to the process of carrying out program tasks and achieving the intended results in a logical manner (UNESCO, 2010). In this study, it specifically pertains to the rational outcomes derived from the combination of various components of teacher preparedness.

These components include UCE student performance, students' termly achievements, and the Social Syllabus adopted by subject teachers.

Domike and Odey (2014) describe curriculum implementation as the culmination of a scientifically organized process of teaching and learning, based on the objectives and goals of a nation's educational policy. Additionally, UNESCO (2010) defines it as the process aimed at executing program tasks and the ability to logically produce the desired results.

Teacher preparedness refers to the state of readiness of teachers for the teaching profession (Manasia, 2020). In the context of this study, it encompasses teacher characteristics, the challenges faced by Business Subjects teachers, and teacher practices for implementing the lower secondary curriculum.

Contextual Perspective

Education is a significant fundamental human right and a catalyst required for progressive economic growth and development of any economy (Word Bank, 2022). Worldwide, Instructional materials, or teaching/learning materials refer to a collection of materials or resources that a teacher or a learner can use in teaching and learning environment in order to achieve desired learning outcomes as required by the curriculum (Tety, 2016). According to (Helwig et al., 2021), learning environment must have sufficient teaching materials to achieve the expected outcomes of any curriculum. The term teaching/learning materials encompasses all the materials and physical means that can be used by instructors in the implementation of learning.

Teaching and learning materials enable a student to easily conceptualize the learning objectives in order to make learning environment more exciting, interactive and interesting (Ordu, 2021). In countries such as Japan, USA and European countries learning has been transformed in a more learner centered activity where various teaching materials are provided to enhance learning (Nae, 2018). In Turkey teachers are encouraged to always come up with innovative instructional material during preparation for learning process in orders to eliminate obstacles that might limit the degree to which the learning competences are achieved (Gizir & Aydin, 2019) These include models that resemble real objects and real materials like phones, computers, books and laboratory equipment. Worldwide, according to (UNESCO, 2015), the world demands are changing overtime which require curriculum reviews to cope up with new world orders.

Secondary education resources are obtainable from the government, parents and donors (Chikoko, 2020). Non-USE secondary schools mobilize their resources from parents' school fees and sometimes funders. Government aided schools, funds are largely provided by government but in most cases insufficient to meet all expenses in a school (Muhangi, 2019). Thus, schools have to initiate alternative sources of income in order to meet budgetary deficits like through payment of school fees. Funding sources themselves influence education efficiency and quality of education due to available learning materials (Tety, 2016). With the rollout of the new lower secondary school curriculum, it meant adjustments in resources like teaching material in order to achieve the intended outcomes. The government of Uganda through the ministry of education and sports has put in place several materials but the number of learners in many schools is considerably overwhelming compare to available resources (MoES, 2022). This impairs the effectiveness of preparedness of teachers for teaching process (Okongo et al., 2015). In several activities in the lower new curriculum text books require teachers to integrate ICT in the teaching and learning (Mubaraka, 2023). Many teachers are ICT illiterates implying that preparing for technology related activities could be limited or even never applied as required in text books. Equally so, some schools with gargets which can access ICT related information are limited by poor and expensive internet hindering the use of ICT related information (Andema et al., 2023). This study bridged the gap between available teaching materials and how they influenced the preparedness of teachers during implementation the lower secondary school curriculum.

Statement of the Problem

Learning process requires access to learning materials. Depending on the foundation body these materials are provided in government-aided schools, by the government though parents in some cases do also contribute to schools. In government-aided schools, largely availability of resources depends on money paid by parents. For any teaching and learning process, teachers have to prepare for the lessons.

However, many schools in Uganda have limited access to learning materials and even a few that are available cannot be manipulated by teachers to affect learning in class (Ordu, 2021). In a study conducted by Lukenge (2019), 64% of the teachers in schools are ICT illiterate with 65% of schools in Uganda with equipped computer laboratories. Dhakal (2020) and Twahirwa *et al.*, 2021) argue that practical-based teaching is core aspect in lower secondary school curriculum yet many school have been struggling with teaching materials. Equally so Lower Secondary Curriculum is more learning resource demanding since its more learner centred thus puts a need to assess the availability of such teaching materials in Government -aided schools in Mbarara City South, western Uganda. With the rollout of competency based curriculum there has been changes in the pedagogy of teaching and learning to meet the 21st century required skills (Jiang et al., 2010).

According to (Malunda, 2017) though with several trainings on the implementation the curriculum, many teachers are not always adequately following expected approach as per the trainings thus putting forward a need to assess the extent to which these teachers are preparing for lower secondary education lessons. Equally so many available materials cannot be easily manipulated by teachers which also affect the preparedness. Therefore, there was a need to investigate the available learning materials and the degree preparedness of the teachers to use the available material in the implementation of the new lower secondary school curriculum.

General Objective of the Study

To investigate the availability and accessibility of teaching materials in the preparedness of the teachers in the implementation of Lower Secondary Curriculum in Government Aided schools in Mbarara City South, South-Western Uganda

Specific Objectives of the Study

1. To assess the available and accessible teaching materials that support the implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South.
2. To establish the preparedness of teachers in the use of required teaching materials in the implementation of the Lower Secondary Curriculum in Government-aided schools in Mbarara City South.
3. To determine the relationship between the availability of teaching materials and teachers' preparedness in the implementation of the Lower Secondary Curriculum in government aided schools in Mbarara City South.

Research Questions

1. What are the available and accessible teaching materials that support the implementation of the Lower Secondary Curriculum in government-aided schools in Mbarara City South?

2. To what extent are teachers prepared to use the required teaching materials for the implementation of the Lower Secondary Curriculum in Government-aided schools in Mbarara City South?

Hypothesis

H_0: There is no significant relationship between availability of teaching materials and teachers' preparedness in the implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South, South western uganda?

Scope of the Study

This study consisted of content, geographical and time scope as given below.

Content Scope

This study focused on assessing the relationship between the availability of teaching materials and teachers' preparedness in the implementation of the new lower secondary school curriculum. However, it also focused on three study themes and these included; the availability of teaching materials that support the implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South, South western Uganda. Preparedness of teachers in the use of required teaching materials implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South, western Uganda, and relationship between availability of teaching materials and teachers' preparedness in the implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South, South western Uganda.

Geographical Scope

This study was carried out in government aided secondary schools in Mbarara City South, western Uganda. Mbarara City South has three divisions that is Nyakayojo, Nyamitanga, Kakoba divisions.

The area is bordered by Mbarara district in the north west, Kiruhura district to the east, Isingiro district to the southeast, Rwampara district to the southwest. The Mbarara City South, South western Uganda. South is located 270 Kilometres by road, Southwest of Kampala, Uganda's capital.

Population Scope

The population of the study comprised City Inspector of schools, headteachers, Directors of studies, and teachers in Lower Secondary Curriculum in government-aided secondary schools in Mbarara City South.

Time Scope

The study considered a period of last five (5) years, from 2020 -2024. This period was used because it was considered when the lower secondary curriculum was rolled in uganda. The study was conducted over 1 year and 3 months, from September 2023 to December 2024. This is the enough period for the researcher to compile enough data ready for submission to the University Faculty Academic Board.

Justification of the Study

This study focused on the critical need to evaluate the availability of teaching materials and the preparedness of teachers in implementing the Lower Secondary Curriculum in government-aided schools in Mbarara City, South Western Uganda. The introduction of a competence-based curriculum necessitated a shift from traditional teaching methods to more resource-intensive, learner-centered approaches. However, challenges such as limited access to appropriate learning materials and inadequate teacher preparation were identified as significant barriers (Ordu, 2021; Lukenge, 2019).

The study aimed to address these gaps by assessing both the extent of available resources and the readiness of teachers to effectively utilize these materials. This evaluation was crucial, as practical-based teaching was emphasized in the new curriculum, requiring substantial instructional support (Dhakal, 2020; Twahirwa et al., 2021). Furthermore, previous studies indicated a high level of ICT illiteracy among teachers, which complicated the integration of digital resources necessary for modern educational practices (Lukenge, 2019).

By focusing on these aspects, the study sought to inform policy makers and educational stakeholders on the current status of material availability and teacher preparedness. This information would be pivotal in facilitating targeted interventions that enhance the educational experience and outcomes for learners. Ultimately, the research would contribute to the effective implementation of the curriculum and improvement in teaching standards, aligning educational practices with the demands of the 21st century (Malunda, 2017).

Significance of the Study

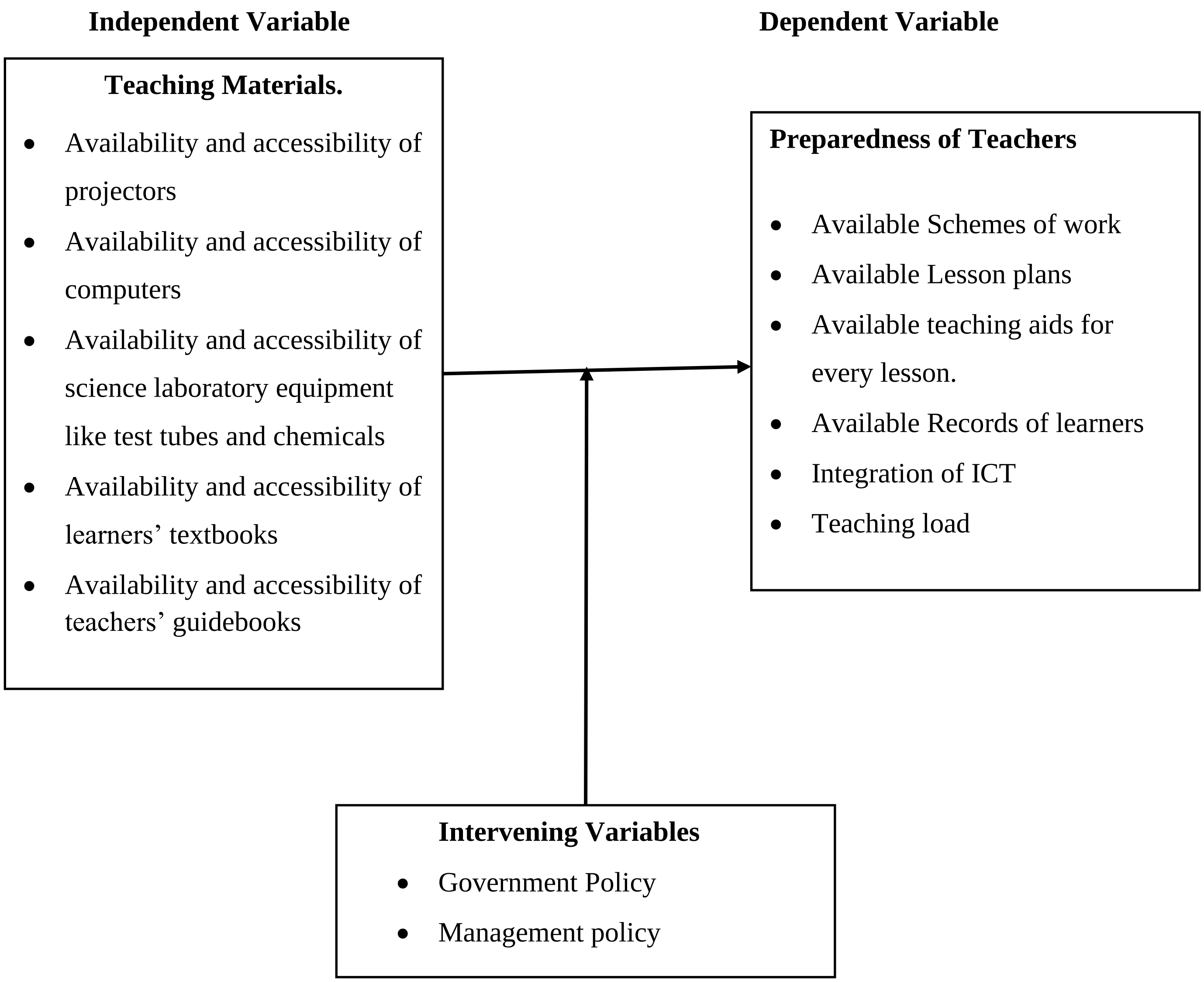
The findings of the study are to give data to the founding bodies and boards of governors and policymakers like NCDC and UNEB about learning materials in their institutions of learning and the extent to which teachers are using them in teaching and learning. Equally so, to the City Inspector of schools for educational planning to improve performance.

The findings of the study would equally document other factors that are limiting the perfect implementation of the lower secondary school curriculum other than teaching materials in Mbarara City South, Western Uganda. The findings would address the gaps in the extent to which teachers could manipulate learning materials during the implementation of the learning outcomes.

To the head teachers of government-aided schools, it would help them to determine the extent to which the teachers are following the required pedagogy in the Lower Secondary Curriculum.

The findings of this study would provide a foundation for further study on the Lower Secondary Curriculum by other researchers in Uganda.

Conceptual Frame Work



Source: Tumwiine, R. (2024). *Conceptual Framework on Teachers' Preparedness and Use of Teaching Materials in Implementing the Lower Secondary Curriculum*. Unpublished Research, Bishop Stuart University.

Figure1. Conceptual Framework of the Study

Figure 1 illustrates the relationship between the availability of teaching materials and teachers' preparedness for the new lower secondary school curriculum. It focused on the availability of essential teaching materials such as ICT gadgets, equipped science laboratories, textbooks, and scheme and lesson plan books. The researcher also identified several extraneous variables that could influence teachers' preparedness to implement the new curriculum, including government policy and management policy. These variables were part of the input and process elements described in Ludwig's Input-Output model, and they contributed to the output, which was the level of teachers' preparedness. If these variables were not controlled, they might have affected the study's results. To manage the impact of these extraneous variables, the researcher randomly selected teachers, as randomization was a method suggested by Amin (2015) to control multiple extraneous variables simultaneously.

Chapter Two: Literature Review

Introduction

In this chapter, the study reviewed theoretical and related literature provided by scholars and researchers. It focused on literature pertaining to the availability of teaching materials and teachers' readiness in implementing the new lower secondary school curriculum. Conducting a literature review was essential as it enhanced the depth of the researcher's study and helped prevent redundancy. The chapter critically examined existing literature sourced from textbooks, the internet, academic journals, and newspapers.

The availability of Teaching Materials that Support the Implementation of the Lower Secondary Curriculum

According to (Okongo et al., 2015), during their investigation on the Acquisition of Teaching materials for children with special needs. Among the participants, 195 parents and 120 head teachers strongly agreed that schools are facing a lot of challenges when acquiring teaching materials for the special needs pupils in Kenya. This negatively affected implementation of inclusive education since it largely depends on availability of the teaching materials. New curriculum is a learner centered mode of learning which requires a lot of hands in activities. For such approach to learning there must be enough teaching materials.

According to Mupa and Chinooneka (2015), the availability of textbooks consistently emerges as a significant predictor of teacher effectiveness in both primary and secondary schools. Chingos and West (2020) conducted a study in Uganda which revealed a strong association between the presence of textbooks in classrooms and students' performance in examinations, irrespective of their socioeconomic backgrounds. Students who had access to textbooks achieved notably higher test scores compared to those who did not. Therefore, this research aimed to address the gap in assessing the acquisition of learning resources among schools in Mbarara City South, Western Uganda.

ROSE (2019) conducted a study assessing the availability of instructional materials in schools, finding that textbooks accounted for 37.5% of the materials, followed by flashcards (25.0%), real objects (16.6%), charts (12.5%), and models (8.3%) used in primary education. With the implementation of the new lower secondary curriculum, these materials are equally essential for effective learner-centered lessons, aligning with modern pedagogical practices of the 21st century. According to a report by UNESCO (2007) on Uganda, the majority of Ugandans can only afford primary education, and secondary schools have historically been undersupplied in terms of infrastructure and equipment such as libraries and laboratories. This inadequacy has been identified as a significant constraint affecting the implementation of education, particularly regarding the availability of teaching materials necessary for quality education.

The primary challenge faced by schools, particularly no-fee paying schools, is the lack of resources and human capital. These schools must manage with limited human resources, often full-time classroom teachers who may teach multiple subjects across different grades (Mandukwini, 2016). As such, Mbarara City South in Western Uganda has been selected to represent other regions in Uganda in evaluating the availability of learning materials in secondary schools. Vocational subjects, such as agriculture, often require practical modules where students learn skills like vegetable production, milking, poultry farming, and piggery management (Clegg et al., 2017). However, according to UNCST (1982), the teaching of science subjects, including agriculture, tends to be overly theoretical, hindering the achievement of expected learning outcomes.

Wootoyitidde (2020) conducted a study revealing that many schools lack the financial resources to initiate and expand projects that demonstrate practical skills to students. Only 15% of sampled schools had allocated funds for animal production projects in their annual budgets, and 20% reported insufficient funds for necessary items in agriculture laboratories. The adequacy of funds directly influences the acquisition of instructional materials and physical facilities such as land and laboratories. There is limited information available on the availability of these resources needed for practical lessons in subjects like biology, physics, chemistry, agriculture, woodwork, and technical drawing. Therefore, this study aimed to evaluate how education stakeholders were providing such teaching resources to teachers and learners to facilitate effective hands-on learning experiences.

Preparedness of Teachers to Use Available Teaching Materials

Teachers' preparation for a lesson should create awareness and make sure the information to be delivered in class is retained in the learners' mind and should come to the forefront when encountering practical situations where the information may be used (Glazzard, 2011). This is one of the greatest challenges facing teachers. With increasing complexity of the modern world, teaching preparations are reinforced from different directions at once to produce a competent learner (Avalos, 2011). This require continuous monitoring of how the teachers are preparing for new lower curriculum lesson in order to meet the expected out comes. This study will bridge the current gap on limited information on the extent of how teachers are using the available material with a case study in Mbarara City South, western uganda. south. The new curriculum has integrated new subjects and teaching approaches, which require teachers to acquire additional skills and knowledge. For example, under the new lower curriculum, Technical Drawing has been integrated with elements of woodwork and metalwork, and History has been integrated with Political

Education(National Curriculum Development Centre, 2019). Teachers need to adequately prepare to teach these integrated subjects and approaches.

According to Cobbold (2017), there was a disconnect in Ghana between the expectations of the Ghana Curriculum Development Center and how teachers implemented the curriculum. Various research studies have shown that teachers often deviated from the specified methods and techniques of teaching during the teaching and learning process (Adu-Yeboah, 2011). This discrepancy was attributed to insufficient follow-up by curriculum designers and a lack of mutual understanding between stakeholders involved in curriculum implementation. The lack of mutual understanding meant that implementers used pedagogical approaches different from those explicitly stated or assumed by the designers.

The researcher aimed to investigate how teachers prepare for lessons under the new curriculum using available materials, building on the background of numerous challenges encountered in curriculum implementation in Ghana due to inadequate pre-implementation preparations by implementers (Cobbold, 2017). Teachers' heavy workloads leave little time for effective lesson preparation, exacerbated by the fact that they often have to teach subjects in which they lack competence. In Uganda, the Lower Secondary Curriculum has reduced the minimum teaching load to 18, yet many schools maintain a load of 20-24, significantly impacting teacher performance and compromising effective curriculum implementation.

Under the new lower secondary curriculum, subjects have been merged, but there is limited information on how teachers are preparing to teach these integrated components within their subjects. For instance, political education was integrated into history without proper training for teachers in political education (National Curriculum Development Centre, 2019). Managing subjects that teachers are not familiar with pose another challenge to effective curriculum implementation (MANDUKWINI, 2016). There is also insufficient information on how teachers are preparing to teach these integrated components and interact with new teaching aids and materials.

In Kenya, computer integration was mandated in the new curriculum implementation; however, a study by Omondi (2018) revealed that many teachers lacked ICT literacy and struggled to use ICT gadgets. Similarly, in Australia, although ICT resources were available, teachers faced difficulties operating them during lessons, often requiring technical support that was not always available, thus limiting the integration of ICT into teaching (GABRIEL LENGOIBONI, 2013).

This called for retooling of the teachers in how to use ICT tools so that they could embrace them in teaching (Neema-Abooki & Rukia, 2015). The retooling of a teacher has been emphasized more in the Lower Secondary Curriculum more was a allocated to pedagogy required but not how to integrate some required aspects to real classroom like integration of ICT due limited knowledge on how to manipulated ICT tools (Babikwa, 2006). In Uganda many teachers are ICT illiterates, even for literates schools cannot afford to buy and maintain ICT gadgets like computers. Equally so there is unstable power supply in many parts of the country as well expensive data bundles (Research ICT Africa, 2018). So, it is imperative to look at whether the teaching materials as ICT are being applied in learning in line with the new curriculum in Uganda. The study was built on the limited information on use of teaching materials expected in a lesson of new lower curriculum in the case of Mbarara City South, western uganda.

Relationship between Availability of Teaching Materials and Teachers' Preparedness in the Implementation of the New Lower Secondary Curriculum

According to (MUHWEZI, 2022) teaching materials during preparation in implementing any curriculum are very important. These materials include, visual and audio-visual resources that are significant components in the teaching and learning process and learning cannot be easily implemented in absence of these resources. The lack or limited of teaching resources and materials makes teaching hard and abstract to learners making it a dry and boring lesson (Helwig et al., 2011). The preparedness of teachers and the utilization of instructional resources are crucial for effective curriculum implementation. According to Mwita and Onyango (2022), proper planning for adequate instructional materials and physical facilities is essential to support educational efforts. However, studies such as Đurđanović (2015) have indicated that many teachers face challenges with inadequate or poorly applied instructional materials.

In Kenya, research exploring the relationship between teaching and instructional materials revealed a strong positive correlation with the implementation of Competence Based Curriculum. This suggests that better adequacy of teaching materials enhances teachers' ability to implement the curriculum effectively. This finding aligns with Mwita and Onyango (2022), who emphasize the importance of relevant teaching materials for curriculum implementation. Claudien (2018) also supports this view, highlighting that resources for teaching and learning are crucial as they foster active student participation in learning activities.

In Uganda, the Ministry of Education and Sports faces challenges in adequately supplying learning materials, potentially limiting teachers' preparedness for Competence Based Curriculum. This study aims to gather data on how teachers are utilizing available resources in preparing lessons, focusing specifically on business education in secondary schools and the pedagogical practices of Business Studies teachers.

A study on business education in Uganda secondary schools revealed that many teachers still adhere to outdated pedagogical approaches, failing to shift from teacher-centered to learner-centered instruction, thereby hindering the achievement of curricular goals in Business Studies (Muhwezi, 2023). This issue is not unique to Business Studies but extends to other subjects like sciences, which require hands-on learning experiences yet have traditionally been taught using teacher-centered methods. This study sought to explore how teachers were transitioning from old pedagogical approaches to the required methods for implementing the new curriculum, particularly focusing on Competence Based Lessons.

Conclusion

The relationship between the availability of teaching materials and teacher preparedness in the implementation of New Secondary Lower Curriculum in government-aided schools has been for about five years. This research topic has been rarely studied in uganda most especially in Mbarara city. Therefore, this study intended to fill the above-said gap by; finding out the preparedness of teachers in the use of required teaching materials in the implementation of the Lower Secondary Curriculum in Government-aided schools in Mbarara City South; establishing the teaching materials that support the implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South; and determining the relationship between availability of teaching materials and teachers' preparedness in the implementation of the Lower Secondary Curriculum in government aided schools in Mbarara City South.

Chapter Three: Methodology

Introduction

This chapter presents the research design, target population, sample size, sampling technique, research instruments, validity and reliability of research instruments, data collection procedures, and data analysis techniques.

Research Design

This study utilized a descriptive survey research design. According to Kumar (2011), descriptive research aims to depict the characteristics of a selected phenomenon by collecting data without manipulating variables. Its primary goal is to offer an accurate and valid portrayal of factors or variables relevant to the research question. Descriptive survey research was particularly valuable for identifying trends in attitudes and behaviors, allowing for generalization of findings to the broader population (Neuman et al., 2000). This design well-suited this study as it yielded a substantial amount of high-quality information.

Study Area

The study was conducted in Mbarara City, focusing on the availability of learning materials in government-aided schools within Mbarara City South, Western Uganda. Mbarara City South is located in the Western Region of Uganda. It comprised three divisions: Kakoba, Nyamitanga, and Nyakayojo. Situated approximately 270 kilometers southwest of Kampala, Uganda's capital, the city is positioned at coordinates 00°36'48"S, 30°39'30"E (Latitude: -0.6132, Longitude: 30.6582), with an average elevation of about 1,147 meters (3,763 feet) above sea level.

Mbarara City South, as part of the larger Mbarara City, presented a strategic location for studying the availability of learning materials in government-aided schools due to several compelling reasons. First, Mbarara City was the third largest city in Uganda, making it a significant urban center with diverse educational institutions. The administrative area was home to numerous government-aided schools, offering a representative sample for understanding the challenges and opportunities related to teaching materials as provided by the government (Mbarara Municipal Educational Report, 2017).

Target Population

The study targeted population was the city inspector of schools, head teachers, Directors of Studies, and teachers teaching in lower secondary curriculum in government aided secondary schools in Mbarara City South. The target population was finite and existed within a specific timeframe. According to Patton (2002), it is essential to clearly define the characteristics that the researcher intends to investigate by establishing a precise working definition of the target population.

Inclusion and exclusion criteria

Inclusion

The study included Mbarara City, Western Uganda; the city inspector of schools, head teachers, director of studies, and teachers of Government Aided schools who were implementing Lower Secondary Curriculum in Mbarara City South, western uganda.

Exclusion criteria

The study excluded teachers who were not selected though in Mbarara City South, Western Uganda. The study also excluded teachers especially those who were teaching in A' Level who were not implementing the lower secondary school curriculum in the selected schools.

Sample Selection

The principal investigator purposively selected government-aided secondary schools in Mbarara city south which included; Mbarara Secondary School, Nyamitanga Secondary School, Maryhill High School, Nyakayojo Secondary School, St. Peters Secondary School Katukuru, and Mbarara Army Boarding Secondary School. City Inspector of Schools, head teachers, and directors of studies involved in implementing the Lower Secondary Curriculum were also selected using purposive sampling techninque. Selection criteria was based on the researcher's understanding of the population and the research objectives (Connaway, 2007). Asenahabi (2019) argues that researchers should select elements that possess the necessary information relevant to the study objectives, with clear criteria for their selection.

Headteachers were purposively selected because they bear the responsibility for both the academic performance and administrative functions of their schools. They play a pivotal role in initiating motivational programs and acquiring essential resources that enhance academic performance. Directors of studies were also purposively selected due to their critical role as academic coordinators and primary advisors to head teachers on academic matters. Their oversight of curriculum implementation equips them with comprehensive knowledge regarding access to learning resources in their respective schools.

Teachers were selected using simple random sampling technique due to their large number in the study area.

Sample Size Determination

From the target Population of 373 population, these included; 01 City inspector of schools, 06 head teachers, 06 directors of studies, and 360 teachers. This sample size was determined using Morgan and Krejcie(1970).

Sample Size

Therefore, 01 City inspector of schools, 06 head teachers, 06 directors of studies, and 360 subject teachers as indicated in Table 1 below.

Sample determination of formula for head teachers and director of studies.

n= $\frac{\mathcal{X}^2 \times N \times P(1-P)}{ME^2 \times (N-1) + \mathcal{X}^2 P(1-P)}$ at 95% confidence interval (Krejcie, R.V., & Morgan, 1970)

Table 1

Sample Size

Participants Category	Target Population	Sample Size	Sampling Techniques
City inspector of schools	01	01	Purposive sampling
Head Teachers	06	06	Purposive sampling technique
Director of Studies	06	06	Purposive Sampling technique
Teachers	360	186	Simple random sampling
Total	**373**	**199**	

Data Sources

Both primary and secondary data were used because they both provided the reliable data and insight of the study phenomenon.

Primary Data

This was directly obtained data from the participants of the study. This data was obtained using primary data collection methods which were; the questionnaire method and interview method which were administered to selected participants of the study. This data helped the researcher build a reliable analysis of the study variables to come up with decisive conclusions and recommendations of the study.

Data Collection methods

Questionnaire Method

A questionnaire is a data collection method where a set of questions related to the researcher's subject of interest is completed by participants (Mugenda and Mugenda, 2004). For this study, the questionnaire was designed based on the research objectives and questions. It included concise and clear sentences, comprising both closed-ended and open-ended questions. Closed-ended questions facilitated easy responses from study particpants, particularly teachers implementing the lower secondary education curriculum. On the other hand, open-ended questions allowed study participants to express their opinions freely on the phenomenon being studied.

Interview Method

According to Kathari (2004), interviews involve presenting oral stimuli and receiving oral responses, making it a method to gather firsthand and reliable data. Face-to-face interviews were conducted with City Inspectors of Schools, Directors of Studies, and Head Teachers to obtain immediate feedback and use probing techniques to gather specific information about the study problem. This method also enabled the researcher to establish rapport with participants, ensuring high response rates and the opportunity to clarify ambiguous answers or sought further details.

Data Collection Tools

The researcher utilized both questionnaires and interview guides as instruments for data collection.

Questionnaire

A questionnaire is a structured research tool consisting of a series of questions or prompts designed to gather information from participants (Statistical Society of London, 1838). In this study, the questionnaire was administered mainly to teachers implementing the lower secondary curriculum. It featured both closed-ended questions, where participants selected answers from provided options, and open-ended questions, allowed for more detailed and subjective responses. Closed-ended questions ensured confidentiality and encouraged honest responses, especially to sensitive topics, while providing participants with the opportunity to consult documents for accurate information.

Interview Guide

An interview guide consists of open-ended questions used by researchers to collect information directly from participants through a conversation (Monk, 2010). This method allowed for deeper exploration of the study problem and observation of nonverbal cues. Conducting face-to-face interviews facilitated probing for additional information, flexibility in questioning, and clarification of ideas where needed. Oral interviews were essential for gathering primary data from City Inspectors of Schools, Directors of Studies, and Head Teachers.

Data Collection Procedure

Upon approval from the Ethics Research Committee (REC) the researcher was given introduction letter by DGRI further sought for administrative clearance from City inspector of schools and finally from the respective Head teachers. The researcher explained the study participants about the purpose of the study, the benefits and risks and their willingness to participate or withdraw from the study without any penalties and any other ethical considerations. Participants who consented were enrolled into the study by purposive and simple random sampling method.

Data Quality Control

Validity of Research Instruments

Validity in research refers to the accuracy and appropriateness of the conclusions drawn from the data collected (Haydam & Steenkamp, 2020). It ensured that the findings truly represent the phenomenon being studied (Kumar, 2011). To establish the content validity of the research instruments, the researcher sought for input from experts in research methodology within the Faculty of Education, Arts, and Media Studies at Bishop Stuart University. This consultation process ensured that the questionnaires were developed to gather information that was valid and relevant. Pilot testing further validated the questionnaire before full-scale data collection.

Reliability of Research Instruments

Reliability refers to the consistency and dependability of the research instruments in producing similar results under consistent conditions (UVPUPYP, 1996; Kerlinger, 2003). In this study, reliability was enhanced through the use of triangulation, a method that strengthens the credibility of findings in quantitative survey research (Theodoridis & Kraemer, 2004; Mugenda & Mugenda, 2013). A pilot study was conducted with head teachers, directors of studies, and selected teachers implementing the Lower Secondary Curriculum in Mbarara City South, western Uganda. This pilot study aimed to assess the reliability of the questionnaires.

According to Theodoridis & Kraemer (2004), reliability can be assessed through test-retest reliability, which measures consistency over time. The research used Cronbach's Alpha coefficient

(Cronbach, 1951) to determine the internal consistency and reliability of the instruments. A reliability coefficient of 0.82 was obtained (Mohajan, 2021).

Data Analysis, Interpretation and Presentation

The researcher recorded, sorted, edited, coded, and accessed the data that was collected. All the collected data was checked for completeness, accuracy, and uniformity. The qualitative data was collected and arranged systematically according to themes and coded accordingly. The data was tabulated to show the relationships, frequency distribution tables and percentages were used during quantitative data analysis. All these were achieved by computer packages; Micro Soft Excel for tabulation of data and SPSS ver.23 for descriptive statistics and correlation to test the relationship between independent and dependent variables.

Ethical Considerations

The researcher sought permission from Bishop Stuart University Research and Ethics Committee (BSU-REC-2024-411) after clearance from the Faculty of Education Arts and Media Studies, before going to the field. The study was also cleared by the Uganda National Council for Science and Technology (UNSCT), the office of the City Inspector of Schools, and the office of the head teachers of selected schools. A work plan for the tasks was done and was laid out. Sampling was done so that schools where research was to be conducted were identified. The investigator then printed enough copies of the research instruments and familiarize with locale of the study by visiting areas where research was to be conducted and then commenced on data collection. Headteachers and Directors of Studies were assured of anonymity where numbers were used to label data instead of their names. Information given by the participants was treated with confidentiality by maintaining participants' rights and privacy even after the research. The researcher made it clear to them that, the information was purely for academic purposes and their participation was voluntary and any decision to withdraw or decline any information whatsoever at any time was respected. Finally, informed consent was sought from the participants through a written request that was attached to the research instruments.

Community Engagement Plan

The community engagement plan for the study titled "Availability of Teaching Materials and Teachers' Preparedness in the Implementation of the Lower Secondary Curriculum in Government-Aided Schools in Mbarara City, Western Uganda" involved several key activities and strategies to ensure active participation and collaboration from various stakeholders.

Stakeholder Identification and Involvement: Key stakeholders included teachers, school administrators, and local education authorities. Initial meetings were held with these groups to explain the study's objectives, significance, and expected outcomes. Their input and support were sought to foster a sense of ownership and collaboration.

Community Meetings and Workshops: Regular community meetings were organized to update stakeholders on the progress of the study and to gather feedback. Workshops were conducted to train and inform teachers and administrators on the new curriculum and its implementation. These workshops also served as a platform for sharing best practices and addressing any challenges faced during the implementation process.

Feedback Mechanisms: Surveys and interviews were used to collect feedback from teachers. This feedback was crucial in understanding the effectiveness of the teaching materials and the preparedness of teachers.

Collaboration with Local Authorities: The study collaborated closely with local education authorities and the Ministry of Education and Sports to ensure alignment with national education policies and to facilitate the provision of necessary resources and support.

Sustainability and Follow-up: To ensure the sustainability of the engagement efforts, a follow-up plan was established. This included periodic reviews and continued collaboration with stakeholders to monitor the long-term impact of the curriculum implementation and address any emerging issues.

COVID-19 Mitigation and Risk Management Plan

The researcher developed and communicated clear health and safety protocols for all research activities. This included guidelines for physical distancing, mask-wearing, hand hygiene, vaccination, and sanitization of equipment and spaces. In case of any COVID-19 cases, the researcher would refer to the nearest police post or nearest Health Centre.

The researcher developed contingency plans for various COVID-19 scenarios, such as outbreaks or changes in local regulations. This necessitated that research activities be adapted or postponed as needed.

The researcher made sure he stayed up to date with local and national COVID-19 regulations and guidelines by ensuring that all research activities comply with these regulations. Transparent communication with participants and the community was maintained regarding COVID-19 safety measures and any changes to the research plan due to the pandemic.

The researcher reviewed and updated the research ethics protocols to account for COVID-19-related considerations, including informed consent processes for remote interactions.

Limitation of the Study

Some participants were not able to give the researcher ample time during data collection which hindered the process of data collection hence delaying other proceeding study activities.

Limited time to conduct a comprehensive study was also a problem during the study. This is because the academic research was presented in the semester time schedule of the university and UNEB examinations season for the Lower Secondary curriculum (October 2024).

The researcher faced financial constraints such as printing costs, data costs, and transport costs.

Chapter Four: Data Analysis, Interpretation and Presentation

Introduction

The study was set out to investigate the availability of teaching materials in the preparedness of the teachers in the implementation of Lower Secondary Curriculum in Government Aided schools in Mbarara City South, South-Western Uganda. This chapter presentes research findings, analysis, interpretation, and presentation of data from the field based on the research questions and hypothesis: What are the available teaching materials that support the implementation of the Lower Secondary Curriculum in government aided schools in Mbarara City South? To what extent are teachers prepared to use the required teaching materials for the implementation of the Lower Secondary Curriculum in Government-aided schools in Mbarara City South? and There is no significant relationship between availability of teaching materials and teachers' preparedness in the implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South, South western uganda?

Response Rate

Table 2

Response Rate

Participants Category	Target Population	Sample Size	Respondents turned up	Response Rate
City inspector of schools	01	01	01	100%
Head Teachers	06	06	06	100%
Director of Studies	06	06	06	100%
Teachers	360	186	121	65.0%
Total	**373**	**199**	**134**	**67.3%**

Source: Primary Data, 2024

The response rate is the ratio of the actual number of respondents visa vie the target population. Out of 199 respondents, 134 responded positively to the study. The response rate was thus computed as; 134/199*100 = 67.3%. Several authors agree that a response rate above 60% is considered acceptable for most research studies. For instance, Babbie (2007) suggests that a response rate of 50% is adequate, 60% is good, and 70% is very good for most social science research. Similarly, Mugenda and Mugenda (2003) posit that a response rate of 50% is sufficient for analysis, while a rate above 70% is excellent. Therefore, the response rate of 67.3% in this study falls within the acceptable range for reliable analysis.

Presentation of Demographic Information

The questionnaires were administered to a sample size of 121 Teachers. Interviews were conducted with 13 key informants who were the Inspector of schools (1), head teachers (6), and Directors of studies(6). The researcher, from the demographic information, sought to investigate gender, number of years in teaching, and teaching load deemed important and pertinent to the study.

Table 3

Gender distribution of Respondents

Sex	Frequency	Percent
Male	65	53.7
Female	56	46.3
Total	121	100.0

Source: Primary Data, 2024

The results in Table 3 indicate the gender distribution of the respondents; out of a total of 121 participants, 65 (53.7%) were male, and 56 (46.3%) were female. This demonstrated a slightly higher representation of males compared to females in the sample, with the gender composition being relatively balanced, albeit with a marginal male majority.

Table 4

Number of years participants have spent in teaching

Number of years in teaching	Frequency	Percent
Less than 5 Years	12	9.9
5-10 Years	63	52.1
11-15 Years	37	30.6
16 Years above	9	7.4
Total	121	100.0

Source: Primary Data, 2024

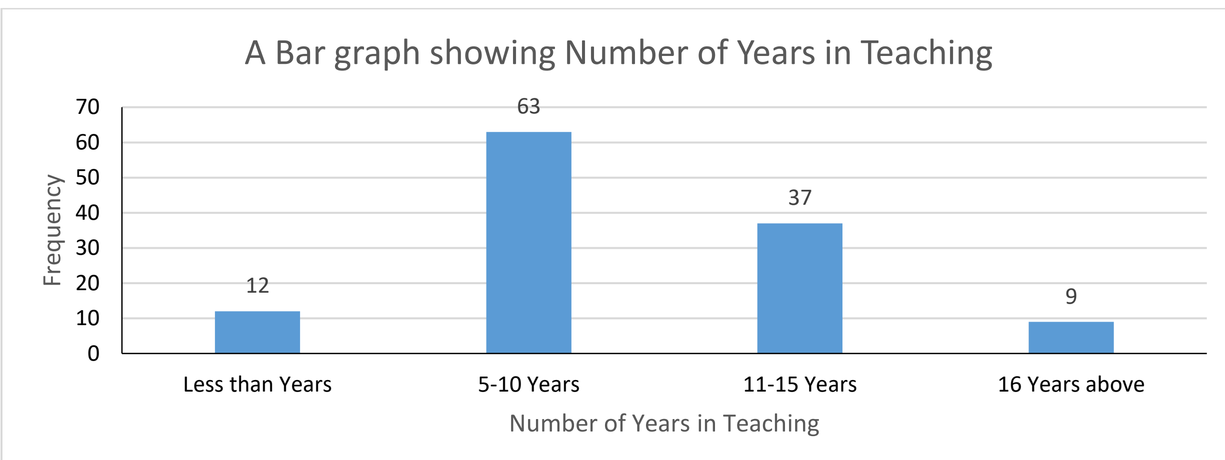


Figure 1: Number of years participants have spent in teaching

Source: Primary Data, 2024

The results in Table 4 and Figure 1 revealed that the majority of teachers 63(52.1%) had 5–10 years of teaching experience, indicating a relatively experienced workforce with significant classroom exposure. This was followed by those with 11–15 years of experience 37(30.6%), further demonstrating substantial experience among educators. Only 12(9.9%), have less than 5 years of teaching experience, representing newer entrants to the profession. Finally, 9(7.4%) comprised teachers with over 16 years of experience, likely representing veteran educators. Overall, the results suggest a balanced distribution, with a concentration of mid-career professionals.

Table 5

Teaching Load by Participants in Hours

	Teaching Load (Hours)	Frequency	Percent
Valid	Less Than 10 Hours	11	9.1
	10-20 Hours	52	43.0
	21-30 Hours	44	36.4
	31 Hours and above	14	11.6
	Total	121	100.0

Source: Primary Data, 2024

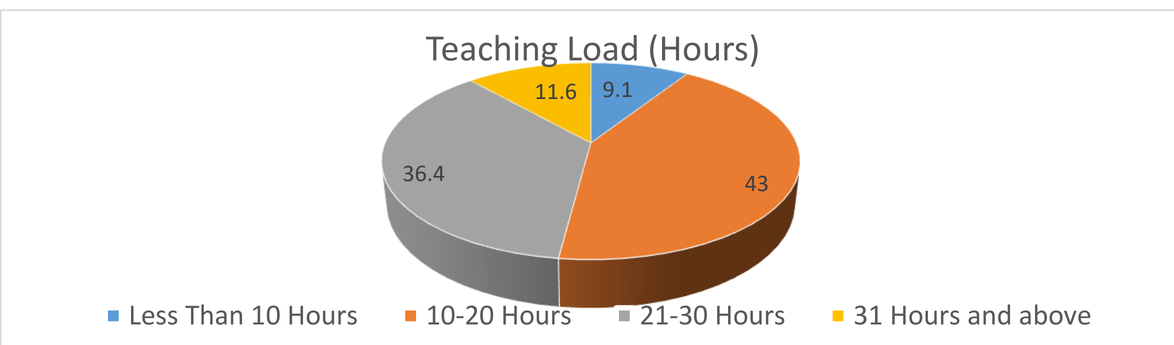


Figure 2: Teaching Load by Participants in Hours

Source: Primary Data, 2024

Findings in Table 5 and Figure 2 of the study showed that the majority of respondents 52(43.0%) reported teaching between 10 and 20 hours per week, followed by 44(36.4%) who indicated a teaching load of 21 to 30 hours per week. Less than a quarter of the respondents 14(11.6%), had teaching loads exceeding 31 hours per week, while only 9.1% taught less than 10 hours per week. This distribution suggests that most educators have moderate teaching loads, with a significant portion teaching between 10 and 30 hours per week, and relatively fewer carrying exceptionally low or high workloads.

Research Question One; What are the available and accessible teaching materials that support the implementation of the Lower Secondary Curriculum in government-aided schools in Mbarara City South?

This section sought to assess the teaching materials that support the implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South and results are presented in Table 6.

Table 6

Teaching materials that support the implementation of the Lower Secondary Curriculum in Government Aided Schools in Mbarara City South

Items (for learning materials)	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Std dev
Teaching materials are enough for every learner	1(0.8%)	11(9.1%)	19(15.7%)	43(35.5%)	44(36.4%)	3.90	1.165
Computer laboratory is well equipped	3(2.5%)	10(8.3%)	19(15.7%)	62(51.2%)	27(22.3%)	3.83	0.955
Learners have access to computer laboratory at any time	1(0.8%)	14(11.6%)	18(14.9%)	50(41.3%)	38(31.4%)	3.91	1.000
Sciences laboratories are well equipped to the requirement of learning process.	0(0%)	12(9.9%)	15(12.9%)	39(32.2%)	55(45.5%)	4.13	0.983
Teaching materials are used as indicated in teaching syllabus	4(3.3%)	10(8.3%)	15(12.4%)	63(52.1%)	29(24.0%)	3.85	0.989
Teachers innovate alternatives teaching materials	4(3.3%)	12(9.9%)	18(14.9%)	60(49.6%)	27(22.3%)	3.78	1.012

Source: Primary Data, 2024

The findings in Table 6 show that the majority of respondents agreed with the statement that teaching materials are sufficient for every learner, where 44 (36.4%) strongly agreed and 43 (35.5%) agreed. The combined percentage of agreement was 71.9%, indicating a generally positive response to the availability of teaching materials. The mean score for this item is 3.90, with a standard deviation of 1.165, reflecting a moderately strong agreement with the statement.

Results in Table 6 revealed that slightly more than a half of respondents 62 (51.2%), agreed that the computer laboratory was well equipped, while 27 (22.3%) strongly agreed. However, 19 (15.7%) remained undecided, and only 13 (10.8%) disagreed. The mean score of 3.83 (with a standard deviation of 0.955) suggests general agreement but some uncertainty among respondents about the adequacy of the computer laboratory's equipment.

The findings showed that access to the computer laboratory was another area where most respondents, 38 (31.4%) strongly agreed, and 50 (41.3%) agreed, with a combined agreement percentage of 72.7%. However, few respondents 18(14.9%) were undecided, 14(11.6%) disagreed and 1(0.8%) strongly disagreed. The mean score of 3.91 signifies that learners generally have access, and the standard deviation of 1.000 reflects moderate variability in responses.

Results show that the majority 94(77.7%) agreed with the statement that science laboratories are well equipped for the requirements of the learning process, with 55 (45.5%) strongly agreeing and 39 (32.2%) agreeing. However, 12(9.9%) disagreed and 15(12.9%) were undecided. The mean score of 4.13 and a standard deviation of 0.983 suggest that the respondents believed the science laboratories meet the requirements for the learning process.

A total of 63 (52.1%) respondents agreed and 29 (24.0%) strongly agreed that teaching materials were used as indicated in the syllabus. While, 15(12.4%) were being undecided, disagreed 10(8.3%) and strongly disagreed 4(3.3%). The combined agreement percentage is 76.1%, with a mean of 3.85 and a standard deviation of 0.989, suggesting general agreement with the use of teaching materials according to the syllabus.

The findings revealed that regarding teachers' innovation of alternative teaching materials, 60 (49.6%) agreed and 27 (22.3%) strongly agreed, resulting in 87(71.9%) in agreement. However, strongly disagreed 4(3.3%) and disagreed 10(8.3%) results in 14(11.6%) in disagreement, while 15(12.4%) being undecided. The mean score of 3.85 reflects agreement, and the standard deviation of 0.989 shows moderate variation in responses.

Results in Table 6 reported that the majority agreed 60(49.6%) followed by 27(22.3%) who strongly agreed that teachers innovate alternatives teaching materials. However, the minority 18(14.9%) were undecided, 12(9.9%) disagreed and only 4(3.3%) strongly disagreed. The mean score of 3.78 signifies agreement, and the standard deviation of 1.012 indicates moderate variability.

Respondents overwhelmingly agreed with the statement that availability of learning resources influences the preparedness of teachers, as 55 (45.4%) strongly agreed and 60 (49.6%) agreed, yielding a combined agreement of 95%. This reflects that the availability of learning resources plays a significant role in teachers' preparedness. The mean score of 4.40, with a very low standard deviation of 0.586, suggests strong consensus on this point.

In qualitative analysis, participants (teachers) described the availability of teaching materials in their schools as follows;

Many participants highlighted the insufficiency of teaching materials in their schools. One participant remarked, *"teaching materials are not enough to cater for all students in the learning process"*(Participant 23), a sentiment echoed by more than half of the participants. Similarly, participant 28 stated, *"teaching materials like computers, projectors are lacking"* (Participant 28). Others described the availability of resources as minimal, with participants saying, *"Not all teahing materials are not readily available"* (Participants 21).

While some materials are available, many participants noted challenges with access. For instance, more than half of the participants explained, *"computers are available, but not all students can access them because there are too few"* (55.9% of participants). Another participants added, *"the* *student-to-material ratio is not balanced, making it difficult for every student to benefit from the available resources"* (Participants 36).

Participants also highlighted specific shortages in essential resources. One participant stated, *"The computer laboratory has too few computers, and not all students can use them. In the science laboratory, chemicals sometimes run out before all practical lessons are covered. Materials like test tubes and conical flasks break, and replacements take time or are not provided at all"* (Participant 7). Another participant noted, *"Materials like chalk and dusters are available, but computers, science laboratory apparatus and textbooks are not sufficient for every student to access"* (Participant 62).

While the majority of participants identified significant shortages, some noted that certain materials were sufficiently available. One participant explained, *"The majority of teaching materials, like textbooks for the new lower curriculum, the internet, and projectors, are available. The choice of suitable teaching aids depends on the lesson's requirements to make it attractive and child-centred"* (Slightly less than a quarter of participants (24.6%)).

Possible solutions to the challenges mentioned above for the betterment of the teaching and learning process

In qualitative analysis, teachers identified solutions to address the factors hindering the implementation of the new lower secondary school curriculum. Their responses are grouped into thematic areas below:

Participants highlighted the need for the government to increase budgetary support to schools. One participant emphasized that, "*the government should add to the budget"* (participant 62), while others suggested that "*the government should increase the budget for teachers to purchase* *materials* (Participant, 118) . Similarly, participant 121 noted that "*more funding from the government is needed to facilitate better learning in the new curriculum*" (participants, 121).

The availability of adequate teaching resources was a recurring theme. One participant stated that "*there should be provision of more textbooks*" (Participant 22), while others suggested that "*the government should ensure the provision of more teaching and learning materials in all government-aided schools*" (Participant 36). Additionally, it was proposed that "*the school management committee should purchase teaching materials in addition to what is provided by the government*" (participant 7).

Participants emphasized the need for ongoing teacher training to enhance their familiarity with the new curriculum. It was suggested that "*training more teachers about the Lower Secondary Curriculum is important*" (Participant 29). Another participant recommended "*carrying out more workshops by new curriculum trainees to secondary schools*" (Participants, 68).

Participants also underscored the importance of broader institutional support. According to one participant, "*The government should support schools by increasing the material budget*" (participant 7). Similarly, another participant mentioned that "*donors should also be engaged to provide additional support to implement the curriculum*" (participant, 70).

During interviews with Directors of Studies, the following responses were revealed;

Participants emphasized the need to address the issue of inadequate classrooms and other facilities. One participant suggested, *"the government should construct new structures, especially classrooms, to accommodate the new teaching setup"* (Director of Studies, School D). Another highlighted the potential of teaching outdoors, stating, *"teaching under trees in the compound can temporarily address the lack of classrooms"* (Director of Studies, School A). To tackle the shortage of teaching materials, one participant recommended, *“schools should generate local funds to buy textbooks”* (Director of Studies, School E), while another proposed group discussions as a way to mitigate the inadequacy of textbooks, saying, *“group discussions can be organized to share limited learning resources*” (Director of Studies, School E).

To manage overcrowding and resource shortages, several participants advocated for shift-based approaches. One participant stated, *"Teaching in shifts can help address the issue of overcrowded classrooms"* (Director of Studies, School A), and another added, *“examinations can also be conducted in shifts to optimize available resources”* (Director of Studies, School A). The use of shifts was also suggested to address the lack of computers, with one participant noting, *“implementing shifts can alleviate the problem of inadequate computers”* (Director of Studies, School E).

Continuous professional development was seen as essential for improving teacher preparedness. One participant remarked, *“the government should continue to train teachers within their working schools to enhance their skills”* (Director of Studies, School B). Another emphasized the need for ongoing training, saying, *“external and internal continuous capacity building should continue”* (Director of Studies, School D). Sensitization programs were also recommended, with one participant suggesting, *“sensitization efforts should encourage teachers to desist from part-timing and focus on their primary roles”* (Director of Studies, School D). Additionally, teacher motivation was highlighted as a critical factor, with one participant recommending, *“Enhancing teacher salaries, particularly for arts teachers, can boost morale and productivity”* (Director of Studies, School E).

Participants underscored the need for increased financial support from the government. One stated, *“The government should increase funding for school facilities to address resource shortages”*

(Director of Studies, School E). Another emphasized the role of schools in resource mobilization, noting, *“Schools should take initiatives to generate local funds for essential resources like textbooks*” (Director of Studies, School E).

To foster a positive learning environment and effective curriculum implementation, one participant suggested, *“Continuous guidance and counseling sessions should be conducted for teachers and learners to support curriculum implementation”* (Director of Studies, School F). These sessions were seen as a way to address both academic and personal challenges faced by educators and students.

During interviews, headteachers responded to strategies to enhance the availability of teaching materials in schools. Their responses are as follows:

Participants emphasized the importance of privately sourcing teaching materials to bridge the gap left by limited government supplies. One headteacher explained that *“private sourcing, such as buying textbooks from stationery shops, can help supplement the materials provided by the Ministry”* (Headteacher, School A). Similarly, another headteacher stated that *“purchasing books from bookshops can complement those supplied by the government”* (Headteacher, School C).

Workshops were identified as a vital strategy for empowering teachers. One headteacher suggested that *“having workshops in school to train more teachers can improve their ability to deliver lessons effectively, even with limited materials”* (Headteacher, School A).

Participants also highlighted innovative ways to maximize the use of available resources. One headteacher proposed that *“learners should be grouped when studying to ensure that the few available materials are used effectively*”(Headteacher, School B). Another headteacher added that *"the use of groups enables all learners to benefit from limited teaching materials"* (Headteacher, School D).

To tackle the shortage of computers, one headteacher suggested that *"since computers are not enough, examinations should be conducted in shifts to ensure all students can participate"* (Headteacher, School B). Another noted the need to *"purchase some computers to address the gaps in ICT resources"* (Headteacher, School E).

The issue of teacher shortages was also addressed. One headteacher proposed that *"hiring non-payment teachers to fill the teaching gap can help sustain the teaching process"* (Headteacher, School C). Additionally, it was recommended that, *"using PTA wages to motivate the teachers who are demotivated by their current conditions can improve their performance*" (Headteacher, School C).

Participants called for increased support from the government to address the challenges comprehensively. A headteacher emphasized the importance of *"requesting the government, through the Ministry of Education, to provide more teaching materials to schools"* (Headteacher, School E).

Research Question Two; To what extent are teachers prepared to use the required teaching materials for the implementation of the Lower Secondary Curriculum in Government-aided schools in Mbarara City South?

This section sought to establish the preparedness of teachers in the use of required teaching materials in the implementation of the Lower Secondary Curriculum in government-aided schools in Mbarara City South. Results are presented in Table 7.

Table 7

Preparedness of teachers in the use of required teaching materials in the implementation of the new Lower Secondary Curriculum

Items (preparedness)	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Std dev
Lesson plans are prepared for lessons according to NCDC guidelines	2(1.7%)	5(4.1%)	9(7.4%)	41(33.9%)	64(52.9%)	4.26	1.086
Lesson plans are learner centred	2(1.7%)	6(5.0%)	8(6.6%)	34(28.1%)	71(58.7%)	4.36	0.999
Lesson plans have clear competences and learning outcomes.	2(1.7%)	5(4.1%)	11(9.1%)	51(42.1%)	50(41.3%)	4.12	1.037
Schemes of work are up to date with clear learning outcomes	0(0%)	0(0%)	13(10.7%)	60(49.6%)	47(38.8%)	4.25	0.756
Teachers update their schemes of work with available teaching materials	0(0%)	0(0%)	17(14.0%)	42(34.7%)	53(43.8%)	4.00	1.335
Trainings in the implementation of the Lower Secondary Curriculum has enhanced my performance learning process.	3(2.5%)	4(3.3%)	10(8.3%)	51(42.1%)	53(43.8%)	4.21	0.915
More training should be conducted to retool teachers in the new lower secondary school curriculum.	0(0%)	3(2.5%)	14(11.6%)	52(43.0%)	50(41.3%)	4.18	0.931

Source: Primary Data, 2024

Results in Table 7 showed that the majority of respondents agreed that lesson plans were prepared in accordance with NCDC guidelines, with 64 (52.9%) strongly agreeing and 41 (33.9%) agreeing. Only 9(7.4%) were undecided, disagreed (5(4.1%)), and strongly disagreed (2(1.7%)). The mean score of 4.26 (SD = 1.086) indicates that teachers are well-prepared in this area.

Most teachers believed their lesson plans were learner-centered, with 71 (58.7%) strongly agreeing and 34 (28.1%) agreeing. Few were undecided 8(6.6%), disagreed 6(5.0%), or strongly disagreed (2(1.7%)). The mean score of 4.36 (SD = 0.999) further supports the conclusion that teachers are adequately prepared in this regard.

The findings of the study revealed that 101(83.4%) teachers agreed that their lesson plans include clear competences and learning outcomes, with 50 (41.3%) strongly agreeing and 51 (42.1%) agreeing. However, some were undecided (11(9.1%)), while only 5(4.1%) disagreed and 2(1.7%) strongly disagreed. The mean score of 4.12 (SD = 1.037) reflects good preparedness.

Results in Table 7 also revealed that most respondents agreed that their schemes of work were up to date, 60 (49.6%) agreed and 47 (38.8%) strongly agreed. The minority 13(10.7%) were undecided and no respondents disagreed or strongly disagreed. The mean score of 4.25 (SD = 0.756) shows the strong preparedness of teachers in implementing the new lower secondary curriculum.

The findings of the study indicated that the majority 85(77.5%) teachers were generally confident about updating their schemes of work using available teaching materials. However, some were undecided 17(14.0%), and no respondents disagreed or strongly disagreed. The mean score of 4.00 (SD = 1.335) showed teachers' preparedness, although variability in responses is slightly higher.

Results in Table 7 revealed that 104(85.9%) teachers acknowledged that training enhanced their performance in the learning process. However, 10(8.3%) were undecided, 4(3.3%) disagreed and 3(2.5%) strongly disagreed. The mean score of 4.21 (SD = 0.915) indicates the effectiveness of training in the implementation of the New Lower Secondary School Curriculum.

The findings also showed that most teachers emphasized the need for further training, with 50 (41.3%) strongly agreeing and 52 (43.0%) agreeing. Some were undecided 14(11.6%), while only 3(2.5%) disagreed. No respondents strongly disagreed. The mean score of 4.18 (SD = 0.931) indicated the high demand for continuous teacher retooling.

The finding above showed that teachers were well-prepared for the implementation of the new Lower Secondary Curriculum. The standard deviations suggest some variability, particularly in areas like updating schemes of work with available teaching materials. However, the overall preparedness level reflects strong alignment with NCDC guidelines and a commitment to effective curriculum implementation.

In qualitative analysis, participants revealed that;

Participants frequently responded the availability of teaching materials as a critical factor in teacher preparedness. One participant remarked, *"Teaching materials are essential for effective lesson planning"* (Participant 1). However, over half of the participants expressed concerns about inadequate teaching materials, such as textbooks. One participant noted, *"Limited teaching materials, especially books, hinder lesson preparation "*(Participant, 4). Another emphasized the importance of teaching aids, stating, *"The availability of teaching aids for lessons makes teaching more effective in the new curriculum implementation"* (Participant, 56). Additionally, access to school libraries with adequate textbooks was deemed important, with participant 36 saying, *"textbooks in the library help teachers prepare better"* (Participant, 36).

The qualifications and experience of teachers were seen as significant contributors to their preparedness. One participant stated, *"A teacher's qualification directly affects their ability to prepare for lessons"* (Participant 1). More than a quarter of the participants noted that teaching experience enhances preparedness, with one mentioning, *"Experienced teachers are better equipped to handle classroom challenges"* (Participant, 58).

A conducive teaching environment was repeatedly emphasized, with participants stating, *"The classroom environment, including desks and space, is crucial for effective teaching"* (Participant 10), Participant 3 said, "*ventilation and enough desks are important for effective teaching*". Nearly half (45.4%) of participants pointed out that overcrowded classrooms negatively impact preparedness. Participant 40 highlighted, *"large student-to-teacher ratio makes it difficult for teachers to prepare adequately"* (Participant 40). *Teacher-student ratio makes it hard for teachers to prepare well.*" (Participant, 76)

Excessive workload emerged as a major challenge, with two participants explaining, *"teachers handling multiple classes where they have enough time to prepare for all lessons"* (Participant, 27). (Participant, 29 said, "*Some teachers teach mathematics from Senior One to Senior Three, don't have enough time to prepare for all lessons"* (Participant, 29). Another participant noted, *"limited time, compared to what the curriculum demands, affects teachers' ability to prepare adequately"* (Participant 30).

Teachers' passion for their profession was identified as a key factor in their preparedness. Four participants stated, *"passionate teachers are more likely to invest time in lesson planning"*

(Participants, 99). Motivation was also mentioned, with some participants asserting, *"When teachers are motivated, they prepare and engage better"* (Participant, 114). "*Motivated teachers prepare in time*" (participant, 77)

Support from parents and schools was highlighted as essential. One participant noted, *"Collaboration between parents and schools provides a supportive environment for teaching"* (Participant 62).

Assessment methods and school techniques were considered significant, with some participants stating, *"Methods used to assess students influence how teachers prepare for lessons"* (Participant, 22). Early preparation was also emphasized, with one participant mentioning, *"Early preparation is key to making lessons successful"* (Participant 6). Adherence to the school timetable was also noted as important, as three(3) participants remarked, *"The timetable helps in organizing lesson plans very well"* (Participant, 21). Participant 68 mentioned, "*Timetables help to organize lessons."*

The role of school administrators and policies was highlighted, with one participant stating, *"Strict administrators, like the director of studies, can improve teacher preparedness"* (Nearly a quarter of participants (24.9%)). School rules and regulations, as well as structured activities, were also considered influential, participants noting, *"School activities create a framework for teachers to prepare better"* (Participant, 44). Also, another participant responded, "*School activities influence teacher preparation for lessons*" (Participant, 112).

The number of subjects a teacher is assigned was also seen as a factor in preparedness. Some participants explained, *"handling too many subjects affects the time available for teachers* *preparing lessons"* (Participant, 28). Participant 119 said, "*Teaching more than 2 classes with many subjects reduces the time for lesson preparation.*" (Participant, 119)

Also, in qualitative analysis during interviews done with Directors of Studies, their responses were as follows;

The availability of adequate infrastructure, such as classrooms and laboratories, is a significant concern. A Director of Studies from School A stated, *"Insufficient infrastructure, especially classrooms and laboratories, affects the ability of teachers to deliver lessons effectively under the new curriculum. This inadequacy limits opportunities for practical and hands-on learning, which is essential for the curriculum's successful implementation*."

Lack of information and awareness about the Lower Secondary Curriculum is another barrier. According to the Director of Studies from School B, *"Teachers still lack information on the new lower curriculum,"* which hinders their ability to align their teaching strategies with its requirements.

Poor attitudes towards the curriculum were also highlighted. The Director of Studies from School C remarked, *"the attitude towards the new curriculum is still poor,"* which impacts teachers' enthusiasm and willingness to adapt to the changes.

Insufficient training for teachers on the curriculum was a recurring issue. A Director of Studies from School D emphasized that *"trainings are inadequate, and this affects teacher preparedness."* Similarly, the Director of Studies from School E noted, *"inadequate training of teachers has left them unprepared to implement the curriculum effectively."* Training gaps undermine teachers' confidence and competence in adopting new teaching methodologies.

Time and space limitations were frequently mentioned as significant obstacles. According to the Director of Studies from School D, *"time and space are major constraints; teachers are struggling to find enough time to plan lessons and sufficient space to conduct activities effectively."*

The disparity in salaries between science and arts teachers was cited as a demotivating factor for arts teachers. The Director of Studies from School E expressed that *"Political policies, such as unfair salaries between science and arts teachers, have demotivated some teachers, especially those in the arts."* This sentiment was echoed by the Director of Studies from School F, who added, *"Arts teachers are not yet enhanced and sometimes feel demotivated in performing their tasks."* Such policies create inequalities that negatively affect teamwork and morale.

High student enrollment was another recurring issue. A Director of Studies from School E explained, *"Student enrollment is larger than the facilities allocated to schools, which makes it difficult for teachers to manage their classes effectively."* Overcrowded classrooms challenge teachers' ability to provide individualized attention and deliver lessons as per the new curriculum's requirements.

During interviews with headteachers on challenges inhibiting the implementation of the new lower secondary school curriculum, grouped into thematic areas below:

Participants pointed out inefficiencies in the distribution of materials and communication from the ministry. One headteacher remarked that, "*some materials from the ministry delayed, and information was given at the last minute*," creating challenges in curriculum implementation (Headteacher, School A).

The heavy workload required by the new curriculum was a significant concern. One headteacher explained that "*the work to be done is much, for example, project work supervision*," which places additional strain on teachers (Headteacher, School A).

The lack of essential resources and infrastructure was widely mentioned. According to one headteacher, "*computers are not enough*" to meet the demands of the curriculum (Headteacher, School B). Another headteacher reported that "*there is a lack of enough classroom space to handle group formations adequately*" and "*a lack of enough laboratory space*," which limits effective teaching and learning (Headteacher, School D). Similarly, "*a lack of enough teachers*" was cited as a critical challenge (Headteacher, School E).

Funding was a recurring issue. One headteacher highlighted that "*low capitation grants in USE schools*" hindered implementation efforts, while another noted "*a lack of funds mainly for project works*" as a significant barrier (Headteachers, Schools C and E).

Participants emphasized the impact of low motivation among teachers. One headteacher stated that, "*salary disparities demotivate teachers*" and affect their morale (Headteacher, School C). Another mentioned that "*the lack of motivation for Arts teachers due to low pay*" was particularly problematic (Headteacher, School E).

The low teacher-to-learner ratio was also noted as a challenge. One headteacher remarked that "*the low teacher-to-learner ratio makes it difficult to give individual attention to students*" (Headteacher, School C). Furthermore, "*the low level of training among teachers"* in relation to the new curriculum was highlighted as a barrier to its effective implementation (Headteacher, School E).

Finally, inadequate support from the government was a concern. One headteacher expressed that "*there is a lack of enough support from the government*," which limits the ability of schools to meet curriculum demands (Headteacher, School C).

Relationship between the availability of teaching materials and teachers' preparedness in the implementation of the Lower Secondary Curriculum

This section sought to determine the relationship between the availability of teaching materials and teachers' preparedness in the implementation of the Lower Secondary Curriculum in government-aided schools in Mbarara City South. Results are presented in Table 8.

Table 8

Relationship between the availability of teaching materials and teachers' preparedness in the implementation of the new Lower Secondary Curriculum

		Preparedness_of_teachers	**Learning_materials**
Preparedness_of_teachers	Pearson Correlation	1	.660**
	Sig. (2-tailed)		.000
	N	121	121
Learning_materials	Pearson Correlation	.660**	1
	Sig. (2-tailed)	.000	
	N	121	121

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data, 2024

The results of the Pearson correlation analysis indicate a statistically significant positive relationship between the availability of teaching materials and teachers' preparedness in implementing the Lower Secondary Curriculum in government-aided schools in Mbarara City South. The correlation coefficient (r=0.660) demonstrates a strong positive relationship, suggesting that as the availability of teaching materials increases, teachers' preparedness also improves. The significance level (p=0.000) is less than 0.01, indicating that the relationship is highly significant and unlikely to have occurred by chance. Hence, the variables are statistically significant. This implies that sufficient availability of teaching materials plays a critical role in enhancing teachers' preparedness to implement the new low-secondary curriculum effectively.

Table 9

The availability of teaching materials influences the preparedness of the teacher in the teaching and learning process

The availability of teaching materials influences the preparedness of the teacher in the teaching and learning process	**Frequency**	**Percent**
Undecided	6	5.0
Agree	60	49.6
Strongly Agree	55	45.5
Total	**121**	**100.0**

Source: Primary Data, 2024

Results in Table 9 indicated that 115(95%) study participants agreed with the statement that the availability of teaching materials influences the preparedness of teachers in the teaching and learning process. However, 6(5%) of study participants were undecided. These results supported results obtained from the correlation coefficient that reported that there is a relationship between the availability of teaching materials and teachers' preparedness in the implementation of the new Lower Secondary Curriculum.

Chapter Five: Discussion of Results, Conclusions and Recommendations

Introduction

This chapter covers the discussion of results, conclusions, and recommendations according to study objectives.

The available teaching and accessible materials that support the implementation of the Lower Secondary Curriculum in government-aided schools in Mbarara City South

The findings from this study revealed that teaching materials, including textbooks, laboratories, and ICT tools, play a pivotal role in implementing the Lower Secondary Curriculum in Mbarara City South. A significant majority (71.9%) of respondents agreed that teaching materials are sufficient for every learner, with a mean score of 3.90 and a standard deviation of 1.165. This aligns with studies by Mupa and Chinooneka (2015), who emphasized the availability of textbooks as a critical predictor of teacher effectiveness. However, qualitative data highlighted gaps, with participants reporting inadequate teaching materials for large class sizes, echoing UNESCO (2007) findings on the resource constraints in Ugandan schools. The disparity between quantitative and qualitative findings suggests that while resources may exist, their distribution or accessibility remains a challenge.

Regarding ICT integration, the study found that 72.7% of respondents affirmed the availability of computer laboratories, with a mean score of 3.91. This finding corroborates Omondi (2018), who highlighted ICT's transformative potential in curriculum implementation. However, qualitative responses from participants indicated that limited computers and high student-to-computer ratios hinder access, mirroring challenges reported by Andema et al. (2023) about the high cost and limited availability of ICT resources in Uganda. The integration of ICT in education remains a priority but requires targeted investments to ensure equitable access.

The findings also showed strong agreement (77.7%) that science laboratories are well-equipped, with a mean score of 4.13. This is consistent with ROSE (2019), who noted the importance of laboratory resources in practical, learner-centered approaches. Yet, participants identified specific shortages, such as chemicals and apparatus, as barriers to comprehensive practical lessons. This inconsistency points to the need for regular maintenance and replenishment of laboratory supplies, aligning with recommendations by Mandukwini (2016) on sustainable resource allocation. Also, the use of teaching materials as indicated in the syllabus was affirmed by 76.1% of respondents. This strong agreement aligns with research by Mwita and Onyango (2022), which underscores the importance of utilizing prescribed materials for effective curriculum implementation. However, qualitative responses revealed instances of non-compliance with syllabus guidelines due to resource limitations. This reflects challenges noted by Cobbold (2017) regarding deviations from curriculum guidelines in resource-constrained environments.

Finally, the study highlighted innovative practices by teachers, with 71.9% agreeing on the use of alternative teaching materials, as reflected in a mean score of 3.78. This aligns with Gizir and Aydin (2019), who advocated for teacher innovation to overcome resource shortages. Similarly, the results were consistent with the findings of Gabriel Lengoiboni (2013), who emphasized the need for teachers to innovate in resource-limited settings. However, qualitative data suggested that innovation often stems from necessity rather than institutional support, underscoring the need for policies that promote and fund teacher-led initiatives. The findings reinforce the conclusion by Mwita and Onyango (2022) that resource adequacy directly correlates with effective curriculum implementation. Similarly, Despite these efforts, qualitative feedback suggested that innovations are often constrained by financial and technical support. Participants proposed solutions, including increased government funding and continuous teacher training, to address these challenges effectively.

Extent which teachers were prepared to use the required teaching materials for the implementation of the Lower Secondary Curriculum in Government-aided schools in Mbarara City South

The preparedness of teachers in utilizing the required teaching materials for the implementation of the Lower Secondary Curriculum in government-aided schools in Mbarara City South demonstrates a strong alignment with educational standards and curriculum objectives. Results from the study revealed that the majority of teachers are well-prepared, with mean scores above 4.00 for key indicators, including lesson planning in accordance with the National Curriculum Development Centre (NCDC) guidelines (M = 4.26, SD = 1.086) and learner-centered lesson plans (M = 4.36, SD = 0.999). These findings resonate with Avalos (2011), who emphasized the critical role of systematic teacher preparation in achieving effective curriculum implementation, highlighting that thorough lesson planning ensures alignment with intended learning outcomes.

Furthermore, the integration of clear competences and learning outcomes in lesson plans, reflected by a mean score of 4.12 (SD = 1.037), illustrates teachers' commitment to fostering competency-based education. Similar studies, such as Cobbold (2017) in Ghana, support these findings, indicating that when teachers align lesson objectives with curriculum standards, the effectiveness of teaching significantly improves. However, challenges identified in the qualitative data, including insufficient teaching materials, echo the concerns of Okongo et al. (2015), who noted that resource shortages undermine curriculum delivery, particularly in under-resourced settings.

Teachers' efforts in updating schemes of work with available teaching materials was reported by the study, with a mean score of 4.00 (SD = 1.335), underscore their adaptability despite resource constraints. This variability in responses suggests disparities in material availability, aligning with Mupa and Chinooneka (2015), who argue that equitable access to teaching resources remains a significant hurdle in achieving uniform curriculum implementation. Moreover, teachers acknowledged the positive impact of training programs, with a mean score of 4.21 (SD = 0.915), affirming that professional development enhances curriculum delivery. This finding is consistent with Avalos (2011), who highlighted that continuous teacher training fosters instructional competence and adaptability to new curriculum demands.

The demand for further retooling, as evidenced by a mean score of 4.18 (SD = 0.931), reflects the need for sustained professional development to address emerging challenges. Interviews with Directors of Studies further corroborate this, emphasizing inadequate training as a barrier to curriculum implementation. Similar findings by Neema-Abooki and Rukia (2015) in Uganda highlight the necessity of ongoing capacity building to empower teachers with the skills required to navigate pedagogical changes effectively.

Qualitative insights from teachers and administrators pointed to systemic challenges, such as inadequate infrastructure, overcrowded classrooms, and limited teaching aids, which impede teacher preparedness. These challenges are consistent with findings from UNESCO (2007), which noted that resource shortages in developing countries hinder the practical implementation of competency-based curricula. For instance, participants in the current study identified the lack of sufficient textbooks and laboratory materials as critical impediments, underscoring the need for targeted investments in educational resources.

Interestingly, teachers' intrinsic motivation and passion for teaching emerged as critical factors influencing their preparedness. Participants frequently noted that motivated teachers invest more effort in lesson planning and delivery. This aligns with findings by Manasia (2020), who highlighted that teacher motivation significantly impacts instructional quality and student engagement. Additionally, the role of external support systems, such as collaboration with parents and school administrators, was emphasized, reflecting the multifaceted nature of teacher preparedness.

Relationship between the availability of teaching materials and teachers' preparedness in the implementation of the Lower Secondary Curriculum

The study revealed a significant positive relationship between the availability of teaching materials and teachers' preparedness in implementing the Lower Secondary Curriculum in Mbarara City South. The Pearson correlation coefficient ($r = 0.660$, $p < 0.01$) indicates a strong association, emphasizing that sufficient teaching materials enhance teachers' readiness to adopt the curriculum effectively. This aligns with findings by Mwita and Onyango (2022), who highlighted that adequate instructional resources significantly boost teacher preparedness and curriculum delivery. The statistical strength in this study corroborates existing literature, suggesting the importance of resource allocation in educational reforms.

Further, 95% of respondents acknowledged the influence of teaching materials on teacher preparedness, consistent with studies in Kenya by Chingos and West (2020). Their research demonstrated that access to essential resources, like textbooks and laboratory equipment, directly correlates with improved educational outcomes. However, the study contrasts findings by Mandukwini (2016), who argued that resource constraints in no-fee schools lead to minimal impact on teacher preparedness due to broader systemic challenges. The unanimous agreement in this study underscores the context-specific dynamics, such as government policies in Uganda, that prioritize resource distribution.

Interestingly, qualitative data revealed persisting challenges despite the statistical significance. Teachers cited insufficient materials, especially ICT tools and laboratory equipment, echoing Ordu (2021), who documented similar constraints in Uganda. Participants emphasized that while some resources are available, they are often inadequate to cater to the growing student population. This resonates with Muhwezi (2023), who observed that resource shortages undermine the shift from teacher-centered to learner-centered approaches required in the new curriculum.

Conclusions

Based on the findings, teaching materials, including textbooks, laboratories, and ICT tools like computers, are pivotal in implementing the Lower Secondary Curriculum in Mbarara City South. While respondents indicated the sufficiency of resources, challenges such as limited computers and high student-to-computer ratios persist.

Based on the results, it is concluded that while teachers in government-aided schools in Mbarara City South demonstrate commendable preparedness in utilizing teaching materials for implementing the Lower Secondary Curriculum, systemic challenges such as inadequate infrastructure, overcrowded classrooms, and insufficient teaching aids hinder full effectiveness.

It is concluded that the availability of teaching materials significantly enhances teachers' preparedness in implementing the Lower Secondary Curriculum, as evidenced by a strong positive correlation ($r = 0.660$, $p < 0.01$).

Recommendations

It is recommended that schools and stakeholders increase investment in ICT infrastructure, enhance teacher training on innovative material usage, and ensure equitable distribution of resources to optimize curriculum implementation and improve learner outcomes.

Based on the study findings, it is recommended that the Ministry of Education and other stakeholders invest in sustained professional development programs, improve school infrastructure, and ensure the provision of adequate teaching resources to enhance teachers' capacity and support competency-based education effectively.

It is recommended that stakeholders prioritize the provision of adequate teaching materials to support effective curriculum adoption and improve education quality.

Area For Further Study

Based on the findings, further study could explore the impact of alternative teaching resources, strategies to enhance ICT integration in schools, and the long-term effects of the lower secondary curriculum on learner outcomes, particularly in rural settings.

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Appendices

Appendix A: Participant Consent Form

Dear respondent, I am **Muramuzi Samuel**, a student of Bishop Stuart University pursuing a Master Degree in Educational Management and Planning. As one of the requirements a research study is supposed to be carried out in the fulfilment for a ward of a Master Degree in Educational Management and Planning. You are therefore invited to take part in this study entitled, **Availability of teaching materials and preparedness of the teachers in the implementation of Lower Secondary Curriculum Government Aided schools in Mbarara City South, western uganda. South Western Uganda** The information you provide will be treated with utmost confidentiality and strictly used for purposes of research only. Your cooperation and participation will be highly appreciated.

Benefit: There is no monetary benefit that you will get for participating in this study. However, this study will help determine Mr. **Muramuzi Samuel**, It is hoped that it will increase availability of teaching materials and preparedness of the teachers in the implementation of Lower Secondary Curriculum in Mbarara City South, western uganda. South Western Uganda

Contact: In case of any ethical problems or questions pertaining this study, please contact the principal investigator at Bishop Stuart University at email: enockbarigye@yahoo.com , mobile number +256 701894402 Or +256 703385727

Risks: There is no significant risk expected by being involved in this study.

Confidentiality: All information will be kept confidential and all questionnaire and related information will be kept in a locked cupboard and under password entry in the computer so that only people with explicit consent will have access to this information. When the research report is published, your information will still not be disclosed but codes will be used instead of sensitive issues like your names and personal identifiers.

Involvement in the study: It is voluntary to join the study but you can withdraw from the study any time in case you change your mind during the course of the study without any penalty.

Statement of consent: I have been informed about the study and made aware that the investigator will ask questions about **Availability of teaching materials and preparedness of the teachers in the implementation of Lower Secondary Curriculum in Government Aided schools in Mbarara City South, western uganda. Western Uganda**. I understand that taking part in the study is voluntary and I can withdraw consent at any time without any penalty. I hereby give my consent to participant in the study.

Signature of the participant………………………… Date……………………………………

Interviewer……………………………………………..Signature……………………………….

Date…………..……………………………………Telephone number………………………

Assent

I understand that making my employees to take part in this study has been explained to me thoroughly well and I agree that he can be involved.

Signature of the participant……………………Date…………………………………………….

Interviewer…………………………………….Signature……………………………………….

Date……………………………………..Telephone number………………………………

Appendix B: Work Plan

Activity	**2023**		**2024**			
	Sep-Oct	Nov-Dec	Jan-August	August	September	October - December
Topic selection						
Concept paper presentation						
Dissertation writing						
Consultations on Dissertation writing						
Final submission of the Dissertation to Research Ethics Committee (REC)						
Data collection and analysis						
Research Report writing						
Research Report submission						

Appendix C: Budget

Details	**Quantity**	**Unit Price**	**Total Cost**
Reams of papers	6	20,000	120, 000
Typing and Printing			70,000
Airtime/Data			30,000
Binding	4	15,000	60,000
Meals	2 weeks	60,000	600,000
Transport	To and from	40,000	400,000
Airtime		10,000	10,000
Data Analysis		300,000	600,000
Data Dissemination		200,000	400,000
Total			**2,290,000**

Appendix D: Questionnaire for teachers

Topic; Availability of teaching materials and the teachers' preparedness in the implementation of the new lower secondary school curriculum.

Gender…………………………………………………………………………………………

Rate the level of your agreement concerning the following items about preparation for teaching in you school.

Number years in teaching………………………………………………………………………

Do you teach in ordinary level…………………………………………………………………

What are your teaching subjects……………………………………………………………..

What is teaching load…………………………………………………………………………….

To what extent do you agree with the availability of teaching materials and the preparedness of teachers as required by the NCDC in the implementation of the new lower seconadary school in your school.

Where 5=strongly agree 4=agree 3=undecided 2=disagree 1=strongly disagree.

Items(preparedness)	5	4	3	2	1
Lesson plans are prepared for lessons according to NCDC guidelines					
Lesson plans are learner centred					
Lesson plans have clear competences and learning outcomes.					
Schemes of work are up to date with clear learning outcomes					
Teachers update their schemes of work with a available teaching materials					

Trainings in the implementation of the Lower Secondary Curriculum has enhanced my performance learning process.					
More training should be conducted to retool teachers in the new lower secondary school curriculum.					
Items (for learning matrials)					
Teaching materials are enough for every learner					
Computer laboratory is well equipped					
Learners have access to computer laboratory at any time					
Sciences laboratories are well equipped to the requirement of learning process.					
Teaching materials are used as indicated in teaching syllabus					
Teachers innovate alternatives teaching materials					
Items on relationship between learning material availability and preparedness.					
Availability of learning resouces influence the preparedness of the teacher in the teaching and learning process.					

What other factors could be influencing the preparedness of the teacher in the teaching and learning process?

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How would you describe the availability of teaching materials in your school?

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What could the possible solutions to factors mentioned to be hindering the implementation of the new lower secondary school curriculum?

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Thank you for supporting this research project.

Appendix E: Interview guide for the City Inspector of Schools.

Availability of learning resources and the preparedness of the teachers for the implementation of the Lower Secondary Curriculum in Mbarara City South, western uganda. south.

Your gender……………………………………………………………………………….

How many schools do you supervise Mbarara City South, western uganda……………………….

To what extent do you agree with the availability of teaching materials and the preparedness of teachers as required by the NCDC in the implementation of the new lower secondary school in your school?

Where 5=strongly agree 4=agree 3=undecided 2=disagree 1=strongly disagree.

Items (on availability of teaching materials)	5	4	3	2	1
Schools have received enough learners' books.					
Schools have to be provided with enough computers with sustainable power supply.					
Schools have well-equipped science laboratories.					
Schools have enough scheming and lesson-planning books.					
Schools have sustainable internet access.					
Schools have adequate teaching staff.					
Items(preparedness of teachers)					
Lesson plans are prepared and linked to previously prepared schemes.					
Teachers use learner-centered methods in teaching and learning.					
Lesson plans have clear competencies and references.					
Schemes of work are linked to the syllabus with clear learning outcomes.					
Enough training has been given to teachers in line with competency-based learning.					
Items(relationship of teaching materials and teacher preparedness)					
Availability of teaching materials affect the preparedness of the teachers during implementation if the learning process.					

Appendix F: Questionnaire for the Director of Studies.

Topic; Availability of teaching materials and the teachers' preparedness in the implementation of the new lower secondary school curriculum.

Gender………………………………………………………………………………………………

Rate the level of your agreement concerning the following items about preparation for teaching in you school.

Number years in teaching…………………………………………………………………………

Do you teach in ordinary level……………………………………………………………………

What are your teaching subjects…………………………………………………………………..

To what extent do you agree with the availability of teaching materials and the preparedness of teachers as required by the NCDC in the implementation of the new lower seconadary school in your school.

Where 5=strongly agree 4=agree 3=undecided 2=disagree 1=strongly disagree.

Items(availability of teaching materials)	5	4	3	2	1
Computers are sufficient compared to number of learners and teachers.					
Science laboratories are well-equipped					
School provides supplementally funding for unavailable and perishable teaching materials.					
Learners texts books and learners are sufficient compared to the number of learners in school.					
The school has provided strong and reliable internet to teachers and learners.					
Learners have full access to the computer laboratory for research.					
Items (preparedness of teachers for teaching and learning)					
Do teachers prepare schemes of work and lesson plans?					
Do teachers go to class with schemes and lesson plans?					

The teachers are provided with files/notebooks for record management of generic skills.					
Teachers are continuously training on the implementation of the new lower secondary school.					
Item(relationship between the availability of teaching materials and teacher preparation)					
The availability of teaching materials has enhanced the preparedness of the teachers for the learning process.					

Any others materials that the school lacks that is crucial in the implementation of the Lower Secondary Curriculum other than the ones mentioned above.

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Any other factors that could be affecting preparedness ot teachers during the implementation of the new lower secondary curriculum.

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Suggest possible solution to the challenges mentioned above the betterment of the teaching and learning process.

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Thanks you for supporting this research project.

Appendix G: Questionnaire for Head teacher

Topic; Availability of teaching materials and the teachers' preparedness in the implementation of the new lower secondary school curriculum.

Gender……………………………………………………………………………………………

Rate the level of your agreement concerning the following items about preparation for teaching in you school.

Number years in teaching…………………………………………………………………………

Do you teach in ordinary level……………………………………………………………………

What are your teaching subjects…………………………………………………………………..

To what extent do you agree with the availability of teaching materials and the preparedness of teachers as required by the NCDC in the implementation of the new lower secondary school in your school?

Where 5=strongly agree 4=agree 3=undecided 2=disagree 1=strongly disagree.

Items	5	4	3	2	1
School has enough teaching and non-teaching staff.					
School is equipped with sciences laboratory					
The school has enough computers to meet the needs of all learners.					
The school has installed internet to support research on the side of learners.					
Schools has got records of schemes of work and lesson plans.					
Teachers can manipulate the internet or computer to enhances on the learners research work					
All teachers follow the schemes during the teaching and learning process.					
All teachers have been trained on the implementation of new curriculum					
Availability of teaching materials impacts on the teachers'preparedness.					

Are there other challenges inhibiting the implementation of the Lower Secondary Curriculum other than the ones mentioned below?

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What strategies are you putting forward to enhance the availability of teaching materials in schools.

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Thank you for supporting this research project.

Appendix H: Map of Mbarara City South, western uganda. Showing South Division