

**SCHOOL RESOURCES AND EFFECTIVE IMPLEMENTATION
OF COMPETENCY BASED CURRICULUM IN NANSANA
MUNICIPALITY, WAKISO DISTRICT, UGANDA**

MERCY NAJJUMA

21/U/GMED/14422/PE

**A DISSERTATION SUBMITTED TO THE DIRECTORATE OF RESEARCH AND
GRADUATE TRAINING IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF MASTER OF EDUCATION IN POLICY, PLANNING
AND MANAGEMENT OF KYAMBOGO UNIVERSITY**

NOVEMBER, 2025

DECLARATION

I, Mercy Najjuma, affirm that this dissertation titled *"School Resources and Effective Implementation of the Competency-Based Curriculum in Nansana Municipality, Wakiso District, Uganda"* is an original piece of work conducted entirely by me. To the best of my knowledge, it has not been submitted, either in whole or in part, to any other institution for the purpose of obtaining any academic qualification. All sources and references used in this study have been properly cited and acknowledged.

Signature.....

Date.....

APPROVAL

This is to certify that the dissertation titled *"School Resources and Effective Implementation of the Competency-Based Curriculum in Nansana Municipality, Wakiso District, Uganda"* has been prepared under our guidance and supervision. We hereby endorse it for submission and evaluation, having found it to meet the required academic standards.

Signature.....

Date.....

Dr. Joseph Rwothumio

Signature.....

Date.....

Dr. Nina Olivia Rugambwa

DEDICATION

I dedicate this dissertation to Almighty God for the blessing and favor provided to me throughout the completion of this academic journey.

ACKNOWLEDGEMENT

I want to sincerely thank God, the most merciful and generous, for giving me the chance, discernment, and fortitude to endure and accomplish this important academic milestone. I also thank Dr. Nina Olivia Rugambwa, my supervisor, for her persistent efforts in giving me quick feedback and prompt follow-up, which enabled me to finish my work. Additionally, I would like to thank Dr. Joseph Rwothumio for his invaluable assistance during this investigation. I would especially like to thank my mother, Mrs. Imelda Katende, and my coworkers for their unwavering enthusiasm, helpful criticism, and unceasing support, all of which fueled my passion for study. In times of self-doubt, your encouragement has been a crucial source of strength.

LIST OF ABBREVIATION/ ACRONYMS

CBC:	Competency Based Curriculum
DIT:	Directorate of Industrial Training
EPRC:	Education Policy Review Commission
ESA:	Education Standards Agency
MoES:	Ministry of Education and Sports
NCDC:	National Curriculum Development Centre
OECD:	Organization for Economic Cooperation and Development
RBV:	Resource Based View
UN:	United Nations
UNEB:	Uganda National Examination Board
UNESCO:	United Nations Educational, Scientific and Cultural Organization

TABLE OF CONTENTS

DECLARATION.....	ii
APPROVAL	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
LIST OF ABBREVIATION/ ACRONYMS.....	vi
LIST OF TABLES	xi
LIST OF FIGURES	xii
ABSTRACT	xiii
CHAPTER ONE: INTRODUCTION	1
1.0 Introduction.....	1
1.1 Background to the study	1
1.1.1 Historical Perspectives.	1
1.1.2 Theoretical Perspective.....	4
1.1.3 Conceptual Perspective.....	7
1.1.4 Contextual Perspective.	8
1.2 Problem Statement	9
1.3 Purpose of the Study.....	11
1.4 Specific Study Objectives.....	11
1.5 Research Question.....	12
1.6 Hypothesis of the Study.....	12
1.7 Scope of the Study.....	13
1.7.1 Geographical Scope.....	13

1.7.2 Content Scope.	13
1.7.3 Time Scope.	13
1.8 Significance of the Study.....	14
1.9 Conceptual Framework	14
1.10 Operational Definitions of Key Terms	16
CHAPTER TWO: LITERATURE REVIEW.....	18
2.0 Introduction.....	18
2.1 Theoretical Review	18
2.2 Physical Resources and Effective Implementation of Competency-based Curriculum.....	19
2.3 Instructional Materials and Effective Implementation of Competency-based Curriculum.....	21
2.4 Human Resource Capabilities and Effective Implementation of Competency-based Curriculum.....	22
2.5 Gaps that Underpinned the Study	24
CHAPTER THREE: METHODOLOGY	25
3.0 Introduction.....	25
3.1 Research Approach	25
3.2 Research Design.....	26
3.3 Population	26
3.4 Sample Size and Sampling Techniques.....	27
3.5 Data Collection Methods	29
3.6 Research Instruments	30
3.7 Measurement of Variables.....	30
3.8 Data Quality Control	31

3.8.1 Validity of the Instruments.	31
3.8.2 Reliability of the Instruments.....	32
3.9 Data Collection Procedure.....	34
3.10 Data Processing and Analysis.....	34
3.11 Ethical Considerations.....	35
CHAPTER FOUR: PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS.....	37
4.1 Introduction.....	37
4.2 Response rate	37
4.3 Demographic Characteristics of Respondents	38
4.4 Cross tabulation on level of education, workshops on competency-based curriculum and responsibilities of teachers at school.	41
4.4.1 School Category and Participation in the Study.	41
4.4.2 Cross-tabulation on school category and the level of education.....	42
4.5 Effect of physical resources on effective implementation of CBC in secondary schools in Nansana municipality.	45
4.6 Effect of instructional resources on effective implementation of CBC in secondary schools in Nansana municipality	52
4.7 Effect of human resource capabilities on effective implementation of CBC in secondary schools in Nansana municipality	57
4.8. Challenges Affecting the Effective Implementation of CBC	61
4.9 Chapter summary	62
CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS	63

5.0 Introduction.....	63
5.1 Discussion of Findings	63
5.2 Conclusions.....	65
5.3 Recommendations	66
5.4 Limitations of the study	68
5.5 Suggestions for Further Research	68
REFERENCES.....	70
APPENDICES.....	78
APPENDIX I: QUESTIONNAIRE FOR TEACHERS AT SCHOOL	78
APPENDIX II: INTERVIEW GUIDE FOR HEAD TEACHER IN SECONDARY SCHOOLS.....	83
APPENDIX III: INTERVIEW GUIDE FOR DIRECTOR OF STUDIES IN SECONDARY SCHOOLS.....	84
APPENDIX IV: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION	85
APPENDIX V: ACCEPTANCE LETTER	86
APPENDIX VI: PLAGIARISM TEST RESULTS	87

LIST OF TABLES

Table 3.1: Table Representing Target Population	27
Table 3.2: Category of Respondents and Sample Size	27
Table 3.3: Population and Sample Size from each School.....	28
Table 3.4: Selected Schools in their Respective Categories.....	29
Table 3.5: Variables in the Instruments, their Sources and Reliability.....	31
Table 3.6: Content Validity Index	32
Table 4.1: Response Rate	37
Table 4. 2: Respondents' Demographic Characteristics	38
Table 4.3: Key Informants' Demographic Characteristics.	39
Table 4.4: Mean and Standard Deviation for Physical Resources at School	45
Table 4.5: Correlation of Effective Implementation of CBC and Physical Resources	50
Table 4.6: Regression Coefficients of Effective Implementation of CBC on Physical Resources.....	51
Table 4.7: Mean and Standard Deviation for Instructional Resources at School	52
Table 4.8:Correlation of Effective Implementation of CBC and Instructional Resources	55
Table 4.9: Regression Coefficients of Effective Implementation of CBC on Instructional Resources.....	56
Table 4.10: Mean and Standard Deviation on Human Resource at School.....	57
Table 4.11: Correlation of Effective Implementation of CBC and Human Resource Capacities	59
Table 4.12: Regression of Effective Implementation of CBC on Human Resource Capacities.	60

LIST OF FIGURES

Figure 1.1: Conceptual framework on school resources and effective implementation of CBC.....	15
Figure 4.1: School Category that Participated in the Study	41
Figure 4.2: Level of Education and School Category	42
Figure 4.3: Attendance of workshops on CBC and School Category.....	43
Figure 4.4: Frequency of Attendance of NCDC Teacher’s Re-tooling Workshops	44

ABSTRACT

The study aimed to investigate the effect of school resources on the effective implementation of competency-based curriculum in Nansana municipality, Wakiso district, Uganda. The study was guided by three objectives, which were to: examine the effect of physical resources on effective implementation of CBC in secondary schools in Nansana municipality; determine the effect of instructional resources on effective implementation of CBC in secondary schools in Nansana municipality; and establish the effect of human resource capabilities on effective implementation of CBC in secondary schools in Nansana municipality. Using a mixed methods approach, the study adopted convergent parallel design to collect both quantitative and qualitative data. Data were collected from a total of 258 respondents in 12 secondary schools in Nansana Municipality using self-administered questionnaire and interviews. Quantitative data was analysed using descriptive statistics and correlation, and qualitative data was analysed using content and thematic analysis. Correlation results revealed that physical, instructional, and human resources were positive and significant in effective implementation of competence-based curriculum. Regression results revealed that instructional resources had a positive and significant effect on implementation of competence-based curriculum, human resource capabilities positively and significantly predicted effective implementation of competence-based curriculum. However, physical resources had a negative and insignificant effect on the effective implementation of CBC. It was concluded that instructional resources are imperative for effective implementation of CBC, human resources capabilities are essential for effective implementation of CBC and physical resources is not vital in the effective implementation of CBC. School administrators such as head teachers and other stake holders should provide schools with adequate instructional resources, the Ministry of Education and Sports, head teachers and other stakeholders should provide and encourage high professional development opportunities to teachers in form of in-service trainings to equip them with the required competencies in the implementation of CBC, and the Ministry of Education and Sports, head teachers and other stakeholders should maintain the physical infrastructures of the schools.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The competency-based curriculum (CBC) intends to provide the learners of the 21st century with human capital development skills like creativity, critical analysis, teamwork, effective communication, information literacy, and adaptability, which necessitate comprehensive management of school resources (Uganda Initiative Center for Policy Analysts, 2022). This chapter provides study overview, including background, statement of the problem, purpose, research objectives, research questions, scope, justification, significance, and the conceptual framework. The study aims to examine the relationship between school resources and effective implementation of the Competency-Based Curriculum in Nansana Municipality, Wakiso District, Uganda.

1.1 Background to the study

The background is sub-divided into historical, theoretical, conceptual and contextual perspectives.

1.1.1 Historical Perspectives.

Competency-Based Curriculum started in the United States of America in 1960 to separate professional competency and competence within the education system around the world to address the requirements of the global job market (Adeel, 2014). The CBC is an approach to keeping professional and general education in line with societal demands and the global job market of the 21st century (Nyaboke et al., 2021). Identification and empowerment of students' competence is a foundation of competency-based curriculum to achieve sustainable development

goal four, quality education (UN Report, 2021). Recently, a number of Organization for Economic Cooperation and Development (OECD) members including Japan, Norway, Estonia, Finland, and Wales in the United Kingdom have adopted competency-based education as a strategic approach to equip learners with the knowledge, skills, and competencies essential for human capital development (OECD, 2020). Both governments and private stakeholders have made significant investments to support the effective execution of competency-based curricula (Margolis & Doring, 2017). While many developed nations have successfully integrated competency-based pedagogies into their education systems to align with labour market demands, this transition remains a considerable challenge for developing countries (World Bank, 2017).

For education institutions to achieve the desired outcomes and benefits to the economy, the implementation of a CBC is important for addressing the skills gap necessary for human capital development (Nyaboke et al., 2021). The effectiveness of CBC implementation in secondary schools is dependent on how well school resources are managed (Nevenglosky, 2017). Studies from Finland, Japan, Ghana, Singapore, Turkey, and Kenya have emphasized that the competency-based education system has contributed to human capital development and supported economic development (Alex, 2022). The ability of schools' stakeholders to forecast the required resources, such as physical, instructional materials, and human resources, as well as devise strategies to budget for them, is key to the effective implementation of curriculum (Margolis & Doring, 2017). The learning outcomes from a competency-based curriculum are key to ensuring quality education in secondary schools.

According to Demeke et al., (2016), most African countries have delayed reviewing and implementing CBC in secondary schools for quality education since the existing ones were founded by colonial masters. The colonial curriculum was purely to address colonial interests

with little and almost no attention to domestic needs (Moon & Huang, 2015). In Africa, some middle-income countries like Ghana, Nigeria, and South Africa are advancing in effective CBC implementation for human capital development through strategic and operational management of school resources (Klieme, 2016).

In East Africa, secondary schools have not yet fully achieved the same level of effective implementation of competency-based curriculum as they have in middle-income and developed countries (Harcourt, 2017). For example, in Kenya, there is very low uptake of vocation skills associated with group learning, self-learning assessment, and project tasks, as indicated in the expected outcomes of learners in CBC in secondary schools (Kimera et al., 2020). Tanzania and Rwanda are faced with the ineffective implementation of CBC that suit the 21st century labour market (Mdegela et al., 2021). The ineffective implementation of CBC has been characterised by limited attention to group discussion, self-learning, research, and projects, which deprives human capital development. Thus, schools have encountered unknown challenges suspected to be resource, skilled human resources, among others, with the implementation of curriculum (Kenya Institute of Curriculum Development, 2021).

In Uganda, since independence in 1962, the country has been advancing on the old curriculum with little attention to the identification, empowerment, and development of learners' competencies (ESA, 2017). In 1989, Professor Kajubi headed the Education Policy Review Commission (EPRC), which performed a comprehensive evaluation of the whole educational system, ultimately leading to the 1992 Government White Paper on Education, which emphasised curriculum review to address the needs of society. Kajubi's report found an ineffective curriculum to drive human capital development and recommended a review of the education system to develop competency-based pedagogies for quality education in Uganda. In

2017, the new curriculum was piloted and later adopted in lower secondary schools as a competency-based curriculum in 2020 to date 2024 in Uganda. The CBC is credited with developing skill sets in students through group discussion, self-search, and activity of integration, leading to greater employability and self-starter competencies for the market (Cuyacot & Cuyacot, 2022).

However, much as there is an initiative towards the implementation of competency-based curriculum to encourage self-directed learning, group learning, assessment, and project activities, implementation remains a challenge in developing countries, which widens the implementation gap and human capital development (UNESCO, 2018). This situation has prompted the recent study to examine the accessibility and utilization of school resources concerning the effective implementation of the Competency-Based Curriculum in Nansana Municipality, Wakiso District, Uganda.

1.1.2 Theoretical Perspective.

The resource-based view (RBV) theory, which was first put forth by Wernerfelt in 1984 and then improved by Barney (1991; 2017), served as the foundation for this investigation.

The resource-based theory has been selected for this study because of its application in prior research in relation to resources in organizations. Barney et al. (2017) employed this theory in their study titled “Resource-Based Theory and the Entrepreneurial Firm: Creating a New Mindset.” Similarly, Salazar (2017) utilised it in his research on The Role of Entrepreneurship, Environment, and Strategy in Mexican Small Businesses, and Coach (2018) investigated its relevance in “Factors Contributing to the Growth of Research-Driven Spin-Offs and the Influence of Venture Capital Investment.” RBV theory is premised on three key principles, namely, resource heterogeneity, resource immobility, and resource evaluability, for identifying

and analysing a school's strategic advantages built on a review of the combination of assets, which include physical resources, instructional resources, and human resources.

The principle of resource heterogeneity states that firms possess different sets of resources and capabilities, and these differences can lead to competitive advantages. Schools in Nansana Municipality, Wakiso District, possess a diverse set of resources, including teaching staff, infrastructure, and instructional materials. It is essential to identify and evaluate the unique resources within each school so as to understand their impact on curriculum implementation. The RBV theory advocates for tangible resources, that include physical resources and intangible resources in the form of human resources and instructional resources, among others, which provide competitive advantages for secondary schools through CBC.

The principle of resource immobility states that valuable and rare resources should be difficult to imitate by competitors, such as instructional resources internally developed. This immobility of resources is fundamental for sustaining a competitive advantage. Effective resource management in secondary schools Wakiso District should ensure that the resources allocated for curriculum implementation remain within the district's schools, minimising the risk of resource mobility to other regions or schools.

The principle of resource valuability states that resources must add worth to the organisation's products or services or contribute to cost savings, such as infrastructure like class rooms, sports fields, libraries, utilities, and human resources. If a resource doesn't enhance competitiveness, it may not be considered a source of competitive advantage. School administrators should prioritise the allocation of resources that add significant value to the implementation of CBC, such as well-trained teachers, infrastructure, and up-to-date learning materials.

The Resource-Based View (RBV) theory suggests that firms can gain a competitive edge by the possession and efficient use of rare, valuable, unique, and non-replaceable resources. It centres on how an organisation's distinctive resources and capabilities can grant it a lasting competitive edge. Wernerfelt emphasises that an organisation's competitive advantage largely results from its exceptional and valuable resources, which are not easily replicable by competitors. The RBV theory assesses the organisation's conditions within the framework of the value, rarity, inimitability, and non-substitutability of its resources, examining whether these resources have the potential to create and maintain a competitive edge over time (Barney, 2017). The organisation's sustained competitive advantage depends on its capability to create or acquire the required resources for superior performance in a competitive market (Conner, 2018). Resources are key to the implementation of strategic plans in the organisation to achieve set objectives. Lujan Salazar (2017) asserts that the organisation's evolving structure and its ability to create value depended on resource management to deliver services to achieve sustainable advantages.

Resource-based view suggests that the effective utilisation and strategic management of specific educational resources within schools, such as qualified teachers, instructional materials, and well-maintained facilities, can expedite the implementation of CBC. Critic is that RBV theory ignores assertion to evaluate resources in their level of relevance to achieve competitive advantages. Secondary school competitive advantage relies on the successful execution of the CBC at the lower level, utilising resources that are both available and accessible. Skills are necessary to combine, oversee, and effectively harness school resources in a manner that enhances value, contributes to effective implementation of CBC, and creates advantages over competitors (Coach, 2018). The effective utilisation of school resources in the form of physical,

instructional, and human resources has a chief role in the effective implementation of CBC in Uganda (National Centre for Education Statistics, 2022). The physical, instructional, and human resources reflect the resource-based view at disposal in secondary schools.

1.1.3 Conceptual Perspective.

The competency-based curriculum implementation process puts emphasis on content, teaching, and learning to give students the skills, values, and abilities required in today's society (Ncube, 2014). CBC develops the competencies of students to match them with market demand. Glanz and Heinmann (2018) assert that the implementation of CBC entails the practice of formally endorsed courses of study, syllabi, and academic subjects to provide generic skills and values to learners in secondary schools. Cobbold and Eshun (2015) argue that competency-based curriculum provides information and unfathomable insights into expected generic skills and values to learners in secondary (Govender, 2018). The CBC focuses on group learning, self-learning, or research, projects inform of activity of integration, learner-centred assessment, and responsiveness to the evolving needs of learners, educationalists, and humanity (UNESCO, 2018). Competency based curriculum is informed by group discussion, self-search, and activity of integration that reflect the students' competencies. Poor implementation of competency-based curriculum raises a question on management of school resources (MoES, 2018).

School resources are funds, facilities, equipment, supply of power, and employees of the school who coordinate together to implement the curriculum (Ndlovu, 2018). The school has physical resources, instructional resources, and human resources used to effectively implement competency-based curriculum. Physical resources include classrooms, libraries, sports grounds, staff office space, and laboratories at school (Cuyacot & Cuyacot, 2022). Instructional resources are a collection of resources, specifically materials (electronic and non-electronic), objects, and

other non-human resources, used in the teaching-learning situation to attain the desired outcomes of learning (Makoza, 2019). The instructional resources include digital material, syllabuses, and text books that facilitate the alignment of teaching content to set standards and educational objectives, criteria for student achievement, integrated strategies for student support, and user-friendly teaching materials to activate their competencies. Instructional materials are increasingly available in digital formats, allowing for electronic access through various platforms. These resources include online databases, electronic books, electronic journals, and electronic books, PDF documents, and educational websites designed specifically for schools (Subedi, 2017). Human resource capabilities involve the skills, qualifications, experiences, and knowledge of staff at secondary schools (Cuyacot & Cuyacot, 2022). Resources are important in enhancing effective implementation of competency-based curriculum (Sundby & Karseth, 2022). It is crucial to establish the influence of school resources on the effective implementation of CBC in secondary schools in Nansana municipality, Wakiso district, Uganda.

1.1.4 Contextual Perspective.

This study focuses on the implementation of CBC based on school resources accessed and allocated to secondary schools in Nansana Municipality, Wakiso District, Uganda. Nansana Municipality is a major urban local government with many secondary schools in Wakiso district (Nansana Municipality Records, 2023). The schools have implemented the CBC with the available resources, although it is ineffective. Nansana municipality was selected because it is strategically located near Kampala Capital City, has access to resources, but encounters ineffective implementation of CBC in secondary schools (NCDC, 2022).

In Uganda, CBC was rolled out in 2020 to enhance generic skills and values to meet demands in the job market (NCDC Report, 2022). The method of evaluation within the context

of competency-based curriculum is concerned with the production of curriculum products, test and revise curriculum, teacher recruitment, training teachers for its implementation by the Uganda National Examination Board (UNEB), and the Directorate of Industrial Training (DIT) (NCDC Report, 2022). NCDC (2022) established that the majority of the learners are taught through group discussions and making presentations (47.9%), with low uptake of research (18.1%) in Northern and Eastern Uganda. The pioneers of competency-based curriculum are semi-candidates at “O” level (senior three) and expected to be equipped with practical skills after regular training of teachers (MoES, 2022). However, curriculum implementation in secondary schools within Nansana Municipality, Wakiso District, is as low as 35% (MoES, 2021). The proximity of Nansana Municipality to resources is remotely reflected in the implementation of CBC, which is still low and questioned. The question is whether schools have complied with CBC given resource availability.

1.2 Problem Statement

Effective implementation of the Competence-Based Curriculum (CBC) largely depends on efficient management and utilization of school resources (World Bank, 2017; Ndlovu, 2017). The CBC aims to equip students with vital 21st-century abilities including creativity, critical thinking, and problem-solving through self-search, group discussions, and integration activities, which are needed for success in the modern information age (OECD, 2020). CBC seeks to empower learners with practical competencies necessary for human capital development in alignment with Sustainable Development Goal Four on quality education (UN Report, 2021). Recognizing the importance of this approach, Ugandan government introduced CBC in 2020. Through the Ministry of Education and Sports (MoES) and Directorate of Education Standards (DES), has introduced several measures to strengthen the implementation of CBC in secondary

schools. The Ministry has prioritized teacher training and professional development, establishing a national training strategy and conducting large-scale workshops to promote learner-centered pedagogy, practical learning, and formative assessment (MoES, 2022). The assessment and grading system was reformed to include continuous assessment and project work for lower secondary education, supported by new frameworks from the NCDC (Namatende-Sakwa et al., 2025). The inspection and monitoring system was enhanced through the establishment of regional and district inspectors with subject specialization and the adoption of the Integrated Inspection System (IIS) to improve data-driven monitoring and feedback on curriculum delivery (Mathembele et al., 2025). Additionally, the government developed teacher competence profiles to guide instructional practice and professional development under the CBC (Kaggwa et al., 2025).

Despite these initiatives, the effective implementation of the CBC remains a challenge in Uganda. There is inadequate teacher preparedness, insufficient instructional materials, and limited financial resources (NCDC, 2022). Many educators lack the necessary skills and confidence to deliver learner-centered lessons and assess competencies effectively (Omoding, 2024; Nakawuki et al., 2023). Resource shortages such as the absence of laboratories and ICT tools, funding constraints have limited practical learning (Namatende-Sakwa et al., 2025). Systemic issues like large class sizes, weak supervision, persistence of traditional assessment methods, minimal stakeholder engagement and limited community awareness have reduced support for CBC implementation (Nyeko, 2023). Specifically, in Nansana Municipality, the implementation rate of CBC was reported at only 45% in 2022, which is well below national expectations (Uganda Education Standards Agency, 2022; MoES, 2022). Many secondary schools struggle to conduct quality group discussions, promote learner self-search, and

administer effective integration activities (Nansana Inspector of Schools, 2022) This low level of implementation has raised concerns about how effectively available school resources are being managed and utilized to support curriculum delivery.

This has raised persistent challenges such as poor implementation practices, increased student failure rates, and inefficient utilization of educational resources (NCDC, 2022). If these issues are not addressed, they may continue to hinder the realization of the goals of CBC and the broader educational objectives outlined in Uganda's Vision 2040. Studies (World Bank, 2017; NCDC, 2022; Ndlovu, 2017) have examined general challenges of CBC implementation with less emphasis on the role of resources management in secondary schools. Therefore, this study sought to investigate the effect of school resources on the effective implementation of the Competence-Based Curriculum in secondary schools in Nansana Municipality, Uganda.

1.3 Purpose of the Study

The purpose of the study was to investigate the effect of school resources on effective implementation of competency-based curriculum in Nansana municipality, Wakiso District, Uganda.

1.4 Specific Study Objectives

The study was guided by the following research objectives;

- i.** To examine the effect of physical resources on effective implementation of competency-based curriculum in secondary schools in Nansana municipality, Wakiso District, Uganda.
- ii.** To determine the effect of instructional resources on effective implementation of competency-based curriculum in secondary schools in Nansana municipality, Wakiso District, Uganda.

- iii. To establish the effect of human resource capabilities on effective implementation of competency-based curriculum in secondary schools in Nansana municipality, Wakiso District, Uganda.
- iv. To analyse challenges affecting effective implementation of competency-based curriculum in secondary schools in Nansana municipality, Wakiso District, Uganda.

1.5 Research Question

The study was guided by the following research question;

- i. What challenges have affected the effective implementation of competency-based curriculum in secondary schools in Nansana municipality, Wakiso District, Uganda?

1.6 Hypothesis of the Study

The study was guided by the following null hypotheses;

- i. Ho1: Physical resources have no statistical significant effect on effective implementation of competency-based curriculum in secondary schools in Nansana municipality, Wakiso District, Uganda.
- ii. Ho2: Instructional resources have no statistical significant effect on effective implementation of competency-based curriculum in secondary schools in Nansana municipality, Wakiso District, Uganda.
- iii. Ho3: Human resource capabilities have no statistical significant effect on effective implementation of competency-based curriculum in secondary schools in Nansana municipality, Wakiso District, Uganda.

1.7 Scope of the Study

The scope of study entailed geographical, content and time scope as follows:

1.7.1 Geographical Scope.

The study was carried out in secondary schools in Nansana municipality, Wakiso District. Nansana municipality attained this status under statutory instrument 2015 No. 47 on the 9th day of September 2015 and was preferred because it has many secondary schools, a total of 164 secondary schools (MoES, 2021), and provided an appropriate study area for investigating the effective implementation of the CBC. Nansana municipality comprises four divisions as lower local governments: Nansana Division, Nabweru Division, Gombe Division, and Busukuma Divisions. These schools are in close proximity due to the municipality's urbanised nature and strategic location with access to resources, although they have ineffectively implemented CBC. Additionally, the district has the most developed transport network, enhancing accessibility to competency-based curriculum education support services such as networks, text books, and trained human resources for the implementation of the CBC in secondary schools in Uganda.

1.7.2 Content Scope.

The study focused on investigating how school resources including; the physical resources, instructional resources and human resources ensured effective implementation of CBC in Nansana municipality, Wakiso District, Uganda.

1.7.3 Time Scope.

The research encompassed a duration of a year from February 2023 to March 2024 covering events on implementation of CBC in schools since inception in 2020. The selected time was adequate enough to develop the proposal, collect data, analyse data and write a research report.

1.8 Significance of the Study.

The study findings will benefit the following stakeholders;

Ministry of Education and Sports: The study will offer information to guide MoES to formulate appropriate policies and strategically deploy school resources to ensure effective implementation of CBC in Uganda.

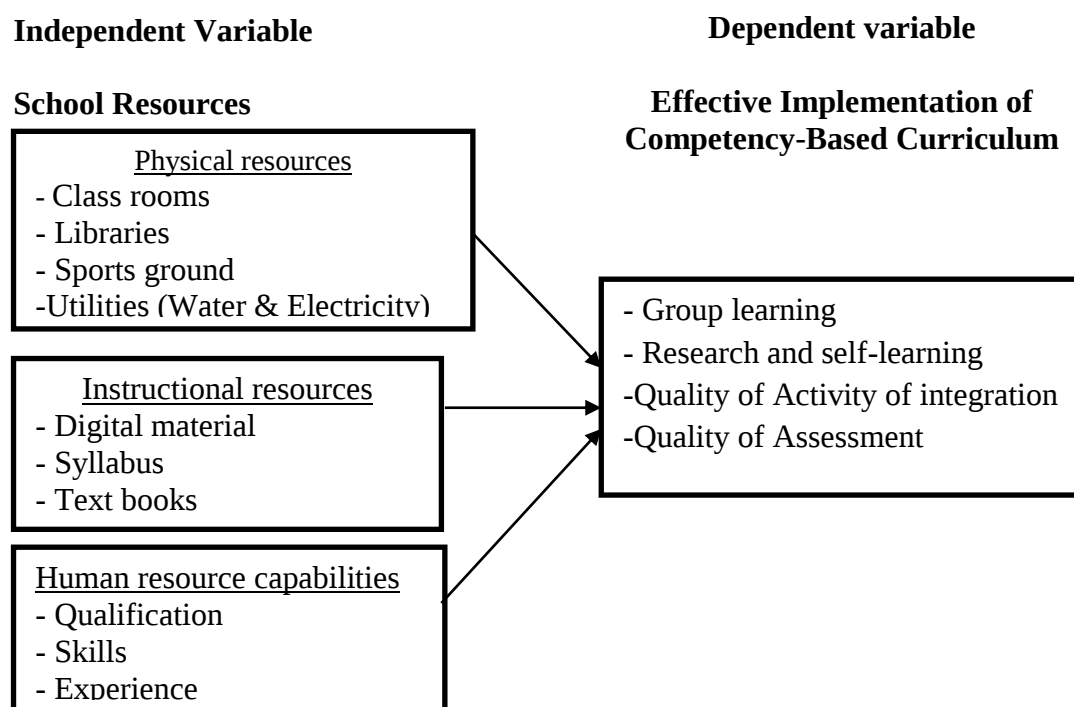
School Administration: The findings of the study will expose school directors, boards of governors and headteacher to the best practices to manage school resources to influence the effective implementation of CBC. Thus, this study intends to establish preferred mechanism to manage school resources to ensure effective implementation of CBC.

Teachers: The study findings will enable teachers prepare the students for a sustainable lifelong skill for human capital development with available school resources. The study finding will serve as a guide for other scholars on the school resources and CBC in secondary schools.

1.9 Conceptual Framework

This section presents the conceptual framework that reflects the relationship between variables in the study and how they were utilized to elucidate the study's problem. The conceptual framework was conceptualized from the theories that guided this study, literature reviewed and researcher's conceptualization.

Figure 1.1: *Conceptual framework on school resources and effective implementation of CBC*



Source: Bambang (2020); Curriculum theory (Dewey, 1902): Modified by researcher, 2024

Figure 1.1 shows the conceptualization of school resources (IV) and the effective implementation of competency-based curriculum (DV). School resources were conceptualized in terms of physical resources, instruction materials, and human resource capability. The effective implementation of CBC was conceptualized in terms of the quality of group learning, the quality of research and self-learning, the quality of activities of integration and the quality of assessment. Physical resources were measured in terms of classrooms which are spacious and enough to accommodate learners, libraries that provide access to diverse learning materials that supports self-directed learning, research and development of critical thinking skills, sports fields that contributes to physical development of learners, promoting health and wellbeing, which is an integral part of CBC, and utilities. Reliable utilities ensure that learning activities can continue uninterrupted, maintain the consistency necessary for effective implementation of CBC.

Instructional resources were measured in the form of digital materials, syllabuses, and text books. These instructional materials provide necessary content, practice opportunities and assessment tools, develop and evaluate the competencies, outlined in CBC. Human resource capabilities were measured in the form of the qualifications, skills, and experience of staff at the school to implement CBC. Qualified, skilled, and experienced teachers can more effectively implement CBC, leading to better learner's outcomes in terms of competency development and overall achievement. All these resources if in existence will lead to effective implementation of CBC, which is measured through increased quality of group learning, Activity of integration, research and self-learning and assessment.

1.10 Operational Definitions of Key Terms

Competency Based Curriculum: An instructional strategy that prioritizes the acquisition and display of specific skills, knowledge, and behaviours, enabling learners to achieve measurable proficiency in particular subject areas (UN report, 2021).

Competency: A specific skill, knowledge, ability, or behaviour that an individual must demonstrate to perform a task or function effectively (World bank, 2017).

Curriculum: A structured set of educational experiences and content offered by a school or educational institution (Ndlovu, 2018).

Effective Implementation: Refers to the successful adoption and integration of teaching methods, resources, and administrative practices that enhance student learning and overall educational performance (Makoza, 2019)

Resources: Resources refer to various tools, materials, personnel, infrastructure, and financial support necessary to facilitate effective teaching and learning (Edalah, 2017).

School Resources: School resources are funds, facilities, equipment, supply of power, and employees of the school who coordinate together to implement the curriculum (Ndlovu, 2018).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a theoretical analysis and a review of the literature that is pertinent to the objectives of the study. This study consulted sources, such as journal articles, government and institutional reports, thesis and dissertations.

2.1 Theoretical Review

As stated by the Resource-Based View (RBV) theory, organisations with strategic resources ably achieve competitive advantages. The RBV theory assesses the organisation's conditions within the framework of the value, rarity, inimitability, and non-substitutability of its resources, examining whether these resources have the potential to grow and sustain a competitive edge over time (Barney, 2017). The organisation's sustained competitive advantage depended on its capability to create or acquire the required resources for superior performance in a competitive market (Conner, 2018). Resources are key to the implementation of a strategic plan in the school to achieve set objectives.

The resources are either tangible resources, intangible resources, or the abilities of implementers to achieve sustainable advantages (Edalah, 2017). The RBV theory assumes that resources activate innovations to achieve sustainable competitive advantage to cater for consumer needs in a manner that is challenging to replicate in organisations (Conner, 2018). It states that successful innovations through the implementation of programmes are determined not just by the innovation but also by the resources available at disposal in the form of physical, instructional, and human resources in the organisation. The RBV theory provides a direction for

an organisation's strategy in relation to resource management, serving as the primary driver of the firm's returns. It regards the value obtained from managerial expertise, information capabilities, and administrative procedures as rare and capable of producing economic profits (Sheehan and Foss, 2007). Alex (2022) in the study about school resources and effective implementation of curriculum adopted RBV theory and established that school resources support the management of talents to ensure effective implementation of curriculum to achieve set goals. In addition, Baumann (2017) stated that human resources, as indicated in resource-based view theory at school, specifically teachers and management, facilitate effective implementation of curriculum to support human capital development. The RVB theory integrates intangible and tangible resources clustered in the form of physical resources, instructional resources, and human resources. RBV theory is the basis for constructing the framework of school resources in the form of physical resources, instructional resources, and human resources within secondary schools.

2.2 Physical Resources and Effective Implementation of Competency-based Curriculum.

Physical resources are tangible facilities and items that are used in the operation of the school (Ker, 2018). Elon (2020) established that effective physical resources in the form of non-current assets support the efficiency of the organisation once effectively utilized. Physical resources such as buildings, specifically classrooms, libraries, laboratories, hostels, dormitories, and offices, are key to the effective implementation of CBC.

Katam (2020) carried out research on the dynamics involved in implementing a competency-based curriculum in lower primary schools in Kenya and its consequences on the learning process, used Spearman correlation analysis, and established that physical resources drive other materials to predict effective implementation of CBC. The study took place in

primary schools in Kenya, which left a gap in secondary schools. Physical resources such as class rooms, laboratories, and libraries are supporting assets for education services, which have a positive and significant relationship with the effective implementation of CBC for competence development at 5% level (Chakraborty et al., 2020). Effective implementation of the curriculum required conducive environment created by well-developed physical resources at secondary schools.

Hernández and Darling-Hammond (2019) carried out a study about expanding student-centred learning and equity through deeper learning networks in schools in Norway, analysed data using Kral Pearson correlation, and found out that physical infrastructure such as class rooms, testing laboratories, libraries, and entrepreneurial centres have positive significant effect on the development of learners' competency. The study was centred on the development of learners' competencies, which necessitated a study to determine the implementation of CBC in secondary schools in Uganda. The form and status of infrastructure for the school determine the ability to effectively implement the CBC for human capital development by enhancing learners' competence to achieve the required skills for well-being.

Physical resources such as class rooms, libraries, and sports grounds play a vital part in retaining teachers by nurturing a teacher-friendly teaching environment, combined with fair allowances, to aid effective implementation of the curriculum in schools for quality education (Susan, 2020). As a consequence, there is a limited acquisition of practical skills among students, primarily stemming from inefficient instructional methods that hinder the effective implementation of the curriculum in secondary schools (Dasman, 2018). Physical resources prove instrumental in crafting instructional content, with specialised facilities like workshops, laboratories, and lecture rooms offering a conducive environment for students to engage with the

content, ultimately facilitating the achievement of educational objectives. However, the insufficient physical resources within the curriculum and the use of out-dated equipment deter effective implementation of training and teaching programmes (Maino, 2018). The notion of physical resources in effective curriculum implementation required verification in context to this study.

2.3 Instructional Materials and Effective Implementation of Competency-based Curriculum.

Instructional material refers to the content or information conveyed within a subject with digital material, a syllabus, and text books (Penrabel et al., 2022). Instructional resources encompass materials that students engage with through reading, listening, manipulation, observation, or direct experience as part of the learning process to acquire skills in teaching and learning at school (Hilt & Riese, 2022). Instruction material provides the content or information conveyed within the subject, which has a positive significant relationship implementation of CBC at 95% level (Hilt & Riese, 2022).

Evans, Landl, and Thompson (2020) studied K–12 competency-based education in secondary schools and established that the availability of instructional resources to support self-discovery has a positive significant association with effective implementation of competency-based learning in secondary schools in Malaysia. The study used OLS and established that digital material facilitated the implementation of CBC, which necessitated validation. Butova (2015) argued that the instructional material, like the syllabus, guides teachers on the implementation CBC at 95% level. Students follow the learners guide with the use of a computer, smartphone, or tablet to search for the information needed for effective implementation of CBC. The existing

instruction material in schools requires investigation into how it contributes to effective curriculum implementation.

The use of detailed text books with elaborated content design facilitates interaction and allows interaction between the author or publisher, students, and teachers, which supports knowledge sharing and acquisition to support the effective implementation of the CBC (Dias, 2022). The government has tendered to supply text books in the schools to support effective implementation of CBC in Uganda. (Penrabel et al., 2022) stated that content design within the textbooks for learners and teachers facilitates the teaching and learning process, which has a positive significance on the implementation of CBC in learning institutions at a 5% level. Textbooks contain the reading list and material with step-by-step procedures required for effective implementation of the curriculum at secondary school. Campbell (2015) states that, digital material with computers provides timely access to documents for the teaching-learning process, which positively influences effective curriculum implementation in the school. The digital materials provide access to the right information to obtain information held globally and support the effective implementation of CBC (Nevenglosky et al., 2018). Information accessibility encompasses a right to request and receive information, as well as an obligation for scholars, government, academicians, and other international agencies to publish information proactively to support effective curriculum implementation.

2.4 Human Resource Capabilities and Effective Implementation of Competency-based Curriculum

Human resources refer to the individuals comprising the workforce of an organisation, business sector, industry, or economy (Almutah, 2018). Human resources develop an engagement relationship with the content of the study, which supports the implementation of the

competency-based curriculum at 95% level (Sulasmi, 2020). Munyui, Morris, and Chorong (2023) conducted a study on applying the CBC in Kenya: insights from South Korea and the United States. The study adopted project-based learning constructivism theory and established that physical resources with a coefficient beta of .546 at a 95% confidence level predict the implementation of competency-based learning at school, which led to enhancements in learners' problem-solving abilities, lifelong learning competencies, self-confidence, and independence. The study was conducted in Kenya with project-based learning constructivism theory, which left a gap.

Teachers can create lessons that incorporate simulations, experiments, case studies, and engaging activities to foster an exciting and dynamic learning atmosphere to support the effective implementation of the curriculum. Suhardan (2019) states that qualified human resources develop learning content in the syllabus, which motivates and evaluates the overall curriculum implementation with the assessment to achieve set objectives. The human resources incorporate the objectives in the content shared with learners, which supports effective curriculum implementation.

Amirullah (2016) asserts that, with their expertise, personal experiences, and skills, teachers are at the core of effective curriculum implementation within schools. They are instrumental in enhancing the quality of education because of their expertise in teaching practices and their responsibility for introducing the curriculum in the classroom for successful implementation in secondary school. Derrington (2015) conjures that the knowledge possessed by human resources contributes significantly to the effective implementation of curriculum in schools. The value attributed to human resource qualifications, skills, and competencies provides suitable pedagogy for curriculum execution.

McNeill et al. (2020) asserted that, teacher attitude about given objectives in new curricula have a significant association with its ease in implementation at school. The instructional choices made by teachers on curriculum implementation are notably shaped by their beliefs (Zallah, 2016). Human resources design content and adhere to considerations, values, and perspectives that enhance effective curriculum implementation by resolving gaps proactively with the domestication of learning examples from the environment (Rakes & Dunn, 2015). This study seeks to investigate these aspects further.

2.5 Gaps that Underpinned the Study

The literature reviewed above was conducted in foreign contexts, which left a gap in Uganda. Furthermore, Munyui, Morris, and Chorong (2023) conducted a study on effectively implementing CBC in Kenya in East Africa and adopted project-based learning constructivism theory, which necessitated the study to validate the findings with the use of resource-based view theory. The above-mentioned studies each focused on one specific study variable, be it physical, instructional material, or human resources, as opposed to the proposed study, which comprehensively addressed all these aspects collectively as school resources. The reviewed studies used mixed design and cross-sectional design, which left a gap for convergent parallel research design. The studies mentioned were conducted with emphasis on the knowledge-based curriculum but not the CBC, like in the case of Uganda. The doctrine of CBC has not received attention in relation to the resources which necessitated this study.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter outlines the research methodology employed in the study. It covers the research design, target population, sample size, sampling techniques, data collection instruments, measurement of variables, procedures for ensuring data quality, data collection methods, data processing and analysis, as well as ethical considerations.

3.1 Research Approach

The study adopted a mixed-methods approach drawing on both qualitative and quantitative techniques (Creswell and Creswell, 2023). The quantitative component provided the foundation for statistical analysis, allowing the researcher to study the relationships between independent and dependent variables in a systematic manner. In contrast, the qualitative component offered rich, descriptive insights derived from interviews, facilitating a more thorough comprehension of the experiences of participants and the contextual elements impacting

the findings. Integrating both quantitative and qualitative approaches enabled the study to draw statistically valid inferences while simultaneously providing an in-depth exploration of the research phenomenon (Creswell & Plano Clark, 2018). The adoption of a mixed-methods design also allowed for the integration of diverse research methodologies, including multiple tools for data collection, sampling frameworks, and analytical techniques. This flexibility strengthened the study's methodological rigor by combining the quantitative data's generalizability and qualitative data's contextual depth (Fraenkel, 1993; Gunasekare, 2015; Johnson & Onwuegbuzie, 2004).

Consequently, this approach provided a robust framework for comprehensive inquiry and the generation of well-supported, evidence-based conclusions.

3.2 Research Design

The study employed a convergent parallel mixed methods research design, which enabled the simultaneous collection, analysis, and interpretation of both quantitative and qualitative data (Creswell, 2019). The researcher was able to compare using this design, contrast, and integrate findings from both strands of data to achieve a deeper comprehension of the research problem. By analyzing quantitative and qualitative data concurrently, the study was able to corroborate results, minimize potential bias, and enhance the validity of the conclusions drawn (Tashakkori & Teddlie, 2010). The convergent parallel design further facilitated the development of a detailed and multidimensional account of respondents' experiences, while allowing for the alignment of participants' perspectives with statistical outcomes to test and refine the research hypotheses (Bryman & Bell, 2011). This methodological integration is especially useful in social science research, since complicated phenomena frequently call for both numerical evidence and contextual interpretation to ensure depth, credibility, and practical relevance (Creswell & Plano Clark, 2018; Fetters, Curry, & Creswell, 2013).

3.3 Population

The target population entails members of interest in the study (Gautama, 2013). The study obtained responses representative of teachers from 159 schools. The study population involved a total of 624 respondents including; 600 teachers, 12 directors of studies, and 12 head teachers. This population was selected because teachers, director of studies and head teachers are involved in the implementation of CBC in secondary schools.

Table 3.1*Table Representing Target Population*

Category of respondents	Population
Head teachers	12
Director of studies	12
Teachers	600
Total	624

Source: Nansana municipality education report (2023) and Ministry of education & sports records

3.4 Sample Size and Sampling Techniques

3.4.1 Sample Size.

This is the representation of the target population (Andrade, 2020). The sample size for respondents was obtained using Krejcie and Morgans sample size table (1970) (see Appendix VI). The population of teachers in Nansana municipality was 600, guided by the Nansana municipality education report 2023 and the sample size was 234 teachers. The study also had key informants totalling to 24 with 12 head teachers and 12 Directors of studies who provided interview data. The study participants are represented in table 3.2.

Table 3.2*Category of Respondents and Sample Size*

Category of respondents	Population	Sample size
Head teachers	12	12
Director of studies	12	12
Teachers	600	234
Total	624	258

Source: Nansana municipality education report (2023).

Table 3.3*Population and Sample Size from each School*

Division	Secondary Schools	Target population	Sample size
Nansana	St joseph's SS	46	18
	St Francis SS	36	14
	Nansana education centre	52	20
Nabweru	Sam Iga Memorial College	62	24
	Nansana SS	64	25
	Lugooba high school	43	17
Gombe	St Edwards College Galamba SS	56	22
	Mwererwe SS	42	16
	Gombe Standard Wakiso	58	23
Busukuma	Namulonge SS	48	19
	Buwambo Seed School	39	15
	Busukuma College School	54	21
TOTAL		600	234

Source: Nansana municipality Archive (2023)

3.4.2 Sampling Techniques.

The sample was selected using three sampling techniques, namely; Cluster, simple random, and purposive sampling techniques. Cluster sampling was used to cluster schools according to the four divisions of Nansana municipality. All government schools in each division were chosen using purposeful sampling because it is the government funding the curriculum. In addition, purposive sampling was used to select headteachers and directors of studies in the selected schools since they are important participants in the execution of the curriculum. Private schools were selected using simple random sampling. At school level, teachers from each school were selected using random sampling. The number of teachers per school was determined using proportionate sampling. The selected schools are presented in table 3.3.

Table 3.4*Selected Schools in their Respective Categories*

Division	Secondary schools	School Category
Nansana	St Joseph's SS	Private
	St Francis SS	Private
	Nansana education Centre	Private
Nabweru	Sam Iga Memorial College	Government
	Nansana SS	Private
	Lugooba high school	Private
Gombe	St Edwards College Galamba SS	Government
	Mwererwe SS	Government
	Gombe Standard Wakiso	Private
Busukuma	Namulonge SS	Government
	Buwambo Seed School	Government
	Busukuma College School	Private

3.5 Data Collection Methods

3.5.1 Survey.

The researcher employed a self-administered questionnaire (SAQ) to gather quantitative data from teachers. The measurements of the indicators were scaled using a five-point Likert Scale (Where 1 = strongly disagree 2 = disagree 3 = not sure 4 = agree 5 = strongly agree). The SAQ was selected because it helps in collecting data necessary for quantitative analysis. More so, it is highly efficient in collecting data from a sizable group of respondents simultaneously and is more cost-effective (Bryman & Bell, 2011).

3.5.2 Interview Method.

Kotharis, (2009) described interview method as one that permits the researcher to get comprehensive and rich data directly from participants and ask follow-up questions, therefore enabling the researcher to seek clarification. This method enabled the researcher to gain deeper insights, explore participants' experiences in greater depth, and clarity of any ambiguities or misunderstandings that arose during the discussion.

3.6 Research Instruments

The study used the questionnaire (see Appendix 1) for collecting quantitative data from teachers and interview guides (Appendices II & III) for collecting qualitative data from key informants. The questionnaire was preferred because it reduces potential influences of respondents' experiences and opinions, reduces costs, and is suitable for large samples compared to other methods (Hung & Petrick 2011). Gautama (2013) recommends an interview guide because it provides an organized method of gathering data, ensuring that the data collected is relevant, aligned with research objectives, and consistent across participants in this study.

3.7 Measurement of Variables

The study's independent variables included school resources such as; physical resources, instructional material resources, and human resource capabilities. The dependent variable is the effective implementation of the competency-based curriculum, which was defined in terms of the quality of group discussions, the quality of research and self-learning, the quality of activities of integration, and the quality of assessment.

Table 3.5*Variables in the Instruments, their Sources and Reliability*

Variables	Constructs	Items adopted	Source; No. of items and their reliability
Physical resource	Classroom	3	Elon (2020); 3 Items, $\alpha = 0.789$)
		2	Katam (2020) 4 Items, $\alpha = 0.849$)
	Libraries	5	Boxal (2017); 6 Items, $\alpha = 0.723$)
	Sports ground	5	Leng and Khieng (2020) 6 Items, $\alpha = 0.759$)
	Utilities	3	Ndlovu (2017). 5 items, $\alpha = 0.845$)
Instructional material resource	Digital material	5	Makoza, 2019). 5 Items, $\alpha = 0.892$)
	Syllabus	5	Penrabel et. al. (2020) 6 Items, $\alpha = 0.895$)
	Text books	5	Muchira, 2023; 7 Items, $\alpha = 0.875$)
Human resources	Qualification	5	Almutah, 2018; 6 Items, $\alpha = 0.875$)
	Skills	5	Moreen, 2017; 5 Items, $\alpha = 0.753$)
	Experience	5	Munyui et al. (2023) 5 Items, $\alpha = 0.861$)
Implementation CBC	Quality of group learning	5	Moreen, 2017 5 Items, $\alpha = 0.789$)
	Quality of research & self-learning	5	Mbiti & Miguel, 2019 5 Items, $\alpha = 0.825$)
	Quality of activity of integration	5	Mbiti & Miguel, 2019 5 Items, $\alpha = 0.875$)
	Quality of assessment	5	McNeill et al. (2020) 5 Items, $\alpha = 0.795$)

Source: Primary data (2024).

3.8 Data Quality Control

3.8.1 Validity of the Instruments.

Saunders (2009) stated that instrument validity pertains to how well a questionnaire and interview guide measure what they are designed to measure. Expert judges, including five lecturers in the School of Education, vetted the content of the data collection tools to test the content validity index against the minimum threshold of 0.7 (Creswell, 2009). Content validity was more preferred because it assesses the degree to which a test's items or questionnaire comprehensively reflect the theoretical domain of the concept under study (Polit & Beck, 2012). By establishing content validity, the researcher ensured that the instrument measures what it was intended to measure, thereby enhancing the accuracy and credibility of the research findings

(Haynes, Richard, & Kubany, 1995). It involved expert judgment to evaluate the relevance, clarity, and representativeness of items (Lynn, 1986). This process did not only enhance methodological rigor but also reduced measurement error by aligning the instrument's content with the study's conceptual framework. In mixed methods research, ensuring strong content validity in the quantitative component strengthens the integration of findings by providing reliable and theoretically grounded data (Creswell & Plano Clark, 2018). Thus, content validity was prioritized to guarantee the robustness and interpretive soundness of the study's results.

Table 3.6

Content Validity Index

Constructs	Total number of questions	Relevant questions	CVI	Cronbach Alpha
Physical resources	20	19	0.95	0.927
Instruction Material Resource	15	14	0.93	0.961
Human Resource	15	14	0.93	0.876
Competence Based Curriculum	20	18	0.9	0.938

The Content Validity Index (CVI) for physical resources is 0.95, instructional material resources are 0.93, human resources at 0.93, and competency-based curriculum is 0.9, which is approximate to 1, thus surpassing the 0.7 threshold advised by Creswell (2014). The questionnaire had valid questions for data collection, and irrelevant questions were edited and some removed from the final tool.

3.8.2 Reliability of the Instruments.

To assess the internal consistency of the research instrument, the researcher administered instruments to five experts to vet the reliability of the tools, and their opinions were analysed using Cronbach's alpha sensitivity reliability analysis. The researcher pre-tested the data collection tools on class teachers, and head teachers from 2 secondary schools excluded from the

study. Reliability analysis for physical resources is 0.927, instructional material resources is 0.961, human resources is 0.876, Competence Based Curriculum is 0.938. All exceed the threshold of 0.7 ($\alpha > 0.7$) as recommended by Creswell, 2014.

Data Trustworthiness

Based on the four criteria listed by Lincoln and Guba (1985) credibility, transferability, dependability, and confirmability a number of measures were put into place to guarantee the reliability of the qualitative data gathered for this study. By gathering information from teacher and head teacher interviews, credibility was addressed through triangulation, guaranteeing several viewpoints on the same phenomenon. Member checking was also employed to validate the accuracy and authenticity of participants' views (Creswell & Creswell, 2018; Patton, 2015). Transferability was supported by providing thick, rich descriptions of Nansana Municipality, its secondary schools, and the study participants, enabling readers to assess how well the results translate to other situations. Maintaining a thorough audit trail of the study process, including data collecting and analysis techniques, ensured dependability and made future replication easier. (Shenton, 2004). This was further reinforced through standardized data collection methods and consistent interview settings and timeframes (Kvale & Brinkmann, 2015; Yin, 2018).

Confirmability was promoted through reflexive journaling, which enabled the researcher to track personal assumptions and decisions and minimize potential bias throughout the study (Morrow, 2005). Additionally, inter-coder agreement was achieved by having two independent researchers code the data using a shared manual and resolve discrepancies through discussion (Campbell et al., 2013). Finally, An extensive audit trail was kept in order to ensure transparency and enable verification of the research process and findings (Nowell et al., 2017). Collectively, these strategies fostered a rigorous and trustworthy qualitative inquiry that accurately represents

the participants' experiences.

3.9 Data Collection Procedure

The proposal was sent to the Directorate of Research and Postgraduate Training (DRGT) for approval following departmental approval at the school of education. The Dean School of Education at Kyambogo University provided permission and an introduction letter. In accordance with established process, the researcher addressed a letter to the head teachers, who subsequently gave permission for teacher participation and referred the researcher to possible participants. Interviewees were asked for their consent before being informed about the study's topic. Before the interviews started, the researcher got the respondents' signed agreement. I sent my report to the directorate of research and postgraduate training for review after finishing it.

3.10 Data Processing and Analysis

3.10.1 Quantitative Data Analysis.

Before doing data analysis, questionnaires were coded, cleaned, and modified to ensure they were complete. To create univariate descriptive statistics like frequencies, mean, and standard deviation, data was input into SPSS version 20. This gave the researcher a general understanding of the data set. Additionally, the study's hypotheses (Ho1, Ho2, and Ho3) were tested using bivariate analysis, particularly correlation analysis, to determine the relationship between school resources and the successful implementation of the curriculum.

3.10.2 Qualitative Data Analysis.

Qualitative data was analysed thematically according to research objectives to supplement quantitative results. The interviews were audio recorded, notes written down, then transcribed verbatim. The content was coded. Both content and thematic analysis was done to generate themes (Saldinia & Saldania, 2019).

3.11 Ethical Considerations

According to Hassan (et al., 2021) ethical considerations in research is a set of guidelines that direct researchers' designs and procedures to safeguard study participants' rights, improve research validity, and uphold scientific integrity. This study observed the APA ethical guidelines for human participants in research (Abbott, 2018). These included; confidentiality, the anonymity of respondents, respect for participants, consent from participants, honesty, balancing risk and benefits and acknowledgment of all works of other scholars.

Acknowledgment: Acknowledging the works of other scholars was emphasized through proper citations to avoid plagiarism, respect intellectual property and enhance research credibility, so as to contribute to a collaborative and trustworthy academic environment.

Anonymity of respondents: Anonymity was preserved by protecting the respondents' identities, ensuring that it was impossible to link their answers to them and keeping their names anonymous. This guaranteed that participants remained untagged to information provided.

Balancing of Risks and Benefits: The study controlled potential risks to the respondents, including possible repercussions from their superiors. The respondents were given time to fill the self-administered questionnaires at their convenience and in privacy. The study's results will be disseminated to relevant stakeholders through online peer-reviewed journals, promoting broad accessibility and scholarly engagement.

Confidentiality: Confidentiality was maintained by ensuring that respondents names and other identifiers were not indicated anywhere in presentation of research findings.

Informed Consent: Informed consent was achieved by ensuring that all participants willingly, knowingly, and intelligently took part in the study. The researcher gave the participants an explanation of the study's objectives, allowing them to make an informed decision to participate

and sign a consent form voluntarily. Only those who consented and signed on the consent form participated in the study.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presents empirical results on school resources and effective implementation of competency-based curriculum in Nansana municipality, Wakiso district Uganda. The findings in this chapter have been organized basing on the research objectives; to examine the effect of physical resources on effective implementation of competency-based curriculum in secondary schools in Nansana municipality, to determine the effect of instructional resources on effective implementation of competency-based curriculum, to establish the effect of human resource capabilities on effective implementation of competency-based curriculum, and to analyse the challenges affecting effective implementation of CBC in Nansana municipality.

4.2 Response rate

This section presents the response rates got for the research tools that were administered in table 4.1.

Table 4.1

Response Rate

Instruments	Target (Number)	Actual (Number)	Response	Response Rate (%)
Questionnaire	234	231		98.7
Interviews				
Head teachers	12	10		83.3
Director of studies	12	11		91.7
Total	258	252		97.7

Source: Primary data (2024)

The response rate for the study was good at 97.7% which was above the recommended 70% (Creswell, 2018) and reliable to make generalizable findings about the different study variables.

4.3 Demographic Characteristics of Respondents

The background information covered included, age, gender, level of education, teaching experience and attendance of NCDC retooling workshops as presented in table 4.2.

Table 4. 2

Respondents' Demographic Characteristics

Variables	Category	Frequency	Percentage (%)
Age of Respondents	20 years -30 years	151	65.4
	31 years to 40 years	66	28.6
	41 years to 50 years	14	6.1
	Total	231	100
Gender of Respondents	Female	134	58.0
	Male	97	42.0
	Total	231	100
Level of Education	Diploma	61	26.4
	Bachelor's Degree	142	61.5
	Master's Degree	28	12.1
	Total	231	100
Teaching experience	Less than 3 years	29	12.6
	3-6 Years	145	62.8
	7- 10 Years	1	0.4
	More than 10 years	56	24.4
	Total	231	100

Source: Primary Data (2024)

The results in Table 4.2 on age indicate that;

Age: The majority of respondents (65.4%) were between the ages of 20 and 30, followed by those between the ages of 31 and 40 (28.6%), and those between the ages of 41 and 50 (6.1%).

Youth teachers between the ages of 20 and 30 made up the majority of responders (65.4%).

Gender: Regarding gender of respondents, 58.0 % of respondents were female and 42.0 % were male teachers.

Teaching Experience: The majority of teachers (62.8%) had teaching experience of 3 to 6 years, followed by 24.2 % who had more than 10 years, 12.6% had less than 3 years and lastly 1 teacher had experience of 7 to 10 years of teaching.

Level of Education: The majority of respondents (61.5%) had an education bachelor's degree, with diploma holders coming in second at 26.4%. A master's degree was held by the fewest responders (12.1%). These findings showed that teachers with a variety of traits had taken part in the study. Therefore, the findings were representative of various teachers in Nansana Municipality secondary schools.

Table 4.3
Key Informants' Demographic Characteristics.

Variable	Title	Age Category	Frequency
Age	Director of studies	20 years -30 years	2
		31 years to 40 years	6
		41 years to 50 years	3
		Total	11
	Head teachers	20 years -30 years	1
		31 years to 40 years	2
		41 years to 50 years	7
		Total	10
	Director of studies	Female	4
		Male	7
		Total	11
	Head teachers	Female	2
		Male	8
		Total	10
Level of Education	Director of studies	Diploma	2
		Bachelor's degree	6
		Master's degree	3
		Total	11
	Head teachers	Bachelor's Degree	4
		Master's Degree	6
		Total	10
	Director of studies	3-6 years	2
		7-10 years	3
		More than 10 years	6
		Total	11
Teaching experience	Head teachers	7- 10 Years	2
		More than 10 years	8
		Total	10
	Director of studies	3-6 years	2
		7-10 years	3
		More than 10 years	6
		Total	11

Source: Primary Data (2024)

The results in Table 4.3 revealed that;

Age: Majority of the Directors of studies (7) were aged between 41 to 50 years, followed by those aged between 31 and 40 years old (6), only (2) of Directors of studies were aged between 20 to 30 years. Majority of Directors of studies were mature to handle the supervisory role in implementing CBC. Majority of the head teachers (7) were aged between 41 to 50years, followed by those aged between 31-40 years (2), and only (1) head teacher was aged between 20 to 30 years. This meant they were mature to handle the managerial role in implementing CBC.

Gender: Majority (7) of the Directors of studies were male and (4) were female. The majority of the head teachers (8) were Male while (2) were female.

Teaching experience: Majority (6) of directors of studies had experience of more than 10 years, followed by (3) who had experience between 7 - 10 years, and only (2) who had 3- 6years of experience. The majority of the head teachers (8) had experience of more than 10 years, (2) who had experience of 7-10 years and none between 3- 6 years and less than 3 years respectively. Experience in curriculum supervision, and classroom practices is essential for head teachers and directors of studies to effectively supervise the implementation of the competency-based curriculum in the secondary schools.

Level of Education: Majority of directors of studies (6) had Bachelor's degree in education, followed by those with master's degree (3) and the least number of directors of studies (2) were diploma holders. 6 of the 10 head teachers had a master's degree and 4 of those had bachelor's degree in education. This indicated that both directors of studies and head teachers had required qualifications to effectively supervise the implementation of competency-based curriculum in secondary schools.

4.4 Cross tabulation on level of education, workshops on competency-based curriculum and responsibilities of teachers at school.

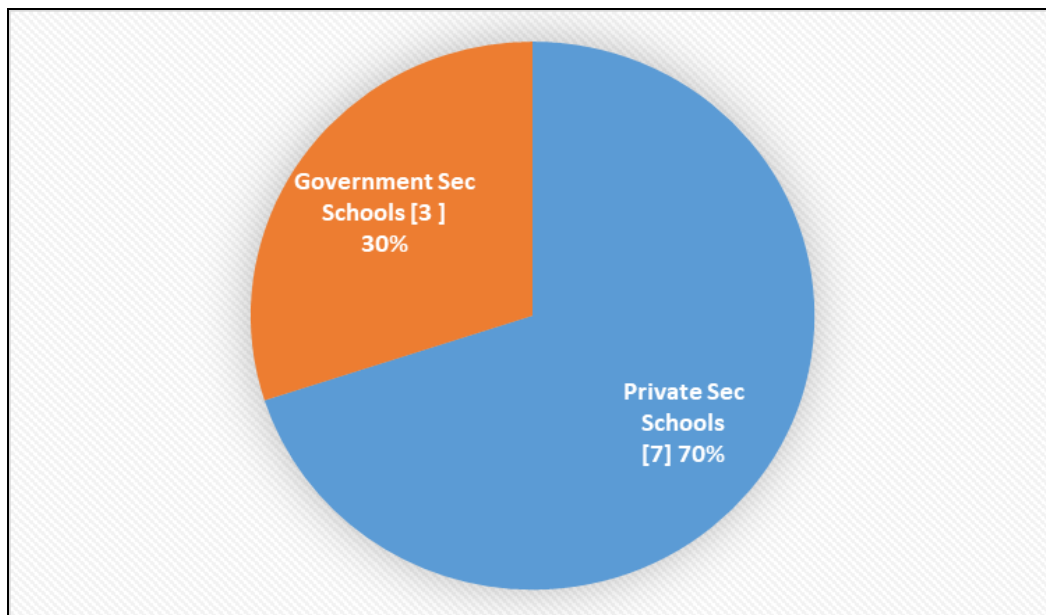
This section presents cross tabulations on school category, level of education of staff, and NCDC retooling workshops attended by respondents.

4.4.1 School Category and Participation in the Study.

This section presents the school categories including; private and government secondary schools that participated in the study and findings are indicated in figure 4.1.

Figure 4.1

School Category that Participated in the Study



Source: Primary Data (2024)

Figure 4.1 revealed that 70% (7) of the secondary schools in this study were privately owned, while 30% were (3) owned by government. This suggests that majority of the respondents in this

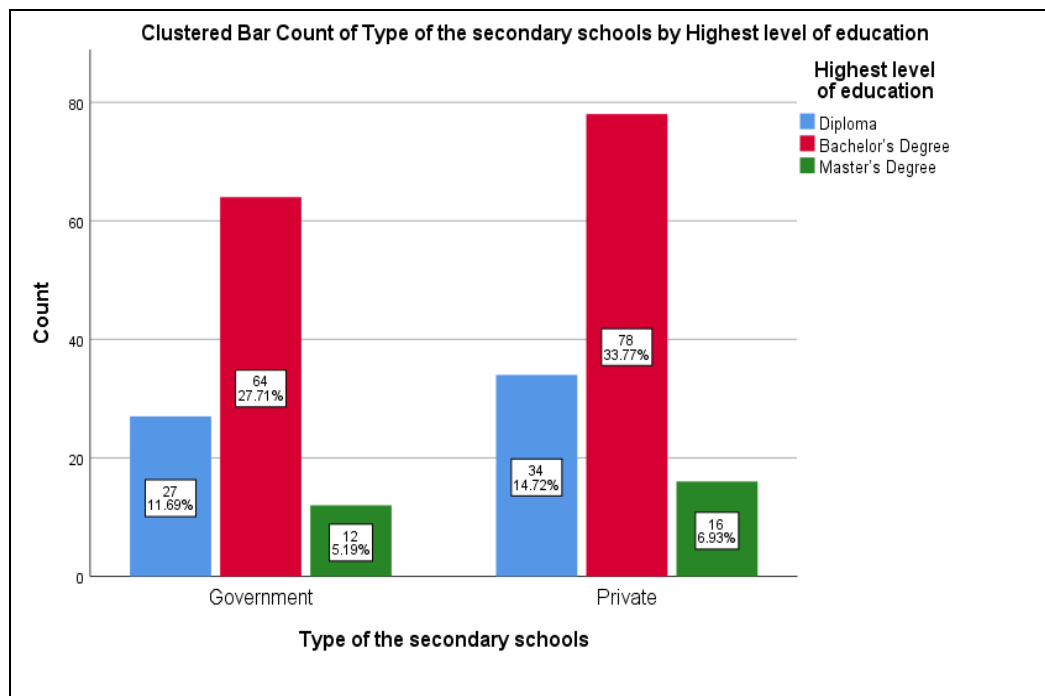
study were from privately owned schools. The views of teachers from both private and government schools were captured in the study.

4.4.2 Cross-tabulation on school category and the level of education.

This section presents cross tabulations on school categories and level of education of the teachers who participated in the study. The findings are indicated in figure 4.2.

Figure 4.2

Level of Education and School Category



Source: Primary data (2024)

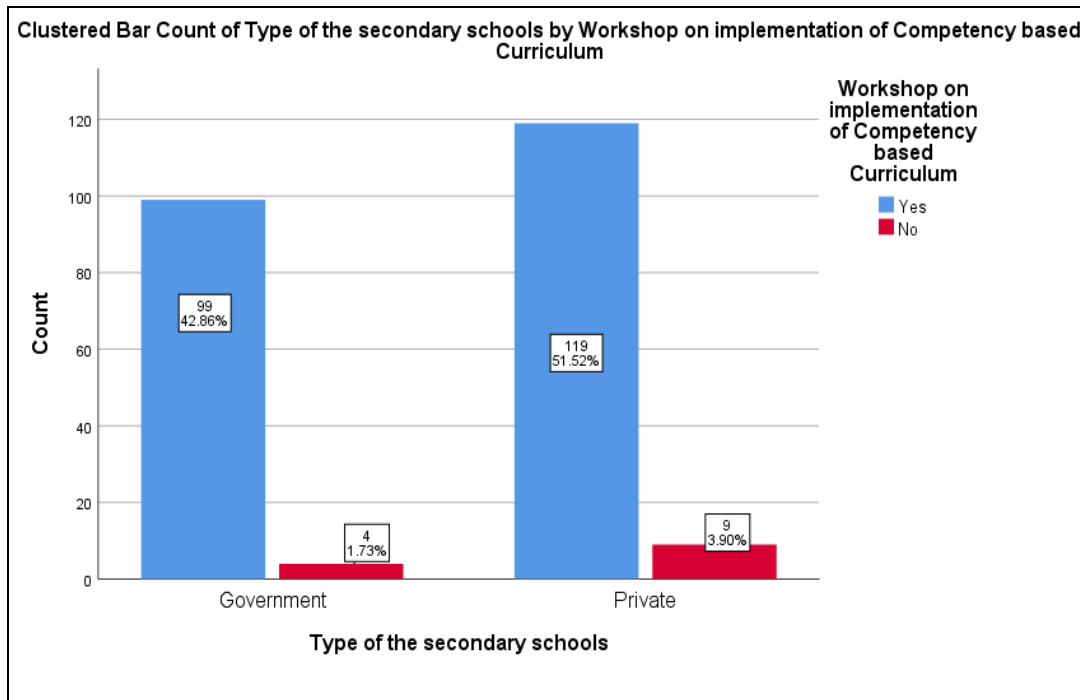
Figure 4.2 revealed that majority of teachers, had a degree in both private and government schools at 61.48 % (27.71 % for government and 33.77% for private). This was followed by teachers with masters' degree (12.12%), and the least number of respondents (26.41%) had a diploma.

4.4.3 Cross Tabulations on School Category and Attendance Of The Workshop.

This section presents cross tabulations on school categories and attendance of teachers in the NCDC re-tooling workshop. The findings are indicated in figure 4.3.

Figure 4.3

Attendance of workshops on CBC and School Category



Source: Primary data (2024)

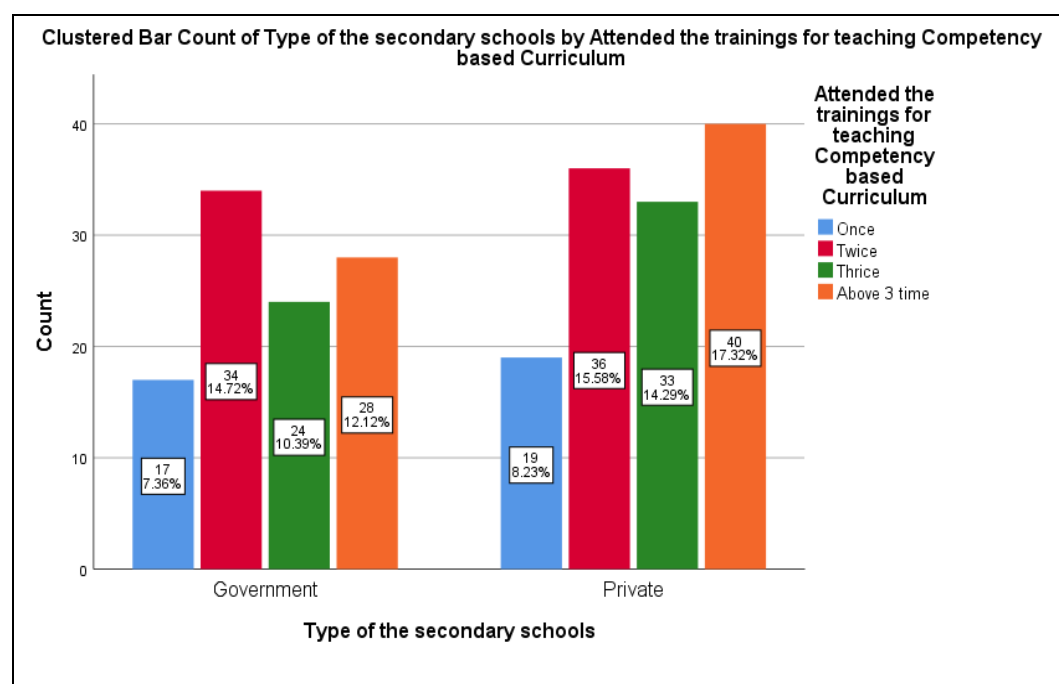
Figure 4.3 indicated that 94.38 % of teachers (42.86 % for government and 51.52 % for private) in Nansana municipality have attended NCDC workshops in the implementation of CBC in secondary schools in Uganda. Majority of the teachers who attended the workshops were from privately owned schools (51.52%) and 42.86% from government schools.

4.4.4 Cross Tabulation on School Category and Frequency of Attendance of Trainings

This section presents cross tabulations on school categories and frequency of attendance of NCDC teacher's re-tooling workshop. The findings are indicated in Figure 4.4.

Figure 4.4

Frequency of Attendance of NCDC Teacher's Re-tooling Workshops



Source: Primary data (2024)

Figure 4.4 indicates that teachers have been trained more than two times in CBC with 94.3 % of teachers (42.8% for government and 51.5% for private) confirming having attended training on the implementation of CBC in secondary schools in Uganda. The teachers from private schools had the highest frequency of attendance with 17.32% having attended more than 3 times. The teachers are prepared to effectively plan, organize, leads, and communicate in class using learning materials to implement the CBC for skills building of learners to suit job market.

4.5 Effect of physical resources on effective implementation of CBC in secondary schools in Nansana municipality.

This section presents findings on the effects of physical resources on effective implementation on competency-based curriculum in Nansana municipality Wakiso District Uganda. The Physical resources that were assessed included Library, Sports ground and utilities. The finds are presented in table 4.3.

Table 4.4

Mean and Standard Deviation for Physical Resources at School

Statement on physical resource at school	N	Min	Max	Mean	Std. D
The class room allows learners to make groups to discuss designed content	231	1.00	5.00	3.85	.27
The class room has furniture to accommodate learners to support teaching and learning of competency-based curriculum	231	1.00	5.00	3.79	.53
The library has syllabus for the Competency based Curriculum to facilitate teaching and learning at school.	231	1.00	5.00	3.72	.17
The library has learners' book for the Competency based Curriculum to facilitate teaching and learning at school.	231	1.00	5.00	3.99	.23
The library has teachers guide for the Competency based Curriculum to facilitate teaching and learning at school.	231	1.00	5.00	3.86	.25
The school has sports grounds accommodate the activity of integration for learners at school	231	1.00	5.00	3.55	.79
I am satisfied with the water supply in my school for daily activities	231	1.00	5.00	3.38	.32
Electricity supply in my school is reliable for teaching and learning	231	1.00	5.00	3.66	.41
Valid N (listwise)	231				

Source: Primary data (2024)

Table 4.4 revealed aspects on availability of physical resources in the secondary schools. Findings on whether class room allows learners to make groups to discuss designed content, results indicated mean of 3.85 and minimal standard deviation of 0.27. Majority of respondents agreed which implies that class room provide space for learners to make groups to discuss the content designed in the implementation of the CBC. Group discussions require enough floor

space to enable learners adequately participate in the discussion for building their skills for economic development.

The classroom is the learning space with a productive environment that enables teachers to instruct effectively and students to learn easily, resulting in better implementation of CBC at school to achieve academic performance. Findings on whether class rooms have furniture to accommodate learners to support teaching and learning of competency-based curriculum, results indicated mean of 3.79 and moderate standard deviation of 0.53. The findings suggest that majority of teachers agreed that secondary schools had furniture used by students in their groups to share knowledge for building competency for teaching and learning at school. Group learning requires more furniture in form of tables, desks and chairs to support learning and teaching to build competency of the learners at school. The seating posture in group is key to allow every member in the group to participate on the assigned task to develop their competency for human capital development.

Findings on whether library has syllabus for CBC to facilitate teaching and learning at school, results indicated mean of 3.72 and minimal standard deviation of 0.17. This meant that majority of teachers agreed that library has syllabus for CBC to facilitate teaching and learning at school. The MoES through NCDC has developed subject syllabus documents and distributed them in secondary schools in Uganda. Teachers make schemes of work, lesson notes and lesson plans following the circulated subject specific syllabi by MoES. Findings on whether library has learners' book for CBC to facilitate teaching and learning at school, results indicated mean of 3.99 and low standard deviation of 0.23. The findings suggest that majority of teachers agreed that learners' books for CBC are available in the schools to facilitate learning among students.

The findings were in line with key informants' views on whether the schools have required relevant instructional materials. One of the Headteachers explained that;

“The learners’ books are distributed to them in their respective subjects depending on the number of copies in relation to the learners in respective groups in class room. However, at times learners are more than the learners’ books which constrained effective implementation of CBC” (Headteacher 2, Nansana municipality, 2024)

Directors of studies interviewed revealed that they noticed a reduction in their amount of effort when instructing since they serve as learning facilitators through guidance provided to students in their learners’ books designed per subject in lower secondary level in Uganda.

Findings on whether library has teachers guide for CBC to facilitate teaching and learning at school, revealed a mean of 3.86 and low standard deviation of 0.25. The findings suggest that teachers’ guides are available to facilitate teaching and learning of CBC in secondary schools.

Therefore, the consistent availability of these guides likely contributes to the effective implementation of the CBC, enhancing the quality of education and supporting teachers in delivering the curriculum effectively.

Findings on whether schools have sports grounds to accommodate all activity of integration for learners at school, indicated mean of 3.55 and high standard deviation of 0.79. Majority of teachers agreed that learners’ projects in activity of integration are ably accommodated at school. Sports grounds provide space and favourable platform for the learners to try their competencies on different aspects until when they discover their talent.

This finding was confirmed by responses from some headteachers who revealed that they try to support their staff by ensuring the maintenance and development of sports facilities, as well as encouraging regular sports activities to foster both physical and social development among learners.

Findings on whether teachers are satisfied with the water supply in school for daily activities, revealed a mean value of 3.38 and minimal standard deviation of 0.32. Majority of teachers were not sure whether the water supply is adequate to support operation of daily activities for teaching and learning of CBC. It is probable that teacher have not taken concern on desired amount of water supply to operate the daily activities in the laboratory, field, kitchen, birth room and compound to support implementation of CBC. Water is essential in building and construction activities adopted in the teaching and learning of CBC in secondary schools.

Findings on whether electricity supply in schools is reliable for teaching and learning, indicated a mean of 3.66 and moderate standard deviation of 0.41. This finding suggests that electricity supply is reliable to support teaching and learning of CBC in secondary schools in Nansana Municipality. Therefore, schools can depend on a consistent electricity supply to utilize technological resources, enhance digital learning, and improve overall educational outcomes for learners under the CBC framework.

One of the head teachers stated that;

“Physical resources are used in making learning materials, land provides space for projects; my school has a farm, animal wastes are used for project work. However, limited space in classrooms hinders effective group work and discussions considering the big numbers, the rough walls in some classes disrupt display of work. Fully installed and equipped laboratories help in fostering the proper

progress of CBC. The big space in classrooms accommodate all learners hence providing a good learning environment compared to small size of classrooms makes it hard for the teacher to move around the class to observe what learners are doing” (Headteacher 3, Nansana municipality, 2024).

In addition, in relation to whether school resources affect the implementation of CBC, one of the directors of studies, confirmed that;

“Well-equipped computer laboratory, library enhanced ICT integration in the CBC. Well installed and equipped science laboratory has enhanced smooth implementation of CBC. Exploration of locally available resources are used as learning aids with appropriate group guided discussion method” (Director of Studies 4, Nansana municipality, 2024)

The schools have built class rooms to accommodate the groups of learners, laboratory and play grounds for support activities are empathized at schools to support implementation of the CBC at school. The availability of physical resources is critical to the effective implementation of CBC in secondary education. It is critical to have enough physical facilities in order to improve educational quality through the implementation of CBC in secondary schools.

Table 4.5
Correlation of Effective Implementation of CBC and Physical Resources

	Effective Implementation of CBC	Classrooms	Libraries	Sports Ground	Utilities
Effective Implementation of CBC	1				
Classrooms	0.316** 0.000	1			
Libraries	0.501** 0.000	0.557** 0.000	1		
Sports Ground	0.312** 0.000	0.288** 0.000	0.606** 0.000	1	
Utilities	0.317** 0.000	0.309** 0.000	0.591** 0.000	0.617** 0.000	1

Source: Primary Data (2024)

The results in Table 4.5 indicate that various school resources had a positive and statistically significant relationship with the effective implementation of the Competency-Based Curriculum (CBC). Specifically, classrooms ($r = 0.316$, $p = 0.000 < 0.05$), libraries ($r = 0.501$, $p = 0.000 < 0.05$), sports grounds ($r = 0.312$, $p = 0.000 < 0.05$), and utilities ($r = 0.317$, $p = 0.000 < 0.05$) were all positively and significantly correlated with the effective implementation of CBC.

Regression of Effective Implementation of CBC on Physical Resources. To establish whether physical resources sub-variables namely; classrooms, libraries, sports grounds and utilities influenced effective utilisation of CBC, a regression analysis was carried out. The results were as in Table 4.6.

Table 4.6**Regression Coefficients of Effective Implementation of CBC on Physical Resources**

Physical Resources	Standardized Coefficients (β)	Significance (p)
Classrooms	0.055	0.427
Libraries	0.448	0.000
Sports Ground	0.005	0.945
Utilities	0.032	0.683
R ² Adjusted = 0.241		
F = 19.212, p = 0.000		

a. Dependent Variable: Effective Implementation of CBC

Source: Primary Data (2024)

The results in Table 4.6 show that the physical resource sub-variables of classrooms, libraries, sports ground, and utilities jointly explained 24.1% of the variation in the effective implementation of the Competency-Based Curriculum (CBC) (Adjusted R² = 0.241). This implies that 75.9% of the variation in the effective implementation of CBC was explained by other factors not included in this model. The overall model was statistically significant (F = 19.212, p = 0.000 < 0.05), indicating that, collectively, the selected physical resources variables had a significant influence on CBC implementation. However, the analysis of individual predictors revealed that only Libraries (β = 0.448, p = 0.000 < 0.05) had a positive and statistically significant influence on the effective implementation of CBC. This suggests that access to and utilization of well-equipped libraries play a crucial role in supporting CBC practices in schools. On the other hand, Classrooms (β = 0.055, p = 0.427 > 0.05), Sports Ground (β = 0.005, p = 0.945 > 0.05), and Utilities (β = 0.032, p = 0.683 > 0.05) had positive but statistically insignificant influences on CBC implementation. This means that while these

facilities are important, their individual contributions were not strong enough to significantly predict effective implementation in this model.

4.6 Effect of instructional resources on effective implementation of CBC in secondary schools in Nansana municipality

This section presents findings on the effects of instructional resources on effective implementation on competency-based curriculum in Nansana municipality, Wakiso District Uganda. The instructional resources that were assessed included digital material, syllabus and text books (learners guide and teacher guide) presented in table 4.5.

Table 4.7

Mean and Standard Deviation for Instructional Resources at School

Statement on instructional resources at school	N	Min	Max	Mean	Std. D
The school computer laboratory accommodates the learners.	231	1.00	5.00	2.31	.28
The digital content support self-discovery for learners at school	231	1.00	5.00	2.81	.47
The computers are regularly serviced to function efficiently for learners at school	231	1.00	5.00	2.14	.32
The school has adequate number of learners' textbooks to support teaching and learning.	231	1.00	5.00	3.96	.77
The learners' books cover the required learning areas for given class.	231	1.00	5.00	3.76	.15
I follow the learning content indicated in syllabus	231	1.00	5.00	4.15	.64
Valid N (listwise)	231				

Source: Primary data (2024)

Table 4.7 reveals aspects of instructional resource in the secondary schools. Findings on whether the school computer laboratory accommodates the learners indicated a mean of 2.31 and a low standard deviation of 0.28. This implies that the computer laboratories in these schools are generally perceived as insufficient to accommodate the learners. Therefore, there

may be a need for improvements in the computer lab facilities to better support the effective implementation of CBC and ensure all students have adequate access to technological resources.

Findings on whether digital content support self-discovery for learners at school, results indicated mean of 2.81 and moderate standard deviation of 0.47. This implies that digital content is somewhat effective in supporting self-discovery for learners, but there is a moderate level of variability in responses. Therefore, while some teachers find digital content beneficial for learners' self-discovery, others may not have the same experience, suggesting a need for further improvement and customization of digital content to better meet the diverse needs and learning preferences of all learners.

Findings on whether computers are regularly serviced to function efficiently for learners at school, results indicated mean of 2.14 and minimal standard deviation of 0.32. This implies that the servicing of computers is largely perceived as inadequate, with little variation in responses among participants. Therefore, the findings suggest a consistent issue across schools where computers are not being maintained regularly, highlighting the need for improved maintenance practices to ensure the technology is reliable and supports effective learning.

Findings on whether schools had adequate number of learners' textbooks to support teaching and learning, results indicated mean of 3.96 and high standard deviation of 0.77. The findings suggest that while there is a general perception that the number of textbooks is adequate, there is significant variability in responses. Therefore, suggesting that some students may have sufficient access to textbooks, whereas others may face shortages, highlighting a need for a more equitable distribution of learning resources to ensure all students have the necessary materials to support their education effectively.

Findings whether learners' books cover the required learning areas for given class, results indicated mean of 3.76 and minimal standard deviation of 0.15. This finding suggests that the learners' books are generally comprehensive and effectively cover the necessary learning areas for the given class, with a high level of agreement among respondents. Therefore, educational materials are well-aligned with the curriculum requirements, providing a consistent and reliable resource for teaching and learning across the school.

Findings whether teachers follow the learning content indicated in syllabus, indicated mean of 4.15 and moderate standard deviation of 0.64. The findings suggest that majority of teachers agreed that they managed to follow the learning content indicated in syllabus to develop competency of the learners at school. This implied that the intended learning content is adequately followed by teachers to support the teaching and learning in the implementation of CBC.

In relation to whether instructional resources affect implementation of CBC. One Head teacher stated that:

“Instructional materials are distributed through various channels based on demand, and measures such as group use, resource sharing, restricted movement of key materials, joint planning among teachers, and encouraging personal initiative in sourcing additional materials, are in place to manage scarcity of resources”
(Headteacher 1, Nansana Municipality, 2024).

One Director of studies added that;

“All teachers are provided with both learners and teachers guides in relation to the total population in their respective classes, each teacher is provided with enough scheme books and lesson plan books during the holidays for timely planning before

the term resumes. The instructional materials are labelled before taking them to the class rooms, stock taking of all the instructional equipment at the end of the term. Learners are required to leave behind their school IDs in exchange for a learner textbook” (Director of studies 3, Nansana municipality, 2024).

Table 4.8

Correlation of Effective Implementation of CBC and Instructional Resources

Variables	Effective Implementation of CBC	Digital Materials	Textbooks	Syllabus
Effective Implementation of CBC	1			
Digital Materials	0.348** 0.000	1		
Textbooks	0.567** 0.000	0.460** 0.000	1	
Syllabus	0.567** 0.000	0.423** 0.000	0.728** 0.000	1

Source: Primary Data (2024)

The results in Table 4.8 indicate that the instructional resources digital materials, textbooks, and syllabus had a positive and significant relationship with the effective implementation of the Competency-Based Curriculum (CBC). Specifically, digital materials ($r = 0.348$, $p = 0.000 < 0.05$), textbooks ($r = 0.567$, $p = 0.000 < 0.05$), and syllabus ($r = 0.567$, $p = 0.000 < 0.05$) were all positively and significantly correlated with the effective implementation of CBC.

Regression of Effective Implementation of CBC on Instructional Resources. To establish whether instructional resources sub-variables namely; digital materials, textbooks, syllabus influenced effective utilisation of CBC, a regression analysis was carried out. The results were as in Table 4.9.

Table 4.9**Regression Coefficients of Effective Implementation of CBC on Instructional Resources**

Instructional Resources	Standardized Coefficients (β)	Significance (p)
Digital Materials	0.076	0.207
Textbooks	0.303	0.000
Syllabus	0.314	0.000

R^2 Adjusted = 0.368

F = 45.609, p = 0.000

a. Dependent Variable: Effective Implementation of CBC

Source: Primary Data (2024)

Findings in Table 4.9 show that the instructional resources sub-variables digital materials, textbooks, and syllabus explained 36.8% of the variation in the effective implementation of the Competency-Based Curriculum (CBC) (Adjusted $R^2 = 0.368$). This implies that 63.2% of the variation in CBC implementation was accounted for by other factors not included in this model. The overall model was statistically significant ($F = 45.609$, $p = 0.000 < 0.05$), indicating that all the three instructional resource factors significantly influenced the effective implementation of CBC. However, the analysis of individual predictors revealed that textbooks ($\beta = 0.303$, $p = 0.000 < 0.05$) and Syllabus ($\beta = 0.314$, $p = 0.000 < 0.05$) had positive and significant influences on the effective implementation of CBC. This suggests that the availability and proper use of textbooks and syllabi play a vital role in enhancing the successful delivery of CBC. In contrast, digital materials ($\beta = 0.076$, $p = 0.207 > 0.05$) had a positive but insignificant influence on CBC implementation, indicating that while digital resources contribute positively, their effect was not strong enough to be statistically significant in this model.

4.7 Effect of human resource capabilities on effective implementation of CBC in secondary schools in Nansana municipality

This section presents findings on the effects of human resource capabilities on effective implementation on competency-based curriculum in Nansana municipality Wakiso District Uganda. The human resource capabilities attributed to qualification, skills and experience were examined to determine their capacity to implement the CBC in secondary schools. The findings are presented in the table 4.10.

Table 4.10

Mean and Standard Deviation on Human Resource at School

Statement on human resource capabilities	N	Min	Max	Mean	Std. D
I have the required qualification to implement the CBC	231	1.00	5.00	4.34	0.27
I am competent in developing activity of integration for CBC	231	1.00	5.00	4.19	0.37
I ably manage to teach the subject allocated to me in CBC	231	1.00	5.00	4.21	0.64
The skills acquired from training enabled me to implement CBC	231	1.00	5.00	4.26	0.32
I effectively interact with learners on CBC	231	1.00	5.00	4.25	0.23
I valued my views about trend about implementation of the CBC	231	1.00	5.00	4.30	0.19
Valid N (listwise)	231				

Source: Primary Data (2024)

Results in table 4.10 revealed the attributes of human resources in the secondary schools. Findings on whether teachers have the required qualification to implement the CBC, revealed a

mean of 4.34 and minimal standard deviation of 0.27. The findings suggest that teachers had required qualification to teach and develop competency of learners to achieve set objectives on CBC in the secondary schools. This agrees with the findings that 61.48 % of the teachers have bachelor's degree and 12.12 % had masters' degree. The teachers are qualified to teach the learners and implement the CBC.

Findings on whether teachers are competent in developing activity of integration for CBC, indicated a mean of 4.19 and minimal standard deviation of 0.37. The findings suggest that majority of teachers were competent in the consolidation of taught content to assign the tasks on activity of integration to learners which support implementation of the CBC. Findings on whether teachers ably manage to teach the subject allocated to them in CBC, indicated mean of 4.21 and moderate standard deviation of 0.64. This suggests that majority of teachers could teach the subject allocated to them on CBC. Findings whether skills acquired from training enabled teachers to implement CBC, result indicated mean of 4.26 and moderate standard deviation of 0.32. This indicates that skills acquired from training enabled teachers to implement CBC effectively and consistently. Findings on whether teachers effectively interact with learners on CBC, result indicated mean of 4.25 and minimal standard deviation of 0.23. The findings suggest that majority of teachers effectively interact with learners under the CBC in the secondary schools. Findings on whether teachers provide views about trends in implementation of CBC, result indicated mean of 4.30 and minimal standard deviation of 0.19. The findings suggest that majority of teachers had a positive view of the trends in implementing CBC.

In relation to whether human resource capabilities affect effective implementation of CBC, one Headteacher explained that

“Teachers are supported through task delegation to expose them to different tasks related to handling the CBC, effective supervision, refresher workshops, professional training, and timely government incentives especially for science subjects. Teachers have received training in subjects like biology, physics, ICT, and agriculture to enhance CBC delivery. The Ministry of Education and NCDC have also provided skills development support. However, CBC assessment remains a challenge, as many teachers still lack clarity and rely on peer guidance through WhatsApp and official circulars” (Headteacher 6, Nansana Municipality, 2024)

Another Head teacher added that:

“Human resource is managed through streaming of learners to cater for teacher student ratio, employing private teachers to cater for increased enrolment in the school, close monitoring of teachers in and outside classroom and well skilled laboratory attendant and librarian to help in the implementation.” (Headteacher 5, Nansana Municipality, 2024)

Table 4.11

Correlation of Effective Implementation of CBC and Human Resource Capacities

	Effective Implementation of CBC	Qualifications	Skills	Experiences
Effective Implementation of CBC	1			
Qualifications	0.487** 0.000	1		
Skills	0.318** 0.000	0.785** 0.000	1	
Experiences	0.568** 0.000	0.777** 0.000	0.741** 0.000	1

The findings in Table 4.11 show that the human resource capacities in form of qualifications, skills, and experiences had a positive and statistically significant relationship with the effective implementation of the Competency-Based Curriculum (CBC). Specifically, qualifications ($r = 0.487$, $p = 0.000 < 0.05$), skills ($r = 0.318$, $p = 0.000 < 0.05$), and experiences ($r = 0.568$, $p = 0.000 < 0.05$) were all positively and significantly correlated with the effective implementation of CBC.

To establish whether human resources capacities sub-variables namely; qualifications, skills and experience influenced effective implementation of CBC, a regression analysis was carried out. The results were as in Table 4.12.

Regression Coefficients of Effective Implementation of CBC on Human Resource Capacities.

Table 4.12

Regression of Effective Implementation of CBC on Human Resource Capacities.

Human Resource Capacities	Standardized Coefficients (β)	Significance (p)
Qualifications	0.315	0.001
Skills	-0.373	0.000
Experiences	0.600	0.000
R ² Adjusted = 0.367		
F = 45.456, p = 0.000		

a. Dependent Variable: Effective Implementation of CBC

Source: Primary data (2024)

The results in Table 4.12 show that human resource capacities like qualifications, skills, and experiences explained 36.7% of the variation in the effective implementation of CBC

(Adjusted $R^2 = 0.367$). This implies that 63.3% of the variation in CBC implementation was accounted for by other factors not considered in this model. The overall model was statistically significant ($F = 45.456$, $p = 0.000 < 0.05$), indicating that all human resource capacities had a significant influence on the effective implementation of CBC. However, an analysis of individual predictors revealed that qualifications ($\beta = 0.315$, $p = 0.001 < 0.05$) and experiences ($\beta = 0.600$, $p = 0.000 < 0.05$) had positive and significant influences on the effective implementation of CBC. Conversely, skills ($\beta = -0.373$, $p = 0.000 < 0.05$) had a negative but significant influence on the effective implementation of CBC. This implies that while skills are essential, there may be inconsistencies in how teachers' practical skills align with the demands of CBC, possibly due to inadequate or mismatched training approaches.

4.8. Challenges Affecting the Effective Implementation of CBC

This section presents findings from interviews with headteachers and directors of studies regarding challenges affecting effective implementation of CBC. The key issues that emerged from the findings include;

Negative Attitude of Teachers towards CBC, some teachers have a negative attitude towards the CBC due to various factors such as lack of understanding, resistance to change, increased workload, and insufficient support. This negative attitude they indicated hindered the implementation of the CBC in several ways including lack of enthusiasm and motivation, poor implementation of curriculum changes among others.

In addition, there is inadequate teacher training, where teachers are not sufficiently trained in the principles and methodologies of the CBC. This has led to ineffective teaching practices, as teachers struggle to move from traditional rote learning to competence-based approaches, resulting in poor student outcomes.

More so, limited resources, schools have inadequate essential resources such as textbooks, teaching aids, and ICT tools. Without adequate materials, teachers and students cannot effectively engage in interactive and practical learning activities essential in the CBC, leading to ineffective implementation.

Relatedly, big class sizes, overcrowded classrooms make individualized attention and active learning difficult. Teachers are unable to provide personalized feedback and support, which is crucial for competence-based learning, thereby diminishing the effectiveness of the CBC.

There is also inadequate infrastructure, many schools have limited infrastructure, such as laboratories and workshops. The lack of appropriate facilities prevents the practical and hands-on learning experiences required by the CBC, limiting its effectiveness.

Lastly, insufficient funding, there is inadequate financial support for the comprehensive implementation of the CBC. Without sufficient funding, schools cannot acquire necessary resources, train teachers, or improve infrastructure, all of which are critical for the successful implementation of the CBC.

4.9 Chapter summary

Secondary schools have resources that range from physical, instructional, and human resource capabilities that are managed to ensure the effective implementation of the CBC. The integrity and objectives of administrators determine the way school resources are utilised to support the implementation of the CBC. Resources are limited; hence, it requires the attention of administrators from strategic, tactical, and operational perspectives to jointly support the implementation of CBC.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the discussion of findings, conclusion, and recommendations of the study on the effect of school resources on effective implementation of CBC in Nansana municipality, Wakiso District, Uganda. This chapter also discusses the study's limitations and offers recommendations for future research.

5.1 Discussion of Findings

This section presents the discussion of the findings of the study on the effect of school resources on effective implementation of competency-based curriculum in Nansana municipality, Wakiso District, Uganda. The discussion involves relating the findings of the study with literature of previous scholars.

5.1.1 Physical Resources and Effective Implementation of Competency-Based Curriculum.

The first hypothesis stated that physical resources have no statistical significant effect on effective implementation of competency-based curriculum in secondary schools. Hypothesis test results indicated that physical resources had a negative insignificant effect on the effective implementation of the CBC in secondary schools. This finding was inconsistent with the findings of previous scholars. For example, Elon (2020) established that effective physical resources in the form of non-current assets support the efficiency of the organization once effectively utilized. Similarly, Katam (2020) established that physical resources drive other materials to predict effective implementation of a competence-based curriculum. Relatedly, Hernández and Darling-Hammond (2019) found out that physical infrastructure such as class rooms, testing laboratories,

libraries, and entrepreneurial centres have positive significant effect on the development of learners' competency.

5.1.2 Instructional Materials and Effective Implementation of Competency-Based Curriculum.

The second hypothesis stated that instructional resources have no statistical significant effect on effective implementation of competency-based curriculum in secondary schools. Hypothesis test results indicated that institutional resources had positive significant effect on the implementation of CBC in secondary schools. This finding concurs with the finding of previous scholars. For instance, Evans et al., (2020) who established that use of digital materials facilitated the implementation of CBC. Similarly, Penrabel et al., (2022) stated that content design within the textbooks for learners and teachers makes the process of teaching and learning easier, which has a positive significance on the implementation of the competency-based curriculum in learning institutions at a 5% level.

Also, Campbell (2015) states that digital material with computers provides timely access to documents for the teaching-learning process, which positively influences effective curriculum implementation in the school. Relatedly, Nevenglosky et al. (2018) established that the digital materials provide access to the right information to obtain information held globally and support the effective implementation of CBC. Therefore, with the study's conclusions being consistent with those of all the scholars, it can be summarised that institutional resources have positive significant effect on the implementation of CBC in secondary schools.

5.1.3 Human Resource Capabilities and Effective Implementation of Competency-Based Curriculum.

The third hypothesis stated that human resource capabilities have no statistical significant effect on effective implementation of competency-based curriculum in secondary schools. Hypothesis test results indicated that human resource capabilities had positive significant effect on the implementation of CBC in secondary schools. This result was in line with earlier researchers' findings. For example, Munyui, Morris, and Chorong (2023) established that physical resources predict the implementation of competency-based learning at school. Also, McNeill et al. (2020) asserted that teacher attitude about given objectives in new curricula has a significant association with its ease in implementation at school. Similarly, Derrington (2015) established that the knowledge possessed by human resources contributes significantly to the effective implementation of curriculum in schools. The study's conclusions are consistent with those of the majority of researchers, therefore, it can be surmised that human resource capabilities had positive significant effect on the implementation of CBC in secondary schools.

5.2 Conclusions

This section presents the conclusions of study based on the set objectives. From the discussion on the findings, it is here concluded that;

1. Physical resources are imperative for effective implementation of CBC in secondary schools. Physical resources such as library, class rooms, laboratory, play grounds for sports activities, water supply and electricity infrastructure facilitate the learning and teaching of students to develop their competency through group learning as indicated in CBC. Maintenance of physical infrastructures in good condition provide favourable learning and teaching environment for implementation of the CBC. In addition, servicing of computers and other

machine by regularly checking and repairing them as well as installation of software which support their efficiency to aid implementation of CBC in secondary schools.

2. Instructional resources are paramount for effective implementation of CBC in secondary schools.

The instructional resources in form of digital material, syllabus and text books guide learners and teachers desired expected intended learning outcomes to implement CBC in this generation. The syllabus and textbooks are key facilitating tools required in the learning teaching process to develop competency of learners in secondary schools. Digital materials available online with support of Information Technology infrastructure provide search engine platform for self-discovery of content concepts by learners and teachers to implement the CBC.

3. Human resource capabilities are essential for effective implementation of CBC in secondary schools. The human resource capabilities indicated with qualification like graduate degree and masters, skills obtained from in-service training and experience of about 3 years of non-stop teaching is important for teachers to ably develop competency of learners for human capita development. Graduate teachers are adaptive to change in bid to implementation of the CBC in the secondary schools. The high the skills and experience of teachers, the better the quality of education service delivery to building the competency of learners at school.

5.3 Recommendations

This study intended to investigate the effect of school resources on effective implementation of competency-based curriculum in Nansana municipality, Wakiso District, Uganda. From the conclusions, the following recommendations were made basing on the study findings;

1. Secondary schools' administrators should maintain the physical infrastructures like class room with painting, electricity for light, water, space for formulation of groups; library need to have reasonable size natural ventilation, such as through open windows and doors to allow air movement; regular servicing of computers and other machines; maintenance of equipment in good conditions in the laboratory support the execution CBC in the secondary schools.
2. The Ministry of Education and Sports, head teachers and other stakeholders should provide schools with adequate number of copies for learners guides to cater from their number in class room to avoid scrambling for books. Teachers guides and syllabus should be monitored to evaluate their consistence in content design resources on CBC. Regular stock taking is required to identify those worn out, missing to trace them, stolen books for replacement to cater for learner's intended outcomes on building their competency. Digital materials should be updated regular and evaluated to eliminate the irrelevant learning content to support implementation of CBC.
3. The Ministry of Education and head teachers should provide teachers more professional development opportunities in form of in-service trainings to equip teachers with required competency to implement CBC in secondary schools. Human resources capability is attributed to a collective set of skills, knowledge, behaviour, processes and tools to perform effectively in their role of implementing the CBC. At scale, this makes up the Human resources function's capacity to fulfil its objectives as part of the Uganda Education mission and requirement for all teachers to attain a degree to support implementation of NDPIII to achieve vision 2040. In addition, NCDC should scale down workshops to community. (parents), pay teachers well (without selection), -equip school

laboratories and employ more teachers. The teachers should be given enough training and this should be a must to all teachers beginning with those in universities. Learning materials like computers should be given to all schools including those in rural private schools.

4. More so, government should intensify sensitization of the public through talk show, provide facilitation to school on top of capitation grant to cater for institutional materials, supervise schools at least twice a term, close monitoring of teacher to ensure efficient teaching of CBC, sensitize learners and parents such that they understand the importance of CBC and create competitive rewards for all teachers to develop positive mind-set about the CBC and encourage learners to use low cost improvised materials.

5.4 Limitations of the study

This study makes a substantial contribution in showing how school resources affect effective implementation of competency-based curriculum in secondary schools. However, limitations that create the need for further research emerge. For instance, with respect to physical resources, the findings revealed that it had a negative insignificant effect on the effective implementation of the CBC in secondary schools which contradicts the findings of other scholars. Therefore, the construct should be studied again in different contexts. There were high costs involved especially during data collection however this was solved by acquiring a loan from a colleague to expedite the process.

5.5 Suggestions for Further Research

This study was conducted in one district implying future studies should be carried out in more districts. Further, the study adopted a mixed research approach. Therefore, future scholars should adopt either qualitative or quantitative approach for higher in-depth analysis with teachers since

they are at the forefront of CBC implementation in schools. At a personal level, there is need for proper budgeting of all the research activities in order to avoid financial challenges during the process.

REFERENCES

- Adeel, P. (2014). Curriculum theory: Historical foundation of curriculum in education institution (pp. 19–24). Sage.
- Agarwal, J. C. (2020). Philosophical foundation of education. Shri Vinod Pustak Mandir.
- Alex, C. (2022). In and out-of-school resources explain variations in effective implementation of curriculum across social groups. *Journal of Comparative Education*, 47(1), 79–102.
- Almaiah, A., Al-Khasawneh, A., & Arthunibat, T. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-020-10219-y>
- Andrade, C. (2020). Sample size and its importance in research. *Indian Journal of Psychological Medicine*, 42(1), 102–103. https://doi.org/10.4103/IJPSYM.IJPSYM_504_19
- Baumann, F. (2017). Methodological advances in analyzing the effects of school resources and classrooms on student learning. *Journal of Education Management*, 5(7), 23–27.
- Bryman, A., & Bell, E. (2011). Business research methods (3rd ed.). Oxford University Press.
- Butova, Y. (2015). The history of development of competency-based education. *European Scientific Journal*, ESJ, 11(10), 1857–7881. <http://eujournal.org/index.php/esj/article/viewFile/5728/5535>
- Chakraborty, P., Mittal, P., Gupta, M., Yadav, S., & Arora, A. (2020). Opinion of students on online education during the COVID-19 pandemic. *Human Behavior and Emerging Technologies*, 3(3), 1–6. <https://doi.org/10.1002/hbe2.240>
- Chazan, B. (2022). What is "education"? In *Principles and pedagogies in Jewish education* (pp. 13–21). Springer. https://doi.org/10.1007/978-3-030-83925-3_3

- Cobbold, L., & Eshun, T. (2015). Applicability of selected regression and hierarchical linear models to the estimation of school resource and teacher effects on curriculum. *Education Research Association (ERA)*, 7–10.
- Coldwell, F. (2017). Hierarchical linear modelling on school resources and effective implementation of curriculum: Applications to social work research. *Journal of Social Work*, 3(6), 5–9.
- Creswell, J. W. (2019). Research design: Qualitative, quantitative, and mixed methods approach (5th ed.). SAGE Publications.
- Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research (3rd ed.). SAGE Publications.
- Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research (3rd ed.). SAGE Publications.
- Cuyacot, E. P., & Cuyacot, M. T. (2022). Competency-based education: Learner's new process for success. *International Journal of Research Studies in Education*, 11(4).
<https://doi.org/10.5861/ijrse.2022.165>
- Demeke, T., Kiermeier, E., & Loflin, L. (2016). Impact of tangible and intangible school resources on curriculum implementation: Evidence from the schools of Pakistan. *American Journal of Industrial and Business Management*, 5, 138–147.
<https://doi.org/10.4236/ajibm.2015.53014>
- Dewey, H. (1902). Curriculum theory: Advocacy of curriculum implementation in schools (pp. 18–20). [Publisher not stated].

- Dias, M. de O. (2022). Curriculum reform in Brazilian primary education: Creating global citizens. *British Journal of Education*, 10(16), 23–40.
<https://doi.org/10.37745/bje.2013/vol10n162340>
- Directorate of Industrial Training (2022). *Incorporation of competency-based curriculum in the school*. Government of Uganda.
- Evans, C. M., Landl, E., & Thompson, J. (2020). Making sense of K12 competency-based education in secondary schools: A systematic literature review of implementation and outcomes. *The Journal of Competency-Based Education*, 5(4), e01228.
<https://doi.org/10.1002/cbe2.1228>
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs: Principles and practices. *Health Services Research*, 48(6 Pt 2), 2134–2156.
<https://doi.org/10.1111/1475-6773.12117>
- Fraenkel, J. R. (1993). *How to design and evaluate research in education*. McGraw-Hill.
- Glanz, R., & Heinmann, T. (2018). Influence of school resources management and curriculum implementation. *The Business and Management Review*, 3(2), 1–32.
- Gunasekare, U. (2015). *Mixed methods research in social sciences: Integrating quantitative and qualitative approaches*. Routledge.
- Harcourt, G. (2017). Resource allocation in education institutions: Curriculum implementation. *Journal of Management*, 9(3), 17–19.
- Hernández, L. E., & Darling-Hammond, L. (2019). Deeper learning networks: Taking student-centered learning and equity to scale. *Learning Policy Institute*.
<https://learningpolicyinstitute.org/product/deeper-learning-networks-brief>

- Hilt, L., & Riese, H. (2022). Hybrid forms of education in Norway: A systems theoretical approach to understanding curriculum change. *Journal of Curriculum Studies*, 54(2), 223–242. <https://doi.org/10.1080/00220272.2021.1956596>
- Hulya, L. (2018). The effect of school resources on student achievement. *Review of Educational Research*, 6(3), 31–35. [Publisher details not provided]
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14–26. <https://doi.org/10.3102/0013189X033007014>
- Kaggwa, R. V. T., Kasujja, J. P., & Nabirye, A. N. (2025). Implementation of the competence-based curriculum activities of integration and group activities on teachers’ performance: A case of public secondary schools in Mbale District, Uganda. *Direct Research Journal of Education and Vocational Studies*, 7(1), 48–57.
- Katam, E. J. (2020). Dynamics in the implementation of competency-based curriculum in lower primary schools and implications on learning in Kenya. *Journal of Popular Education in Africa*, 4(11), 52–62.
- Kenya Institute of Curriculum Development. (2021). *Curriculum for high school in Kenya* (pp. 10–12). Kenya Institute of Curriculum Development.
- Kibaya, E. (2023). Assessing the impact of competency-based curriculum on O’ Level history education in Uganda: A comprehensive literature review. [*Journal name not specified*], 11(7), 156–162. [Please confirm journal title]
- Kimera, L. (2020). Equality of educational opportunity and curriculum. *Journal of the Office of Education*, 7(4), 5–12. [Affiliated with Department of Education & Welfare]

- Klieme, E. (2016). Toward a more appropriate conceptualization of research on school resources and effects on curriculum. *American Journal of Education*, 97(1), 65–78.
- Kuroda, T. (2022). Extraction and recognition of competency components of the STEM human resources community: Focusing on the cultural impacts of Japanese university students. *Journal of Pedagogical Research*, 6(2), 186–206.
<https://doi.org/10.33902/jpr.202213542>
- Malango, L. (2018). A multifactorial approach to curriculum implementation and school performance. *Journal of Occupational Psychology*, 6(2), 301–312.
- Margolis, E., & Doring, A. (2017). Impact of school grants on curriculum implementation with reference to high schools in Faisalabad, Pakistan. *Journal of Management*, 2(8), 48–52.
- Mathembele, W., Kemeza, I., & Twebaze, R. (2025). Effectiveness of school inspection in secondary schools in Uganda: A case study of Kasese District. *East African Journal of Education Studies*.
- Mdegela, P. (2021). School resources, work motivation and curriculum implementation. *Journal of Organization Behavior*, 6(9), 35–43.
- Ministry of Education and Sports [MoES]. (2022). *Curriculum development and implementation in secondary schools in Uganda*. MoES.
- Moon, E., & Huang, R. (2015). School resources and implementation of curriculum in selected private schools in Tanzania. *Journal of Education Management*, 9–12. [Missing volume/issue details]
- Munyui, J., Morris, R., & Chorong, W. (2023). Implementing competency-based curriculum (CBC) in Kenya: Lessons from South Korea and USA. *Journal of Education and Learning*, 12(3). [Add page numbers if available]

- Mwita, E., & Onyango, D. Y. J. M. (2022). Availability and use of instructional resources on the implementation of the competency-based curriculum by Grades 1, 2 and 3 in public primary schools in Migori County, Kenya. *Journal of Advances in Education and Philosophy*, 6(9), 484–491. <https://doi.org/10.36348/jaep.2022.v06i09.006>
- Nakawuki, R. C., Kyasanku, C., & Tebenkana, T. (2023). Teachers' proficiency in designing competence-based curriculum formative assessment tools in selected public secondary schools in Mpigi District, Uganda. *East African Journal of Education Studies*, 8(4).
- Namatende-Sakwa, L., Kiambati, F., Luyima, J., Busingye, K., Isingoma, J., Kakooza, A., & Anguyo, M. (2025). From a knowledge-based to a competence-based curriculum: Insights into opportunities and threats to implementation in Uganda. *Journal of Curriculum Development, Evaluation, and Education*, 1(2), 1–15.
- National Center for Education Statistics. (2017). *Statistics on implementation of curriculum in secondary schools in Uganda*. U.S. Department of Education.
- Ncube, E. (2014). School resources and implementation of modern curriculum. *Journal on Management*, 5(8), 7–12.
- Ndlovu, L. (2018). Importance of resource management system: An international perspective. *Journal of International Business Studies*, 2(7), 75–93.
- Nevenglosky, E. A., Cale, C., & Panesar Aguilar, S. (2018). Barriers to effective curriculum implementation. *Research in Higher Education Journal*, 36(1), 112–134. <http://www.aabri.com/copyright.html>
- Nevenglosky, Y. (2017). Curriculum implementation and resource management in school. *Journal of Psychology*, 9(6), 25–27.

- Nyaboke, R., Kereri, D., & Nyabwari, L. (2021). Competence-based curriculum (CBC) in Kenya and the challenge of vision 2030. *International Journal of Education, Technology and Science*, 1(4), 155-169.
- Organisation for Economic Co-operation and Development (OECD). (2020). Curriculum implementation: Monitoring and evaluation in developing countries (pp. 7–12). OECD Publishing.
- Penrabel, R. P. M., de Oliveira Bastos, P. R. H., & Biberg-Salum, T. G. (2022). The perspectives and challenges of the competency-based curriculum in medical education: A literature review. *Creative Education*, 13(10), 3191–3203.
<https://doi.org/10.4236/ce.2022.1310203>
- Schultz, T. W. (1961). Human capital development theory in organization. *Sage Publications* (pp. 14–17). [Note: Title likely inferred; verify full citation]
- Subedi, E. (2017). School resources management on efficiency. *International Journal of Management*, 5(8), 11–14.
- Sulasmi, E. (2020). The development strategy of human resources management in children's social welfare institution (LKSA): Case study in LKSA Al-Mubaraak Orphanage Bengkulu. *Budapest International Research and Critics Institute (BIRCI) Journal*, 3(2), 562–569.
- Sundby, A. H., & Karseth, B. (2022). ‘The knowledge question’ in the Norwegian curriculum. *Curriculum Journal*, 33(3), 427–442. <https://doi.org/10.1002/curj.139>
- Tashakkori, A., & Teddlie, C. (2010). SAGE handbook of mixed methods in social & behavioral research (2nd ed.). SAGE Publications.
- Uganda Bureau of Statistics. (2021). *Statistical abstract Uganda*. <https://www.ubos.org>

- Uganda Education Standards Agency. (2022). *Education and curriculum implementation in Uganda*. Uganda Ministry of Education and Sports.
- Uganda Initiative Center for Policy Analysts. (2022). Curriculum development and implementation *in Uganda* (pp. 2–4).
- Uganda National Planning Authority. (2020). Third National Development Plan (*NDPIII*) 2020/21 – 2024/25. <https://www.npa.go.ug>
- UNESCO. (2018). The education management and curriculum implementation in the school (pp. 18–23). United Nations Educational, Scientific and Cultural Organization.
- World Bank. (2017). Curriculum development and global demands (pp. 15–17). World Bank Publications.

APPENDICES

APPENDIX I: QUESTIONNAIRE FOR TEACHERS AT SCHOOL

Dear respondent,

I am Mercy Najjuma a student of Kyambogo University conducting research as a requirement for the award of a Master's degree of Education in Policy, Planning and Management. I am doing a study about. "School resources and effective implementation of Competency based Curriculum in Nansana municipality Wakiso district, Uganda". You have been selected as one of my key respondents in this study because I strongly believe you have the necessary information required for the study. You are kindly required to spare some time and fill this questionnaire. This information obtained will be treated with most confidentiality and anonymity.

Thank for your time and cooperation.

SECTION A: BACKGROUND INFORMATION OF THE RESPONDENTS

Please tick your view in the appropriate box provided

1. What is your age bracket?

- a) 20-30 ☐
- b) 31-40 ☐
- c) 41-50 ☐
- d) 50 – 70 years ☐

2. Gender:

- a) Male ☐
- b) Female ☐

3. What is your highest level of education?

- a) Diploma ☐
- b) Bachelor's Degree ☐
- c) Master's Degree ☐

4. Have you attended any workshop on implementation of Competency based Curriculum?

- a) Yes ☐
- b) No ☐

5. How many times have you attended the trainings for teaching Competency based Curriculum?

- a) Once ☐
- b) Twice ☐
- c) Thrice ☐
- d) Above 3 time ☐

Section B.1: Implementation of Competency Based Curriculum

Please indicate by a tick your opinion on each statement using the below given scale. 1-Strongly Disagree, 2 -Disagree, 3 — Not Sure, 4- Agree, 5- Strongly Agree

CODE	Statement	SCALE				
		1	2	3	4	5
	Quality of Group learning (QGL)					
QGL1	Students learn in group in my lesson					
QGL2	There is student interaction in the group					
QGL3	There is knowledge sharing within the groups					
QGL4	The students make group task assignment.					
QGL5	Peer to peer learning is achieved with in groups.					
	Quality of Research and self-learning (QRS)					
QRS1	Students manage to research on tasks assigned to them.					
QRS2	There is clear understanding of environment through self-learning.					
QRS3	Knowledge is accurately acquired through research by students.					
QRS4	There is effective self-discovery of students potential on assigned research tasks					
QRS5	Research allows continuity of learning from the environment.					
	Quality of Activity of integration (QAI)					
QAI1	The students ably make their projects					
QAI2	Students have developed generic skills on integration of learnt activity					
QAI3	Students ably connect the learning tasks in the activity of integration					
QAI4	The students innovate ideas in activity of integration					
QAI5	Students manage to retrieve and extend on the learnt activities within the project tasks					
	Quality of Assessment (QAS)					

QAS1	Regular assessment is conducted per task taught to learners					
QAS2	In class assessment per group is carried out to develop trust and resilience in learners					
QAS3	Brain storming is emphasized in the classroom					
QAS4	There is experimental assessment through project tasks					
QAS5	there is presentation of tasks to assess the learners					

Section B.2: School Resources

CODE	Statements	1	2	3	4	5
	Physical Resources (PR)					
	Class rooms (C)					
PRC1	The class room allows learners to make groups to discuss designed content					
PRC2	The class room has furniture to accommodate learners to support teaching and learning of competency-based curriculum					
PRC3	The class rooms space is wide enough to facilitate teaching and learning of Competency based Curriculum at school.					
PRC4	I ably keep my learning aid for competency-based curriculum in the class room					
PRC5	The learners practice and store their project output in the class room					
	Libraries(L)					
PRL1	The library has syllabus for the Competency based Curriculum to facilitate teaching and learning at school.					
PRL2	The library has learners' book for the Competency based Curriculum to facilitate teaching and learning at school.					
PRL3	The library has teachers guide for the Competency based Curriculum to facilitate teaching and learning at school.					
PRL4	The library has a Curriculum framework for the Competency based Curriculum to facilitate teaching and learning at school.					
PRL5	The library has a prototype teachers and learners guides to support teaching of CBC at school.					
	Sports ground(S)					
PRS1	The school has football play-ground for implementation of Competency based Curriculum					
PRS2	The school has netball play-ground for implementation of Competency based Curriculum					
PRS3	The school has volleyball play-ground for implementation of Competency based Curriculum					

PRS4	The school has sports grounds accommodate the activity of integration for learners at school					
PRS5	The school has sports gadgets to support implementation of Competency based Curriculum					
	Utilities- water & electricity (U)					
PRU1	I am satisfied with the water supply in my school for daily activities					
PRU2	Electricity supply in my school is reliable for teaching and learning					
PRU3	There are efforts in maintaining water and electricity infrastructure for the curriculum					
PRU4	Electricity enhances collaborative teaching and learning activities					
PRU5	The school utilities are adequate to facilitate practical learning					
	Instruction material Resources (IM)					
	Digital material(D)					
IMD1	The school computer laboratory accommodates the learners.					
IMD2	The school has projector to facilitate learning to implement CBC					
IMD3	The digital content support self-discovery for learners at school					
IMD4	The computer laboratory is safe with health friendly environment for learners at school					
IMD5	The computers are regularly serviced to function efficiently for learners at school					
	Text books(T)					
IMT1	The learner's book and teacher's guide are well structured to support teaching and learning at school.					
1MT2	The school has adequate number of learners' textbooks to support teaching and learning.					
IMT3	The school has variety of learners' books copies for all subjects to support teaching and learning.					
IMT4	The developed content in learners' books is understandable for us.					
IMT5	The learners' books cover the required learning areas for given class.					
	Syllabus(S)					
IMS1	The school has syllabuses for every subject to support teaching and learning.					
IMS2	I follow the learning content indicated in syllabus					
IMS3	I manage to support learners cover 95% of learning outcomes in the syllabus for every class to enhance teaching and learning.					
IMS4	The syllabus addresses my learning needs to support teaching and					

	learning.					
IMS5	The syllabus has broad scope for self-search to support teaching and learning.					
	Human Resource (HR)					
	Qualification (Q)					
HRQ1	I have the required qualification to implement the CBC					
HRQ2	I am competent in developing activity of integration for CBC					
HRQ3	I ably manage to teach the subject allocated to me in CBC					
HRQ4	I ably make decision to manage implementation of CBC					
HRQ5	I organize the activities to be performed with students to implement CBC					
	Skills (S)					
HRS1	The skills acquired from training enabled me to implement CBC					
HRS2	I support student to embrace self-discovery on learning content at school					
HRS3	I perform my duties such as group guided discussion properly in the class room					
HRS4	I perform my duties such as group guided discussion properly in the class room					
HRS5	I encourage students to effectively respond to requirements of environment as indicated in CBC					
	Experience (E)					
HRE1	I initiate means to manage activities in the implementation of Competency based Curriculum					
HRE2	I provide clear accurate information to learners on Competency based Curriculum.					
HRE3	I effectively interact with learners on Competency based Curriculum					
HRE4	I give operation feedback to the learners on project tasks.					
HRE5	I value my views about trend in implementation of Competency based Curriculum					

APPENDIX II: INTERVIEW GUIDE FOR HEAD TEACHER IN SECONDARY SCHOOLS

Dear informants, this interview guide intends to collect data on the relationship between school resources and effective implementation of competency-based curriculum in Nansana municipality Wakiso district, Uganda. You are kindly requested to assist by participating in the interview and information you provide will be of great value to this study. This interview is being administered strictly for the study purpose and all information provided herein will be treated with utmost confidentiality. Your participation is valuable and highly appreciated.

Questions

1. Kindly explain how you support the effective implementation of Competency based Curriculum (CBC) at this school?
2. Kindly explain how you allocate instructional material to effect implementation of Competency based Curriculum in the school? [Probe on: Digital, Syllabus and Textbooks]
3. In your opinion, kindly explain how physical resources contribute to the effective implementation of Competency based Curriculum in secondary school?
4. Kindly explain how you manage human resource to effect implementation of Competency based Curriculum in the school?
5. What are the challenges do you face in the implementation of Competency based Curriculum in the school?
6. Kindly suggest the possible ways of improving implementation of Competency based Curriculum in the secondary schools in Uganda?

APPENDIX III: INTERVIEW GUIDE FOR DIRECTOR OF STUDIES IN SECONDARY SCHOOLS

Dear informants, this interview guide intends to collect data on the relationship between school resources and effective implementation of competency-based curriculum in Nansana municipality. You are kindly requested to assist by participating in the interview and information you provide will be of great value to this study. This interview is being administered strictly for the study purpose and all information provided herein will be treated with utmost confidentiality. Your participation is valuable and highly appreciated.

Questions

1. Kindly explain how you support the effective implementation of Competency based Curriculum (CBC) at this school?
2. Kindly explain how you allocate instructional material to effect the implementation of Competency based Curriculum in the school? [Probe on: Digital, Syllabus and Textbooks]
3. In your opinion, kindly explain how physical resources contribute to the effective implementation of Competency based Curriculum in secondary school?
4. Kindly explain how you manage human resource to effect the implementation of Competency based Curriculum in the school?
5. What challenges do you face in the implementation of Competency based Curriculum in the school?
6. Kindly suggest the possible ways of improving implementation of Competency based Curriculum in the secondary schools in Uganda?

Thank you.

APPENDIX IV: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN

POPULATION

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	198	3000	341
80	66	420	201	2500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note: *N* = population size *S* = sample size

Source: Krejcie and Morgan (1970).

APPENDIX V: ACCEPTANCE LETTER



BUWAMBO SEED SECONDARY SCHOOL

P.O.BOX 140 BOMBO

Wakiso District

Tel: 0700 657 529 / 0773 152 987

Date: 14th-03-2024

To:

Ms. Najjuma Mercy

Student, Kyambogo University

RE: ACCEPTANCE TO CONDUCT RESEARCH AT BUWAMBO SEED SECONDARY SCHOOL

This is to acknowledge receipt of your request to conduct research at Buwambo Seed Secondary School, Nansana Municipality, Wakiso District, on the topic entitled "School Resources and Effective Implementation of the Competence-Based Curriculum in Nansana Municipality."

The school administration is pleased to grant you permission to carry out your research within our school. You are authorized to administer questionnaires to teachers and to conduct interviews with the Head Teacher and the Director of Studies (DOS) as part of your data collection process.

Please ensure that your research activities are conducted responsibly and in a manner that does not interfere with the normal teaching and learning program of the school.

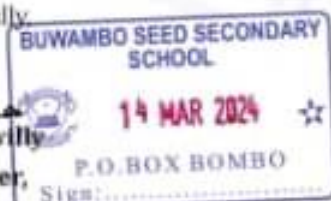
We wish you success in your study.

Yours faithfully,


Kiwanuka willy

Head Teacher,

Buwambo Seed Secondary School



APPENDIX VI: PLAGIARISM TEST RESULTS

SCHOOL RESOURCES AND EFFECTIVE IMPLEMENTATION OF COMPETENCY BASED CURRICULUM IN NANSANA MUNICIPALITY, WAKISO DISTRICT, UGANDA.

by Mercy Mijuma

Submission date: 25-Apr-2025 07:21PM (UTC+0100)

Submission ID: 2651074064

File name: MERCY_NAJJUMA_to_be_tested_23rd-4-2025_1.doc_turnitin.doc (2.52M)

Word count: 15122

Character count: 90664

WORK ENVIRONMENT AND TEACHER COMMITMENT IN
SECONDARY SCHOOLS IN NAKAWA DIVISION, KAMPALA
CAPITAL CITY AUTHORITY, UGANDA

ORIGINALITY REPORT

19%	18%	7%	12%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	umlspace.uml.ac.ug Internet Source	2%
2	repository.lcu.edu.ng Internet Source	1%
3	www.voiceofresearch.org Internet Source	1%
4	journals.ui.edu.ng Internet Source	1%
5	www.academia.edu Internet Source	1%
6	kuey.net Internet Source	<1%
7	ijrehc.com Internet Source	<1%
8	dergipark.org.tr Internet Source	<1%
9	www.assumptionjournal.au.edu Internet Source	<1%
10	Submitted to INTI Universal Holdings SDM BHD Student Paper	<1%
11	backend.kab.ac.ug Internet Source	<1%
12	www.coursehero.com Internet Source	<1%