ICT USAGE AND IMPLEMENTATION OF COMPETENCE-BASED CURRICULUM IN SELECTED SECONDARY SCHOOLS IN KABALE MUNICIPALITY

BY

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Declaration

I, **Samuel Mugabe,** do declare to the best of my knowledge that this dissertation is my original work and has never been presented for any award in any other university/institution.

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Approval

This research report titled "**ICT Usage and Implementation of Competence-Based Curriculum in Selected Secondary Schools in Kabale Municipality**" has been done under my supervision and is ready for submission to the Faculty of Education of Kabale University with my approval.

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Dedication

This research work is dedicated to my Dad whose prayers made this submission a reality. God reward you immensely!

Acknowledgements

I thank Almighty God who has enabled me to accomplish my dissertation.

My sincere thanks go to my research supervisors, **Dr. Conrad Mike Mubaraka** and **Assoc. Prof. Businge Phelix Mbabazi,** who provided me with the necessary guidance, technical support and professional advice without reservation. ***Thank you so much.***

I do appreciate the efforts of my family members: Mum (RIP), Dad Hategeka Joseph, my dear brothers; Fred, Ronald and Yonah. My dear sisters (Robinah and Annet), with whom we worked all through and all those who were with me at heart, thank you so much. In a special way I thank my friend, Tayebwa Onesmus, for we worked together in every way. God reward you abundantly.

Lots of thanks are dedicated to the students and staff of schools in Kabale Municipality who sacrificed much of their time to attend to me. In the same context, I extend my sincere appreciation to the community of Kabale Brainstorm High School for giving me a conducive environment during the compilation of this report and in resource mobilization. God bless you. Without you there would be no work to research on.

I am also grateful to my classmates who supported me in one way or the other during my studies.

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Contents

LIST OF ABBREVIATIONS

ICT- Information Communication and Technology

CBC- Competence Based Curriculum

UNESCO- United Nations Educational, Scientific and Cultural Organization

SNE- Special Needs Education

TAM-Theory of Acceptance Model

MoES -Ministry of Education and Sports

NCDC -National Curriculum Development Center

EAC- East African Community EAC

UNEB- Uganda National Examinations Board

DOS- Director of Studies

UCE- Uganda Certificate of Education

SPSS -Statistical Package for the Social Sciences

GDP – Gross Domestic product

UN – United Nations

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ABSTRACT

This study was carried out on ICT Usage and Implementation of Competence-Based Curriculum in Selected Secondary Schools in Kabale Municipality. The study adopted a cross-sectional, correlational survey design where data was collected from selected secondary schools and analyzed at once. The population of the study included teachers and directors of studies. The study included a sample of 108 respondents who included 104 respondent teachers and 4 directors of studies (Key Informants). Different data collection instruments and methods were used to collect data respondents in that questionnaires were used to select teachers and interview guide was used to key informants (Director of studies) All the data collected from the respondents were analyzed using Statistical Package for the Social Sciences (SPSS) version 14. The analysis included descriptive analysis using mean and percentages, tables, pie charts, and graphs. Qualitative data was analyzed using thematic analysis where data was arranged into codes and themes. Findings indicate that the Level of ICT use that the level is relatively high. On Teachers' perception towards ICT integration in the competence-based curriculum, it was strongly agreed that teachers had shown a positive attitude toward ICT integration in the competence based curriculum. On the relationship between teachers' perception toward ICT integration and ICT infrastructure there was a positive regression. The study recommended that schools need to have adequate and up-to-date ICT infrastructure, including hardware, software, and connectivity; Teachers need to be trained in how to effectively integrate ICT into their teaching practices; Encourage collaboration and sharing of best practices; ICT should be integrated into all subject areas, not just in computer studies or ICT classes; Schools should regularly evaluate the impact of ICT integration on student learning outcomes and Schools need to provide ongoing support to teachers and students to ensure that they are able to use technology effectively. This can include technical support, troubleshooting, and mentoring.

CHAPTER ONE
INTRODUCTION

1.0 Introduction

The incorporation of computer-based communication in the daily classroom instructional process is what is meant by the integration of Information, Communication, and Technology (ICT) in education. In a competence-based curriculum, the emphasis is on what learners are expected to do rather than solely on what they are expected to know. This type of curriculum is centred on the learner and can adapt to the evolving needs of students, teachers, and society.

1.1 Background of the Study

1.1.1 Historical Background

Kelly (2004) suggests that the origins of the Competence-Based Curriculum (CBC) can be traced back to the early 20th century when vocational education gained prominence. As the economy was rapidly industrializing, there was a growing demand for skilled workers with practical knowledge and abilities. Vocational education programmes were developed to address this need by providing training in job-specific skills such as plumbing and welding, with the aim of preparing students for the workforce.The concept of competence-based education gained popularity in the United States in the 1960s and 1970s, as concerns grew about the quality of education and the need to prepare students for the rapidly changing demands of the workplace. Competence-based education emphasized the mastery of specific competences, or measurable skills and knowledge, as the basis for evaluating student achievement (Spencer & Spencer, 1993).

In the 1980s and 1990s, the competence-based approach was further developed in Europe, where it became known as the competence-based approach. This approach emphasized not only the mastery of specific skills and knowledge but also the development of broader competences, such as problem-solving, communication, and teamwork, which are essential for success in the 21st century (Mulder, Gulikers, Biemans, &Wesselink, 2009).

According to UNESCO (2012), the competence-based approach has gained global acceptance and is currently utilized in education systems across the world, even in developing countries. It is viewed as an effective way to equip students with the necessary skills to face the demands of the global economy and facilitate social and economic growth. The Competence-Based Curriculum (CBC) is a widely accepted educational approach that prioritizes the development of skills, knowledge, and attitudes necessary for individuals to competently perform their roles as future citizens, workers, and lifelong learners. UNESCO has endorsed the competence-based

curriculum (CBC) as a means to equip learners with the necessary skills and knowledge to excel in the global economy of the 21st century. According to UNESCO, competence-based education strives to reduce the disparity between education and the workforce by furnishing learners with the competences and expertise demanded by employers (UNESCO, 2012).The European Union has also been a strong advocate of the competence-based approach. The European Commission has developed a framework for defining and measuring competences called the European Qualifications Framework (EQF). The EQF provides a common language for describing qualifications and competences across different countries and education systems (European Commission, 2008).

Many countries have adopted the CBC or similar approaches to curriculum design. For example, in Kenya, the CBC was introduced in 2017 as part of a broader education reform programme aimed at improving the quality and relevance of education (Republic of Kenya, 2017). In Australia, the Australian Curriculum was developed using a competence-based approach, with a focus on developing general capabilities, such as critical thinking, creativity, and ethical understanding (Australian Curriculum, Assessment and Reporting Authority, 2022).

Research indicates that incorporating information and communication technology (ICT) in education can enhance learning outcomes and foster critical thinking and problem-solving abilities in learners. Nevertheless, the integration of ICT in African education encounters obstacles such as inadequate ICT infrastructure, insufficient teacher training, and a dearth of suitable content and digital literacy skills among teachers and learners (UNESCO, 2019; Ouma et al., 2018). Apart from the difficulties, there are prospects for incorporating ICT in African education, which include expanding educational access, augmenting the quality and applicability of education, and stimulating ingenuity and inventiveness in learners (Gakio & Njoroge, 2019).

An assessment of the ICT Usage and Implementation of Competence-Based Curriculum in Selected Secondary Schools in Kabale Municipality, Uganda, can help identify best practices, opportunities, and challenges of integrating ICT in education in Africa. The evaluation can examine various viewpoints regarding the advantages and obstacles of incorporating ICT in the CBC from diverse stakeholders such as teachers, pupils, parents, and school officials. Moreover, it can pinpoint the factors that may enable or obstruct the successful integration of ICT in the CBC and furnish suggestions for resolving these factors.

Some of the challenges of integrating ICT in education in Uganda include limited access to technology and the internet, inadequate teacher training, and limited digital literacy skills among learners and teachers (Wasswa, 2018; Kakaire et al., 2019). Despite these challenges, there are opportunities for the effective integration of ICT in the CBC in Ugandan secondary schools. These opportunities include the potential to enhance the quality and relevance of education, increase learner engagement, and promote innovation and creativity among learners (Mugagga et al., 2018).

An evaluation conducted after the implementation of ICT usage in the Competence-Based Curriculum (CBC) across several secondary schools in Kabale Municipality, Uganda, can offer valuable insights into the advantages and hurdles of incorporating technology in education from a Ugandan standpoint. The evaluation can examine the viewpoints of various parties involved, such as educators, learners, guardians, and educational leaders, regarding the advantages and difficulties of incorporating ICT in the CBC across secondary schools in Uganda. Additionally, it can pinpoint the elements that can assist or impede the efficient integration of ICT in the CBC, and suggest measures for tackling these factors.

1.1.2 Theoretical Perspectives

The Theory of Acceptance Model (TAM)

TAM, or Technology Acceptance Model, seeks to elucidate the various factors that impact the utilization of technologies. This theory was initially proposed by Bagozzi, Davis, and Warshaw in 1992 and has since been expanded upon by researchers such as Shin et al in 2018. The Technology Acceptance Model (TAM) takes into account two key beliefs that influence the adoption of technologies: perceived ease of use, which refers to an individual's belief that using a particular technology will reduce the effort required to complete a task, and perceived usefulness, which is an individual's belief that using a technology will improve their professional performance when it comes to teaching and learning.

The Technology Acceptance Model (TAM) is a theory in the field of information systems that outlines the process by which users come to adopt and utilize technology. At the endpoint of this process, individuals engage in actual system use. One of the key factors that lead to technology use is behavioural intention, which is influenced by an individual's overall attitude towards the technology. According to the model, when users are presented with a new technology, their decision on whether and how to use it is influenced by several factors. Two of the most notable factors are perceived usefulness and perceived ease-of-use. Perceived usefulness is defined by Fred Davis as the extent to which an individual believes that using a particular system will enhance their job performance or, in other words, whether they see the

technology as useful for their intended purposes. Perceived ease-of-use, on the other hand, refers to the extent to which an individual believes that using a particular system will be effortless, as defined by Davis in 1989. If the technology is easy to use and has a user-friendly interface, the perceived barriers to use are lower and users are more likely to have a positive attitude towards it. Conversely, if the technology is difficult to use and has a complicated interface, users are less likely to view it positively.

The Technology Acceptance Model (TAM) acknowledges that external factors, such as social influence, play a crucial role in shaping an individual's attitude towards a given technology. When the various components of TAM are in place, individuals are more likely to develop a positive attitude and intention to use the technology. However, it is important to note that perceptions may differ based on factors such as age and gender, as everyone has unique preferences and experiences. Several studies, including those conducted by Cheung and Vogel (2013), Chang, Hajiyer and Su (2017), Liu et al. (2010), and Ros et al. (2015), have shown that these varying perceptions of attitude and intention to use digital technologies are key determinants of technology adoption.

1.1.3 Contextual Perspective

In today's digital era, the incorporation of Information and Communication Technology (ICT) into education has gained paramount significance. The Competence-Based Curriculum (CBC) is an educational methodology that prioritizes the development of skills, knowledge, and attitudes necessary for individuals to competently fulfil their roles as lifelong learners, citizens, and workers. Incorporating ICT into the CBC can enrich students' educational journeys and equip them with the necessary knowledge and competences to thrive in the 21st century.The latest teaching methodology endeavours to equip students with 21st-century competences such as critical thinking, creativity, collaboration/teamwork, communication, information literacy, ICT, and adaptability. This development is undoubtedly beneficial for the nation; nevertheless, the worrisome query is whether it can be executed effectively, given the insufficiency of facilities in the majority of Ugandan schools. To foster creativity in students, especially in ICT and natural sciences, adequate equipment such as well-equipped laboratories, reliable internet, and knowledgeable instructors are imperative. Unfortunately, these essential resources are lacking in many rural Ugandan schools, which serve as knowledge centres for most young individuals.In the context of Kabale Municipality, which is located in southwestern Uganda, the integration of ICT in the CBC can be seen as a way to improve the quality and relevance of education for secondary school students. Several studies have emphasized the potential benefits of integrating ICT in education in Uganda, including increased access to learning resources,

improved teacher-student interactions, and enhanced student engagement and motivation (e.g., Lwoga&Sangeda, 2016; Ssentamu, 2016).

Notwithstanding the potential advantages of incorporating ICT in education, obstacles and restrictions are also prevalent. These obstacles encompass insufficient ICT infrastructure and resources, inadequate teacher training and support, and inadequate levels of digital literacy among both students and educators (e.g., Mbarika et al., 2014; Kimani&Muganda, 2018). These hurdles have the potential to impede the effective assimilation of ICT in the CBC, curtailing its potential to enhance student learning outcomes. An assessment of the of ICT usage in the CBC in selected secondary schools in Kabale Municipality can provide insights into the challenges and opportunities of using technology to enhance teaching and learning. This assessment could focus on factors such as teacher training, availability of ICT infrastructure and resources, student engagement and motivation, and the impact of ICT integration on learning outcomes.

To identify the best practices and strategies for effectively using ICT in the CBC, as well as areas for improvement and further development, the assessment could consider the viewpoints of various stakeholders, including teachers, students, parents, and school administrators, regarding the benefits and challenges of incorporating ICT. Such an approach would provide valuable insights into the most effective ways to integrate ICT in the CBC. Overall, ICT usage in the CBC in selected secondary schools in Kabale Municipality has the potential to enhance students' learning experiences and prepare them for the demands of the 21st century global economy. However, it is important to carefully assess the implementation of ICT use in the CBC and address any challenges or limitations that may arise.

1.1.4 Conceptual perspective

The Competence-Based Curriculum (CBC) is an innovative education system that focuses on developing skills and knowledge that are relevant to the current job market. Unlike traditional education systems that emphasize content knowledge, the CBC aims to equip students with skills that are essential for their future careers.

In the Ugandan context, the competence-based curriculum has several key objectives including: promoting effective learning and skills acquisition; catering to the diverse needs of all students; establishing a foundation for improved pedagogy and assessment methods that enable learners to fully realize their potential and demonstrate their accomplishments; meeting the social and economic needs of the country by providing education for students who will enter the workforce, become self-employed, or pursue further academic studies, allowing flexibility to incorporate emerging fields of knowledge in a rapidly-evolving world; and reducing content

overload by specifying a realistic set of expected learning outcomes with a focus on essential generic skills at the core of the curriculum. In this study, competence-based curriculum was characterized by project work completion, competence and skill acquisition and meeting societal needs. It was further characterized by learners' creativity and imaginative abilities, communication, students' confidence to participate in class, effective learning, broad knowledge paradigm, students' abilities especially in reading and writing, behaviour control, students' expression and thoughts and active engagement in the lesson for better learning experiences.

Incorporating ICT into the competence-based curriculum of certain secondary schools in Kabale Municipality has the potential to improve teaching and learning experiences. The implementation of ICT would be anticipated to facilitate the acquisition of pertinent competences and skills that align with the demands of the contemporary workplace. The curriculum design aspect would concentrate on integrating ICT into the competence-based curriculum and examine how it would aid in achieving the intended learning outcomes. UNESCO (2011) suggests that incorporating ICT into the competence-based curriculum should be guided by explicit goals and must align with the desired learning outcomes.

In this study, ICT usage was characterized by the level of use and the teachers' perception of ICT use in the CBC. ICT use in this case was defined by the availability of computers, scheduled time for computer practical, availability of support staff, availability of training facilities and professional development in ICT, freedom given to teachers to design their teaching with the help of ICT and access to ICT by teachers.

Teachers' perception on the use of ICT was themed under perceived usefulness and perceived ease of use.

Perceived usefulness refers to the extent to which an individual believes that utilizing a specific system would improve their job performance. In other words, it pertains to whether or not an individual perceives the technology as beneficial for their intended purposes.This study defined perceived usefulness as the advantageous possibilities presented by ICT in the competence-based curriculum, the enhancement of teaching through the use of up-to-date materials in the competence-based curriculum, the improvement of teaching quality, the promotion of active and engaging learning among students, and the increased effectiveness of learning in the competence-based curriculum.

Perceived ease of use refers to the extent to which an individual perceives a system to be effortless to operate. When a technology is user-friendly and easy to navigate, it reduces barriers to its adoption. Conversely, if the interface is complicated and difficult to use, it can

negatively impact users' attitudes toward the technology. This context defines Perceived ease of use as the level of ease and comfort a person feels when using ICT in teaching, including confidence in acquiring new computer skills, the ease of teaching with the help of ICT, the belief that learners learn better with ICT, the ability to maintain classroom control while using ICT, students' attention while using ICT in teaching, and the effort required by learners while using ICT in teaching. The integration of ICT should not be an end in itself, but a means to support teaching and learning.

The ICT infrastructure component will focus on the availability and adequacy of ICT resources such as computers, internet connectivity, and other hardware and software. It will examine the extent to which the ICT infrastructure supports the implementation of the competence-based curriculum. Kim and Hannafin (2011) argue that the availability and adequacy of ICT infrastructure are crucial for successful implementation of technology-enhanced learning environments. Without adequate infrastructure, the use of ICT in teaching and learning would be limited.

The teacher competence component focused on the readiness and ability of teachers to use ICT in teaching and learning. It assessed the extent to which teachers have been trained and supported to integrate ICT in their teaching practices. Kozma (2010) notes that teacher competence is a key factor in successful ICT integration in the competence-based curriculum. Teachers need to be trained on how to effectively integrate ICT in teaching and learning, and they need ongoing support to improve their skills.

Student Learning Outcomes: The student learning outcomes component focused on the impact of ICT integration on student performance and competence acquisition. It examineed the extent to which students are able to acquire competences and skills that are relevant to the modern workplace.Kim and Hannafin (2011) suggest that the integration of ICT in teaching and learning should support the cultivation of advanced cognitive abilities like problem-solving, critical thinking, and creativity. The effectiveness of ICT incorporation in enhancing student learning outcomes should be evaluated by measuring the attainment of these higher-order thinking skills.According to UNESCO (2011), the ultimate goal of ICT integration in education is to promote the acquisition of competences and skills that are relevant to the modern workplace. The assessment of student learning outcomes should therefore focus on the extent to which the integration of ICT in the competence-based curriculum has contributed to the acquisition of these competences and skills.

ICT use by teachers refers to the integration of digital tools, such as computers, software, and internet connectivity, into their teaching practices to enhance student learning outcomes.

According to UNESCO, "ICTs have the potential to revolutionize teaching and learning processes, making them more efficient, effective, and equitable" (UNESCO, 2011).

ICTs refers to the physical and virtual components necessary for the effective use of Information and Communication Technology (ICT) in education. In the context of teachers, ICTs refers to the hardware, software, and digital resources that support their teaching practices. According to UNESCO, ICT infrastructure in education includes "access to computers, internet connectivity, digital devices, multimedia resources, and educational software" (UNESCO, 2017).

The use of ICT infrastructure by teachers has been shown to have a significant impact on student learning outcomes. Research suggests that "the integration of ICT into education has the potential to enhance student learning by increasing engagement and motivation, providing access to a wide range of resources, and enabling personalized and adaptive learning" (Cavanaugh et al., 2019).

However, for teachers to effectively use ICT, they require adequate training and support. As stated by UNESCO (2017), "ICT infrastructure alone is not sufficient to enhance education outcomes. Teachers require professional development and training to develop the knowledge and skills necessary to use ICT effectively in the classroom."

Moreover, the use of ICTs in education requires a shift in pedagogical practices towards more learner-centered and interactive approaches. As stated by Prensky (2001), "ICT infrastructure requires new thinking about teaching and learning, moving away from traditional teacher-centered approaches towards more student-centered, inquiry-based, and collaborative learning."

In conclusion, the effective use of ICTs by teachers is critical for enhancing student learning outcomes. It requires not only access to hardware and software but also training, support, and a shift in pedagogical practices towards more learner-centred and interactive approaches.

1.2Statement of the Problem

Generally, the level of ICT integration in education in Uganda is low, as indicated by a 2019 survey by the Uganda Communications Commission which found that only 20% of schools in Uganda have access to computers, and only 15% have internet connectivity.

The use of Information and Communication Technology (ICT) in Competence-Based Curriculum (CBC) implementation in Kabale Municipality faces several challenges. One major problem is the lack of sufficient ICT infrastructure and resources, such as computers, internet connectivity, and software tools, which hinders effective teaching and learning. Another challenge is the limited capacity of teachers to integrate ICT into their pedagogical practices, as many lack the necessary training and skills to effectively use digital tools in the classroom. Additionally, there is a lack of awareness and understanding among parents and guardians about the benefits of ICT in the CBC, which can result in low student engagement and limited support for ICT integration. Furthermore, the high cost of ICT equipment and services can make it difficult for some schools to implement and sustain ICT-based teaching and learning practices.

Overall, the limited access and utilization of ICT in the CBC in Kabale Municipality can lead to reduced quality of education, lower student motivation and engagement, and limited opportunities for digital literacy and 21st-century skills development.

The assessment of ICT use in CBC in Kabale Municipality provided current information about the state of ICT integration in selected secondary schools, including the challenges and opportunities encountered by teachers, students, and other stakeholders in integrating ICT into teaching and learning activities.The purpose of this assessment was to evaluate the level of ICT integration in CBC in selected secondary schools in Kabale Municipality.

1.3 Purpose of the Study

The purpose of the study was to establish the relationship between ICT usageand implementation of the competence-based curriculum in selected secondary schools in Kabale municipality, Uganda.

1.3.1 Specific Objectives

The study was guided by the following objectives:

1. To examine the usage of ICTs in selected secondary schools in Kabale municipality
2. To evaluate the implementation of the competence-based curriculum in selected secondary schools in Kabale municipality.
3. To establish the relationship between ICT usage and ICT implementation ofthe Competence Based Curriculum in selected secondary schools in Kabale municipality.

1.4 Research Questions

The following research questions guided the study

1. What is the level of the usage of ICTs in selected secondary schools in Kabale municipality?
2. To what extent is the implementation of the Competence-Based Curriculum in selected secondary schools in Kabale municipality?
3. What is the relationship between ICT usage and ICT implementation of the Competence Based Curriculum in selected secondary schools in Kabale municipality?

1.5 Study Scope

The scope of the study included the content scope; geographical scope and time scope as below;

1.5.1 Content Scope

The study focused on the ICT Usage and Implementation of Competence-Based Curriculum in Selected Secondary Schools in Kabale Municipality.

1.5.2 Geographical Scope

The study was done in selected secondary schools. The schools are located in Kabale municipality. Kabale is located in south western Uganda, kigezi region. The identity of the schools was concealed for ethical reasons.

1.5.3 Time Scope

The study was carried out in the period between 2020 and 2022 when the competence-based curriculum has been implemented.

1.6 Significance of the Study

Assessing the extent to which ICT is integrated into the competence-based curriculum can provide valuable insights into developing programmes or workshops aimed at enabling teachers to incorporate ICT into their daily classroom and personal lives. Data gathered from this study is also useful for Educational Institutions in terms of deciding on the training of secondary school teachers and funding in this sector. The anticipated outcomes of this study include adding to the body of knowledge available to the Ministry of Education and Sports, providing a stronger foundation for future research in this field, and producing results that can guide policy makers and educators in understanding teachers' perspectives on the use of ICT in teaching learners. Finally, the study would be submitted to post-graduate studies in partial fulfilment of the requirements for the award of a Master's degree in education management at Kabale University.

1.7 Justification of the Study

Given the background of the study, it has been identified through the literature review that secondary school teachers lack access to ICT. It is envisaged that this study will contribute to an understanding of circumstances surrounding the successful use of ICT in CBC in secondary schools, especially in the competence-based curriculum. The study is relevant because it will shed light on the study and whose best solution to be sought to address challenges and eventually develop recommendations to bridge the gaps that do exist.

1.8 Conceptual Framework

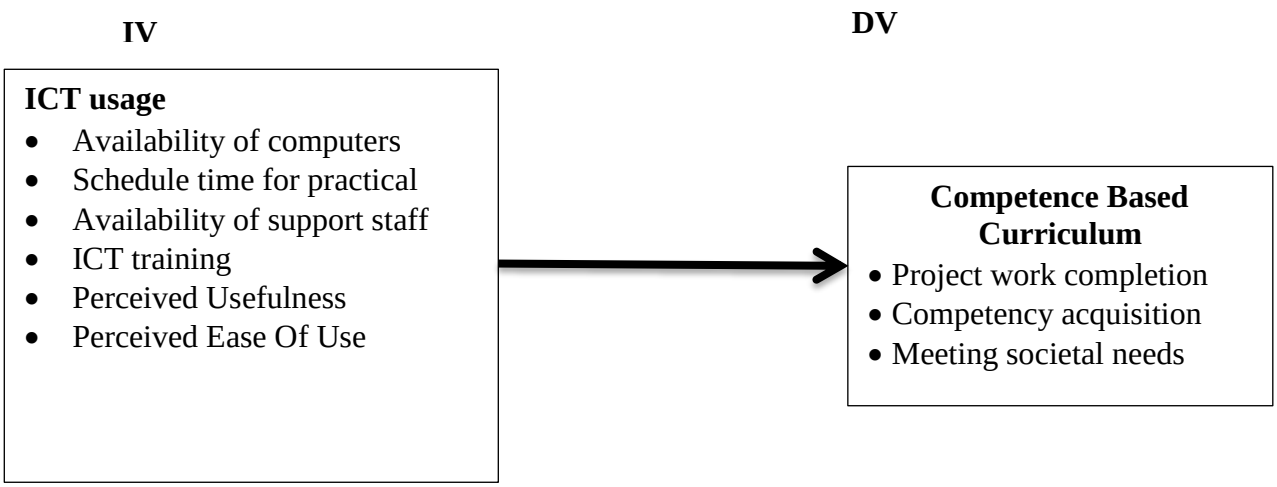

Figure 1: Research devised conceptual framework, 2022

The conceptual framework for this research on ICT integration in teaching and learning in schools involves the adoption and adaptation of the Technology Acceptance Model (TAM) by Davis (2003. These frameworks were identified as relevant to the research setting and were used to guide the study (refer to Figure 1). The TAM theory is composed of several components that illustrate the progression of ICT adoption by users. These include behavioral intention, perceived usefulness, and perceived ease of use. Perceived usefulness refers to the extent to which an individual perceives that using a particular technology will enhance their job performance, whereas perceived ease of use pertains to the significance of a technology being user-friendly for its users. The primary objective of developing the TAM theory was to evaluate the efficiency or triumph of technology and facilitate the comprehension of the significance and effectiveness of a particular system. This theory has been recognized as one of the most prominent and impactful theories in modern information systems research. Over time, the theory has undergone changes with the incorporation of more precise variables that elucidate how users can embrace technology.

The framework proposed for this study comprises several factors that are directly linked to the central objective of exploring how knowledge and perceptions impact the perceived usefulness and ease of use of ICT. These factors have been carefully intertwined within the conceptual framework to gauge their collective impact on ICT integration among teachers. The primary variable that underpins the framework is the intention of teachers to use ICTs, which is supported by key elements such as ease of use, functionality, flexibility, accessibility, and integration. Moreover, teachers' intention to utilize technology is significantly influenced by their perceptions of the system's usefulness and ease of use, which ultimately determines their actual usage of ICT. This proposed framework will guide the current research in examining the factors that affect technology integration among school teachers.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

Chapter two of this study provides an overview of the relevant literature pertaining to teachers' perspectives on the integration of ICT in teaching learners. It examines the role of ICT in classroom instruction and the challenges that educators encounter while utilizing technology in a competence-based curriculum. Additionally, this chapter reviews relevant literature on strategies aimed at enhancing teachers' perceptions of the use of ICT in teaching, the advantages of incorporating technology in teaching and learning, and the difficulties faced in integrating ICT into teaching practices. To the attention of the reader, the said objectives of the study are reproduced as follows: teachers' views on the use of information and communication technology in classroom teaching; the roles Information and Communication Technology have played in classroom teaching and learning, competence based curriculum, the theory of acceptance model; and challenges teachers encounter in using Information and Communication Technology during teaching and learning. This takes into account the background and the related competences that teachers possess in education and teaching in the context of Uganda.

2.1 Teachers’ views on the Use of ICT in Teaching Learners

Information and Communication Technology (ICT) is becoming more ubiquitous in schools worldwide, and teachers' views on its use are vital for successful implementation. This literature review examines teachers' views on the use of ICT in teaching and learning. The review is organized around three main themes: teachers' attitudes towards ICT, teachers' perceptions of the impact of ICT on teaching and learning, and barriers to the use of ICT in teaching and learning.

2.1.1 Teachers' Attitudes towards ICT

Most studies show that teachers have a positive attitude towards ICT use in teaching and learning (Ertmer, 2005; Knezek& Christensen, 2002; Law, Pelgrum&Plomp, 2008). Ertmer (2005) found that teachers who perceived the usefulness of ICT in enhancing instruction and their competence in using it had a positive attitude towards it. Similarly, Knezek and Christensen (2002) reported that teachers who had positive attitudes towards ICT had more experience in using it, were more comfortable using it, and believed that it could enhance their teaching.

2.1.2 Teachers' Perceptions of the Impact of ICT on Teaching and Learning:

The use of ICT in teaching and learning has various benefits, including enhanced student engagement, motivation, and learning outcomes (Bebell& Kay, 2010; Fisser& van den Berg, 2006; Law, Pelgrum&Plomp, 2008). Bebell and Kay (2010) found that students' use of ICT led to higher achievement in math, reading, and writing. Similarly, Fisser and van den Berg (2006) found that students' use of ICT led to higher motivation and engagement in learning. Moreover, Law, Pelgrum, and Plomp (2008) reported that the use of ICT in teaching and learning led to better student learning outcomes and teacher-student interaction.

The introduction of learning technologies in the late 20th century brought about significant changes in the education system, leading to the creation of a dynamic, user-friendly, and all-encompassing teaching and learning environment. Today, education ministries worldwide are providing diverse resources and training programs to promote the integration of advanced technologies in teaching and learning. There is also substantial funding allocated to provide teachers with the necessary tools to improve the education system. Even though education systems across the world are investing significantly in equipping teachers with technology, a recurring problem persists where teachers are not utilizing the technology effectively (Albirini, 2006). This issue is alarming because prior research has demonstrated that the integration of ICT in teaching and learning can improve students' academic performance (Nakayima, 2011; Jamieson-Proctor et al., 2013). Researchers have conducted several studies to investigate the factors that affect the acceptance of ICT integration in the classroom by teachers (Capan, 2012; Virkus, 2008; Zhang, 2013; Dudeney, 2010). The findings of these studies reveal that teachers' attitudes are the primary barrier to the implementation of ICT, as they play a crucial role in incorporating the change into their teaching practices. Additionally, previous research (Cassim&Obono, 2011) has demonstrated a strong link between teachers' beliefs and their use of ICT. As the integration of ICT in pedagogy can improve students' academic performance, creativity, and critical thinking skills, the role of teachers has become increasingly significant. Chien, Wu, and Hsu's (2014) study indicated that students in schools have high expectations for ICT integration in their classrooms, particularly as the new generation, referred to as the digital-native phenomenon, grows up with technology. Moreover, the researchers' findings suggest that the extent of ICT integration is largely influenced by personal factors such as self-perceptions. They found that both teachers and students are inclined to use technology outside of the classroom, indicating a general acceptance of ICT. However, barriers such as teachers' lack of confidence, competence, and negative attitudes towards ICT can impede its integration in the classroom. Previous research (Cox & Marshall, 2007) has shown that teachers do not necessarily require a technology-focused approach when acquiring ICT skills in the classroom. The teachers have shown high levels of confidence and competence in utilizing different ICT

tools, and they believe that such tools can facilitate the learning process and prepare students for real-life applications. This has led to a transformation of the teaching approach and has allowed for the construction and creation of knowledge by the students. The study suggests that the relationship between competence and confidence in utilizing ICT reflects the balance between training and pedagogical approaches in ICT professional development. Based on these findings, school management can provide adequate support for teachers to integrate ICT in the classroom.According to research, the effectiveness of teachers in urban schools varies based on their experience and age (Cuban, 2001). As teachers gain more experience and age, their belief in their effectiveness tends to decrease, although this can be influenced by the school management. In this context, school management refers to the availability of opportunities for collaboration, collegial interaction, and the use of instructional resources. Schools that offer teachers opportunities to collaborate with their colleagues and administrators reflect on teaching and learning, and support the use of instructional resources can help maintain teachers' belief in their effectiveness. Therefore, the research suggests that the school's management and culture influence teachers' belief in their effectiveness.Hence, it can be inferred that a school's culture and support for change play a crucial role in the successful implementation of ICT in the classroom. When schools provide opportunities for teachers to enhance their ICT skills through training and promote a culture that values innovation, the integration of technology in the classroom is more likely to be successful.

2.1.3 Barriers to the Use of ICT in Teaching and Learning:

Despite the perceived benefits of ICT in teaching and learning, there are various barriers to its use (Drent&Meelissen, 2008; Ertmer, 2005; Law, Pelgrum&Plomp, 2008). Drent and Meelissen (2008) reported that teachers' lack of technological pedagogical knowledge, lack of training and support, and inadequate ICT infrastructure were the main barriers to the use of ICT in teaching and learning. Similarly, Ertmer (2005) found that teachers' lack of time, lack of access to ICT resources, and resistance to change were barriers to ICT use. Law, Pelgrum, and Plomp (2008) reported that lack of funding, ICT resources, and teacher motivation were the main barriers to the use of ICT in teaching and learning.

This literature review indicates that teachers generally have a positive attitude towards the use of ICT in teaching and learning. They perceive it to have a positive impact on student learning outcomes, motivation, and engagement. However, there are various barriers to its use, including inadequate ICT infrastructure, lack of training and support, lack of time, and teacher

resistance to change. Addressing these barriers is crucial to promoting the effective use of ICT in teaching and learning.

2.2 Implementation of the Competence-Based Curriculum

The Competence-Based Curriculum (CBC) is an innovative education system that focuses on developing skills and knowledge that are relevant to the current job market. Unlike traditional education systems that emphasize content knowledge, the CBC aims to equip students with skills that are essential for their future careers. This section reviews relevant literature on the CBC.

The focus of the CBC is on providing students with relevant knowledge and skills that are useful in today's job market, and it is an education system that is centered on the learner. As stated by the Ministry of Education and Sports (2016), the CBC aims to develop competences such as communication, critical thinking, problem-solving, creativity, teamwork, and citizenship in learners. The curriculum's goal is to prepare graduates who possess not only academic competence but also the required skills and attitudes to succeed in life.

In 2016, the Ministry of Education and Sports in Uganda created the Competence-Based Curriculum Framework, which aims to enhance students' competencies. The framework defines competences as the combination of skills, knowledge, attitudes, and values that enable individuals to effectively perform tasks in various settings, according to the Ministry of Education and Sports (2016).

The CBC has several benefits, including its ability to improve the quality of education and address the skills gap in the job market. According to UNESCO (2016), the CBC provides learners with practical skills that they can use in their daily lives and future careers. The curriculum also promotes creativity, innovation, and entrepreneurship, which are essential skills for economic growth and development.

Despite its advantages, the implementation of the CBC encounters several obstacles, such as insufficient resources, limited teacher training, and opposition to change. Yogo and Okoth (2019) contend that a considerable investment in resources, such as teacher training and necessary equipment and materials, is necessary for the CBC's successful implementation. Furthermore, the curriculum necessitates a change in teaching and learning approaches, which may present a challenge to certain teachers.

In order to successfully implement the CBC, there are various strategies that can be utilized, including the provision of adequate resources, teacher training, stakeholder involvement, and monitoring and evaluation. Mwai (2019) emphasizes that providing teachers with the appropriate training and resources is crucial to ensure successful implementation. In addition,

involving stakeholders such as parents, students, and the community can help garner support for the curriculum.

Numerous studies have been conducted to assess the effectiveness of the CBC in various contexts. For instance, Odundo and Otunga (2019) evaluated the implementation of the CBC in Kenyan primary schools and found that it was successful in enhancing students' critical thinking and problem-solving abilities. Similarly, Njoroge and Kariuki (2021) assessed the effectiveness of the CBC in fostering entrepreneurship skills in Kenyan secondary schools and found that it effectively promoted an entrepreneurial mindset and skills among students.

The integration of ICT is an essential element of the CBC. According to Kibirige and Katabazi (2020), ICT integration enhances the effectiveness of the CBC in developing students' competencies. However, various challenges hinder the effective integration of ICT in the CBC, such as inadequate infrastructure, lack of ICT skills among teachers, and limited access to ICT resources.

For successful implementation of the CBC, it is necessary to engage all stakeholders, including policymakers, teachers, parents, and students. Kasule et al. (2018) suggest that involving stakeholders in the curriculum development process can enhance the relevance and effectiveness of the CBC. Similarly, Ongowo and Indoshi (2020) found that engaging parents in the implementation process can improve their support and participation in their children's education.

2.4. Challenges Teachers Encounter in Using ICT during Classroom Teaching and Learning

Unfortunately, ICT has faced several challenges in Uganda since its introduction. These challenges range from policy issues to the availability of hardware and software facilities, as well as the readiness and skills of teachers to integrate them into pedagogical processes. The Ministry of Education is faced with the task of training teachers in ICT, which has proved to be a challenge (Waiganjo&Paxula, 2020). Although the ICT policy of education stipulates that a program will be implemented to train teachers and school principals, staff training is still a challenge. Kenya has tackled this challenge by appointing technical digital natives to support teachers' training as champions in schools. One of the major challenges identified for teachers using ICT in teaching and learning in the classroom is inaccessibility due to poor organization of resources, poor quality hardware, and inappropriate software (Bingimlas, 2009). Previous research has indicated that the adoption of ICT in education is influenced by internal and external factors. External factors, such as limited access to hardware and software, insufficient time for course planning, and inadequate technical and administrative support, have been identified as challenges by Sang et al. (2010), Klein et al. (2008), and Tezci (2011). On the

other hand, internal factors, such as teachers' attitudes, beliefs, and confidence in utilizing ICT, have also been found to affect the integration of technology in education. Factors such as understanding of ICT, conflicting beliefs about ICT, attitudes towards technology integration, motivation to use ICT, self-confidence, technology skills, readiness to use ICT, and technology self-efficacy, have been cited by Al-Ruz and Khasawneh (2011), Chen (2008), Lin, Wang, and Lin (2012), and Sang et al. (2010). In some cases, schools may lack a clear plan for implementing ICT in their teaching, resulting in a lack of priority or proper structural implementation. This can lead to devices being stored and damaged without being used in the classroom. Teachers' negative attitudes and perceptions towards ICT are also seen as significant barriers to successful integration of technology in the teaching and learning process.

Isaac, Kazembe&Kazondovi (2018) have observed that teachers face challenges in incorporating ICT into their pedagogy due to insufficient time to learn and develop ICT skills, resulting in inadequate training in ICT pedagogy. Tezci (2011) also noted that teachers' negative attitudes towards ICT are a major impediment to their effective integration of technology into classroom lessons, resulting in its underutilization.

The teaching profession is facing a dual challenge in the face of technological advancements. Firstly, teachers need to enhance their own digital competencies, and secondly, they need to develop instructional activities that enable students to acquire the skills needed to succeed in a digitalized world. Alongside traditional literacy skills, teachers are also responsible for fostering digital literacy skills among their students. However, the teaching profession faces significant challenges when it comes to digital skills, particularly in the area of problem-solving for technology-rich elements (TRCs), where they lag behind adults in other sectors, as noted by Söderström (2009).

According to Sangra& Gonzalez-Sanmamed's (2011) study, teachers lack confidence in using ICT to improve teaching and learning processes such as synthesis, analysis, evaluation, and organization. Tedla (2012) also suggested that teachers' lack of technological knowledge and skills hampers the implementation of ICT in their teaching. Therefore, Silviyanti& Yusuf (2015) suggested that teachers need support to overcome technical problems that may arise while using ICT for teaching. In addition, teachers face time constraints when preparing ICT resources for their lessons and require sufficient time to become familiar with the use of ICT. The lack of time to explore ICT and prepare resources is a significant barrier for teachers to adopt ICT in primary schools, as noted by Almekhlafi&Almeqdadi, (2010); Mandasari&Theng, (2014). Studies have indicated that while ICT can strengthen traditional practices, teachers find it challenging to develop innovations by taking advantage of current technology. Furthermore, lack of computers and hardware resources in schools, as well as

limited access to the internet in Saudi Arabia, have adversely impacted the use of ICT in teaching (Sangra& Gonzalez-Sanmamed, 2011).

Sangra& Gonzalez-Sanmamed (2011) observed that at the primary level, no national examination body in East Africa has a curriculum for teaching ICT as a separate subject, although some private schools may include it in their curriculum. However, such schools' ICT training is not examined by the national examination bodies, and the use of ICT is limited to teachers' curiosity rather than an established program.

According to Guma, Faruque, &Khushi (2013), teachers' attitudes towards technology greatly affect their adoption and usage of new technology. Positive attitudes lead to faster adoption while negative attitudes deter teachers from using the technology. In addition, the lack of information and computer technology competence has been identified as a major obstacle inhibiting computer use in primary schools. Teachers are struggling to utilize various computer applications for different purposes.

According to Guma, Faruque, &Khushi (2013), teachers' lack of computer proficiency is a major obstacle to effectively integrating ICT into classroom teaching. Christensen &Knezek (2006) define computer self-efficacy as teachers' confidence in using computers with competence in various classroom teaching and assessment settings. However, Guma, Faruque&Khushi (2013) argue that many teachers lack self-efficacy in using computers and feel insecure and incompetent when using ICT in classroom teaching. Fear of failure and lack of knowledge also prevent teachers from using ICT in their teaching. This is especially true in Uganda, where many teachers have not been exposed to computers during their formal education or have not taken any computer training courses. Technical difficulties, such as malfunctioning equipment, also negatively impact teachers and students who are expecting to benefit from the use of ICT in the classroom.

Sangra& Gonzalez-Sanmamed (2011) argue that the integration of ICT into teaching and learning is a complex process that is influenced by both internal and external factors. Internal factors include characteristics of the school organization and staff, while external factors include ICT infrastructure policies, staff training, and the relationship with the context. Traditional cultures of schools are a significant barrier to developing the educational potential of using ICT in teaching, according to Sangra& Gonzalez-Sanmamed. Gumbo, Hasselbring& Glaser (2000) found that many teachers avoid using ICT because they are afraid of innovation and change, which results in them shunning the use of ICT and continuing to rely on traditional methods of teaching and learning, thus limiting the potential of ICT.

According to Mia &Haque (2013), a lack of necessary knowledge and skills regarding ICT tools and negative attitudes among teachers can hinder the sustained use of ICT tools, particularly for educational purposes. Additionally, lack of access is a significant barrier to ICT utilization, particularly for students with disabilities. In some Nigerian schools, lack of access to ICT resources and internet connectivity is another complex barrier. Computers are shared, so advance booking is necessary.

Alazam et al. (2012) argue that age, lack of ICT skills, and insufficient training are also obstacles to ICT integration. Older educators are less likely to use ICT tools in their teaching than younger teachers, who demonstrate a higher level of ICT skills and use ICT tools more frequently. The authors suggest that teachers who lack experience with ICT tools may operate in a novice state, as described in Dreyfus and Dreyfus's (1980) model of skill acquisition.

2.6 Integration of ICT in the competence-based curriculum in the Ugandan Context

In Uganda, the integration of information and communication technology (ICT) in the secondary curriculum is achieved through computer awareness programs and training. The use of various technologies is employed to enhance and optimize the delivery of information. Teachers are expected to be equipped with ICT skills from training colleges and universities to be used in secondary schools. The ICT sector in Uganda has continued to grow, contributing 6% of the country's national GDP in 2010, due to the demand for mobile voice and internet services. The study shows that teachers' use of ICT in classroom teaching is influenced by their attitude and expertise in using ICT. In addition to acquiring ICT skills through pedagogy in schools, primary education training colleges focus on providing teachers with computer awareness skills and sufficient experience to utilize ICT in lesson preparation and creating teaching materials. The success of ICT integration in the classroom is dependent on teachers' proficiency and willingness to adopt ICT practices.

Buabeng-Andoh's (2012) research indicates that the government's investment in ICT in Uganda's secondary schools has been guided by a policy that varies in its level of focus on different education levels. Today, countries worldwide recognize the importance of information and communication technologies (ICTs) and the mastery of basic skills and concepts as an essential part of education, equivalent to reading, writing, and numeracy. The UN's 2030 agenda for educational development is an international initiative mandating UN member countries to adopt ICT to promote national progress. The UN policy framework, including goal 17, acknowledges the significance of ICT as a tool for national development, with ICT infrastructure development being one of the top priorities for transforming Africa. In

the early 2000s, information and communication technology policies began taking shape in the East African Community (EAC).

The widespread and unregulated use of ICTs led to a need for government regulation and guidance. The adoption of ICTs in Kenya dates back to 1980, while in Uganda, the policy-making process began in 1998 with the Uganda National Council for Science and Technology being mandated by the Ministry of Education and Sports in 2005, according to Farrell's (2007) research. According to Farrell and Shafika's (2007) survey report, a limited number of schools have access to ICT. At the secondary level, the ICT policy seeks to encourage schools that already have the technology to use it in support of teaching, either through the creation of teaching materials or through student use of the technology. NGOs, both local and international, have invested in ICT in schools with funding from a variety of development partners. In all of these projects, the Ministry may only have a coordinating role.

2.7 The Theory of Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed to identify the factors that influence the adoption of technology (Bagozzi, Davis &Warshaw, 1992; Shin et al., 2018). TAM comprises two key beliefs that influence the acceptance of technology: perceived ease of use, which refers to the individual's perception that using a particular technology will reduce the effort required to complete a task, and perceived usefulness, which refers to the individual's belief that using technology will improve their work performance. The Technology Acceptance Model (TAM) is a conceptual framework that seeks to elucidate the factors that influence the adoption and usage of technology by users. The model posits that users' intention to use technology is shaped by their attitude towards it, which refers to their overall perception of the technology. This, in turn, influences their actual usage of the system. The TAM proposes that when users are introduced to a new technology, various factors come into play that impact their decision about when and how to use it.

Fred Davis defined perceived usefulness as the extent to which an individual believes that utilizing a specific system would improve their work performance, indicating whether or not the technology is seen as beneficial for their intended purposes.

Davis (1989) defined perceived ease-of-use as the degree to which an individual believes that using a particular system would be free of effort. When a technology is perceived as easy to use, it reduces the barriers to its adoption. On the other hand, if the technology has a complex interface and is not easy to use, users are less likely to have a positive attitude toward it. Social influence, which is an external variable, plays a significant role in shaping one's attitude towards technology. The TAM framework suggests that once the perceived usefulness and

ease-of-use of the technology are established, individuals are more likely to develop a positive attitude and intention to use it. However, it is important to note that individual differences, such as age and gender, may influence one's perception of the technology.Several studies, including those by Cheung and Vogel (2013), Chang, Hajiyer, and Su (2017), Liu et al. (2010), and Ros et al. (2015), have demonstrated that the perceptions of usefulness and ease-of-use are significant predictors of both attitude and intention to use digital technologies.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research Design

In this research, a cross-sectional, correlational survey design was used. Cross-sectional survey design is a research method that involves collecting data from a sample of individuals at a single point in time.Cross-sectional surveys are valuable for providing a snapshot of a population at a specific point in time. Data was collected from selected secondary schools and analyzed at once.

3.2 Research approach

This research utilized a mixed methods approach, which involves gathering, evaluating, and integrating both qualitative and quantitative data within a single study. The approach presents various benefits over utilizing solely qualitative or quantitative methods. The following are some of the reasons why the mixed methods research approach is applied: Complementarity, Triangulation, Depth and breadth of analysis, Flexibility, and Completeness.

Using a mixed methods research approach offers researchers a powerful tool for examining intricate phenomena that cannot be fully comprehended using a single research method. By incorporating both qualitative and quantitative techniques, researchers can obtain a more comprehensive understanding of the phenomenon being studied.

3.3 Population

3.2.1 Target Population

The researcher selected four schools among the schools in Kabale municipality to save time and ease data collection. The population of the study was 150 respondents as the average of each school having 45 teachers and directors of studies in kabale municipality. This together made up a total population of 150 participants who included teachers and directors of studies of the selected secondary schools.

3.2.2 Sampling

The overall total respondents for this research were 108 respondents from selected secondary schools in Kabale municipality. This was selected from the Table for Determining the Sample Size of the Population (Krejcie & Morgan, 1970).

Table 1: sampling criteria

Respondents/item	Criteria

Schools	Two Government aided schools and two private schools that have existed for more than five years with UNEB center number and have at least ten(10) computers with internet
Teachers	Teachers were 104; Both male and female selected from four selected schools, selected from the DOS list, and Registered with the ministry of education and sports teaching in both new and old curricula.
Directors of studies	Four directors of studies participated in this study, one from each school.
Teaching Classes	Senior 1, senior 2 and Senior 3 for competence-based curriculum. Senior 4 for the old curriculum.
Teaching Subjects	Both science and Humanities will be chosen at random.

3.3 Instrument

A survey questionnaire was administered to teachers to gather responses and interview guides were used while collecting data from the DOS.

A survey questionnaire with a total of 42 items was used as the main instrument in this study to analyze the extent of ICT integration in teaching and learning in secondary schools in Kabale municipality. Questionnaires were distributed where all respondents were asked to read the statements given and choose their answers by ticking based on a 4-Likert scale ranging from Strongly Disagree, Disagree, Agree, and Strongly Agree. The questionnaires consisted of 4 sections. Section A about the demographic background of the respondents consists of 8 items that include gender, race, teaching experience, type of school, school area, preference of teaching style, highest academic qualification, and the ability to handle ICT in teaching. The other 3 sections of the questionnaire focus more on teachers' perceptions and the elements of ICT integration in schools.Section B comes with 10 items that look into the level of ICT infrastructure in the competence-based curriculum, Section Chas 15 items that tackle the teacher's perceptions of ICT integration in the competence-based curriculu mmeanwhile section D consists of 10 items that look into the relationship between teachers' perceptions on ICT integration and ICT infrastructure in the competence-based curriculum in selected secondary schools in Kabale municipality. The questionnaire used for this quantitative study was adopted and modified from the original questionnaire designed by Gulbahar and Guven (2008) and was considered suitable for this research. Some of the items were designed and developed by the researcher accordingly with the title chosen so that the items developed can provide the answers needed for the research questions.

3.4 Data Collection Procedure

The researcher modified the questionnaire and interview guide before they were distributed to the target group of respondents. The data for the study was collected randomly over a period of two weeks. The respondents were given 3-5 days to complete the questionnaire and return it to the researcher for analysis. After the two-week period, all completed questionnaires were collected and analyzed by the researcher to obtain the research findings. Interviews were held after scheduling an appropriate time with the respondents.

3.5 Data Analysis Process

All the data collected from the respondents were analyzed using Statistical Package for the Social Sciences (SPSS) version 14. The analysis included descriptive analysis using mean and percentages, tables, pie charts, and graphs. The researcher used descriptive analysis to analyze the frequency and percentage of the overall population in the demographic background. Besides, it is also used to determine the mean, standard deviation, frequency, and percentage to identify the extent of ICT integration in the competence-based curriculum as well as the effective elements of ICT integration in the competence-based curriculum in selected secondary schools in Kabale Municipality.

3.6 Limitations and Delimitations of the Study

The researcher encountered uncooperative respondents who initially refused to provide information. However, the researcher used persuasive techniques to eventually gain their consent. Another potential challenge was delays in administering the questionnaires and conducting interviews due to the busy academic schedules of the respondents. This was resolved by arranging alternative schedules to revisit and collect the necessary data.

3.7 Results

The researcher obtained the necessary output to address the research questions from the findings of this study. The findings were organized based on the sections of the questionnaire and interview guide, and some inferential analysis, such as reliability testing and Mann-Whitney U testing, were conducted on the entire dataset.

3.8 Validity and Reliability Testing

The accuracy of a concept in a quantitative study relies heavily on validity, whereas reliability pertains to the consistency of a measurement (Heale&Twycross, 2015). To assess the internal consistency of an instrument and its items, Cronbach's Alpha reliability testing is utilized, which serves as a measurement for scale reliability. The Likert scale utilized in this study

ranges from 1, which means strongly agree, to 1, which means strongly disagree. According to Kline (1999), an alpha value greater than 0.6 is acceptable, with a widely accepted value of greater than 0.7. Sections B, C, and D of the questionnaire underwent reliability testing in accordance with these standards for this research.

3.9 Ethical considerations

i. The researcher made sure that he correctly introduces himself for proper recognition, clarify the intention of this study to respondents, and take note of all responses that were provided by respondents.

ii. The researcher was humbled and respectful of the respondents' values and beliefs such as dress code, and hairstyle.

iii. The researcher managed time by arriving at the place of data collection on time which was agreed upon with his respondents.

iv. The researcher made sure that the data collected is treated with confidentiality in order not to reveal the secrets of respondents

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION, AND ANALYSIS OF FINDINGS

4.0 Introduction

This chapter presents, interprets, and analyses the findings of the study based on the research objectives namely: to examine the level of ICT use in the CBC in selected secondary schools in Kabale municipality, to evaluate teachers' perceptions in the competence-based curriculum in selected secondary schools in Kabale municipality and to establish the relationship between teachers' perceptions on the ICT integration and ICT infrastructure in the CBC in selected secondary schools in Kabale municipality.

4.1 Response Rate for Survey Respondents

The study respondents were 104 respondents. A total of 104 questionnaires were administered and all of them were returned which indicates a response rate of 100%. According to (Ebert, Huibers, Christensen, & Christensen, 2018), for a study's results to be considered satisfactory, the model response rate recommended as dependable is much above 70%. Therefore, this study's results can be relied upon.

4.2 Background Characteristics of Respondents

The following section provides an overview of the demographic characteristics of the study participants, including their gender, teaching experience, school type, school location, preferred teaching style, highest academic qualification, and proficiency in using ICT for teaching purposes.

4.2.1 Gender

Gender was considered important in this study because the researcher wanted to ensure gender balance so that male and female participate in the study as indicated below

Table 2: Showing Gender of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	19	18.3	18.3	18.3
	Male	85	81.7	81.7	100.0
	Total	104	100.0	100.0	

Source: Field data February, 2023

According to the table 2 above, it was indicated that 19 respondents representing 18.3% were female while 85 respondents representing 81.7% were males. This indicated a majority of

schools employ males than females because the majority of females do not study teaching as their professional

4.2.2 Teaching Experience

The teaching experience was also considered during this study because the researcher wanted to include all teachers with all teaching experience such as fresh graduates and senior teachers as indicated below

Table 3: Showing Teaching Experience of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 Years	50	48.1	48.1	48.1
	6-10 Years	32	30.8	30.8	78.8
	>10 Years	22	21.2	21.2	100.0
	Total	104	100.0	100.0	

Source: Field data February, 2023

According to the table above, it was indicated that the majority of respondents 50(48.1%) had teaching experience of 1-5 years, 32 respondents representing 30% had teaching experience of 6-10 years and 22 respondents representing 21.2% had experience of above 10 years. The majority of respondents had an experience of 1-5 years and this implied that most of them were fresh graduates from universities who had enough computer skills to incorporate into the new curriculum that is now used in secondary schools

4.2.3 Types of School

On the type of school, government-aided and private schools were considered because they all use the competence based curriculum in teaching as shown below

Table 4: Showing Types of School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government aided	52	50.0	50.0	50.0
	Private	52	50.0	50.0	100.0
	Total	104	100.0	100.0	

Source: Field data February, 2023

In the table above, it was indicated that an equal number of respondents from both private and government aided participated in the study that is 52 respondents representing 50%. All categories of schools were considered because all schools are subjected to the same exams at the end of UCE thus there was balance in all categories of schools

4.2.4 School Area

The area of the school was among the demographic because the researcher wanted to make sure that all types of schools are considered

Table 5: Showing School Area

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural	23	22.1	22.1	22.1
	Urban	81	77.9	77.9	100.0
	Total	104	100.0	100.0	

Source: Field data February, 2023

According to the table above, it was indicated that the majority (77.9%) of respondents' belonged to urban schools while 23(22.1%) of respondents belonged to rural schools. This indicated that the researcher and his research assistants could easily access urban schools because it is easy to reach as compared to rural schools which are in hard to reach areas.

4.2.5 Preference of Teaching Style

Preference of teaching style was considered because it was important to understand whether they use Modern/Contemporary (Use of ICT) or Traditional/Conventional

Table 6: Showing Preference of Teaching Style

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Modern/Contemporary (Use of ICT)	82	78.8	78.8	78.8
	Traditional/Conventional	22	21.2	21.2	100.0
	Total	**104**	**100.0**	**100.0**	

Source: Field data February, 2023

According to the table above, it was indicated that 82 respondents representing 78.8% were using modern/contemporary/ICT and 22 respondents representing 32.2 % were using

traditional/conventional teaching style. The majority of respondents were using ICT in competence-based curricula because of Government policy which was introduced in 2020

4.2.5 The Ability of Handling ICT in Teaching

The ability to handle ICT in teaching was also important to understand because it helps to understand if teachers can teach using ICTs in the competence based curriculum

Table 7: Showing the Ability of Handling ICT in Teaching

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High	15	14.4	14.4	14.4
	Low	10	9.6	9.6	24.0
	Medium	79	76.0	76.0	100.0
	Total	104	100.0	100.0	

Source: Field data February, 2023

According to the table above, it was indicated that the ability to handle ICT in teaching and the majority suggested that it was medium with 79(76). 15(14.4%) suggested that it was high and 10(9.6%) suggested that it was low

4.2.6 Level of ICT use

Table 8: Showing Level of ICT use

Response	**Strongly Agree**		**agree**		**Disagree**		**Strongly disagree**	
	F	%	F	%	F	%	F	%
ICT facilities in my school are well functioning and can be used	34	32.7	48	46.2	18	17.3	4	3.8
Technical support is provided if teachers face difficulties	31	29.8	48	46.2	25	24.0	0	0
Little access to ICT prevents me from using it in teaching	19	18.3	41	39.4	37	35.6	7	6.7
Lack of support from school management discourages the use of ICT	15	14.4	38	36.5	43	41.3	8	7.7
Teaching time is not enough to use ICT for teaching and learning	13	12.5	41	39.4	46	44.2	4	3.8
There is enough training and professional development provided	12	11.5	47	45.2	41	39.4	4	3.8
All ICT tools in school go to waste and are less used by teachers	9	8.7	25	24.0	57	54.8	13	12.5
Teachers are given more time to learn and be comfortable with IT	12	11.5	54	51.9	30	28.8	8	7.7
There is a computer lab in the school where students go to watch video	36	34.6	49	47.1	16	15.4	3	2.9
Teachers are given the freedom to design their teaching with ICT	29	27.9	42	40.4	23	22.1	10	9.6
AVERAGE	**21**	**20.19**	**43.3**	**41.63**	**33.6**	**32.29**	**6.1**	**5.85**

Source: Field data February, 2023

According to the table above, respondents reacted on different use of levels of ICT infrastructure, 34 respondents representing 32.7 strongly agreed that ICT facilities in their school are well-functioning, 48 respondents representing 46.2% suggested agreed, 18 respondents representing 17.3% disagreed and 4 respondents representing 3.8 strongly

disagreed. It was discovered that the majority of respondents agreed with ICT being in use and well-functioning in that some schools had Wi-Fi but with limited access yet students can use computer laboratory services to access online learning materials for research and self-learning This was also revealed by one of the respondents who said that

"…*our school does have some ICT infrastructures such as a well-stocked computer laboratory but we do not have internet services to help us in sharing learning resources with other schools and teaching using online services such as live streaming"***(ICT infrastructure)**

Also, respondents responded on Technical support provided to teachers if they are faced with challenges and 31 respondents representing 29.8% strongly agreed, 48 respondents representing 46.2% agreed, and 25 respondents representing 24% disagreed. Majority of respondents 46.2% agreed and they confessed that they are always provided with support in case of a challenge where one respondent said that

"…*one day I was teaching using a projector but I failed to connect to the computer then I asked some help from a fellow staff who understand computer things and he helped me and taught me how to do it in case it happens again*"**(ICT use)**

Another respondent said that

"…*during registration of students in the UNEB, I tried to login into the portal but I failed to do them then the school hired an expert from Kampala to come and help me and train me"(**ICT support)***

Other respondents reacted that school top management discouraging teachers from using ICT whereby 15 respondents representing 14.4% strongly disagreed, 38 respondents 36.5% agreed, 43 respondents representing 41.3% and 8 respondents representing 7.7% strongly disagreed,

The majority of respondents disagreed arguing that

"…*our school management does not discourage us from using ICT rather they support us to use ICT as they give us daily data bundles to keep us updated with new technology that is being used in the field of education"(**perceived usefulness)***

Furthermore, on the fact that there is enough time for teachers to use ICT for teaching and learning and 13 respondents representing 12.5% strongly agreed, 41 respondents representing 39.4% agreed, 46 respondents representing 44.2% disagreed and 4 representing 3.8% strongly disagreed. The majority of respondents strongly disagreed because most teachers are not given enough time where one respondent said that

"…*we are not given enough time to use ICT for teaching and learning because our administrators do not give us refresher courses in ICT and they do not encourage us to go for further studies in ICT"***(ICT training)**

Respondents reacted on if there is enough training and professional development provided for teachers about ICT use in teaching and 12 respondents representing 11.5% strongly agreed, 47 respondents representing 45.2% agreed, 41 representing 39.4% disagreed and 4 respondents representing 3.8% strongly disagreed. The majority of respondents concurred with the idea that sufficient training and development opportunities were provided for teachers regarding the use of ICT in teaching. As one of the respondents stated,

*".....Here we are given professional training in ICT; for example, they fund us to attend several pieces of training such as word camp to get professional skills for website development, report cards system and other ICT related professions"***(perceived ease of use)**

Teachers are given the freedom to design their teaching with the help of ICT and this was strongly agreed by 29 respondents representing 27.9%, 42 respondents strongly agreed representing 40.4%, 23 respondents representing 22.1% disagreed and 10 respondents representing 9.6 strongly disagreed. The majority of respondents agreed that teachers are given the freedom to design their teaching with the help of ICT in that teachers can use any teaching method in that one can use PowerPoint slides, Microsoft word, and PowerPoint, excel and live streaming and this was supported by one respondent saying

*"...we have the freedom to use any teaching methods as long as we follow the competence based curriculum"****(perceived ease of use)***

And then on the point that there is a computer laboratory in school where teachers can take students to watch educational videos was strongly agreed with 36 respondents representing 34.6%, 49 representing 47.1% agreed, 16 respondents representing 15.4% disagreed and 3 respondents representing 2.9 strongly disagreed. The majority of respondents agreed with presence of laboratories where teachers can take students to watch educational videos in that most schools were found with internet connection in computer laboratories and this was supported by one respondent who said that

"…*every Friday, Saturday and Sunday we always take students to the computer laboratory to watch YouTube videos, live stream some lessons and develop more computer skills"***(skill acquisition)**

4.2.7 Teachers' perceptions of the ICT integration in the competence-based curriculum

Table 9: Showing Teachers' perceptions of the ICT integration in the competence-based curriculum

Response	**Strongly Agree**		**agree**		**Disagree**		**Strongly disagree**	
	F	%	F	%	F	%	F	%
I feel confident learning new computer skills	41	39.4	61	58.7	2	1.9	0	0
I find it easier to teach by using ICT	38	36.5	56	53.8	10	9.6	0	0
ICT offers effective teaching	40	38.5	43	41.3	17	16.3	4	3.8
ICT-supported teaching makes learning more effective	39	37.5	53	51.0	10	9.6	2	1.9
ICT helps teachers to improve teaching with updated materials	51	49.0	40	38.5	9	8.7	4	3.8
The use of ICT improves the quality of teaching	42	40.4	54	51.9	6	5.8	2	1.9
The use of ICT helps to prepare teaching resources and materials	38	36.5	44	42.3	11	10.6	11	10.6
ICT enables students to be more active and engaging in the lesson	36	34.6	54	51.9	14	13.5	0	0
More time to cater to students' needs if ICT is used in teaching	34	32.7	43	41.3	22	21.2	5	4.8
Can have effective teaching without the use of ICT	11	10.6	38	36.5	38	36.5	17	16.3
The use of ICT in teaching is a waste of time	9	8.7	15	14.4	32	30.8	48	46.2
Students learn better without the help of ICT	5	4.8	34	32.7	44	42.3	21	20.2
Class management is out of control if ICT is used in teaching	2	1.9	32	30.8	27	26.0	43	41.3
Students pay less attention when ICT is used in teaching	7	6.7	24	23.1	45	43.3	28	26.9
Students make no effort for their lesson if ICT is used	2	1.9	16	15.4	37	35.6	49	47.1
AVERAGE	**26.3**	**25.3**	**40.5**	**38.9**	**21.6**	**20.8**	**15.6**	**15.0**

Source: Field data February, 2023

According to the table above, respondents reacted to Teachers roles in the competence-based curriculum and 41 respondents representing 39.4% strongly agreed that they feel confident learning new computer skills, 61 respondents representing 58.7 agreed, respondents representing 1.9% disagreed. Majority of respondents strongly agreed because learning is now made simple since there are instruction manuals and help options on the user interface and this was confirmed by one respondents who said that

"....Now every program and software available is designed to favor both the user and administrator by use of help options and instruction guide and this makes learners confident in learning computer skills and teachers in teaching and learning more computer skills"**(Perceived ease of use)**

Regarding the ease of teaching with the use of ICT, 38 respondents, accounting for 36.5%, strongly agreed, while 56 respondents, representing 36.5%, simply agreed. A further 10 respondents, equivalent to 9.6%, expressed disagreement with the statement. The survey results indicate that the majority of respondents agreed with the notion that ICT facilitates teaching methods, with examples such as PowerPoint slides, broadcast, and live streaming being easy to adopt. As one respondent stated, the use of ICT makes teaching more manageable.

"...I found teaching using ICT easier because of new software that is available for use and this helps to generate commands one inserts in them thus making it easier to teach using ICT"**(Perceived ease of use)**

On the point that they are aware of the great opportunities that ICT offers for effective teaching 40 respondents representing 38.5% strongly agreed, 43 respondents representing 41.3% agreed, 17 respondents representing 16.3% disagreed and 4 respondents representing 3.8% strongly disagreed. This is because there are a lot of opportunities due to the everyday changing technologies that is happening nowadays. One respondent said that

"...I am aware of great opportunities within ICT such as use of different technologies such as internet, zoom, Google, meet and PowerPoint presentations and this gives me an opportunity to explore more new technologies more so I subscribe to different website so that I get updated by emails of any new updates"**(perceived usefulness)**

ICT supported teaching makes learning more effective and this was strongly agreed 39 respondents 37.5% representing 37.5%, 53 respondents 51 respondents agreed, 10 respondents representing 9.6% disagreed and 2 respondents representing 1% strongly disagreed. This was because teachers who use ICT in learning do not labor much because when using ICT it is easy in that more of these are automatic and can be done in any way and this was pointed out by one respondent who said that

"……*ICT helps learning more effective in that it if someone is using ICT, he or she enjoys learning and this makes it more effective*"**(perceived usefulness)**

51 respondents, representing 49%, strongly agreed that the use of ICT enables teachers to enhance their teaching by incorporating more up-to-date materials. Additionally, 40 respondents, accounting for 41.3%, also agreed with this statement. However, 9 respondents (8.7%) expressed disagreement, and 4 respondents (3.8%) strongly disagreed. The survey results indicate that the majority of respondents acknowledged that updated software available in the market could benefit teachers in their teaching practices. This notion was further supported by one of the respondents.

"….*in our school the use of ICT helps teachers to use updated materials since they can download them from Internet since we have internet that is ever available for use especially in computer laboratory and all over the compound"(***Perceived usefulness)**

Regarding the impact of ICT on teaching quality, 42 respondents, accounting for 40.4%, strongly agreed, while 54 respondents, representing 51.9%, simply agreed. In contrast, 6 respondents (5.8%) expressed disagreement, and 2 respondents (1.9%) strongly disagreed. The survey results suggest that the majority of respondents agreed with the idea that the use of ICT improves the quality of teaching. According to them, traditional teaching methods could be monotonous, but electronic teaching methods have made it more enjoyable, thereby enhancing the quality of teaching. As one respondent commented, ICT has transformed teaching from being a mundane task to an enjoyable one

"…*in our school, the quality of teaching has improved due to use of ICT in teaching and this makes it enjoyable and teachers can cover a bigger percentage of syllabus as compared tothe earlier days when teaching was still traditional*"**(Perceived usefulness)**

Use of ICT helps to prepare teaching resources and materials was also strongly agreed by 38 respondents representing 36.5%, 44 respondents representing 42.3% agreed, 11 respondents representing 10.6% disagreed and 11 respondents representing 10.6% strongly disagreed. Majority of respondents agreed because with the use of ICT applications such as Microsoft applications are used to organize teaching materials such as handouts, slides and excel sheets. On this one respondent said that

"…*Now we prepare our lessons on PowerPoint presentations using ICT and these materials are given to learners so that they follow teachers when they follow what the teacher is teaching and they only write summaries not writing from the blackboard* "**(Perceived usefulness)**

The use of ICT enables the students' to be more active and engaging in the lesson where 36 respondents 34.6% strongly agreed, 54 respondents representing 51.9% agreed and 14

respondents representing 13.5% disagreed. Majority of respondents agreed with the statement because when ICT is being in teaching, students enjoy and they keep active as compared to traditional methods where students used to dose in class while the teacher was teaching. One respondent said that

"…*nowadays learners enjoy learning using ICT technologies like game pads and projectors since this era is of digital generation*"**(perceived usefulness)**

More time to cater to students' needs if ICT is used in teaching and this was strongly agreed by 34 respondents representing 32.7%, 43 respondents representing 41.3% agreed, 22 respondents representing 21.2% disagreed and 5 respondent representing 4.8% strongly disagreed. Majority of respondents agreed because when ICT is used, teachers gets enough time to cater for student needs as they is no time to waste since using ICT makes teaching quick and ore time is dedicated to student needs as one respondent said that

"….*in our school, we get more time for students needs because using ICT is time saving and the remaining time is dedicated to student needs*" (**Meeting societal needs**)

People can still have an effective teaching without the use of ICT and this was strongly agreed by 11 respondents representing 10.6%, 38 respondents representing 36.5% agreed, 38 respondents representing 36.5% disagreed and 17 respondents representing 16.3% strongly disagreed. Many respondents disagreed with this statement quoting words from one respondent that

"…*I disagree with this because ICT possess a lot of benefits therefore teaching without ICT is not effective at all*" (**Perceived usefulness**)

The use of ICT in teaching is a waste of time was agreed by 9 respondents representing 8.7% strongly agreed 15 respondents representing14.4% agreed, 32 respondents representing 30.8% disagreed and 48 respondents representing 46.2% strongly disagreed. Majority of respondents strongly disagreed that it is a waste of time to use ICT in teaching because nowadays teaching without ICT is first of all bored and not enjoyable and this was supported by one of the respondent who said that

"The use of ICT in teaching is not a waste of time since it has given me more experience in knowing more things about teaching" (**Competence acquisition**)

Teachers feel confident that their students learn best without the help of ICT and this was strongly agreed by 5 respondents representing 4.8%, then 34 respondents representing 32.7% agreed, 44 respondents representing 42.3% disagreed and 21 respondents representing 20.2 % strongly disagreed. It was noted that majority of respondents disagreed because without ICT, students do not feel confident as one respondent noted that

"…*Basing on what is happening in this our school we feel confident that their students learn best with the help of ICT*" (**Perceived usefulness**)

The classroom management is out of control if ICT is used in teaching where 2 respondents representing 1.9% strongly agreed, 32 respondents representing 30.8% agreed, 27 respondents representing 26.0% disagreed and 43 respondents representing 41.3% strongly disagreed. It was noted that majority of respondents disagreed basing on the fact that ICT does not disrupt anything as far as classroom management is concerned where by one respondent noted that

"…in our school, as compared to the previous period, nowadays class room management is put in control because of use of school management systems which puts classroom in control"(**Perceived usefulness**)

Students pay less attention when ICT is used in teaching and it was noted that few respondents strongly agreed 7 respondents representing 6.7%, 24 respondents representing 23.1% agreed, 45 respondents representing 43.3% disagreed and 28 respondents representing 26.9% strongly disagreed.

It is noted that majority of respondents disagreed because ICT cannot disrupt students since the competence based curriculum is embedded to enable students concentration in class as one respondent pointed out that

"...my students are not disrupted by ICT, rather they concentrate when learning using ICT" (**perceived ease of use**)

Students make no effort for their lesson if ICT is used in teaching and 2 respondents representing 1.9% agreed, 16 respondents representing 15.4% agreed, 37 respondents representing 35.6% disagreed and 49 respondents representing 47.1% strongly disagreed.

"…*it is now on record that since the introduction of this competence based curriculum, students are now increasing their efforts to learn as compared to before"(***perceived usefulness**)

4.2.8ICT integration in the Competence Based Curriculum

Table 10: Showing ICT integration in the Competence Based Curriculum

RESPONSE	**Strongly Agree**		**agree**		**Disagree**		**Strongly disagree**	
	F	%	F	%	F	%	F	%
ICT allows students to be more creative and imaginative	35	33.7	62	59.6	5	4.8	2	1.9
ICT helps students to find related knowledge and information	54	51.9	43	41.3	7	6.7	0	0
ICT encourages students to communicate more with classmates	21	20.2	55	52.9	12	11.5	16	15.4
ICT increases students confidence to participate actively	26	25.0	54	51.9	20	19.2	4	3.8
Students learn more effectively with the use of ICT	37	35.6	58	55.8	9	8.7	0	0
ICT helps to broaden students' knowledge paradigm	30	28.8	41	39.4	24	23.1	9	8.7
ICT helps to improve students ability in reading and writing	29	27.9	54	51.9	20	19.2	1	1.0
Students are more behaved and under control with use of ICT	22	21.2	37	35.6	36	34.6	9	8.7
ICT enables students to express their ideas and thoughts better	27	26.0	46	44.2	27	26.0	4	3.8
ICT promotes active and engaging lesson for students	30	28.8	55	52.9	18	17.3	1	1.0
AVERAGE	**31.1**	**29.9**	**50.5**	**48.6**	**17.8**	**17.11**	**4.6**	**4.43**

Source: Field data February, 2023

Respondents reacted on the ICT integration in the CBC; one of them was that ICT allows students to be more creative and imaginative where 35 respondents representing 33.7% strongly agreed, 62 respondents representing 59.6 agreed, 5 respondents representing 4.8% and 2 respondents representing 1.9% strongly disagreed. Majority of respondents agreed because by use of ICT, students are more creative and innovative in that now they are able to develop

some programs such as games, android applications, web based applications and utility programs.

Use of ICT help students to find related knowledge and information for learning and this was strongly agreed by 54 respondents representing 51.9%, 43 respondents representing 41.3% agreed, 7 respondent representing 6.7% disagreed. Now www has made it possible to explore the globe this helps students to relate what they study with other information from all over the world.

Use of ICT encourage students to communicate more with their classmates and this was strongly agreed 21 respondents representing 20.2% , then 55 respondents representing 52.9% agreed, 12 respondents representing 11.5% disagreed and 16 respondents representing 15.4% strongly disagreed.

The use of ICT increases students' confidence to participate actively in the class and 26 respondents representing 25.0% strongly agreed, 54 respondents representing 51.9% agreed, 20 respondents representing 19.2% disagreed and 4 respondents representing 3.8% strongly disagreed.

The use of ICT helps to broaden students' knowledge paradigm and 30 respondents representing 28.8% strongly agreed, 41 respondents representing 39.4% agreed, 24 respondents representing 23.1% disagreed and 9 respondents representing 8.7% strongly disagreed.

Students are more behaved and under control with the use of ICT in that 22 respondents representing 21.2% strongly agreed, 37 respondents representing 35.6 agreed, 36 respondents representing 34.6% disagreed and 9 respondents representing 8.7% strongly disagreed.

The use of ICT enable students to express their ideas and thoughts better was also strongly agreed by 27 respondents representing 26.0% , 46 respondents representing 44.2% agreed, 27 respondents representing 26.0% disagreed and 4 respondents representing 3.8% strongly disagreed

The use of ICT promote active and engaging lesson for students' best learning experience in that 30 respondents representing 28.8 strongly agreed, 55 respondents representing 52.9% agreed, 18 respondents representing 17.3% disagreed and 1 respondent representing 1 respondent strongly disagreed

Then ICT helps to improve student's ability in reading and writing and 29 respondents representing 27.9% strongly agreed, 54 respondents representing 51.9% agreed, 20 respondents representing 19.2% disagreed and 1 respondent representing one percent strongly disagreed.

4.3Regression of ICT Integration on Competence Based Curriculum

A regression analysis was carried out to establish whether ICT integration that is teachers' perceptions on ICT use and ICT infrastructure had an influence the Competence Based Curriculum. The results were as presented in Table 4.

Table 4: **Regression of ICT Integration on Competence Based Curriculum**

ICT integration	Standardised Coefficients	Significance
	Beta	p
Teachers' perceptions on the use of ICT	0.465	0.008
ICT infrastructure	0.509	0.000

Adjusted $R^2 = 0.333$

$F = 18.485$, $p = 0.000$

Table 4 displays that the utilization of ICT by teachers and the availability of ICT infrastructure accounted for 33.3% of the variability observed in the CBC, as evidenced by the adjusted R^2 value of 0.333.This means that 66.7% of the variation was accounted for by other factors not considered under this model. All the characteristics namely; teachers' perceptions on the use of ICT ($\beta = 0.465$, $p = 0.008 < 0.05$), and ICT infrastructure ($\beta = 0.509$, $p = 0.000 < 0.05$) had a positive and significant influence on CBC. However, the magnitudes of the respective betas (β) suggest that ICT infrastructure were the most significant and the teachers' perceptions on the use of ICT were the least significant.

4.4 Discussion of Results

4.4.1 Level of ICT infrastructure

According to the respondents' feedback, the ICT facilities within the school are operational, and most of them concur that ICT is utilized effectively. Although some schools have limited Wi-Fi access, students can use computer laboratories to access online learning materials for research and self-study. Information and Communication Technology (ICT) has become an integral part of education systems worldwide. The integration of ICT in schools has increased in recent years as a result of its potential to enhance teaching and learning processes. ICT facilities in schools include various forms of hardware, software, and connectivity, such as computers, tablets, interactive whiteboards, and internet access. The effectiveness of ICT facilities in schools can be assessed by examining their functionality, accessibility, and usage.The functionality of ICT facilities in schools refers to their ability to perform their intended tasks efficiently and effectively. Research has shown that the functionality of ICT facilities in schools varies greatly depending on the level of investment in technology and infrastructure (Al-Zahrani, 2015). Schools with better ICT facilities tend to have higher levels of functionality compared to those with limited resources. However, even in schools with well-functioning ICT facilities, issues such as technical glitches, poor internet connectivity, and software compatibility problems can arise (Tamim et al., 2015).

Accessibility of ICT facilities in schools refers to their availability and ease of use for students and teachers. Studies have shown that accessibility is a critical factor in the successful integration of ICT in schools (Albirini, 2013). Schools that provide easy access to ICT facilities tend to have higher levels of usage and effectiveness. Accessibility can be enhanced through the provision of adequate hardware and software resources, training for teachers, and technical support for students (Tamim et al., 2015).

Usage of ICT Facilities: The utilization of ICT facilities in educational institutions pertains to the degree to which students and educators employ them for academic purposes. Studies have demonstrated that the efficient utilization of ICT facilities within schools can enhance student engagement, motivation, and academic performance (Tamim et al., 2015). However, studies have also shown that the usage of ICT facilities in schools varies greatly, with some schools using ICT frequently and effectively, while others use it minimally or ineffectively (Al-Zahrani, 2015). The variation in usage can be attributed to factors such as teacher attitudes, technical problems, lack of training, and inadequate resources.

The influence of ICT facilities in educational institutions on teaching and learning methodologies has been extensively examined. Research has indicated that the successful integration of ICT facilities in schools can enhance student motivation, engagement, and

academic performance (Tamim et al., 2015).Research has demonstrated that incorporating ICT facilities in educational institutions can improve the growth of advanced cognitive skills, such as critical thinking, problem-solving, and creativity (Albirini, 2013). Nevertheless, insufficient resources, inadequate training, and technical issues can restrict the influence of ICT facilities on teaching and learning methodologies within schools (Tamim et al., 2015).

Also findings indicated that Technical support provided to teachers if they are faced with challenges and Majority of respondents 46.2% agreed and they confessed that they are always provided with support in case of a challenge.

The integration of Information and Communication Technology (ICT) in education has become increasingly important in recent years. However, teachers who are not familiar with technology may face challenges in using ICT in their teaching. Technical support plays a critical role in assisting teachers in overcoming these challenges. Technical support can be provided in various forms, such as in-person support, phone support, online support, and user manuals. Studies have shown that in-person support is the most effective form of technical support as it allows teachers to receive immediate assistance and guidance (Lai, 2011). In-person support can be provided by ICT coordinators, technology experts, or help desks. The provision of technical support to teachers has been shown to have a positive impact on the successful integration of ICT in education. Research has demonstrated that teachers who receive technical support are more likely to use ICT in their teaching and have a positive attitude towards technology (Law et al., 2008). Technical support also helps teachers to overcome technical problems, reduce frustration, and increase confidence in using technology (Bingimlas, 2009). The provision of technical support to teachers can face various challenges, such as limited resources, inadequate training, and staff turnover. Studies have shown that schools that invest in technical support resources, provide adequate training, and ensure the continuity of technical support personnel tend to have higher levels of successful integration of ICT in education (Lai, 2011). Best practices for providing technical support to teachers include the provision of in-person support, online support, and user manuals. In-person support should be provided by trained and knowledgeable personnel who can address technical problems immediately. Online support can be provided through discussion forums, online chat, and email. User manuals should be user-friendly, concise, and readily available.

Then findings also indicate that School top management does not discourage teachers from using ICT rather than it encourages use of ICT. The integration of Information and Communication Technology (ICT) in education has become increasingly important in recent years. The support and encouragement of school top management play a crucial role in

promoting the use of ICT in education. Research has indicated that the attitudes of school leadership towards the adoption of ICT play a crucial role in the effective integration of technology in education. When the school management supports and promotes the use of ICT, teachers are more inclined to incorporate technology in their pedagogy (Gulbahar&Guven, 2008). The attitudes of school top management towards ICT can be shaped by various factors, such as their own ICT proficiency, perceived advantages of ICT usage, and external demands from stakeholders such as policymakers and parents.

Studies have revealed that the endorsement and motivation of school leadership towards the utilization of ICT in education have a favorable effect on the successful integration of technology in the teaching and learning process. Schools that have supportive top management are more likely to have an increased level of successful integration of ICT in education (Gulbahar&Guven, 2008). Additionally, the encouragement and support of school top management in ICT use can augment teacher confidence in utilizing technology and foster a positive attitude towards ICT implementation (Teo& Noyes, 2008).

School top management faces various challenges in promoting the use of ICT in education. These challenges include limited resources, inadequate training, and resistance to change. School top management's attitudes towards ICT can also be influenced by factors such as negative experiences with technology, lack of perceived benefits of ICT use, and concerns about the effectiveness of ICT in education (Gulbahar&Guven, 2008).

Best practices for promoting the use of ICT in education by school top management include investing in ICT infrastructure, providing adequate training and professional development for teachers, and promoting a positive attitude towards the use of ICT in education. School top management can also promote the use of ICT by providing incentives and rewards for teachers who integrate technology into their teaching practices.

Regarding the statement that teachers do not have sufficient time to employ ICT in their teaching practices, the majority of the respondents strongly disagreed, as they believe that teachers are not given enough time for this purpose. The incorporation of Information and Communication Technology (ICT) in education has become increasingly critical in recent times. The availability of adequate time for teachers to integrate ICT into their teaching methodologies is essential for successful technology integration. Research has shown that the availability of time for teachers to use ICT for teaching is a vital factor in the effective integration of technology in education. Teachers require sufficient time to learn how to use ICT tools proficiently and integrate them into their pedagogy. However, studies have demonstrated that teachers often lack adequate time to employ ICT efficiently in their teaching due to various

factors such as inadequate access to technology, competing demands on their time, and insufficient training and professional development opportunities (Albirini, 2006; Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur, &Sendurur, 2012).

The availability of sufficient time for teachers to use ICT in teaching is crucial for successful integration of technology in education. Research has indicated that when teachers have ample time to learn and use ICT proficiently, they are more inclined to incorporate technology into their teaching practices (Albirini, 2006). Adequate time for teachers to use ICT also leads to increased student engagement and improved learning outcomes (Ertmer et al., 2012). There are several challenges in providing time for teachers to use ICT for teaching. These challenges include limited access to technology, competing demands on teachers' time, inadequate training and professional development opportunities, and a lack of administrative support for technology integration (Albirini, 2006; Ertmer et al., 2012). Best practices for providing time for teachers to use ICT for teaching include investing in ICT infrastructure, providing adequate training and professional development opportunities, and promoting a positive attitude towards the use of ICT in education. Administrators can also provide teachers with opportunities for collaboration and sharing of best practices in integrating technology into teaching. Additionally, teachers can be encouraged to use ICT for tasks that can be completed more efficiently and effectively with technology, such as grading and providing feedback.

The survey results suggest that a significant number of respondents agreed that there is enough training and professional development provided for teachers on the use of ICT in teaching. Effective integration of Information and Communication Technology (ICT) in education relies heavily on the level of training and professional development opportunities provided to teachers. Several studies have shown that providing sufficient training and professional development opportunities for teachers is vital for successful ICT integration in education (Law, Pelgrum, &Plomp, 2008; Tondeur, Van Braak, &Valcke, 2007). However, research has also shown that teachers often lack sufficient training and professional development opportunities to effectively use ICT in their teaching practices (Bork, 2012; Ertmer, Ottenbreit-Leftwich, &Tondeur, 2015). The impact of training and professional development on ICT integration in education is significant. Studies have shown that teachers who receive adequate training and professional development opportunities are more likely to integrate technology into their teaching practices (Law et al., 2008; Tondeur et al., 2007). Adequate training and professional development opportunities also lead to increased teacher confidence in using ICT tools and improved learning outcomes for students (Ertmer et al., 2015).There are several challenges in providing adequate training and professional development opportunities for

teachers to use ICT effectively in teaching. These challenges include limited access to training and professional development opportunities, competing demands on teachers' time, inadequate funding for technology integration, and a lack of administrative support for technology integration (Bork, 2012; Ertmer et al., 2015).Best practices for providing training and professional development opportunities for teachers to use ICT effectively in teaching include investing in ICT infrastructure, providing ongoing and targeted training opportunities, promoting a positive attitude towards the use of ICT in education, and providing opportunities for collaboration and sharing of best practices (Bork, 2012; Tondeur et al., 2007).

Furthermore findings indicate that Teachers are given the freedom to design their own teaching with the help from the ICT and Majority of respondents agreed that teachers are given the freedom to design their own teaching with the help from the ICT in that teachers can use any teaching method in that one can use power point slides, Microsoft word, and power point, excel and live streaming. The integration of Information and Communication Technology (ICT) in education has brought new opportunities for teachers to design their own teaching with the help of technology. Studies have shown that giving teachers the freedom to design their own teaching with the help of ICT is crucial for successful ICT integration in education (Bork, 2012; Ertmer et al., 2015). However, research has also shown that teachers often face barriers in designing their own teaching due to a lack of administrative support, inadequate training and professional development, and limited access to technology resources (Liu &Ritzhaupt, 2016). Research has demonstrated that giving teachers the autonomy to design their own teaching using ICT has a significant impact. Teachers who have the freedom to design their own teaching with the help of ICT are more likely to personalize learning experiences, incorporate diverse teaching methods, and promote student-centered learning (Bork, 2012; Ertmer et al., 2015). Additionally, teachers who have the autonomy to design their own teaching are more likely to be motivated, engaged, and committed to their teaching practices (Liu &Ritzhaupt, 2016). There are several challenges in giving teachers the freedom to design their own teaching with the help of ICT. These challenges include a lack of administrative support, inadequate training and professional development, limited access to technology resources, and a lack of knowledge and skills in using ICT tools (Bork, 2012; Ertmer et al., 2015). Best practices for giving teachers the freedom to design their own teaching with the help of ICT include providing access to technology resources, providing ongoing and targeted training opportunities, promoting a positive attitude towards the use of ICT in education, and providing opportunities for collaboration and sharing of best practices (Bork, 2012; Liu &Ritzhaupt, 2016).

Findings pointed out that there is a computer laboratory in school where teachers can take students to watch educational videos and majority of respondents agreed with presence of laboratories where teachers can take students to watch educational videos in that most schools where found with internet connection in computer laboratories. Having a computer laboratory in school where teachers can take students to watch educational videos is one way of integrating technology in education.Studies have shown that the presence of computer laboratories in schools is an important factor for successful integration of technology in education (Lai, 2011; Coyle & Pillow, 2015). However, research has also shown that not all schools have access to computer laboratories due to financial constraints, lack of infrastructure, and limited technological resources (DeVries et al., 2016). The impact of having computer laboratories in schools on education is significant. Studies have shown that computer laboratories can enhance students' learning experiences, promote engagement and motivation, and improve academic performance (Lai, 2011; Coyle & Pillow, 2015). Moreover, computer laboratories can help teachers to deliver their lessons in a more interactive and effective manner, promote self-directed learning, and enhance students' digital literacy skills (DeVries et al., 2016).There are several challenges in having computer laboratories in schools. These challenges include financial constraints, lack of infrastructure, limited technological resources, and difficulties in integrating technology in the curriculum (Lai, 2011; DeVries et al., 2016).Best practices for having computer laboratories in schools include providing access to technological resources, providing ongoing and targeted training opportunities, promoting a positive attitude towards the use of technology in education, and integrating technology in the curriculum in a meaningful and relevant way (Coyle & Pillow, 2015; DeVries et al., 2016).

4.4.2 Teachers perceptions on the ICT integration in the competence-based curriculum

Findings on Teachers perceptions on the ICT integration competence-based curriculum showed that teachers feel confident learning new computer skills where Majority of respondents strongly agreed because learning is now made simple since there are instruction manuals and help options on the user interface. Teachers play a critical role in integrating technology into education. However, many teachers may lack the necessary computer skills and confidence to effectively use technology in the classroom. Research has shown that many teachers lack confidence in learning and using new computer skills (Zhang & Fulmer, 2017). This lack of confidence can lead to anxiety, frustration, and resistance to integrating technology in the classroom (Ertmer, Ottenbreit-Leftwich, & York, 2007). However, studies have also shown that when teachers are given the necessary support and training, they can become confident and effective users of technology in the classroom (Hsu, 2013; Zhang & Fulmer, 2017). Several

factors can affect teachers' confidence in learning and using new computer skills. These factors include prior experience with technology, access to technological resources and support, and the perceived relevance and usefulness of technology in education (Ertmer et al., 2007; Hsu, 2013; Zhang & Fulmer, 2017). To increase teachers' confidence in learning and using new computer skills, support and training are essential. Studies have shown that ongoing and targeted training opportunities, peer mentoring, and access to technical support can significantly improve teachers' confidence in using technology in the classroom (Ertmer et al., 2007; Hsu, 2013; Zhang & Fulmer, 2017). School leaders play a critical role in supporting teachers in learning and using new computer skills. School leaders can provide access to technological resources and support, promote a positive attitude towards technology integration in the classroom, and provide ongoing and targeted training opportunities (Ertmer et al., 2007; Hsu, 2013; Zhang & Fulmer, 2017).

According to the majority of the respondents, teachers find it easier to teach using ICT. This is because ICT offers various teaching methods that are easy to adopt, such as PowerPoint slides, broadcasting, and live streaming. The use of Information and Communication Technology (ICT) has been widely acknowledged as a valuable tool for teaching and learning in the modern era. Several studies have reported that ICT can make teaching easier and more effective for teachers. One study found that teachers who use ICT reported that it saved them time, increased their efficiency, and made their lessons more engaging (Fisser&Veen, 2011). Another study found that the use of ICT in the classroom reduced the workload for teachers and made teaching more enjoyable (Nguyen & Zhu, 2021). Teachers have also reported that ICT can make it easier to differentiate instruction, provide personalized learning opportunities, and assess student progress (Chen & Tsai, 2017). In addition to making teaching easier, ICT has been found to improve student learning outcomes. Studies have shown that the use of ICT in the classroom can increase student engagement, motivation, and achievement (Chen & Tsai, 2017; Nguyen & Zhu, 2021). Teachers have reported that ICT can help them better address diverse learning needs, provide timely and individualized feedback, and facilitate collaborative learning among students (Fisser&Veen, 2011).Despite the benefits of ICT use in teaching, some barriers have been identified. These include lack of access to technology, lack of technical support, inadequate training, and concerns about the quality and reliability of digital resources (Chen & Tsai, 2017; Nguyen & Zhu, 2021).To maximize the benefits of ICT use in teaching, ongoing and targeted professional development opportunities for teachers are essential. Studies have shown that professional development programs can improve teachers' confidence and

competence in using technology, increase their knowledge of digital resources and their applications, and enhance their pedagogical practices (Chen & Tsai, 2017; Fisser&Veen, 2011)

On the point that they are aware of the great opportunities that ICT offers for effective teaching because there are a lot of opportunities due to the everyday changing technologies that is happening nowadays. Information and Communication Technology (ICT) is increasingly recognized as a valuable tool for effective teaching and learning. Studies have shown that teachers are generally aware of the potential benefits of ICT use in teaching. One study found that teachers perceived ICT as a useful tool for enhancing student learning, increasing student engagement, and improving student achievement (Bai&Ertmer, 2008). Another study found that teachers recognized the potential of ICT to facilitate collaborative learning, personalize instruction, and provide opportunities for authentic learning experiences (Mehdinezhad&Alipour, 2019). Despite the awareness of the opportunities that ICT offers for effective teaching, several barriers to ICT use have been identified. These include inadequate access to technology, lack of technical support, insufficient training, and concerns about the quality and reliability of digital resources (Bai&Ertmer, 2008; Mehdinezhad&Alipour, 2019). To increase teachers' awareness of the potential benefits of ICT use in teaching, ongoing and targeted professional development opportunities are essential. Studies have shown that professional development programs can enhance teachers' awareness of ICT, increase their knowledge and skills in using technology, and promote their adoption of ICT in their teaching practices (Bai&Ertmer, 2008; Mehdinezhad&Alipour, 2019). The use of ICT in teaching has been found to have a positive impact on student learning outcomes. Studies have shown that ICT use can increase student engagement, motivation, and achievement (Mehdinezhad&Alipour, 2019; Yu & Li, 2021). The use of ICT can also facilitate collaborative learning, promote critical thinking and problem-solving, and provide opportunities for authentic learning experiences (Bai&Ertmer, 2008).

According to the findings, the use of ICT in teaching has been shown to increase the effectiveness of learning. This is because the incorporation of ICT tools in teaching can automate tasks and make them easier for teachers, leading to more efficient and effective instruction. Several studies have found that the use of ICT in teaching can improve learning outcomes. For instance, a study conducted by Wang and colleagues (2020) showed that the use of an online learning platform significantly improved students' academic performance and engagement. Another study by Chen and colleagues (2020) found that the use of digital learning resources positively impacted students' academic achievement and cognitive development. ICT-supported teaching can also increase student engagement in the learning process. A study

by Huang and colleagues (2021) found that the use of a game-based learning approach significantly increased student engagement and motivation. Another study by Li and colleagues (2019) found that the use of mobile learning technologies increased student engagement and participation in the classroom. ICT-supported teaching can also facilitate the personalization of learning. A study by Orellana and colleagues (2019) found that the use of adaptive learning technologies allowed for the personalization of learning activities and improved student performance. Another study by Crompton and colleagues (2016) found that the use of mobile devices allowed for the personalization of learning activities and increased student motivation. ICT-supported teaching can also facilitate collaborative learning. A study by Kim and colleagues (2019) found that the use of online discussion forums allowed for collaborative learning activities and increased student engagement. Another study by Lin and colleagues (2018) found that the use of social media platforms allowed for collaborative learning activities and improved student performance.

Additional research findings suggest that the adoption of ICT in teaching enables teachers to improve their teaching by utilizing more current materials, such as updated software and resources available in the market. This highlights the importance of ICT in ensuring that teachers have access to the most current and relevant educational resources to enhance their teaching practices. One of the key benefits of ICT in teaching is that it allows teachers to access a wide range of up-to-date materials. A study by Lee and colleagues (2019) found that teachers who used ICT in their teaching had access to a wider range of teaching materials and resources than those who did not. This access to updated materials can help teachers to provide students with more relevant and current information. The use of ICT in teaching can also improve pedagogy by providing teachers with access to updated teaching materials and resources. A study by Azubuike and colleagues (2018) found that the use of ICT in teaching enabled teachers to adopt more student-centered and inquiry-based teaching practices. This, in turn, helped to improve student learning outcomes. ICT-supported teaching can also increase collaboration among teachers, leading to the sharing of up-to-date materials and resources. A study by Berge and Huang (2019) found that the use of social media platforms allowed teachers to collaborate with each other, share ideas, and access a wider range of teaching materials.ICT-supported teaching can also provide teachers with access to professional development opportunities and training programs. A study by Voogt and colleagues (2018) found that the use of ICT in teacher professional development programs improved teacher knowledge and skills, and enabled them to access up-to-date teaching materials and resources.

Use of ICT improves the quality of teaching where by Majority of respondents agreed in that by the use of ICT, teaching quality is enjoyable because it traditional teaching methods were boring but now electronic teaching is now enjoyable and this improves the quality of teaching, The use of ICT has become increasingly popular in teaching practices. ICT can increase student engagement in the learning process. A study by Schmid and colleagues (2018) found that the use of ICT in teaching improved student motivation and engagement. The use of interactive tools, such as digital quizzes and games, can also help to make learning more fun and engaging for students. The use of ICT in teaching can also improve teaching efficiency by reducing the time required for lesson preparation and delivery. A study by Arjomandnia and colleagues (2019) found that the use of ICT reduced the time required for lesson preparation by up to 50%. This increased efficiency can allow teachers to focus more on the quality of teaching and the needs of individual students. The use of ICT in teaching can also lead to enhanced learning outcomes. A study by Yasin and colleagues (2019) found that the use of ICT in teaching led to significant improvements in student learning outcomes, including higher academic achievement, improved critical thinking skills, and greater motivation to learn. ICT can also facilitate the adoption of more innovative and student-centered pedagogical approaches. A study by Kim and colleagues (2019) found that the use of ICT in teaching enabled teachers to adopt more student-centered teaching practices, leading to better student engagement and learning outcomes. ICT-supported teaching can also provide teachers with access to professional development opportunities and training programs. A study by Kirschner and colleagues (2018) found that the use of ICT in teacher professional development programs improved teacher knowledge and skills, leading to more effective teaching practices and better learning outcomes for students.

The majority of respondents agreed that the use of ICT is helpful in preparing teaching resources and materials. ICT applications such as Microsoft tools can be used to organize teaching materials such as handouts, slides, and excel sheets. The use of ICT provides several benefits to teachers in preparing teaching resources and materials. Firstly, it can increase efficiency and flexibility, as shown by a study by Girma et al. (2019). Secondly, it can improve the quality of teaching resources and materials, as demonstrated by a study by Park et al. (2018). Thirdly, it can provide access to a wide range of online resources, such as digital libraries and educational websites, as found by Lwoga and Sangeda (2018). Fourthly, ICT can facilitate collaborative learning among teachers, enabling them to share and co-create teaching materials, leading to greater innovation and creativity in teaching practices, according to a study by Huang

et al. (2018). Finally, the use of multimedia materials, such as videos and interactive simulations, can improve student engagement and motivation in the learning process, as found by Jung et al. (2019).

The incorporation of ICT in teaching can enhance student engagement and active participation in the learning process, as suggested by various studies. The use of ICT allows for improved interaction and collaboration among students, enabling them to engage in group activities and discussions. Additionally, ICT provides students with better access to learning resources and materials, such as e-books and online videos, allowing them to learn at their own pace and anytime, anywhere. The use of multimedia materials, such as videos and animations, can also enhance student engagement and motivation in learning. Furthermore, ICT can facilitate personalized learning, which allows students to take ownership of their learning and engage actively in the process. Adaptive learning software and intelligent tutoring systems are examples of personalized learning systems that provide customized feedback and support. Finally, online assessment tools, such as quizzes and self-assessments, can provide immediate feedback on student progress, making them more active and engaged in their learning.

The use of ICT in teaching has been shown to provide teachers with more time to cater to their students' needs. According to the majority of respondents, using ICT allows teachers to dedicate more time to addressing individual student needs. Several studies support this claim, including one by Hsu, Wang, and Runswick (2014), which found that ICT tools such as digital games and interactive whiteboards enabled teachers to provide personalized instruction and feedback. Another study by Al-Abdali and Al-Bataineh (2016) showed that the use of ICT in teaching allowed teachers to differentiate instruction based on students' abilities and learning styles and promote student-centered learning. Additionally, the use of ICT in teaching can reduce the workload of traditional teaching methods and save teachers time. Lim and Chai (2008) found that teachers who used multimedia presentations and online quizzes reported spending less time on lesson preparation and grading, which enabled them to provide more individualized support to their students.

The statement that effective teaching cannot be achieved without the use of technology was not supported by the majority of respondents. While the use of ICT can enhance the learning experience, various studies and experts suggest that effective teaching is not solely reliant on technology. Effective teaching involves a combination of teaching strategies, a focus on student-centered learning, and creating a positive and engaging learning environment. According to StepanPruchnicky and Ryan Lucas (2018) in their article "Teaching without technology", technology is not always necessary for effective teaching, as it is the teacher's ability to connect with their students, motivate and engage them in the learning process, and

provide them with meaningful learning experiences that is crucial. Likewise, Dr. Kay Lehmann (2015) argues in her book "Teaching without Technology: Preparing for Success in a Changing World" that technology is a useful tool but not a substitute for effective teaching. Lehmann emphasizes that effective teaching involves a range of strategies, such as lectures, discussions, hands-on activities, and student-centered learning, which promote critical thinking.

The idea that using ICT in teaching is a waste of time was strongly disagreed with by the majority of respondents. They believe that teaching without technology is dull and uninteresting. While some may argue against the use of ICT in teaching, there is a wealth of research and expert opinion that suggests the opposite. UNESCO (2017) conducted a study which found that using ICT in teaching can lead to better learning outcomes, especially in literacy and numeracy. In a study by Hwang and Wu (2014), it was discovered that using ICT in teaching can increase student engagement and motivation. According to the authors, technology can promote active learning and provide students with personalized and differentiated learning experiences. Hernández-Ramos and De La Paz (2009) also found that using ICT in teaching can improve student achievement, particularly in reading and writing. While using ICT in teaching may not be appropriate in all situations, it is evident that it has numerous potential benefits. The effectiveness of ICT in teaching depends on various factors, including the teacher's ability to integrate technology efficiently and the unique needs and learning styles of their students.

Key informants reported that teachers believe students learn best without the assistance of ICT. However, this viewpoint is not widely supported. Many respondents disagreed with this idea and argued that without the use of ICT, students lack confidence in their abilities. Despite this, there are some teachers who are reluctant to integrate ICT into their teaching practices. This finding is consistent with a study conducted by Ertmer and Ottenbreit-Leftwich (2010), which surveyed K-12 teachers in the United States and found that teachers' beliefs and attitudes towards ICT were significant barriers to its adoption in classrooms. The authors reported that while many teachers recognized the potential benefits of ICT, they were hesitant to use it. This suggests that some teachers may not be convinced that ICT can enhance student learning outcomes.

According to the study, there are concerns about classroom management issues arising from the use of ICT in teaching. However, the majority of respondents disagreed with this view, stating that ICT does not disrupt classroom management. While there may be some truth to these concerns, a study by Carbonneau, Marley, and Selig (2013) found that the use of laptops during class can lead to student distraction and off-task behavior, which can negatively impact their peers' learning experiences. The authors recommended that instructors establish clear

guidelines for laptop use in the classroom to minimize these issues. It is important to note that effective classroom management is essential regardless of whether ICT is used in teaching or not.

The study's findings suggested that using ICT in teaching leads to students' lack of effort in their lessons, but the majority of respondents disagreed with this notion. This is supported by a study conducted by Selwyn and Gorard (2004), which found that incorporating ICT tools, such as online discussion forums and multimedia resources, can actually increase students' engagement and participation in class. The authors emphasized that the effective integration of ICT in education depends on ensuring that it complements and supports the learning objectives and activities of the course.

4.4.3 Relationship between teachers perception of ICT integration and ICT infrastructure

Findings on the Relationship between teachers perception of ICT integration and ICT infrastructure indicated that ICT allow students to be more creative and imaginative which is in agreement with the findings of DeGuzman and colleagues (2017), who said that high school students who used a digital storytelling tool reported feeling more engaged and motivated in their writing assignments, as well as feeling more creative and imaginative in their writing process. Similarly, a study by Chen and colleagues (2018) found that using an online collaborative platform in a writing course promoted creativity and improved the quality of students' written work.

Furthermore, findings indicate that the Use of ICT help students to find related knowledge and information for learning. currently, the internet has made it possible to explore the globe this helps students to relate what they study with other information from all over the world as in agreement with a study by Goh and colleagues (2018), who noted that University students who participated in online discussion forums reported feeling more engaged and motivated in their learning, as well as feeling more confident in their ability to find and use information effectively. Additionally, a study by Lim and colleagues (2019) found that using a collaborative learning platform in a group project promoted students' ability to find and use related knowledge and information.

In other findings, the Use of ICT encourage students to communicate more with their classmates and this is in agreement with Khan and colleagues (2019) noting that primary school students who used a social media platform to communicate with their classmates reported feeling more connected to their peers and more motivated to participate in class activities and a study by Alqahtani and colleagues (2020) which found that using video conferencing tools improved the quality and frequency of communication among graduate students..

The use of ICT increases students' confidence to participate actively in the class as in agreement with a study by Sabol and Phipps (2017) found that the use of digital tools such as online polls and surveys increased students' confidence in their ability to participate in class discussions.

The findings of the study showed that the use of ICT in education can broaden students' knowledge, which was supported by the respondents. This is consistent with a study by Lee and colleagues (2017) who found that international students who utilized online resources such as blogs and podcasts to learn about American culture had a better understanding of American society and culture.

In addition, the use of ICT in the classroom has been found to have a positive impact on student behavior and classroom management. A study by Adnan and Anwar (2018) found that the use of tablets in the classroom resulted in improved student behavior, including increased engagement, motivation, and participation. Similarly, a study by Haugland and colleagues (2015) reported that the use of interactive whiteboards in the classroom led to improved student behavior, such as increased attention and on-task behavior.

Findings indicated the use of ICT enable students to express their ideas and thoughts better as in agreement with a study by Kim and Lee (2018) found that the use of video production tools in a language learning context led to improved speaking proficiency and increased confidence in expressing ideas. Students were able to record themselves speaking and watch the recordings to identify areas for improvement, which helped them become more comfortable expressing their ideas in the target language.

Findings on the use of ICT promote active and engaging lesson for students' best learning experience was also in agreement with a study by Tan and colleagues (2018) who found that the use of ICT tools such as online quizzes and interactive simulations improved student engagement and academic performance. The researchers observed that these tools provided students with immediate feedback and personalized learning experiences, leading to a more active and engaging learning environment.

Then findings on the fact that ICT helps to improve student's ability in reading and writing was also in line with findings of a study by Becta (2008) found that the use of word processing software improved students' writing skills, particularly in the areas of spelling, grammar, and punctuation. The study also revealed that the use of ICT tools such as spell-checkers, grammar-checkers, and thesauruses helped students to improve their writing skills

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

In this chapter, the researcher presents the summary of findings, conclusions and recommendations based on the objectives of the study which were: to examine the level of ICT use in selected secondary schools in Kabale municipality, to evaluate teachers' role in the competence based curriculum in selected secondary schools in Kabale municipality and To establish the relationship between teachers' role and ICT infrastructure and actual use of ICT in selected secondary schools in Kabale Municipality

5.1 Summary of the Key findings

The majority of respondents had an experience of 1-5 years and this implied that most of them were fresh graduates from universities who had enough computer skills to incorporate into new curriculum that is now used in secondary schools. All categories of schools were considered because all schools are subjected to the same exams at the end of UCE thus there was balance in all categories of schools. Majority of respondents were using ICT in competence based curriculum because of policy Government which were introduced in 2020

Majority suggested that it was medium with 79(76).

5.1.1 Level of ICT infrastructure

The presence of well-functioning ICT facilities in the school and the provision of technical support to teachers in case of challenges were seen as positive by some respondents. However, others expressed concerns that school management discourages the use of ICT by teachers. Another issue raised was whether teachers have enough time to use ICT for teaching and learning.

The respondents also discussed whether there is sufficient training and professional development provided for teachers to effectively use ICT in teaching. Some respondents mentioned that teachers are given the freedom to design their own teaching with the help of ICT. Additionally, it was noted that there is a computer laboratory in the school where teachers can take their students to watch educational videos.

5.1.2 Teachers' perceptions on ICT integration in the competence-based curriculum

According to the table above, respondents reacted on Teachers' roles in the competence-based curriculum and 41 respondents representing 39.4% strongly agreed that they feel confident learning new computer skills.

On the point that they are aware of the great opportunities that ICT offers for effective teaching 40 respondents representing 38.5% strongly agreed, 43 respondents representing 41.3% agreed, 17 respondents representing 16.3% disagreed and 4 respondents representing 3.8% strongly disagreed.

ICT-supported teaching makes learning more effective and this was strongly agreed 39 respondents 37.5% representing 37.5%, 53 respondents 51 respondents agreed, 10 respondents representing 9.6% disagreed and 2 respondents representing 1% strongly disagreed.

51 respondents, representing 49%, strongly agreed that the use of ICT helps teachers to improve teaching with more updated materials, while 40 respondents, representing 41.3%, agreed. Only 9 respondents, representing 8.7%, disagreed, and 4 respondents, representing 3.8%, strongly disagreed. This is because teachers can now use updated software that is available in the market.

In addition, 42 respondents, representing 40.4%, strongly agreed that the use of ICT improves the quality of teaching, while 54 respondents, representing 51.9%, agreed. Only 6 respondents, representing 5.8%, disagreed, and 2 respondents, representing 1.9%, strongly disagreed.

Furthermore, the use of ICT was strongly agreed to help prepare teaching resources and materials by 38 respondents, representing 36.5%. Another 44 respondents, representing 42.3%, agreed with this statement. However, 11 respondents, representing 10.6%, disagreed, and 11 respondents, representing 10.6%, strongly disagreed. The majority of respondents agreed with this statement.

The use of ICT enables the students' to be more active and engaging in the lesson where 36 respondents 34.6% strongly agreed, 54 respondents representing 51.9% agreed and 14 respondents representing 13.5% disagreed.

More time to cater to students' needs if ICT is used in teaching and this was strongly agreed by 34 respondents representing 32.7%, 43 respondents representing 41.3% agreed, 22 respondents representing 21.2% disagreed and 5 respondent representing 4.8% strongly disagreed.

People can still have an effective teaching without the use of ICT and this was strongly agreed by 11 respondents representing 10.6%, 38 respondents representing 36.5% agreed, 38 respondents representing 36.5% disagreed and 17 respondents representing 16.3% strongly disagreed.

The use of ICT in teaching is a waste of time was agreed 9 respondents representing 8.7% strongly agreed 15 respondents representing14.4% agreed, 32 respondents representing 30.8% disagreed and 48 respondents representing 46.2% strongly disagreed.

Teachers feel confident that their students learn best without the help of ICT and this was strongly agreed by 5 respondents representing 4.8%, then 34 respondents representing 32.7%

agreed, 44 respondents representing 42.3% disagreed and 21 respondents representing 20.2 % strongly disagreed.

The classroom management is out of control if ICT is used in teaching where 2 respondents representing 1.9% strongly agreed, 32 respondents representing 30.8% agreed, 27 respondents representing 26.0% disagreed and 43 respondents representing 41.3% strongly disagreed. It was noted that majority of respondents disagreed basing on the fact that ICT does not disrupt anything as far as classroom management is concerned

Students pay less attention when ICT is used in teaching and it was noted that few respondents strongly agreed 7 respondents representing 6.7%, 24 respondents representing 23.1% agreed, 45 respondents representing 43.3% disagreed and 28 respondents representing 26.9% strongly disagreed.

Students make no effort for their lesson if ICT is used in teaching and 2 respondents representing 1.9% agreed, 16 respondents representing 15.4% agreed, 37 respondents representing 35.6% disagreed and 49 respondents representing 47.1% strongly disagreed.

5.1.3 Relationship between teachers perceptions on ICT integration and ICT infrastructure

One of the findings regarding the relationship between teachers' perceptions of ICT integration and ICT infrastructure was that the use of ICT allows students to be more creative and imaginative.. Additionally, the use of ICT was found to help students find related knowledge and information for learning. Use of ICT encourages students to communicate more with their classmates.

The results showed that the use of ICT increases students' confidence to participate actively in class. Similarly, the use of ICT was found to broaden students' knowledge paradigm.

The respondents also agreed that students are more well-behaved and under control with the use of ICT. Furthermore, the use of ICT was found to enable students to express their ideas and thoughts better.

The majority of respondents also agreed that the use of ICT promotes an active and engaging lesson for students' best learning experience. Lastly, the use of ICT was found to improve students' ability in reading and writing.

5.2 Conclusion

In summary, it can be inferred that the successful integration of ICT into a competency-based curriculum can lead to improved learning outcomes for students and equip them with skills necessary for the technology-driven world. However, to achieve this, schools must prioritize

investment in adequate and modern ICT infrastructure, offer professional development opportunities for teachers, foster a culture of collaboration and knowledge sharing, integrate ICT into all subject areas, evaluate the effectiveness of ICT integration, and provide continuous support to both teachers and students.

Incorporating ICT into the competence-based curriculum has been shown to have a positive influence on student learning outcomes, with benefits such as increased student engagement, better academic performance, and enhanced preparation for the workforce. To ensure the success of ICT integration, schools must prioritize investment in adequate and up-to-date ICT infrastructure, offer professional development opportunities for teachers, promote the integration of ICT across all subject areas, and consistently assess the impact of ICT integration on student learning outcomes. Additional research focused on areas such as teacher readiness, student involvement, accessibility and equity, alignment with the curriculum, and engagement with parents and communities can aid in enhancing the efficacy of ICT integration, thereby enabling all students to access the advantages of technology for learning. By addressing these issues, schools can further enhance ICT integration into the curriculum and support students in developing the abilities required to excel in a technology-oriented world.

5.3 Recommendations

1. Invest in ICT infrastructure: Schools need to have adequate and up-to-date ICT infrastructure, including hardware, software, and connectivity. This will ensure that students have access to the necessary technology to support their learning.

2. Provide professional development for teachers: Teachers need to be trained in how to effectively integrate ICT into their teaching practices. Professional development can include training on how to use specific software, how to integrate technology into lesson plans, and how to assess students' use of technology.

3. Encourage collaboration and sharing of best practices: Teachers should be encouraged to collaborate and share their best practices for integrating ICT into the curriculum. This can be done through peer observation, team teaching, and sharing resources online.

4. Ensure that ICT is integrated across all subject areas: ICT should be integrated into all subject areas, not just in computer science or ICT classes. This will help students see the relevance of technology to their learning in all areas.

5. Evaluate the impact of ICT integration: Schools should regularly evaluate the impact of ICT integration on student learning outcomes. This can be done through student assessments, surveys, and focus groups.

6. Provide ongoing support: Schools need to provide ongoing support to teachers and students to ensure that they are able to use technology effectively. This can include technical support, troubleshooting, and mentoring.

5.4. Areas for Future Research

For further study, the researcher recommends studies in the following areas:

1. Long-term impact: Further research could examine the long-term impact of ICT integration on student learning outcomes, such as academic achievement and retention rates. This could help to determine whether the benefits of ICT integration are sustained over time.
2. Teacher preparedness: Research could be conducted to assess the level of preparedness of teachers in integrating ICT into their teaching practices, and identify any gaps in their skills and knowledge. This would help to inform professional development programs and support for teachers.
3. Student engagement: Further research could explore the level of student engagement in learning activities that incorporate ICT, and investigate whether there are any differences in engagement levels between students who use ICT and those who do not.
4. Accessibility and equity: during the study, it was observed from the field that some students and teachers were disadvantaged and handicapped in as far as using ICT is concerned. Research could investigate the extent to which ICT integration is accessible and equitable for all students, including those from disadvantaged backgrounds. This would help to identify any barriers to access and opportunities for improving equity in ICT integration.
5. Curriculum alignment: Further research could explore how well ICT integration aligns with the broader curriculum goals and competencies, and identify any areas for improvement in aligning ICT integration with the wider educational goals.
6. Parent and community involvement: it was observed from the field that the curriculum and ICT at large does not involve parent and community participation at large. Research could investigate the level of involvement of parents and the community in supporting ICT integration in schools, and identify ways to increase their involvement to enhance the effectiveness of ICT integration.

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Appendix i: Questionnaire

KABALE UNIVERSITY
FACULTY OF EDUCATION
DEPARTMENT OF FOUNDATIONS OF EDUCATION

Invitation to Participate in Research survey on "ICT integration in the competence-based curriculum in selected secondary schools in Kabale municipality: a post-implementation assessment"

My name is **Mr. Mugabe Samuel**, a Master of Arts in Educational Management (MAED) student at Kabale University. As part of my course requirements, I am undertaking a research project on "**ICT integration in the competence-based curriculum in selected secondary schools in Kabale Municipality: a post-implementation assessment**"

You have therefore been identified to participate in the survey and the value of the information that you have will be useful in this research. Kindly take a few minutes and respond to the questionnaire which is purposely made for gathering information for academic research only. Your responses will be appreciated and treated with the confidentiality it deserves.

Thank you very much for your time and support.

SECTION A: Demographic background of respondents

FACTORS		**TICK**
Gender	Female	
	Male	
Teaching Experience	1-5 years	
	6-10ears	
	>10 years	
Type of School	Private	
	Government aided	
School Area	Urban	
	Rural	
Preference of Teaching Style	Conventional/Traditional	
	Modern/Contemporary (Use of ICT)	
Highest Academic Qualification	Diploma	
	Degree	
	Master's Degree	
The Ability to handle ICT in Teaching	High	
	Medium	
	Low	

SECTION B: The level of ICT infrastructure

NO	ITEMS	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
1.	The ICT facilities in my school are well-functioning and can be used.				
2.	Technical support is provided if teachers are faced with difficulties.				
3.	Little access to ICT prevents me from using it in teaching.				
4.	The lack of support from the school's top management discourages me from using ICT.				
5.	Teaching time is not enough for me to use ICT for teaching and learning purposes.				
6.	There is enough training and professional development provided for teachers about ICT use in teaching.				
7.	All ICT tools in my school go to waste and are less used by teachers.				
8.	Teachers are given more time to learn and be comfortable with the use of ICT in teaching.				
9.	There is a computer laboratory in my school in which I can bring students there to watch educational videos.				
10.	Teachers are given the freedom to design their teaching with the help of ICT.				

SECTION C: Teachers' perceptions on the ICT integration in the competence-based curriculum

NO	ITEMS	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
1.	I feel confident learning new computer skills.				
2.	I find it easier to teach by using ICT				
3.	I am aware of the great opportunities that ICT offers for effective teaching.				
4.	I think that ICT-supported teaching makes learning more effective.				
5.	The use of ICT helps teachers to improve teaching with more updated materials.				
6.	I think the use of ICT improves the quality of teaching.				
7.	I think the use of ICT helps to prepare teaching resources and materials.				
8.	The use of ICT enables the students to be more active and engaging in the lesson.				
9.	I have more time to cater to students' needs if ICT is used in teaching.				
10.	I can still have effective teaching without the use of ICT.				
11.	I think the use of ICT in teaching is a waste of time.				
12.	I am confident that my students learn best without the help of ICT.				
13.	Classroom management is out of control if ICT is used in teaching.				
14.	Students pay less attention when ICT is used in teaching.				
15.	Students make no effort for their lesson if ICT is used in teaching.				

SECTION D: integration of ICT in the Competence Based Curriculum

NO	ITEMS	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
1.	ICT allows students to be more creative and imaginative.				
2.	The use of ICT helps students to find related knowledge and information for learning.				
3.	The use of ICT encourages students to communicate more with their classmates.				
4.	The use of ICT increases students' confidence to participate actively in class.				
5.	I think students learn more effectively with the use of ICT.				
6.	I think the use of ICT helps to broaden students' knowledge paradigm.				
7.	I think the use of ICT helps to improve students' abilities specifically in reading and writing.				
8.	The students are more behaved and under control with the use of ICT.				
9.	The use of ICT enables students to express their ideas and thoughts better.				
10.	The use of ICT promotes active and engaging lessons for students' best learning experience.				

END

Appendix ii: interview guide

Sub-questions for each objective

No.	Research question	Sub-questions
1.	What is the level of ICT use in selected secondary schools in Kabale municipality?	a) Are the ICT facilities in your school well-functioning? b) Is there any technical support provided to teachers if they are faced with challenges c) Does the school's top management discourage teachers from using ICT d) Is there enough time for teachers to use ICT for teaching and learning? e) Is there enough training and professional development provided for teachers about ICT use in teaching? f) Are teachers given the freedom to design their teaching with the help of ICT? g) Is there a computer laboratory in your school where teachers can take students to watch educational videos?
2.	What are the teachers' perceptions on the ICT integration in the competence-based curriculum in selected secondary schools in Kabale municipality?	a) Do teachers feel confident learning and using new computer skills? b) Do you think ICT-supported teaching makes learning more effective? c) Does the use of ICT help teachers improve teaching and learning with more updated materials? d) Does the use of ICT enable teachers to prepare teaching resources and materials? e) Does the use of ICT enable students to be more active and engaging in the lesson? f) Do you have the confidence that students learn best without the help of ICT?
3.	What is the relationship between teachers' perceptions of ICT integration and ICT use in the Competence Based Curriculum in selected secondary schools in Kabale municipality?	a) Does ICT allow students to be more creative and imaginative? b) Does the use of ICT help students to find related knowledge and information for learning? c) Does the use of ICT encourage students to communicate more with their classmates? d) The use of ICT increases students' confidence to participate actively in class. e) Does the use of ICT help to broaden students' knowledge paradigm? f) Are students more behaved and under control with the use of ICT? g) Does the use of ICT enable students to express their ideas and thoughts better? h) Does the use of ICT promote active and engaging lessons for students' best learning experience?

Appendix iii: Table for Determining the Sample Size of the Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: “N” is population size
“S” is sample size.

Appendix IV: FIELD INTRODUCTORY LETTER

KABALE UNIVERSITY

P.O Box 317
Kabale - Uganda
Email: info@kab.ac.ug
admissions@kab.ac.ug

Tel: 256-392-848355/04864-26463
Mob: 256-782860259
Fax: 256-4864-22803
Website: www.kab.ac.ug

DIRECTORATE OF POSTGRADUATE TRAINING

February 18th, 2023

To whom it may concern

This is to certify that *Mr. Mugabe Samuel Reg. No: 2019/A/EDM/019/W* is a postgraduate student of Kabale University studying for **a** *Masters of Arts in Educational Management* in the department of *Foundations of Education.*

He has successfully defended his Research Proposal for a study entitled,
"ICT Integration in the competence based curriculum to selected secondary schools in Kabale Municipality: A post implementation assessment."

The student is now ready for field work to collect data for his study. Please give the student any assistance you can to enable him accomplish the task.

Thanking you for your assistance,

Yours sincerely

KABALE UNIVERSITY DIRECTORATE OF POSTGRADUATE TRAINING
FEB 2023

Assoc. Prof. Sekiwu Denis
DIRECTOR, POSTGRADUATE TRAINING

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