Promotion of ICT and Students Performance in History and Government in Public Secondary Schools in Langata Sub-County, Kenya

Tobias Abwao Andere

149812

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Educational Management at Strathmore University

School of Humanities and Social Sciences

Strathmore University

Nairobi, Kenya

June, 2025

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University to the best of my knowledge. The thesis has no material that has previously been published or written by another person except where due reference is made in the report.

Signature:  Date: 20th May, 2025

Tobias Abwao,

Master's Student, School of Humanities and Social Sciences,

Strathmore University

Approval

The Thesis of Tobias Abwao was reviewed and approved by the following:

Dr. Mukami Njoroge,

Senior Lecturer, School of Humanities and Social Sciences,

Strathmore University

Dr. Magdalene Dimba,

Dean, School of Humanities and Social Sciences,

Strathmore University

Prof. Bearnard Shibwabo,

Director of Graduate Studies,

Strathmore University

ABSTRACT

This study sought to investigate the promotion of ICT and students performance in history and government in public secondary schools in Langata sub-county, Kenya. The study was guided by the following specific objectives; to examine the extent to which ICT is being used to teach and learn History and Government; to identify the resources in place to support ICT integration on teaching and learning History and Government; and to find out the challenges and opportunities of using ICT to teach and learn History and Government in public secondary schools in the Langata Sub-County. Davis' (1989) Technology Acceptance Model (TAM), was adopted for the study. The study used a convergent parallel mixed methods design. The target population consisted of eight principals, 64 teachers from eight public secondary schools and one sub-county director of education. The schools and principals were selected using non-probability purposive selection, while census sampling guaranteed that all instructors were included. The sub-county director of education was automatically included because of their administrative control responsibility. Closed and open-ended questionnaires for teachers were used to collect data, as were semi-structured interviews with principals and the sub-county director. Quantitative data were analyzed using descriptive statistics (frequency and percentages) in SPSS (version 29), and the findings were displayed in tables, graphs, and pie charts. Qualitative data were thematically analyzed and conveyed using narratives and direct quotations related to the study themes. Ethical considerations were followed including adherence to the use of APA Seventh Edition in referencing of the used material. The study found that effective ICT promotion has the potential to dramatically improve students' performance in History and Government. However, various challenges to ICT integration exist, including poor ICT infrastructure (e.g., insufficient internet access and restricted computer availability), instructors' weak digital literacy, and aversion to using ICT tools in pedagogical practice. The study found that school administrators did not take aggressive initiatives to encourage teacher training in ICT integration and establish a favorable climate for technology adoption. Based on these findings, the research suggests that the Ministry of Education develop required ICT training programs for teachers, with an emphasis on digital literacy, multimedia tool use, and subject-specific ICT integration techniques. Continuous professional development opportunities should be prioritized to guarantee instructors' proficiency in developing technology. Furthermore, school administrators are advised to take a more active role in encouraging ICT adoption by providing suitable resources, fostering teacher cooperation, and developing venues for exchanging best practices and tackling integration difficulties. These ideas seek to increase the efficacy of ICT in teaching and studying History and Government, resulting in better educational outcomes in Kenyan secondary schools.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

CAI: Computer-Assisted Instruction.

DLP: Digital Learning Program.

ICT: Information and Communication Technology.

KCSE: Kenya Certificate of Secondary Education.

LMS: Learning Management Systems.

MoE: Ministry of Education

OECD: Organization for Economic Cooperation and Development.

DEFINITION OF TERMS

Information and communication technology - This encompasses tools used to manipulate, store, transmit, and manage information (Reena, 2021).

ICT resources - This refers to the various tools, technologies, and infrastructure used to manage and communicate information electronically (Rogeri, 2024).

ACKNOWLEDGEMENT

I wish to express my gratitude to Almighty God for giving me the strength and good health throughout writing this thesis. I equally thank Dr. Mukami Njoroge, my supervisor, for her invaluable guidance, patience, and encouragement. Her expert advice, insightful feedback, and constant support were crucial in shaping the direction of this research. I am profoundly grateful for her mentorship throughout this process.

I am also deeply grateful to Dr. Magdalene Dimba, the Dean of the School of Humanities and Social Sciences at Strathmore University, for her leadership and unwavering support. Her commitment to fostering academic excellence and providing a conducive environment for research has been truly inspiring. A heartfelt thank you goes to Prof. Bernard Shibwabo, the Director of Graduate Studies, for his continued support and for providing me with the opportunity to pursue my graduate studies. His advice and thoughtful suggestions were essential in the successful completion of this work.

Additionally, I wish to express my gratitude to all my lecturers at Strathmore University. Their dedication to teaching and mentorship has left a lasting impact on my academic journey, and I am thankful for the knowledge and guidance they imparted to me during my postgraduate years. I would also like to extend my thanks to all the faculty members, staff, and fellow students at Strathmore University for their support and encouragement throughout my studies. Lastly, I would like to acknowledge my family and friends for their love, patience, and understanding. Their constant support has been my source of strength.

DEDICATION

I dedicate this work to God Almighty, for His grace, strength, and guidance throughout this journey. To my beloved mother, Esther Abwao, whose unwavering prayers, encouragement and sacrifices have been a constant source of strength. I thank my dear brothers, for their financial support, wise counsel, and steadfast belief in me, thank you for walking this journey with me.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter offers the background for the study. Additionally, it presents the statement of the problem, objectives of the study (both general and specific objectives), research questions, scope of the study, and significance of the research.

1.2 Background to the Study

The integration of Information and Communication Technology (ICT) in education has emerged as a pivotal factor influencing students' academic performance, particularly in subjects such as History and Government in public secondary schools across Kenya. As the world becomes increasingly digitized, educational systems have recognized the necessity of adopting ICT tools to enhance teaching methodologies and learning experiences. In Kenya, this shift is particularly significant in the context of improving educational outcomes, as traditional pedagogical strategies often fall short in engaging students and fostering a deeper understanding of complex subjects. By leveraging ICT, educators can create more interactive and immersive learning environments that cater to diverse learning styles, thus facilitating a better grasp of historical events and governmental processes (Abdullah, 2019). Moreover, the promotion of ICT in the classroom extends beyond mere technological adoption; it encompasses the development of critical thinking, research skills, and efficient information dissemination among students. In History and Government education, the utilization of ICT tools, such as multimedia presentations, virtual simulations, and online databases, enables students to analyze primary sources and engage with historical contexts in a more profound manner. This approach not only enriches students' knowledge base but also encourages them to approach historical inquiry with a more analytical and reflective mindset. As students

engage with digital platforms and resources, they cultivate essential 21st-century skills that are crucial for their academic and professional futures, ultimately leading to better performance and comprehension of intricate subject matter. In addition, the promotion of ICT within the context of History and Government education in Kenyan public secondary schools presents an opportunity to enhance students' academic performance significantly. This initiative requires a multi-faceted approach involving teacher training, resource allocation, and infrastructural development to ensure that both educators and students can effectively harness technology for educational advancement. Furthermore, as the Kenyan government continues to prioritize ICT in educational reforms, it becomes essential to evaluate the impact of these technologies on students' engagement and learning outcomes.

Information and Communication Technology (ICT) has become an integral part of modern society, and its use in education is becoming increasingly widespread. ICT integration in the classroom offers a number of potential benefits for students, including increased engagement, motivation, and achievement (Abdullah, 2019). Consequently, the integration of ICT in teaching becomes a top priority for most stakeholders in the education sector, especially in Kenya. This is because ICT has proven to be a valuable resource and a solution to the growing demand for education in a world characterized by limited physical resources, such as land and buildings. ICT plays a crucial role in various aspects of modern life, including business, healthcare, entertainment, and education. However, finding the right balance between traditional teaching methods and incorporating ICT tools can be a challenge for history teachers. It is essential to maintain the integrity of historical teaching while leveraging technology to enhance learning experiences.

Harris and Albataineh (2016) argued that the use of ICT in teaching involves integrating various digital tools, devices, and resources to enhance the learning experience for students. The authors further argue that ICT integration in teaching encompasses a wide

range of technologies and methods that can be employed by teachers to support instruction and engage students in meaningful ways, which in turn enhances their academic achievements. Using ICT in teaching involves incorporating digital resources such as websites, educational apps, ebooks, multimedia presentations, and online databases to deliver content to students (Sanu & Manju, 2021). However, Sanu and Manju warn that ICT should be integrated not as a separate subject but as a tool to promote learning and study skills within the curriculum as a part of the daily classroom experience. Odinokoya (2019) argued that employing interactive technologies like smart boards, interactive whiteboards, and touch-screen devices helps create dynamic and engaging lessons. These tools allow teachers to draw diagrams, display multimedia content, and encourage student participation, thereby improving their academic performance. Whereas schools in Langata have embraced technology, the question of teaching history and government incorporating ICT remains largely unanswered.

A study conducted by Eksail and Afari (2020) revealed that the use of ICT has significantly improved learning. The study highlighted that in today's world, a large number of individuals pursue training and acquire new skills through online platforms, without the necessity of attending physical classes. The utilization of ICT, especially the internet, for learning has become a prevalent choice for many people. This trend can be attributed to the various advantages offered by ICT integration in teaching, including flexibility, cost-effectiveness, and convenience, among others.

Scholars such as Makokha and Mutisya (2016) highlight that today, the majority of educational institutions have integrated various aspects of ICT into their systems due to the benefits it offers. These advantages include reducing the expenses associated with education and enhancing flexibility. The Organization for Economic Cooperation and Development (OECD, 2019) reports that many countries worldwide are actively overseeing extensive efforts to expand internet access to support educational initiatives.

Following the COVID-19 pandemic, the global market for the use of ICT in partially online learning has experienced exponential growth. It is currently estimated to be $332.6 billion, with a projected increase to $457.8 billion by 2026 (OECD, 2019). The study by OECD (2019) further indicates that in the United States of America, the e-learning market is estimated at $100 billion, in China at $105 billion, in Europe at $40 billion, and in the Asia-Pacific region at $80 billion. Thus, the worldwide demand for the use of ICT underscores its pivotal role in contemporary society, especially in the field of education.

The use of Information and Communication Technology (ICT) in education has evolved over several decades (OECD, 2019). In the years between 1950s- 1960s use of computers in education began with the development of computer-assisted instruction (CAI) programs (Molenda, 2023). These early systems were quite basic and primarily used for drill and-practice exercises. In 1970s, the development of minicomputers and microcomputers, like the Apple II, made it more feasible to introduce computing technology into schools (OECD, 2019).

Ghavifekr and Kunjappan (2022) in their study found out that 68% and 48% of all American high school students and lower school pupils incorporate various forms of information and communication technology (ICT) into their learning experiences, and this trend extends to the study of History. Whether through the use of computers, tablets, or interactive software, students leverage ICT tools to access historical resources, engage with multimedia content, and participate in online discussions. Ghavifekr and Kunjappan (2022) further noted that digital platforms and educational apps enhance the traditional classroom setting, providing students with interactive lessons, virtual field trips, and access to a vast array of historical documents and archives. From online research projects to collaborative presentations, the integration of ICT in history education not only enriches the learning process but also equips students with essential digital skills for the 21st century. This widespread use of technology underscores its transformative impact on the way American

students' approach and engage with history within the educational landscape. The same cannot be said of students in Langata as there is a scarcity of studies to show how ICT has impacted the teaching and learning of History and Government.

Around the globe, some of the most exemplary models for integrating ICT in classrooms can be identified in countries such as Australia, Finland, the Netherlands, and Singapore (Mahboubeh & Soolmaz, 2022). Australia and Finland, in particular, have gained recognition for their notable success in implementing ICT in education (Mahboubeh & Soolmaz, 2022). According to a comparative study evaluating the extent of ICT application in schools across 55 nations, the United States secured the top position, closely followed by Finland and Australia (UNESCO, 2016). Furthermore, there is anticipated significant growth in the ICT market share in the UK, projected to increase by USD 11.57 billion from 2021 to 2026, with an impressive annual growth rate of 15.27%. Mahboubeh and Soolmaz (2022) also highlighted that in Australia, Finland, the Netherlands, and Singapore, the integration of ICT has notably transformed the teaching of History in classrooms. Mahboubeh and Soolmaz (2022) contend that Australia and Finland, recognized as leaders in this field, have successfully integrated ICT tools and resources to enhance History education. In these countries, students benefit from interactive learning experiences, virtual simulations, and digital archives that vividly bring historical events to life. The use of ICT has not only made History more engaging but has also facilitated a dynamic and personalized approach to learning, catering for diverse learning styles. The current study sought to establish if the same is realized with the integration ICT in teaching and learning of History and government.

In Chile, Brun and Hinostroza (2014) revealed that the availability of ICT resources plays a vital role in the integration of technology in the classroom. However, ICT integration in Chile was primarily limited to a few specific resources, such as computers and projectors. In Philippine secondary schools, ICT is a compulsory course integrated into the curriculum including in the study of History. The government provides training for head teachers and

educators on utilizing ICT for instruction (Bonifacio, 2021). A related study by Ghavifekr and Kunjappan (2022) in Malaysia showed that although ICT is integrated into teaching, there are several challenges, especially in the use of ICT tools by teachers. These challenges include limited accessibility and network connection, limited technical support, a lack of effective ICT training for the teachers.

The use of information and communication technology (ICT) in education is widely embraced by educators in Ghana which has improved the education system of the country (Orkorful &Burfi (2021). While the Nigerian government encourages use of ICT in education, efforts aimed at integrating ICT into the secondary school system have not yielded significant results. Abdullateef (2022) identified several challenges in the implementation of ICT usage in Nigerian secondary schools, including inadequate ICT facilities, the high cost of ICT equipment, poor network service and coverage, and low ICT literacy. Most of the teachers lacked the knowledge and skills to use ICT in teaching and this affected productivity. The current study sought to address the geographical gap expressed in the cited study as it was done in Kenya investigating the promotion of ICT and students' performance in history and government in public secondary schools in Langata sub-county, Kenya.

Ergado, (2019) conducted a study in Ethiopia about integration of ICT in teaching and learning practice which showed that some of the critical factors that have prevented integrating ICT in teaching and learning were a lack of proper access to ICT resources and insufficient technical and pedagogical support. The analysis of the data indicated that integrating ICT into teaching and learning was yet to be realized (Ergado, 2019). The government of Eritrea believes that ICT has a role to play in improving both access and quality of education. A study by Belay and Khatete (2020) was conducted to determine the availability of ICT resources for teaching and learning Biology in secondary schools in the Southern Region of Eritrea. The study revealed that hindering factors for the implementation of ICT in education in Eritrea included poor ICT infrastructure and electricity, a shortage of

ICT-trained teachers, and low literacy and awareness of ICT in education. This study sought to determine whether similar challenges are experienced in Kenya regarding the promotion of ICT specifically in the teaching and learning of History and Government.

Rwanda is one of the economies in Africa where promotion of ICT in teaching and learning has gained prominence (Karunaratne & Peiris, 2018). The Rwandan government has massively invested in ICT in schools and has seen the development of innovative e-learning products such as the Smart Class application, which currently serves close to 20,000 high school students (Karunaratne & Peiris, 2018). A related study in Uganda by Mukhhula and Manyiraho (2021) showered that secondary schools in Mayuge District-Uganda were in the early stages of domestication of ICT and ICT policy implementation. The study thus, recommended that effort be directed towards improving schools' ICT adoption readiness in order to improve ICT policy implementation.

Muinde and Mbataru (2019) reported that while ICT offers useful skills to the learner, the digital literacy of teachers in secondary schools is still low, and this challenges any efforts to integrate technology into Kenyan classrooms. Abobo (2018) concluded that it is in the implementation and support of such programs that their failure can be traced. Where active teacher training was done, Mwangi and Khatete (2017) opined that teacher performance improved between 40% and 50%. The percentage of ICT integration among secondary schools is basically low compared to other sectors in Kenya, despite the schools being supplied with computers (Murithi & Yoo, 2021). To promote the digitalization of education in Kenya, the Ministry of Education required that school principals ensure that the teaching staff has the requisite ICT skills. School principals were required to ensure that teachers were facilitated in acquiring ICT equipment under a one-device-per-teacher policy. The International Labor Organization (ILO, 2021), in its report on digitalization in teaching and education in Kenya, noted that this approach of training teachers in the hope that they would train their colleagues did not work.

The burden of ensuring that teachers are trained in ICT skills now seems to have shifted to the school level as opposed to the national level. The laptop project for schools conceived and implemented in 2013 failed, and the government acknowledged this reality (Jesson, 2020). Instead, the government embarked on the massive construction of ICT laboratories, which was thought to be more feasible than a laptop per child. As Nyaundi (2019) noted, the government failed in this initiative too and blamed a lack of funds, electricity, and teacher training as the causes of the failure. Consequently, the government seems to have quietly transferred digitalization in schools to the school level by encouraging school principals to have school-based ICT programs (ILO, 2021).

With regards to the acquisition of technology, Jesson (2020) argued that it is the principal's responsibility to encourage teachers to adopt and infuse technology into the learning process. Langata sub-county has about 8 registered public secondary schools. Most of these schools teach Computer Studies as a subject as well as using ICT as a tool for learning and teaching.

A study by Mbugua (2015) found that students in Kenyan secondary schools who participated in ICT-integrated History and Government lessons performed significantly better on standardized tests than students who did not participate in ICT-integrated lessons. Mbugua (2015) further notes that the impact of ICT on student achievement in History and Government will depend on a number of factors, including the specific ways in which ICT is used in the classroom, the quality of teacher training, and the availability of resources. Thus, this research study investigated the promotion of ICT integration on students' performance in History and Government in public secondary schools in Langata Sub-County, Kenya.

The incorporation of History and Government into the Kenyan curriculum is paramount for fostering a well-informed citizenry. This subject area equips students with an understanding of their country's past and the complexities of its governance. By studying historical events, students learn about the struggles and triumphs that have shaped Kenya,

enabling them to appreciate their heritage and fostering a sense of national identity. Such knowledge is crucial in an increasingly globalized world where young individuals must navigate cultural complexities alongside their national narrative. Furthermore, knowledge of government structures and functions empowers students to participate actively in democratic processes, thus instilling a sense of responsibility and civic duty essential for sustainable development in Kenya. In the context of promoting Information and Communication Technology (ICT) within History and Government education, the integration of modern technological tools can significantly enhance pedagogical effectiveness. Through the use of digital resources, such as historical documentaries, online archives, and interactive platforms—students can engage more deeply with the subject matter. Exposure to ICT not only makes historical learning more engaging but also prepares students for the increasingly digital landscape of contemporary governance. By integrating ICT in History and Government classes, educators can promote critical thinking and analytical skills, which are essential for interpreting historical data and understanding contemporary political issues. This multifaceted approach can lead to improved academic performance, making the subjects more relevant and appealing to today's learners.

Additionally, beyond enhancing knowledge and critical thinking skills, the emphasis on History and Government within the curriculum contributes to social cohesion and peace building in Kenya. As noted in recent studies, education plays a significant role in conflict resolution and fostering communal understanding. The exploration of Kenya's historical narratives, especially those relating to conflict and reconciliation, empowers students with the tools to engage in dialogue and promote peaceful coexistence. Understanding the sociopolitical dynamics of past conflicts, as well as the mechanisms of governance that promote equity and justice, is essential. The ongoing efforts to incorporate peace education and conflict resolution strategies within the History and Government subjects underscore the relevance of these fields in promoting a harmonious society, ultimately demonstrating the

curriculum's role in shaping responsible, informed citizens committed to the betterment of Kenya.

1.3 Statement of the Problem

Teaching history has largely been traditional and focused on rote memorization, textbook learning, and teacher-led instruction. The curriculum often emphasized a chronological approach to history, with an emphasis on key events, dates, and historical figures. Teachers rely heavily on lectures, readings, and written assignments to impart historical knowledge to students. Visual aids such as maps, charts, and timelines were commonly used to supplement the learning process. Whereas Classroom discussions are employed to some extent, the overall approach is more didactic and less interactive compared to modern teaching methods. Expectation about ICT and its role in developing and transforming the educational process through its inclusion in the daily school environment has been embraced by schools in Kenya.

Despite the efforts taken by the Government of Kenya to improve lesson delivery and the performance of students, traditional methods of lesson delivery have persisted. There is also a lot of struggles regarding the integration of ICT in teaching and learning and the performance of students in History and Government has been ineffective. It is against this background therefore that this study wishes to find out the relationship between ICT adoption and student performance in History and Government in Langata Sub County.

1.4 Objectives of the Study

1.4.1 General Objectives

The general objective of this study was to explore the promotion of ICT and student's performance in History and Government in public secondary schools in Langata sub-county, Kenya.

1.4.2 Specific Objectives

The study was guided by the following specific objectives:

1. To examine the extent to which ICT is being used to teach and learn History and Government in public secondary schools in Langata Sub-County.
2. To identify the resources in place to support ICT integration on teaching and learning History and Government in public secondary schools in Langata Sub-County.
3. To find out the challenges and opportunities of using ICT to teach and learn History and Government in public secondary schools in the Langata Sub-County.

1.5 Research Questions

This research was guided by the following research questions:

1. To what extent is ICT being used to teach and learn History and Government in public secondary schools in Langata Sub-County?
2. Which are the resources in place to support ICT integration in teaching and learning History and Government in public secondary schools in Langata Sub-County?
3. What are the challenges and opportunities of using ICT to teach and learn History and Government in public secondary schools in Langata Sub-County?

1.6 Scope of the Study

The study was conducted in Langata Sub-County, Kenya focusing on the promotion of ICT and student's performance in History and Government in public secondary schools in Langata sub-county**,** Kenya. Specifically, the study focused on the extent of ICT integration, the resources in place to support ICT integration, and the challenges and opportunities of using ICT integration to enhance the performance of students. Thus, the study did not investigate other factors that may influence students' performance in History and Government in public secondary schools in Langata sub-county. The target population for this research consisted of principals, teachers, and the sub-county director of education. To gather comprehensive insights, this study employed a combination of qualitative and quantitative research methods. The focus was on public schools because it is where there is a lot of

struggles regarding the integration of ICT in teaching and learning and the performance of students in History and Government has been ineffective.

1.7 Significance of the Study

The findings of this study may provide valuable insights for policymakers, educators, and other stakeholders who are interested in promoting the effective use of ICT to teach and learn History and Government in Kenyan secondary schools. Policymakers may benefit from the study's findings, as they may be informed about the extent of ICT usage in public secondary schools, which may help guide their decisions regarding ICT implementation in schools. The Ministry of Education (MoE) may benefit from the study's findings by identifying various ICT implementation strategies used by principals that may require more emphasis to improve learners' performance. Kenya Education Management Institute (KEMI) may hopefully benefit, as sub-county director of education in Langata and principals will receive training on effective strategies for implementing ICT in schools. Additionally, the findings may provide valuable literature and a strong foundation for researchers and academicians interested in conducting research to promote ICT in schools and enhance students' academic performance. Furthermore, the researcher may gain knowledge about the promotion of ICT in schools and its influence on students' performance particularly in History and Government.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter outlines the theoretical and conceptual frameworks of the study. The theoretical framework explores the theory of structural functioning. This chapter also reviews the related literature to the study. The conceptual framework operationalizes the variables under study.

2.2 Theoretical Framework

Theoretical framework comprises of definition of concepts and the theories that exist and have been used by other studies and are suitable for the present study. Theoretical framework shows comprehension of concepts and theories that are significant to the problem under study and then relate this to the larger field of knowledge in a discipline. This study was anchored on Technology Acceptance Model.

2.2.1 Technology Acceptance Model

The technology acceptance model was developed by Davis (1989) and is mostly used to predict the degree of acceptance of an innovative technology, particularly in information technology. It was initially used to predict the acceptability of International Business Machines (IBM) information systems in Canada. This model has widely been employed in measuring employees' attitudes toward their decision to accept or reject a technology. The model has two important principles that users of a new technology consider when making a choice: perceived usefulness and perceived ease of use. A user first evaluates these two tenets before making an informed judgment regarding the technology.

Perceived usefulness is the degree to which the user of a technology believes that the technology has some value and is of direct benefit to him. It is therefore a measure of the technology's value from a user's point of view. This opines that people will choose to use or

not use a technology based on their opinion of how helpful the said technology will be to their work. In this case, the user performs a personal cost-benefit analysis to arrive at the conclusion of accepting or rejecting it (Buliva, 2018).

In the context of this study, a user will be concerned with: (1) whether the technology makes work easier; (2) whether the technology makes lesson delivery better; (3) whether the technology makes students understand History and Government better; and (4) whether the technology enables the teacher to do more with less. In other words, given the same level of effort, does this new technology improve my productivity and performance in the teaching of History and Government? The user's opinion could be based on previous experience or normal expectations of technical knowledge.

The second tenet of this theory is the perceived ease of use. In this case, the user is concerned with how easy it is to use the new technology or method in comparison to older methods or technologies. Here, the user considers the level of effort or energy required to use the technology or learn how to use the new technology. On the other hand, this theory also recognizes the external barriers that may inform users' decisions to accept or reject a technology. Such factors include organizational barriers including availability of ICT resources, technological barriers, and social barriers; computer self-efficacy; and levels of training.

Based on the above discussion, it is important to point out that technical knowledge, user attitude, and prior experience are all important in the user's decision to accept or not accept a new technology. Eksail and Afari (2020) reported that a user's attitude is important in making a choice of technology. Where a user is compelled enough, the chances of liking and using the technology are higher. To encourage a change of attitude in the user's perception, Eksail and Afari (2020) suggest that users need support and an enabling environment to use technology.

This in a school setting can be provided by the school administration through a range of activities, such as availing ICT resources to the teachers to support materials such as computers and internet connectivity.

2.2.2 Diffusion of Innovations Theory

The Diffusion of Innovations Theory was developed by communication theorist Everett M. Rogers in 1962. The theory offers a framework for understanding how new ideas and technologies spread within a society. This theory is particularly relevant in examining the promotion of information and communication technology (ICT) and its impact on students' performance in History education. As argued by Dearing (2018), Diffusion of Innovations Theory posits that innovations spread through a social system through a process involving several key stages and actors. The process begins with the introduction of an innovation, which then passes through a series of stages before being widely adopted. These stages include knowledge, persuasion, decision, implementation, and confirmation. The rate at which an innovation is adopted varies across different segments of the population, which Rogers categorizes into five groups: innovators, early adopters, early majority, late majority, and laggards.

When applied to the promotion of ICT in history and government, Rogers' theory provides a useful lens for understanding both the adoption process and its implications for student performance. The theory relates to this context as follows: Knowledge and Awareness**:** The first step in the diffusion process is the dissemination of information about ICT tools and resources to educators and students. For instance, the introduction of digital archives, interactive timelines, and educational software can raise awareness about the potential benefits of ICT in the teaching of history and government. In this stage, educators and students learn about the availability and functionalities of these tools. Persuasion and Adoption**:** Once awareness is established, the next phase involves persuading educators and

students to adopt ICT tools. This is where the perceived relative advantage of ICT, such as improved engagement, interactive learning, and access to diverse historical sources, plays a crucial role. Teachers who see the potential for enhanced teaching methods and students who recognize the benefits for their learning are more likely to embrace these technologies. Implementation and Integration: Successful adoption of ICT requires effective integration into the classroom. Teachers need to develop strategies for incorporating digital tools into their lesson plans and assignments. For instance, using online primary source databases and interactive maps can make history and government lessons more engaging and comprehensive. This phase also involves overcoming challenges such as technical difficulties and the need for professional development.

Confirmation and Evaluation**:** In the final stage, the effectiveness of ICT in improving students' performance in history is evaluated. This involves assessing whether the use of technology leads to better understanding of historical content, improved research skills, and increased motivation. Positive outcomes, such as enhanced critical thinking and greater student engagement, reinforce the continued use of IT tools.

Adoption Rates and Educational Impact**:** Rogers' theory, as noted by Garcia (2023), also highlights that adoption rates vary. Innovators and early adopters are likely to be the first to use new ICT tools, while the early and late majority may follow once they see proven benefits and overcome initial resistance. Understanding these adoption patterns can help educational institutions plan and support the integration of ICT more effectively.

Rogers' (1962) diffusion of innovations theory provides a valuable framework for analyzing how ICT tools are adopted in history education and their impact on student performance. By following the stages of innovation diffusion knowledge, persuasion, decision, implementation, and confirmation, educators and policymakers can better understand and

facilitate the effective use of technology in the classroom, ultimately leading to enhanced educational outcomes and more engaging history and government lessons.

2.3 Empirical Literature

Literature in this chapter is reviewed in relation to how promotion of ICT influences students' performance in History and Government. The related research studies are reviewed globally, continentally, regionally, and contextually. The current study sought to fill the research gaps identified.

2.3.1 The Extent to which ICT is being used to teach and learn History and Government

The use of ICT tools, such as multimedia presentations, interactive simulations, and educational software, can enhance the engagement and interactivity of learning. This can ultimately lead to improved retention and comprehension of educational materials. Fotoki (2013) argued that information and communication technology (ICT) is a transformative force that has significantly impacted various facets of human endeavors. The influence of ICT on diverse fields, including medicine, tourism, business, law, banking, engineering, and architecture, has been substantial over the decades. However, when examining the field of education, it appears that ICT has had a comparatively limited influence and has brought about less change (Fotoki, 2013).

A study was conducted by Umar (2021) in Malaysia focusing on assessing the integration of ICT in the teaching and learning of History. It underscored how components of information, communication, and technology (ICT) can serve as valuable resources for historical research and development. The study argued that the teaching and learning of History can employ four key techniques: tutorials, exploration, communication, and application. All of these techniques can leverage various ICT tools, including portals, forums, email, historical databases, word processing, presentations, and virtual libraries. However, the utilization of ICT in this context was found to present challenges, such as issues related to propaganda, globalization, information accessibility and software availability, teacher

training, equal access to learning materials, and teaching and learning concerns. It's worth noting that this study had a geographical limitation as it was conducted in Malaysia, and its findings cannot be generalized to assume the situation in Kenya. Therefore, there is a need for the current study to examine the extent of ICT integration in the teaching of History and Government in Kenya and how that influences students' performance.

A related study conducted in Malaysia was carried out by Ghavifekr and Rosdy (2015), focusing on the integration of information and communication technology (ICT) in teaching to replace traditional teaching methods. The objective of this study was to analyze teachers' perceptions regarding the effectiveness of ICT integration in supporting the teaching and learning process within the classroom. A survey questionnaire was randomly distributed to a total of 101 teachers from 10 public secondary schools in Kuala Lumpur, Malaysia. Quantitative research methods were employed to analyze the data, utilizing both descriptive and inferential statistics through SPSS software (version 21). The results of this investigation indicated that ICT integration proved highly effective for both teachers and students. Furthermore, the findings highlighted that teachers' proficiency in utilizing ICT tools and access to adequate facilities were pivotal factors in the success of technology-based teaching and learning. Additionally, professional development training programs for teachers were found to play a crucial role in enhancing the quality of students' learning experiences. It should be noted that the current study differs from Ghavifekr and Rosdy's research in that it will analyze quantitative data using SPSS software version 25.

Haydn (2022) conducted an investigation into the utilization of information and communications technology (ICT) in the teaching of History within secondary schools in England and Wales. This exploration encompassed the period following the introduction of computers to these schools during the final quarter of the twentieth century. The research employed a combination of qualitative and quantitative research methodologies to gather and analyze the data. The findings from this study unveiled significant disparities in reports

regarding the extent to which secondary History educators incorporate ICT in their teaching methods, varying attitudes towards ICT utilization, and identified factors perceived as obstacles to its adoption. While computers are generally acknowledged as beneficial tools, there is compelling evidence suggesting that many History teachers in secondary schools in England and Wales have not fully embraced their extensive use in the classroom. Notably, the cited study exclusively focused on computer use, whereas the present study will encompass a broader scope of ICT applications. By doing so, it aims to address the gaps in existing literature and offer a more comprehensive understanding of the extent to which ICT is used in the teaching and learning of History and Government in secondary schools in Langata, Kenya.

Research was conducted in China by Wanga (2023) on the application of computer technology in the dissemination and promotion of folk-art culture. The researcher noted that folk art represents a special spiritual pursuit and a form of artistic expression, making it essential to study its role in cultural communication. Given that the world has entered the era of electronic communication and the application of computer technology has become an indispensable teaching aid, educational institutions' leaders have found it necessary to provide resources such as computers to facilitate teaching and learning. However, this study revealed a geographical gap as it was conducted in China. The current study aims to address this gap by focusing on the extent of ICT usage in teaching History and Government in public secondary schools in Langata Sub-County, Kenya.

A study by Abdelhalim (2016) aimed to investigate the integration of ICT in teaching among faculty members in Egyptian universities. The study also aimed to examine teaching and learning activities in relation to various variables (gender, age, teaching experience, academic level differences, and training), as well as barriers that hinder teachers from effectively using such tools. A total of one hundred and seventy-two faculty members from 14 public universities in Egypt participated in this study. They completed a five-point Likert

scale questionnaire that was later analyzed using quantitative methods. Subsequently, follow-up interviews were conducted with 12 respondents. Overall, the results revealed that while university staff members had positive perceptions of the usefulness of ICT tools in language teaching and learning and were familiar with ICT use, mostly in their personal lives and, to a lesser degree, in teaching practices, they were less likely to integrate them into their language teaching. Findings suggested that continuous professional training should be considered a primary solution to assist staff members in strengthening their ICT skills and encouraging them to keep up to date with recent technologies. This study, although related to the current research, was focused on the teaching of languages, whereas the current study will focus on the teaching of History and Government in public secondary schools in Langata sub-county, Kenya, thus filling the existing gap.

In Nigeria, Ebenezer (2023) conducted a comprehensive examination of lecturers' self-efficacy regarding the integration of information and communication technology (ICT) for instructional purposes. The study utilized a descriptive research design for the survey type. The study's target population encompassed all lecturers in colleges of education within Oyo State. Three colleges of education were deliberately selected for inclusion in the study. To gather data from the selected colleges of education lecturers, a researcher-designed questionnaire was employed. Subsequently, the collected data underwent analysis using both descriptive and inferential statistics. Frequency counts and percentages were employed to organize demographic information and offer insights into the research question.

The study's hypotheses were tested using a t-test, while hypotheses 2 and 3 were assessed using ANOVA at a significance level of 0.05. The key findings of the study are as follows: College of Education lecturers have the capability to integrate ICT into their instruction. However, they encounter challenges during the process of integration; a significant difference was observed between male and female lecturers in terms of self-efficacy regarding the integration of ICT for instruction; the level of experience among

lecturers did not have a significant impact on the integration of ICT for instructional purposes; qualifications were found to have a significant impact on the integration of ICT for instruction among the sampled lecturers. In conclusion, the study reveals that the majority of lecturers in colleges of education in Oyo State are not fully prepared to integrate ICT into their instructional practices. Moreover, the lack of expertise in technology integration continues to hinder the effective use of ICT for instructional purposes. While the cited study was done in Nigerian universities, the current study will find if the same challenges are experienced in the integration of ICT in the teaching of History and Government, particularly in public secondary schools in Nairobi, Langata subcounty, Kenya.

The use of ICT in teaching and learning has become an indispensable component of the education system in Ghana. This is due to the numerous benefits associated with the incorporation of ICT into education. Sawyerr (2023) conducted a study with the aim of assessing the essential factors for teachers to effectively integrate ICT into mathematics instruction within schools. The study sought to comprehend how positive attitudes, ICT competence (skills), access to ICT tools (tools), and teaching style and confidence in skills (pedagogy) vary among mathematics teachers and how these factors predict the impact of ICT integration. Sawyerr's study collected data from 92 mathematics teachers using well-validated instruments covering attitudes, competencies, access, pedagogy, and technology integration proficiencies. Through the application of Partial Least Squares Structural Equation Modeling, the results demonstrated significant positive correlations among the will, skill, tool, and pedagogy parameters, as well as the various stages of teachers' adoption of ICT. The predictive capacity of these factors indicated that they accounted for 21% of the variance in the adoption of ICT. Notably, the study identified "tool" as the most influential predictor of ICT integration.

Therefore, the study contends that if Mathematics teachers in this context wish to effectively integrate ICT into their teaching, increasing access to ICT tools should be a top priority for

Ghanaian senior high schools. Furthermore, this study serves as a foundational exploration for a current investigation assessing the extent of ICT utilization in the teaching of History and Government within public secondary schools in Langata Sub-County, Kenya.

Ssemaluulu (2021) did research whose aim was to identify the factors influencing ICT adoption among secondary school teachers in rural areas of Tanzania. A descriptive, comparative, and survey design was adopted, with a sample of 333 teachers from 150 secondary schools. Questionnaires and an interview guide were utilized for data collection. The study was guided by the Theory of Acceptance and Use of Technology. The findings revealed a scarcity of resources, such as an internet connection and ICT infrastructure, as some of the factors that limit the adaptation of e-learning in secondary schools in Tanzania. The current study will use the same theory to establish the extent of ICT integration in the teaching and learning History and Government in public secondary schools in Langata, Kenya.

The lack of interest and commitment among teachers to use ICT in teaching is perceived as a challenge for implementing ICT in Kenya. Tarus (2015) conducted a study in Kenya regarding the challenges of implementing ICT in public universities. This study employed a mixed-methods design for data collection and analysis. The research revealed that the widespread lack of interest and commitment among teaching staff in utilizing ICT in their instruction significantly hindered the effective implementation of ICT in teaching and learning. To enable teaching staff to successfully integrate ICT into their classes, they must maintain a positive attitude toward technology usage. It's important to note that this study was conducted in universities, and its findings may not be directly applicable to the use of ICT in public secondary schools in Lang'ata. Therefore, the current study is necessary to address these gaps.

A related study by Asuke (2023) aimed to explore the attitudes, perceptions, challenges, and satisfaction of learners and lecturers regarding the implementation of e-

learning in Kenyan institutions of higher learning. This study utilized a survey research design and targeted 195 learners from the 13 departments at Baraton University, along with 26 lecturers from these departments. The study employed purposive sampling to select the study area. Descriptive statistics (means and standard deviations) were used to analyze the data. The study concluded that both lecturers and learners have a positive attitude towards the use of e-learning, and elearning has a significant impact on the educational practices of both groups. While this study focused on the use of e-learning as an aspect of ICT, the current study intends to broaden its scope to encompass all aspects of ICT use in public secondary schools in Lang'ata Sub County.

Scholars in Kenya have highlighted that the use of Information Communication Technology (ICT) in teaching and learning has become both a necessity and an opportunity for improving and enhancing the acquisition of knowledge by learners. The integration of ICT into teachers' pedagogical practices has the potential to transform the teaching and learning process. ICTs have become vital tools for teachers, enhancing learning through the pedagogical aspect of content preparation in the classroom. In line with this argument, Mwikali et al. (2020) conducted a study on the influence of ICT integration in content preparation by ICT- and NonICT-trained teachers in secondary schools in Machakos County, Kenya. The study's specific objectives were to assess the status of teachers' integration of ICT in content preparation and to establish the influence of ICT integration on content preparation by ICT and Non-ICT trained teachers in secondary schools. The study employed descriptive survey research design. The sample size comprised of 180 principals, 360 teachers and 398 students. Data was collected using questionnaires, observation schedule, and document analysis. The study established that ICT trained teachers profoundly embraced the use of ICT skills to prepare e-based learning activities which enhanced their content preparation leading to more innovative lessons due to the acquisition of pedagogical ICT

training. The study concluded that ICT integration significantly influenced teachers' content preparation by ICT and Non-ICT trained teachers.

ICT trained teachers' integration of ICT in their content preparation was significantly higher at (p) 0.002 than their non-ICT trained counterparts at (p) 0.045. It was concluded that ICT trained teachers integrated ICT in their content preparation more than non-ICT trained teachers in secondary schools. Hence the null hypothesis was rejected. Based on the findings and conclusions the study recommended that, The Ministry of Education (MOE) and other ICT training agencies should provide ICT in-service training programs to ensure that all teachers acquire ICT skills to utilize ICT in content preparation for quality education. While the cited study was informative and related to the current study, it did not focus on teachers of History and Government, which will be the focus of the current study to fill the gaps existing in the literature

2.3.2 The Resources in Place to Support ICT Integration in Teaching and Learning History and Government

Availability of resources plays a central role in ensuring effective use of ICT in teaching and learning. Hong (2023) conducted a study aimed at exploring the factors influencing teachers' acceptance and use of ICT in Chinese higher vocational colleges. Grounded in the modified Unified Theory of Acceptance, the research examined the direct and indirect impacts of teachers' performance expectancy, effort expectancy, external conditions, and behavioral intentions on their utilization of ICT in teaching. The study encompassed a substantial sample of 6087 teachers from 219 vocational colleges spanning 28 provinces in China who participated in a comprehensive survey. The findings revealed that teachers' psychological perceptions, including their beliefs regarding performance expectancy, effort expectancy, and their intentions to use ICT technology, significantly and directly influenced the incorporation of ICT in the teaching practices of Chinese higher vocational college educators. Additionally, external support conditions, such as professional

development support, available infrastructure, the climate of organizational reform and innovation, and teacher performance assessment mechanisms, also played a pivotal role in facilitating the use of ICT. This study notably underscored the critical importance of resource availability in the successful implementation of ICT in teaching and learning. However, it did not specifically address the utilization of ICT in teaching History and Government, prompting the need for the present study to investigate the role of resource availability in the use of ICT for teaching History and Government in Langata sub-county, Kenya.

Castelo (2020) conducted a study in the USA on factors to consider when preparing for e-learning. The study was qualitative in nature, with the researcher using interviews to collect data from the study participants. The study suggested that since mobile devices are important in the learning process, school management should ensure that learners have access to them. Such devices include laptops, mobile phones, and other devices. The study also found that even though 98% of U.S. public schools are connected to high-speed internet broadband, this is not necessarily the case for most students at home, which affects students' learning in their homes. This study reveals that limited resources can be a limiting factor in the use of ICT in teaching and learning. The study revealed a methodological gap since it used only qualitative methods in the collection and analysis of data. The current study sought to use both qualitative and quantitative approaches, so the weaknesses of one methodology can be offset by the strengths of another.

Amponsah (2021) conducted a study to investigate the impact of internet usage on the academic performance of senior high school students in the Cape Coast Metropolis, Ghana. Data were collected from 105 second- and third-year students through random sampling, utilizing a questionnaire. The collected data were subsequently analyzed using descriptive statistics and an independent sample t-test. The study findings revealed that senior high school students accessed the internet through various outlets, including school ICT labs, mobile phones, family internet facilities, and public internet cafes. Furthermore, it was

observed that internet access had a positive influence on students' academic performance, with those who had internet access demonstrating greater improvements in learners' academic achievements compared to those without access. However, the study found no significant impact on academic performance based on different patterns of internet use. Additionally, the study emphasized that the mere presence of multiple sources of internet connectivity did not guarantee immediate access to all of them. As a result, the study recommended that educational institutions should collaborate with other stakeholders to provide internet facilities with effective management support. Furthermore, it was suggested that school ICT laboratories should be equipped with reliable internet facilities, and students should be taught how to effectively use search engines for academic research purposes. In conclusion, this research underscored the vital role of ICT resources, particularly internet facilities, in enhancing academic performance. This study lays the foundation for the current research that sought to examine the availability of ICT resources and their relationship to the teaching and learning of History and Government in public secondary schools in Langata Sub-County, Kenya.

Despite the Federal Ministry of General Education's (FMGE) policy plan aimed at encouraging the use of ICT in the education sector to advance the state's educational system, there has been little progress in integrating ICT into general education in Sudan. Numerous factors have impeded the integration of ICT, particularly in technical and vocational education and training (TVET) systems. Consequently, Ramadan (2018) conducted an investigation into teachers' perceptions of ICT integration in TVET classes. Interviews were conducted with ten teachers in Khartoum State to collect data. The results revealed several challenges, including the absence of a clear ICT policy in education, a lack of physical and ICT infrastructure, and insufficient support for utilizing ICT in TVET from educational management. These findings emphasize the need for increased government efforts in ICT integration and the involvement of various education stakeholders, including teachers,

throughout the ICT integration process in the TVET system. This study underscores that limited resources can hinder the integration of ICT in teaching and learning. A parallel investigation will determine whether similar challenges are experienced in public secondary schools in Langata, Kenya.

In Uganda, education stakeholders support the application of ICTs in the teaching learning process can enhance the quality of education in several ways, such as enriching and deepening skills, motivating and engaging students, and enabling them to link their school experience to work practices. Muweesi and Nakonde (2021) conducted a study aimed at establishing the integration of ICT usage during teaching and learning in Ugandan city primary schools in Kampala. The study also examined the challenges teachers face when employing modern ICT tools and pedagogical approaches. A mixed research design, which included questionnaires, interviews, and classroom observations, was employed to collect data from the respondents. The study revealed that the ICT tools distributed to schools are inadequate in comparison to the student population in public primary schools. Public schools lack the necessary infrastructure and have high student populations, which adversely affect teaching and learning through the use of ICT. Consequently, it is recommended that for the effective and efficient utilization of ICT tools in Ugandan schools, the government, through the Ministry of Education, consider supplying an adequate number of ICT tools and involving all teachers in rigorous ICT training to acquire sufficient knowledge and skills. While this study focused solely on primary schools, the current study concentrated on public secondary schools in Langata sub-county, Kenya.

Digital learning integration (DLI) in schools has positive implications for the education system. A study conducted by Kaaria and Kibaara (2021) revealed that digital learning was introduced in Meru County, along with 46 other counties in Kenya in 2016 after several postponements. This research by Kaaria and Kibaara examined the adequacy of resources for implementing the DLI program in public primary schools in Meru County. The

study was guided by Roger's diffusion of innovation theory and Boum's project management cycle. It employed a descriptive survey design and adopted a mixed-methods approach. The study targeted 710 public primary schools across nine sub-counties. Data was collected from 710 head teachers, 7032 teachers, 2004 Parent-Teacher Association (PTA) executive members, and 25,720 grade 3 pioneer pupils in Digital Learning Integration (DLI). A 10% sample of schools was considered sufficient, which was obtained using a simple random sampling technique. Consequently, 71 head teachers and 703 teachers were included in the sample. Quantitative data were analyzed using IBM SPSS Statistics for Windows version 22. The data were analyzed, interpreted, and reported using percentages and measures of central tendency. Through the computation of Pearson product-moment correlation coefficients, it was confirmed that there is a significant positive correlation ($r = 0.825$) between the adequacy of digital learning resources and DLI at the 0.05 level of significance. Resources such as tablets, internet connectivity, computer laboratories, and electricity were noted to be inadequate. Learners who were introduced to digital learning integration appreciated it and were always eager to learn using the available digital technology resources. Additionally, there was no monitoring or evaluation of the digital program after its rollout by quality assurance and standards officers, as per the policy guidelines. The study concluded that preparations for the digital program were inadequate. While this study by Kaaria and Kibaara is related to the current one, it focused on primary schools, whereas the current study focused on public secondary schools. It is no clear however how the classroom integration of ICT in teaching and learning influences the performance of History and Government, particularly in Langata Sub County, hence the need for the current study.

2.3.3 Challenges of using ICT to Teach and Learn History and Government

In this digital era, the use of ICT (Information and Communication Technology) in teaching and learning is crucial for providing students with opportunities to acquire and apply

essential 21st-century skills. Therefore, examining the issues and challenges associated with ICT use in teaching and learning can help educators overcome obstacles and become proficient technology users. As a result, Ghavifekr (2022) conducted a study aimed at analyzing teachers' perceptions of the challenges they encounter when using ICT tools in classrooms in the state of Melaka, Malaysia. The research employed a quantitative research design, collecting data randomly from a sample of 100 secondary school teachers. The evidence was gathered through the distribution of a modified and adapted survey questionnaire. Overall, the study identified several key issues and challenges that significantly affect teachers' use of ICT tools, including limited accessibility and network connectivity, insufficient technical support, a lack of effective training, limited time, and teachers' competency gaps. While these factors were identified as barriers to ICT integration in Malaysia, the current study aims to determine if similar challenges are encountered in the use of ICT in public secondary schools in Langata, Kenya.

Stewart (2014) conducted a study on the effects of limited technology and internet access within a low-income rural community in the United States of America. The study aimed to explore the perceptions of previous graduates to identify specific impacts of limited technology and Internet access in public schools. To achieve this objective, the researcher gathered perceptual data from 33 adults who had attended the local high school during the school years from 2003–2004 through 2012–2013. Data were collected through the administration of an anonymous questionnaire. The study yielded several key findings. Firstly, although participants did not perceive limited access to technology and the internet during their high school years, there was a collective perception that technology was minimally integrated into high school instruction and that the high school experience did not adequately prepare students for the use of technology in a college setting. Secondly, technology was not fully utilized for acquiring information related to college or career choices. Thirdly, participants reported a lack of availability of Internet service in rural areas.

This study effectively sheds light on the challenges surrounding the use of information and communication technology (ICT) in the United States of America. However, it is important to note that there may be geographical differences, and the findings of this study may not be directly applicable to the situation in Kenya. Hence, there is a need for the current study to address the specific context of Kenya.

The use of ICT in South Africa, especially in teaching and learning, was introduced in schools with the goal of enhancing the quality of education. However, there have been challenges that have hindered the successful implementation of ICT. Khashane (2020) conducted a study aimed at investigating the challenges faced by Tshwane South Secondary Schools during the implementation of the e-learning project and proposing potential solutions. The data was collected and analyzed using qualitative methods. It was discovered that teachers encountered difficulties in accessing ICT learning resources, which had an impact on teaching and learning. This study was entirely qualitative, but the current study employed both qualitative and quantitative research approaches to leverage the advantages of each paradigm in evaluating the challenges associated with the use of ICT in public schools in Langata Sub County, Kenya.

Clarke (2022) conducted an investigation into the challenges affecting the utilization of ICT in pre-tertiary school administration in Ghana. The study utilized a descriptive survey design and employed a census survey approach, involving 60 administrators from public senior high schools in the Birim Central Municipality. Data collection was facilitated through a closed-ended questionnaire, yielding a Cronbach's alpha coefficient (α) of 0.84. The findings indicated that pre-tertiary school administrators expressed satisfaction with the accessibility of computers and other hardware equipment but expressed dissatisfaction with the availability of software, photocopiers, and internet connectivity for administrative purposes. Additionally, the study identified institutional barriers, such as inadequate facilities to support the full integration of ICTs and the absence of ICT programs in administrators'

training related to curriculum delivery, as hindrances to the effective use of technological resources in school administration and management. This study highlights the challenges faced by the Ghana Education Service in adopting ICT. The present research aims to build upon the insights from the cited study by investigating whether similar challenges are prevalent in Kenya, specifically in public secondary schools in Langata Sub County, concerning the adoption of ICT in teaching and learning.

Harerimana (2016) conducted a study on e-learning in nursing education in Rwanda. The primary objective of the study was to establish the significance of information and communication technology (ICT) in teaching within the context of nursing education. The research analyzed the utilization of e-learning on selected nursing campuses in Rwanda, employing a convergence-parallel mixed-method approach. A total of 275 participants responded to the questionnaires for the quantitative part of the study, while 40 participants were purposefully selected for the qualitative aspect. Quantitative data was analyzed using SPSS 23, while thematic analysis was employed for the qualitative data. The findings of this study indicated that participants were enthusiastic and prepared to adopt e-learning in nursing education, citing several benefits such as its student-centered approach, its role as a blended learning method, and its ability to expedite the production of a nursing workforce, taking into consideration Rwanda's history. However, the study also identified several challenges hindering proper implementation, including resource constraints and inadequate training of both teachers and students in ICT. It's worth noting that this study primarily focused on the use of ICT in the form of e-learning. However, the current study encompassed a broader examination of ICT's role in teaching and learning within the domains of History and Government.

In a study entitled Opportunities and Challenges: Integration of ICT in Teaching and Learning Mathematics in Secondary Schools, Nairobi, Kenya, Ndeuthi (2015) explored the various opportunities and challenges influencing the integration of ICT in teaching and

learning Mathematics in secondary schools in Nairobi County. The study adopted a descriptive survey design. Three instrument questionnaires, a structured interview schedule, and an observation checklist were used to collect data. The study was conducted in twelve public secondary schools in Nairobi County. The data were analyzed using descriptive statistics. Findings from the study indicated that teachers face major challenges such as developing their own technological skills and knowledge, as well as self-training in the use of ICTs in their teaching. This lack of capacity-building support was found by the study to contribute to teacher reluctance to integrate technology into their teaching. This study recommends that new frontiers in technology integration be made accessible to both teachers and students for learning purposes to increase access to information. Additionally, capacity-building in technology integration for teachers should be increased, and awareness should be built among pre-service teacher trainees regarding the integration of ICT in teaching and learning Mathematics. While this study was conducted in Kenya, it did not specify the nature of the secondary schools. The current study will focus exclusively on public schools. Furthermore, while the previous study concentrated on Mathematics, the current study was different in that it focused on the study of History and Government, thus bridging these educational gaps.

The 21st century has witnessed a shift from teacher-centered to learner-centered approaches, where the cognitive, psychomotor, and affective domains play a crucial role in preparing school graduates for the world of work. The role of Technical and Vocational Education and Training (TVET) is to ensure that artisans and technicians acquire the necessary attitudes and skills, such as creativity, innovativeness, digital literacy, and problem-solving, to contribute to the prosperity of the economy. Unfortunately, the TVET sub-sector often suffers from a poor image, being perceived as a domain for academically less accomplished individuals. Moreover, it has been inadequately endowed with resources, especially ICT resources, in Kenya. As a result, the use of digital literacy and e-platforms has

been sparingly applied in TVET when it comes to enhancing teaching and learning. A study by Karani (2022) presented results from instructors and learners in TVET institutions, shedding light on how they are affected by the limited use of ICT, particularly e-learning. The study highlighted various challenges, including the limited interaction between teachers and learners, a digital divide, insufficient demonstration of required competencies, a lack of ICT skills, and the absence of virtual remote labs or workshops. However, there are opportunities in the use of ICT including the creation of virtual labs, enabling instructors to design tutorials that allow students to access e-platforms at their convenience, and the advantage of online learning, which is not constrained by physical space limitations. It is important to note that Karani's study was purely qualitative, but the upcoming study will employ both qualitative and quantitative approaches for data collection and analysis. This mixed-methods approach allowed the researcher to validate and support the findings of one method with another. This triangulation process will enhance the validity and reliability of the research by confirming or corroborating results from multiple perspectives.

Kirongo et al. (2022) conducted a study aimed at determining the status and challenges faced by Institutions of Higher Learning (IHL) in Kenya in implementing eLearning to support remote learning during the COVID-19 pandemic. The study was informed by Bloom's Taxonomy and the Technology Acceptance Model. The findings, based on a survey of 211 students and 20 staff eLearning platform users from a Kenyan institution of higher learning, are presented in this paper. Data was collected through questionnaires. The findings revealed the awareness of staff and students regarding the existence of eLearning platforms. While 70% of students showed awareness of eLearning platforms and strongly agreed that it would improve teaching and learning, the benefits and opportunities provided by eLearning outweighed the challenges. This study focused on the entire country of Kenya, but the current study was narrowed to focus on Langata Sub-County, which allowed the collection of more detailed findings.

A related study was conducted by Mukiri (2024) on the Evaluation of Teacher Training in the Integration of ICT in Teaching in Public Secondary Schools in Tigania West, Meru County, Kenya. The study utilized a descriptive survey approach. The sample consisted of 50 public secondary schools, 50 principals, 100 heads of departments, and 200 teachers. A stratified random sampling technique was used to select schools, while a purposive sampling technique was employed to assess school principals, heads of departments, and teachers. The study included a total of 105 participants, consisting of 15 administrators, 30 heads of departments, and 60 teachers. Data collection involved the use of questionnaires, interview schedules, and observation checklists.

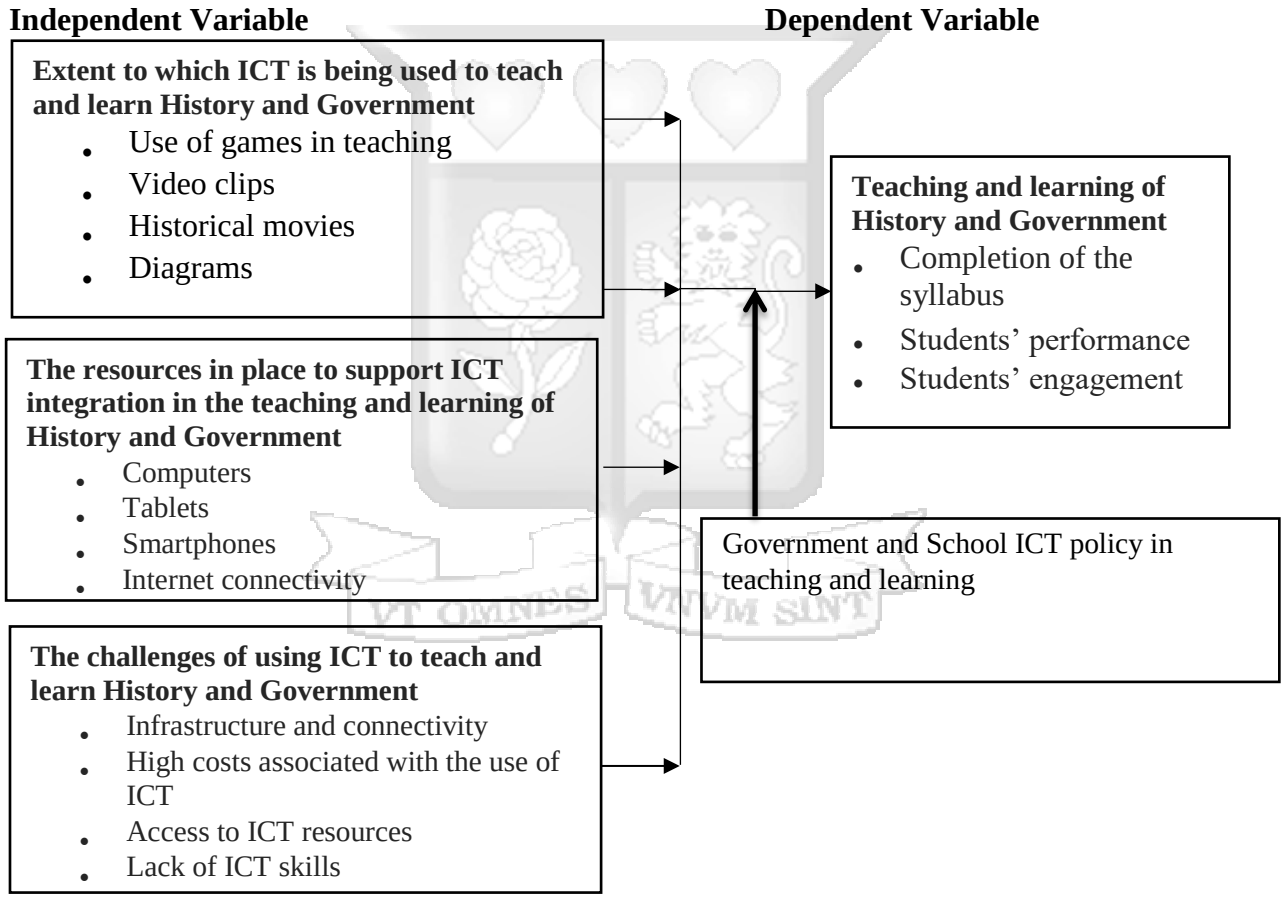
The findings revealed that the integration of Information and Communication Technology (ICT) in secondary school teaching and learning environments remains incomplete due to several factors. These include inadequate infrastructure, limited teacher training, resistance to change, and insufficient government policies supporting ICT implementation. Additionally, financial constraints prevent schools from acquiring the necessary technologies, and there is often a lack of ongoing technical support. Despite the growing recognition of ICT's importance in enhancing learning outcomes, these challenges hinder its full adoption, leaving many schools without effective digital learning environments. The study further revealed that the training of teachers in ICT had a beneficial and substantial impact on its incorporation into the educational process. The study proposes that it is essential for all instructors to receive specialized training on the use of ICT in their teaching practices. One way to accomplish this is by implementing a teacher training curriculum that includes specific content on ICT pedagogy. The Ministry of Education should offer professional development programs in ICT for teachers, to enable them to acquire ICT skills.

While the cited study focused on the evaluation of teacher training in ICT integration in the teaching of public secondary schools in Tigania West, the current study examined the

challenges affecting the integration of ICT in the teaching and learning of History and government in public secondary schools in Langata Sub County, which sought to address the gap in existing.

2.4 Conceptual Framework

Swaen and Tigan (2022) defined conceptual framework as the illustration of the relationship between the research variables. Figure 1 illustrates the conceptual framework that explains the relationship among the variables of this study.



Source: Researcher (2025)

Figure 2.1: Conceptual Framework Showing Relationship between Variables

Figure 2.1 illustrates the interplay of variables within the scope of this study. According to this research, the promotion of ICT is gauged by its utilization in History and Government education. This utilization is reflected in aspects such as the use of games in teaching, video clips, historical movies and diagrams.

The availability of resources supporting ICT integration in teaching and learning significantly impacts history education. This is evidenced by the presence of resources like computers, tablets, smartphones, and internet connectivity. Figure 1 also highlights the challenges associated with using ICT for History and Government education as distinct factors that influence the teaching and learning process. These challenges encompass infrastructure and connectivity issues, the high costs linked to ICT usage, access to ICT resources, and the deficiency of ICT skills, all of which impact History and Government education in schools.

The intervening variables in this study are government and school policies regarding ICT which also affect the teaching and learning of History and Government. These policies, including access to ICT resources, play a pivotal role in determining the level of access that students and teachers have to ICT tools. When these policies ensure equitable access to technology, they can enhance teaching and learning opportunities. Furthermore, budgetary provisions for technology infrastructure, software, and professional development are typically outlined in ICT policies. Sufficient funding is indispensable for the effective implementation of ICT in teaching and learning, ultimately improving History and Government education in both public and public secondary schools in Langata sub-county, Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design, target population and sampling, data collection methods, data analysis, validity and reliability of study instruments, and finally ethical considerations.

3.2 Research Design

Hussain (2021) defined research design as the plan, structure, and strategy of an investigation conceived to obtain answers to research questions and control variance. It is a plan outlining how the necessary data will be gathered, processed, and analyzed (Tejinder & Shantanu, 2018). From the definitions, it can be said that a research design is a master plan specifying the methods and procedures for collecting and analyzing the needed information. This study adopted a mixed-methods research approach. Specifically, the study adopted a convergent parallel mixed method design, a one-phase design where both quantitative and qualitative data were collected and analyzed. A convergent parallel design entails that the researcher concurrently conducts the quantitative and qualitative elements in the same phase of the research process, weighs the methods equally, analyzes the two components independently, and interprets the results together (Creswell & Pablo-Clark, 2011). Creswell (2018) opined that the research designs for mixed methods are distinct and sufficient on their own. The study adopted the design because it provides a comprehensive analysis of the research problem by merging quantitative and qualitative data (Demir & Pismek, 2018).

3.3 Target Population

According to Kothari (2019), the target population refers to the elements from which a sample is selected and from which the findings of the study are generated. Asiamah and Mensah

(2017) defined the target population as the entire collection of items from which the sample is derived. In the current study, the target was 8 public secondary schools with in Langata Sub County, 8 principals, 64 history teachers and one Sub County director of education in the area. This study was carried out in public schools only because, from the research evidence, it is in public secondary schools where there is much struggle regarding the integration of ICT in teaching and learning and the performance of students in History and Government has been ineffective. Therefore, the researcher sought to find out if the integration of ICT in teaching and learning has any influence on students' performance in History and Government.

The teachers were the focus of attention because they are the implementers of the curriculum, guiding learners on a day-to-day basis. Their teaching practices, particularly through the use of ICT, significantly impact learners' performance. The researcher also targeted principals, given their pivotal role in school administration. The strategies they employ to promote and integrate ICT have a direct bearing on students' performance. Principals were interviewed to elucidate how their ICT integration strategies influence learners' outcomes in History and Government. Additionally, the Sub County director of education was included in the study. As overseers of schools on behalf of the government, they possess crucial insights and information relevant to the research. Their perspectives contributed to a comprehensive understanding of how ICT is integrated and its effects on learner performance.

3.4 Sampling

Kothari (2019) described the process of sampling as the selection and inclusion of some portion of the sample into a final group from which inferences about the population can be made. This study employed non-probability sampling techniques for both quantitative and

qualitative approaches. This involved the use of purposive sampling, census sampling, and automatic inclusion in the selection of participants.

3.4.1 Sampling of Schools and Principals

Langata Sub County has eight public secondary schools (Republic of Kenya, 2020). All the schools were purposefully included in the study, along with their principals. The choice of this technique was based on the argument of Abubakar (2016) that purposive sampling helps a researcher extract extensive information from research participants, particularly when the participant pool is limited. Principals of the schools were included because they are leaders and are responsible for the schools. Consequently, they were able to provide pertinent data about the promotion of ICT and students' performance in History and Government in public secondary schools in Langata Sub County.

3.4.2 Sampling of Teachers

Teachers were selected to be part of the sample due to their experience, knowledge, and direct involvement in guiding learners on a daily basis through teaching. They were in a position to provide relevant information for the study. The researcher used the schools' registers to obtain the number of teachers. Since the number of teachers was small, census sampling was used to include all of them in the study, ensuring that intensive and comprehensive data could be gathered. Therefore, all 64 history teachers from the selected schools were included in the study.

3.4.3 Sampling of the Sub County Director

Through automatic inclusion, the study considered the sub-county director as a participant. The inclusion of the sub-county director was crucial, as they are responsible for supervising and ensuring the effective implementation of the curriculum. This role encompasses various responsibilities aimed at enhancing the overall quality of education, improving teaching and learning processes, and ensuring schools adhere to established

curriculum standards. Therefore, their involvement contributed essential information to the study.

Table 3.1: Sampling Procedure, Target Population and Sample Size

Category	Sampling Procedure	Total Population	Actual Sample	Percentage (%)
Principals	Purposive	8	8	100
Teachers	Census sampling	64	64	100
Sub County Director	Automatic inclusion	1	1	100
Total		**73**	**73**	**100**

3.5 Data Collection Methods

This study used questionnaires and interview guides as data collection instruments. Specifically, primary data from teachers was collected using questionnaires, and interview guides were used to collect data from principals and the sub county director of education. Creswell (2018) contended that the use of two instruments allows the researcher to gather both qualitative and quantitative data independently and to compare the findings.

3.5.1 Questionnaires for Teachers

The use of a questionnaire is a valuable method for collecting a wide range of information from many respondents (Rahman, 2022). In this study, the questionnaire was used for teachers and included both closed-ended and open-ended questions (see Appendix ii). It had four sections. Section one focused on the demographic information of the teachers, such as their gender, age, level of education, and experience. Section two examined the extent to which ICT is being used to teach and learn History and Government. Section three sought to identify the resources in place to support ICT integration in teaching and learning History and

Government. Finally, Section four looked into the challenges and opportunities of using ICT to teach and learn History and Government in public secondary schools in Langata Sub County.

3.5.2 Interviews for Principals and the Sub County Director of Education

According to Kothari (2014), an interview is a methodical way to talk to respondents and pay attention to them in order to get information out of them verbally. In the current study, the researcher used an interview guide to collect data from principals and the sub county director of education. This involved the researcher visiting the schools that were sampled for the study and organized interviews with each individual principal. Interviews were also arranged with the sub county director of education. Later, the researcher met each principal and the county director for the face-to-face interview. The in-depth interview guide included questions seeking the demographic information of the principals and the county director of education, such as their age, experience, and academic qualifications. The interview guide also had probing questions on the extent to which ICT is being used to teach and learn History and Government, the resources in place to support ICT integration in teaching and learning History and Government, and the challenges and opportunities of using ICT to teach and learn History and Government in public secondary schools. The interview records will be kept for the coding, analysis, and interpretation of qualitative data.

3.6 Data Analysis

According to Mugenda and Mugenda (2013), data analysis is the process of imposing order, structure, and significance on the vast amount of information gathered. Given the mixed methods approach that was employed in the present study, the analysis procedures were applicable to both quantitative and qualitative data. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) version 29. Descriptive statistics, specifically frequencies and percentages, were utilized, and the data was presented through distribution tables and bar graphs.

The analysis of qualitative data obtained through instruments such as open-ended questions and interviews involved a systematic search and organization of the data into themes. These themes were meticulously coded and recorded as narratives and direct quotations. The study categorized responses and organize them in relation to the research questions to provide a detailed description of the promotion of ICT and students' performance in History and

Government in public secondary schools in Langata Sub County.

3.7 Validity

Validity is the degree to which an instrument measures what it purports to measure. It is the extent to which an instrument asks questions that enhances accuracy (Ghazali, 2016). The study used construct and content types of validity. To ascertain the validity of the research instruments, the researcher sought the views of experts in the field of study from Strathmore University**,** who reviewed all the questionnaire items to ensure that they measure all aspects of the study questions. The feedback from the experts was then used to improve the final draft of the questionnaire. The researcher also conducted a pilot study in two public secondary schools that were not part of the main study but had similar characteristics as the sample for the study. The outcomes were carefully examined for clarity and correctness to ensure that the items were comprehensive in terms of objective coverage. The results of the pilot study enabled the researcher to ascertain and enhance the validity of the research instruments.

3.8 Reliability

According to Mugenda (2013), reliability is the extent to which any other measuring procedure yields the same results on repeated trials. If the study yields contradictory or incompatible results, the reliability is questionable. To test the reliability of the instruments in this study, the researcher adopted the test-retest technique. A retest was done after a time

lapse of two weeks, and scores from both testing periods were correlated to identify any variations that were present. The study employed Cronbach's alpha tests to assess the reliability of the data collection instrument. Reliability was tested using Cronbach ‘s alpha formula and results generated with the aid of Statistical Package for Social Sciences (SPSS) version 29. Cronbach's alpha provides a measure of reliability from a single administration of the research instrument (questionnaire). It is a technique that was designed by Lee Cronbach in 1951 (Bhattacherjee, 2012). Kothari and Garg (2014) recommend that Cronbach’s alpha reliability coefficient normally ranges between 0 and 1. The authors indicate that a value of 0.6–0.7 shows an acceptable level of reliability, while 0.8 or greater indicates a very good level. Cronbach’s alpha is an appropriate technique for measuring reliability for survey research and other studies that involve questionnaires that have more than two options, such as a Likert scale (Kothari & Garg, 2014). For the current study, the outcome of the pilot test was the reliability coefficient of 0.821, which was considered sufficient for the study.

3.9 Ethical Consideration

When conducting the study, the researcher is expected to adhere to a code of ethics (Creswell, 2014). Ethical considerations are principles that should guide the researcher in conducting the research (Fleming & Zegwaard, 2018). Thus, the researcher in the conduct of this study observed confidentiality and anonymity. The researcher sought informed consent from the participants and explained to them the purpose of the study and that their participation was voluntary. They were informed that they were free to withdraw from the study at any time. To avoid plagiarism, the researcher ensured to cite all sources of information utilized in the study. The researcher sought permission from relevant authorities by applying for institutional ethical approvals from the Strathmore University Institutional Ethics Review Committee (SUIERC) and also applied for a research permit from the National Commission for Science,

Technology, and Innovation (NACOSTI). Upon acquiring this documentation, the researcher then sought permission from Langata Sub County Director of Education to collect data from the sampled public schools.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter deals with presentation, interpretation, and discussion of the study findings. The chapter is divided into sections, including the response rate of the study instruments, demographic data, the presentation, interpretation, and discussion of the findings. The discussion in this chapter is on the objectives of the study as set in the introduction chapter.

4.2 Instrument Response Rate

The researcher distributed research instruments to different study participants. Questionnaires were distributed to teachers, which helped in the collection of quantitative data. The interview guides were used to collect qualitative data from the sub county director of education and the principals of the selected secondary schools. Table 4.2 shows the response rates of the study participants.

Table 4.2: The Response Rate of the Study Participants

Participants	Principals (n=8), Teachers (n=64), Sub County Director (n=1) Sampled Participants	Actual Participants	Response Rate
Principals	8	7	88%
Teachers	64	62	97%
Sub County Director	1	1	100%

Source: ***Field Data, 2025***

Table 4.2 shows that the researcher distributed 64 questionnaires to the teachers in public secondary schools in Langata Sub-County. Out of the 64 questionnaires distributed, 62 were successfully filled out and returned, representing a response rate of 97%. Additionally, 7 out of 8 principals were available for interviews, resulting in an 88% response rate.

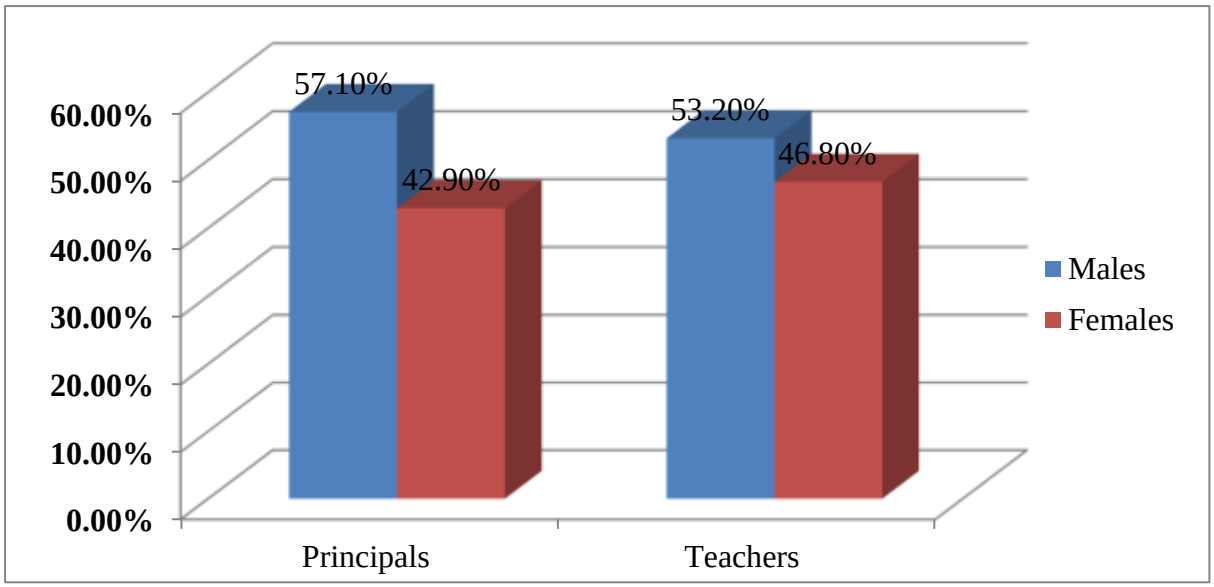
Furthermore, the sub county director of education was available for interviews, achieving a 100% response rate. However, as shown in Table 4.2, there were some gaps in the response rate of both the teachers and principals. The two teachers who did not return their questionnaires reported having been attending a conference and were not able to fill and return them, while the principal who did not participate in the study reported having been unwell during the time of data collection and was unavailable for interviews. Mugenda and Mugenda (2013) argue that a response rate of 50% is adequate for data analysis and reporting, a rate of 60% is good, and a response rate of 70% or more is excellent. Thus, following the recommendation of Mugenda and Mugenda (2013), the response rates of 97% for teachers, 88% for principals, and 100% for the sub county director of education were excellent for data analysis and reporting.

4.3 Demographic Information of the Participants

The study sought to establish participants' personal characteristics, including age, gender, years of experience in the service, and levels of professional qualification. The researcher did this to find out how the personal characteristics of the participants are related to how the promotion of ICT is related to student's performance in History and Government in public secondary schools in Langata sub-county**,** Kenya.

4.3.1 Distribution of Study Participants by Gender

The researcher sought to establish the gender of the participants to determine whether there was a difference between male and female participation in rating how the promotion of ICT influences student's performance in History and Government in public secondary schools in Langata sub-county**,** Kenya. The findings are shown in Figure 2.



Source: ***Field Data, 2025***

Figure 4.2: Distribution of Gender of the Principals and Teachers

Figure 4.2 shows that 57.10% of the principals were females and 42.9 were males. The study further found out that male teachers were found to be more than female teachers, at 53.20% and 46.8%, respectively. Thus, though both genders are represented, leadership roles exhibit gender inequality and the broader teaching staff shows male predominance. As Djong (2023) noted, it is crucial for schools to prioritize gender balance, as diverse genders bring unique insights, approaches, and ways of addressing various educational challenges. Having a balanced gender representation among teachers is important because it ensures a wide range of perspectives and teaching styles, which can enhance teaching effectiveness and lead to better performance in History and government.

Gender-balanced participation also provides a more comprehensive understanding of how ICT can be used to improve performance. This diversity helps identify best practices that are inclusive and effective for all learners. Additionally, it allows for the recognition and addressing of any gender-specific challenges or biases in teaching methods, promoting a more equitable educational environment that is essential for improving learner outcomes in History and Government.

4.3.2 Distribution of principals and Teachers by Age

The study sought to find out the age range of the principals and teachers to establish whether age had any influence on the participants' rating of how promotion of ICT influences students' performance in History and government in public secondary schools in Langata Sub-County. The study findings are presented in Table 4.3.

Table 4.3: Distribution of the principals and Teachers by Age

	Principals		Teachers	
Age	F	%	F	%
29 and below	1	14.3%	4	6.5
30-39 years	1	14.3%	35	56.4
40-49 years	4	57.1%	14	22.6
50 and above	1	14.3%	9	14.5

Source: ***Field Data, 2025***

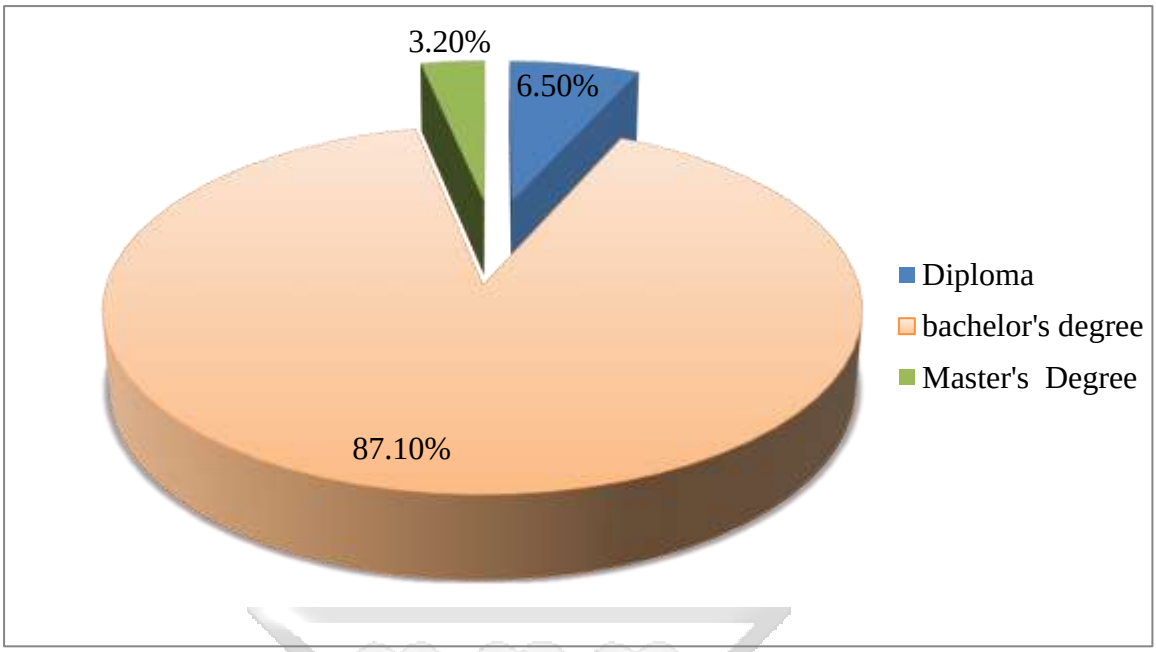
Table 4.3 shows that the majority of the teachers (56.4%) were in the age bracket between 30 and 39 years of age. The study also shows that most of the principals (57.1%) were in the age bracket of 40–49 years. This is an indication that most of the teachers in secondary schools in Langata Sub County are young, and most principals are slightly older than the teachers.

Having principals older than teachers can be advantageous in a school in that older principals tend to have extensive teaching and administrative backgrounds, allowing them to draw from a broad range of experiences to make informed decisions and mentor younger teachers into effective teaching practices. Soerjo **(**2022) argued that the long-term perspective of old principals can provide stability and continuity in school policies and practices, fostering a supportive environment for both teachers and students to excel.

A study by Zheng (2023) revealed that young teachers tend to have the ability to bring fresh perspectives, energy, and enthusiasm to the classroom. They often come equipped with the latest pedagogical techniques and are more likely to be proficient with modern technology especially the use of ICT in teaching, which can enhance the learning experience and make lessons more engaging, consequently improving the performance of learners. Moreover, as noted by Rouze (2024), young teachers may more easily relate to their students, fostering a positive and motivating classroom environment that encourages active participation and a deeper understanding of the material, ultimately contributing to improved academic performance in History and government.

4.3.3 Distribution of Teachers according to Academic Qualifications

The researcher sought to find out the distribution of teachers according to academic qualifications to understand the extent to which educational backgrounds influence promotion of ICT and students' performance in History and government in public secondary schools in Langata sub-county**,** Kenya. The study seeks to find out how academic qualifications reflect the depth of subject matter, knowledge, familiarity with contemporary educational theories, and exposure to various teaching methodologies, and technologies including the use of ICT in teaching. By analyzing this distribution, the study sought to assess whether higher qualifications correlate with more effective or innovative teaching practices with the use of ICT. Figure 4.3 presents the results.



Source: ***Field Data, 2025***

Figure 4.3: Distribution of Teachers according to Academic Qualification

As shown in Figure 4.3, the majority of the teachers (87.10%) had bachelor's degree qualifications. Further, 6.50% of the teachers had diploma qualifications and a small number of teachers (3.2%) had master's degree qualifications. Considering these qualifications, it is clear that most of the teachers were qualified to teach History and government in secondary schools (TSC, 2020). It is important to note that qualified teachers with degrees are able to effectively use ICT in their teaching, ensuring accurate, comprehensive instruction that fosters learning and informed citizenship. Their expertise helps students understand complex political systems, historical events, and their impact on society, enabling them to make well informed decisions as future leaders and engaged citizens. As a result, learners are better equipped to perform well in History and government. Ridhuan (2023) noted that teachers with qualification such as degrees are often better equipped to integrate ICT effectively into their teaching. Their advanced training helps them understand the potential of technology to enhance learning, allowing them to use digital tools for interactive lessons, improve subject delivery, and better engage students in learning.

4.3.4 Distribution of Principals and Teachers according to Experience in Service

The study sought to determine the years of experience of the principals and teachers. This was to assess whether they had acquired more knowledge and skills, particularly in the use of ICT, over the course of their service. This experience could have helped them apply various techniques in promoting ICT in the teaching of History and government. Table 4.3 shows a summary of the findings.

Table 4.4: Distribution of principals and Teachers according to Experience in Service

	Principals (n=8)		Teachers(n=64)	
	Frequencies	Percentages	Frequencies	Percentages
Less than 6 years	0.00	0.00	16	25.8
6-11 years	2	28.6	26	41.9
12-16	5	71.4	17	27.4
17 and above years	0.00	0.00	3	4.8

Source: ***Field Data, 2025***

Table 4.4 shows that teachers and principals in secondary schools in Langata have varied experiences and are at different stages of career growth. The study indicates that the majority of teachers (41.9%) have between 6 and 11 years of experience. Teachers with varying levels of experience bring different perspectives to the classroom (Bager, 2018). Newer teachers may offer fresh ideas and innovative approaches to teaching; while more experienced teachers may have developed a deep understanding of instructional strategies, including the use of ICT in teaching. This diversity of perspectives can lead to a richer educational experience for students studying History and government and help teachers develop the competencies necessary to enhance student performance in this subject.

Table 4.4 also shows that most of the principals (71.4%) had between 12 and 16 years of experience. This suggests that most of the principals had sufficient experience to effectively manage teachers in their secondary schools. Kaaria and Kibaara (2021) argued that principals with substantial experience have had the time and opportunity to develop and

refine their leadership skills. Experienced principals are also likely to be well-versed in educational policies, practices, and curriculum frameworks that encourage the use of ICT in teaching. They have had the opportunity to stay updated on changes in the education sector, implement new initiatives, and adapt to evolving educational trends, enabling them to support teachers in improving performance in History and government. Additionally, experienced school principals can drive ICT integration by advocating for technology use in classrooms and supporting teacher training. Their leadership ensures that ICT resources are available for use in the teaching and learning of History and government, hence creating an environment where students engage with history through modern tools, thereby enhancing understanding and improving exam performance.

4.4 Findings of the Study

This section deals with the findings based on the research questions of the study which include: the extent to which ICT is being used to teach and learn History and Government; identifying the resources in place to support ICT integration on teaching and learning History and Government and finding out the challenges and opportunities of using

ICT to teach and learn History and Government in public secondary schools.

4.4.1 The extent to which ICT is being used to teach and learn History and Government

The first objective of this study was to examine the extent to which ICT is being used to teach and learn History and Government in public secondary schools in Langata Sub County. The teachers were requested to choose the response that best represented their opinions on a five-point scale. The rating scale as presented in Table 4 was: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD). Table 5 presents the findings.

Table 4.5: The extent to which ICT is being used to teach and learn History and Government

Statement	SA		A		UD		D		SD	
	F	%	F	%	F	%	F	%	F	%
Our principal invites experts in ICT to train us on how to use digital resources, which has improved students' performance in History and Government	1	6.5	5	8.1	2	3.2	43	69.4	8	12.9
ICT programs such as virtual instructors, discussion boards, and podcasts are installed on our digital devices to encourage use of digital devices among the teachers	10	16.1	6	9.7	5	8.1	34	54.8	7	11.3
The ICT promotion in this school has improved students' performance.	37	59.7	7	11.3	7	11.3	6	9.7	5	8.1
The principal encourages teachers to train in ICT courses, which has enhanced the acquisition of digital literacy and performance students.	31	51.0	9	14.5	6	9.7	13	21.0	3	4.8

Source: ***Field Data, 2024***

The findings presented in Table 4.5 indicate that most of the teachers (69.4%) disagreed with the idea that their principals invite experts in ICT to train them on how to use digital resources to enhance students' performance in History and Government. A small number of teachers (3.2%) were unsure whether the principal invites ICT experts for training. Concerning the invitation of ICT experts to train teachers, one of the principals had this to say:

> As a principal, I am aware of how beneficial inviting an ICT expert to train teachers can be. However, we are often challenged by the limited finances available for hiring someone, as most experts require payment to come and train our teachers.

> Nevertheless, we are doing what we can to ensure that teachers learn the use of ICT in teaching (Principal A, 7/10/2024).

The same sentiment was shared by the sub-county director, who commented:

> The government is doing its best to ensure funds are available for principals to run programs that train teachers on the use of ICT in teaching and learning. However, the money allocated to schools for such programs often seems insufficient, and this has been a challenge for principals in ensuring that every teacher is trained on the latest technologies required for teaching (Sub- County Director, 11/10/2024).

These findings suggest that while principals may make efforts to have teachers trained on the use of ICT in teaching, they face challenges, including limited finances. If teachers are not trained in ICT, students may miss out on valuable learning opportunities that technology can offer. Without proper integration of digital tools, lessons may lack engagement, and students may struggle to develop essential digital skills needed in the study of History and government. This can hinder their academic performance, limiting both their understanding of History and government as a subject and their preparedness for future careers in a tech driven world. A study by Morishita and Yatsuka (2018) backed these finding noting that training teachers in ICT use is crucial as it enhances their ability to integrate technology into lessons, making learning more engaging and interactive. It equips teachers with modern tools to improve instructional methods and better meet students' needs. For learners, ICT fosters critical thinking, digital literacy, and prepares them for the technology-driven future, enhancing overall academic outcomes which included performance in History and government.

The findings as shown on Table 4 further show that a significant majority of teachers (65.1%) do not have access to ICT programs like virtual instructors, discussion boards, or podcasts on their digital devices, which limits their ability to integrate technology effectively

into teaching. The small percentage (9.7%) who agreed suggests that access to such resources is not widespread, hindering the broader adoption of ICT tools in classrooms. This gap highlights the need for better infrastructure, training, and support to empower teachers to fully utilize digital tools for enhanced learning experiences including in the teaching and learning of History and government. One of the principals in the interview commented: We had wanted to install software on the teachers' digital devices to enhance their use of technology in teaching. However, this has been a challenge because some teachers do not even have digital devices, and the ones available at the school are insufficient. Nevertheless, we have tried to install some of the programs on the available computers, which are shared by the teachers. For now, that's what they are using in teaching (Principal B, 12/10/2023).

The sub-county director also had this to say during the interview:

> Encouraging teachers to use ICT in teaching has been a challenge, especially due to their attitudes toward learning and using technology. Many seem reluctant to embrace ICT, which has hindered the progress we hoped for. This reluctance has, in turn, affected the enhancement of student performance in key subjects, including History and Government (Sub- County Director, 12/10/2024).

These findings point to the use of ICT in schools being hindered by factors such as limited resources, including the availability of digital tools, and teachers' reluctance to embrace ICT. This has slowed progress in teaching and affected student performance in subjects such as History and Government. A study by Ergado (2019) revealed that when digital tools are insufficient, teachers struggle to integrate technology effectively into their lessons. This limits their ability to engage students, modernize teaching methods, and address diverse learning needs. Without adequate resources, the potential benefits of ICT, such as enhancing interactivity and improving learning outcomes, cannot be fully realized.

The findings suggest that the majority of teachers (59.7%) believe ICT promotion in schools has positively impacted student performance, indicating that technology integration is seen as beneficial. However, the 11.3% of undecided teachers highlight that the effect may not be universally experienced or fully realized, possibly due to varying levels of ICT access, training, or implementation. These findings align with comments made by one of the principals, who stated:

> Since we started emphasizing the use of ICT in teaching, we have noticed improvements in student grades, including in History and Government. This is likely because digital tools, such as multimedia resources, make historical events more engaging and accessible. ICT enables students to explore diverse perspectives, enhances critical thinking, and helps visualize complex concepts, leading to better understanding, retention, and overall performance in History and Government (Principal C, 12/10/2024).

Related sentiments were shared by the sub-county director in an interview, who noted, “The schools have reported a positive change in performance, which has been attributed to teachers' advancement in the use of ICT in teaching." These findings suggest that school stakeholders in Langata Sub- County are aware of the beneficial impact of using ICT in the teaching and learning of History and Government. A study by Rogeri (2024) affirmed that when a teacher integrates ICT in teaching, students benefit from more interactive and engaging lessons. Digital tools enhance understanding and promote active participation. ICT also helps cater to diverse learning styles, improving retention, performance, and motivation.

The study revealed that most teachers (65.5%) agreed that principals encourage teachers to train in ICT courses, which has enhanced the acquisition of digital literacy and improved student performance. However, a small number of teachers (4.8%) strongly disagreed with the idea. It is important for teachers to train in ICT courses to effectively

integrate technology into history lessons. ICT tools enhance engagement and improve students' understanding and performance in History and Government. This viewpoint was shared by the sub-county director, who remarked, "Teachers should embrace training to acquire new skills in teaching, especially the use of ICT." Morishita and Yatsuka (2018) argued that ICT can be used to present teaching materials that raise students' interest, schedule student presentations and discussions, and prepare audiovisual instructional materials. The consistent use of ICT in teaching enhances teachers' knowledge and skills in utilizing technology effectively.

4.4.2 The Resources in place to support ICT integration on Teaching and Learning History and Government

The second research question of this study was to identify the resources in place to support ICT integration on teaching and learning History and Government in public secondary schools in Langata Sub-County. The teachers were asked to choose the response that best represented their opinions on a five-point scale. The rating scale presented was: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD). Table 6 presents the findings.

Table 4.6: Resources in place to support ICT integration on Teaching and Learning History and Government

Statement	SA		A		UD		D		SD	
	F	%	F	%	F	%	F	%	F	%
The school ensures that teachers have the needed ICT resources in the teaching and learning of History and Government.	6	9.7	36	58.1	4	6.5	2	3.2	14	22.6
There is scarcity of ICT resources needed in the teaching and learning of History and Government.	39	62.9	9	14.5	6	9.7	3	4.8	5	8.1
Availability of ICT resources such as computers have enhanced performance of leaners in History and Government.	3	4.8	9	14.5	6	9.7	39	62.9	5	8.1
Our school has developed an online learning platform and created a user-friendly and interactive online platform where teachers can upload resources, assignments, and assessments.	3	4.8	3	4.8	13	21.0	43	69.4	00	00
The principal encourages teachers to integrate resources available online, such as multimedia content to improve students' performance.	38	61.3	6	9.7	3	4.8	9	14.5	6	9.7

Source: ***Field data, 2025***

Table 4.6 shows that slightly more than half of the teachers (58.1%) agreed that the school ensures teachers have the necessary ICT resources for teaching and learning History and Government. However, 3.2% of teachers disagreed with this idea. This finding aligns with what the sub-county director mentioned in an interview, "Schools are provided with resources, such as computers, to facilitate the integration of ICT in teaching." The large number of teachers agreeing with the use of ICT suggests that schools in Langata are making

efforts to integrate technology to improve teaching and learning. One of the principals also commented:

> As a principal, I have always encouraged teachers to embrace the use of ICT in teaching, as it enhances both teaching and learning. This has led to improved performance in most subjects, including History and Government (principal D, 13/10/2024).

The findings indicate that most teachers (62.9%) believe there is a scarcity of ICT resources needed for teaching and learning History and Government, highlighting a significant challenge in resource availability. However, a small percentage (4.8%) disagreed, suggesting that some teachers may have access to adequate digital tools. This disparity points to the need to improve ICT infrastructure access for all teachers, ensuring equitable resources across schools and enhancing the quality of teaching in these subjects. One of the principals reinforced these findings in the interview:

> Although the government sends some funds that we can use to purchase digital devices for teachers, the money is not enough. As a result, we have been unable to equip the school with the latest technologies that would be essential for teaching and learning (Principal E, 12/10/2024).

These findings suggest that the performance in History and Government is hindered by the limited integration of ICT in teaching, primarily due to insufficient funds to purchase digital tools for teachers. These findings align with the results of a study by Mwongela (2024), which aimed to identify the key impacts of integrating technology into public secondary schools in Makueni County. The study found that the limited availability of computers was a major hindrance to teaching and learning in most schools.

The findings suggest that most teachers (62.9%) believe that ICT resources, such as computers, have not significantly enhanced student performance in History and Government. The 9.7% who were undecided may indicate uncertainty about the effectiveness of the current

resources. This highlights the need for better integration of ICT in teaching and additional support to optimize its impact on student learning outcomes. These findings could also suggest that the available ICT devices are ineffective, possibly due to being outdated or substandard. Other factors, such as limited knowledge of ICT usage, may also contribute to the ineffective use of technology, hindering improvements in student performance.

The findings indicate that the majority of teachers (69.4%) feel schools have not developed effective online learning platforms for uploading resources, assignments, and assessments, which limits the potential for ICT integration in teaching. Only a small percentage (4.8%) of teachers agreed, suggesting that access to user-friendly and interactive platforms remains a challenge. This highlights the need for schools to invest in and improve digital infrastructure to enhance teaching and learning through ICT, as this will improve student performance in subjects including History and Government. "In line with these findings, a principal commented, 'It has been a challenge using technology in this school because most teachers are not informed on how to use some online resources in teaching and learning." The

county director supported these findings, arguing:

> Every time I meet with principals, I encourage them to send their teachers for training in the use of ICT. However, this seems not to have been done by most principals. As a result, many teachers still find it challenging to use multimedia platforms in teaching (Sub- County Director, 12/10/2024).

The findings of this study are reinforced by a study by Mahdi, Omar, and Kardo (2024), which revealed that introducing Information and Communication Technology (ICT) modules across media platforms and applications in education departments, offering intensive courses for teachers, and developing educational facilities in schools can help overcome teaching limitations and challenges, ultimately enhancing student performance.

The findings suggest that most principals actively encourage teachers to integrate online resources, such as multimedia content, into their teaching. With 61.35% of teachers agreeing, it indicates a positive effort toward ICT integration. This can enhance student engagement and learning outcomes by making lessons more interactive and dynamic. However, the 4.8% of undecided teachers highlight a need for further support or training to ensure consistent and effective use of digital resources across all schools. These findings align with what one of the principals mentioned in the interview, "Teachers in this school are encouraged to use available ICT resources in teaching to enhance student performance." The findings suggest that public secondary schools in Langata Sub-County are making efforts to ensure teachers integrate ICT in teaching to improve student performance, although challenges such as limited resources remain.

4.4.3 The Challenges and Opportunities of Using ICT to Teach and Learn History and Government

The third research question of this study was to look into the challenges and opportunities of using ICT to teach and learn History and Government in public secondary schools in Langata Sub-County. The teachers were asked to choose the response that best represented their opinions on a five-point scale. The rating scale presented was: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD). Table 7 presents the findings.

Table 4.7: The Challenges and Opportunities of Using ICT to Teach and Learn History and

Statement	SA		A		UD		D		SD	
	F	%	F	%	F	%	F	%	F	%
The use of ICT in teaching and learning is a major challenge in our school.	16	25.8	29	46.8	6	9.7	2	3.2	9	14.5
Our students perform well in History and Government through the use of ICT in teaching and learning.	40	64.6	3	4.8	5	8.1	14	22.6	0	0
Teachers find it easy to teach and enhance the performance of leaners through the use of ICT.	45	72.7	3	4.8	0	0	5	8.1	9	14.5
The use of ICT enhances digital literacy among the teachers and the learners which has enhanced learners' performance in History and Government.	42	67.7	6	9.7	8	12.9	2	3.2	4	6.5

Source: ***Field data, 2025***

Table 4.7 indicates that most of the teacher (72.6%) agreed that the use of ICT in teaching and learning is a major challenge in our school. Only 3.2 disagreed with the idea. This agrees with the findings from the sub county director who narrated:

> In our schools, the use of ICT in our schools is challenging due to limited resources, such as insufficient computers, outdated technology, and inadequate internet access. Additionally, many teachers lack proper training in using digital tools effectively. These barriers hinder the full integration of ICT, affecting teaching quality and student learning outcomes (Sub County Director, 13/10/2024).

One of the principals also commented, "We encourage teachers to use ICT in teaching, but we are often challenged by factors such as the negative attitude of some

teachers, who do not make enough effort to learn how to effectively use ICT in their teaching."

A study by Amponsah (2021) was conducted to investigate the impact of internet usage on the academic performance of senior high school students in the Cape Coast Metropolis, Ghana. The study revealed that school ICT laboratories should be equipped with reliable internet facilities, and students should be taught how to effectively use search engines for academic research. This study underscored the vital role of ICT resources, particularly internet access, in enhancing academic performance. However, the availability of ICT resources has been a challenge in the area.

The study further established that 69.4% of the teachers agreed that students perform well in History and Government through the use of ICT in teaching and learning. This could be possible because the use of digital tools makes learning more interactive and engaging. Multimedia resources, such as videos, online simulations, and interactive maps, help bring historical events to life, making complex concepts easier to understand. As one of the principals noted, "ICT also encourages critical thinking, collaboration, and independent research, allowing students to explore diverse perspectives."

The findings revealed that the majority of teachers (77.5%) find it easy to teach and enhance the performance of learners through the use of ICT. This suggests that teachers embrace ICT in teaching. However, these findings contradict the views of one of the principals, who mentioned that teachers are challenged by the use of technology in teaching. It is important to note that when teachers embrace ICT, learners gain access to a variety of resources, which enhances learning and their performance in History and Government.

Usman (2018) contended that the use of ICT in teaching enables simultaneous presentations, videos, applications, and didactic images, which facilitate teaching, increase student involvement in the learning process, and enhance learning outcomes.

The findings suggest that a significant majority of teachers (%) believe that the use of ICT enhances digital literacy, which in turn improves student performance in History and Government. The 3.2% who disagreed and the 12.9% who were undecided indicate some reservations or lack of full engagement with ICT integration. The results highlight that ICT plays a key role in developing essential digital skills, positively impacting both teaching and learning outcomes particularly in the study of History and government. In a study by Bhandari (2024), it was revealed that the use of ICT engages students' cognitive processes and fosters their autonomy in class. It also creates an engaging and dynamic learning environment, facilitating better access to learning materials, which enhances learning and success, including in the study of History and Government.

4.5 Inferential Analysis

This section presents inferential analysis, which is the process of drawing conclusions or making inferences about a larger population based on data collected from a sample. Healey (2018) notes that inferential analysis goes beyond descriptive statistics and uses statistical methods to test hypotheses, make predictions, or generalize results.

4.5.1 Correlation between Teachers' Gender and Integration of ICT in Teaching

The present part investigates the potential impact of teachers' gender on their integration of ICT in teaching history and Government in public secondary schools in Langata sub county**,** Kenya. The results are shown in Table 4.8.

Table 4.8: Correlation between Teachers' Gender and Integration of ICT in Teaching

		ICT *Integration*	Gender of Respondent
ICT ***Integration***	Correlation Coefficient	1.000	.317*
	Sig. (2-tailed)	.	.033
Gender of	Correlation Coefficient	.317*	1.000
Respondent	Sig. (2-tailed)	.033	.

*. Correlation is significant at the 0.05 level (2-tailed).

The findings revealed a statistically significant association between gender and ICT promotion in teaching ($r = 0.317$, $p < 0.05$). This result suggests that gender does have a statistically significant influence on the level of ICT promotion among teachers in schools, although the strength of the relationship is relatively weak.

The significance value of 0.033, which is below the conventional threshold of 0.05, confirms that this correlation is statistically significant. This is consistent with findings by Gebhardt (2019), who revealed that gender does not significantly affect teachers' use of ICT in teaching, although female teachers who use technology effectively provide a role model for young women in most schools in Kenya.

4.5.2 Chi-Square Test of Independence

Chi-Square Tests between Level of Education and ICT Use among Teachers

This section examined the potential correlation between the educational attainment of the participants and their use of ICT in teaching history and movement. The educational levels under consideration in this study were Diploma, Bachelor's Degree, and Master's Degree.

The investigation showed that there is a positive correlation between better educational degrees and more ICT integration in teaching, which in turn leads enhances learner's

performance. The null hypothesis that there is no correlation between educational levels and ICT integration in teaching was tested using a chi-square test. The data, shown in Table 4.9, demonstrate that the educational attainment of a teacher has a substantial impact on their probability of integrating ICT into their teaching practice.

Table 4.9: Chi-Square Tests between Level of Education and ICT Use among Teachers

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-square	26.441	20	.048
Likelihood Ratio	24.495	20	.221
Linear-by-Linear Association	.024	1	.877
No. of valid cases	62.00		

a. 14 cells (24.0%) have expected count less than 5. The minimum expected count is .02

Table 4.9 provides a concise overview of the outcomes obtained from chi-square tests used to investigate the association between categorical variables. The Pearson Chi-Square statistic is 26.441 with 20 degrees of freedom, and the p-value for the two-sided asymptotic significance estimate is 0.048. The obtained p-value, which is somewhat lower than the significance level of 0.05, suggests a statistically significant relationship between the variables. The study suggests that there is evidence to suggest that the level of ICT promotion may influence how teachers use ICT in the teaching of history and government. Regarding the Likelihood Ratio**,** the value is 24.495 with 20 degrees of freedom**,** and the p-value is 0.221**.** Since the p-value is greater than 0.05**,** it indicates that the likelihood ratio test does not show a significant association between the two variables. These findings suggest a complex relationship between ICT promotion and teachers' use of ICT. While one test shows significance, the other does not, indicating potential variability in the association.

Furthermore, the calculation of the correlation between two ordinal variables resulted in a statistic of 0.024 with 1 degree of freedom, and a p-value of 0.877. The high p-value indicates that there is no statistically significant linear correlation between these variables. It can thus be said that the results suggest that there is a statistically significant association between the level of ICT promotion and ICT use among teachers, but the nature of the relationship might be more complex, and not all tests show consistent results. The Pearson Chi-Square result is the most relevant here, as it points to significance.

These findings are consistent with the results of a study by Mwikali et al. (2020), who conducted research on the influence of ICT integration in content preparation by ICT- and Non-ICT-trained teachers in secondary schools in Machakos County, Kenya. The study revealed that ICT-trained teachers utilized technology more effectively in their teaching compared to their non-ICT-trained counterparts.

4.5.3 Regression Analysis (ANOVA)

The researcher conducted regression analysis to determine whether teachers with different academic qualifications significantly differ in their ability to integrate ICT in the teaching and learning of History and Government in public secondary schools in Lang'ata Sub-County. To assess how academic qualifications influence teachers' integration of ICT in teaching and learning history, the study used the regression coefficient. The ANOVA table shows that the F-calculated value is 28.246. Since the p-value is .000, which is less than the conventional alpha level of 0.05, the study rejected the null hypothesis and concluded that there is a statistically significant influence of teachers' qualifications on their integration of ICT in the teaching and learning of History and Government. This finding implies that initiatives aimed at improving teachers' qualifications could positively impact ICT integration in teaching, thereby improving learners' performance in History and Government. Table 10

shows that teachers' academic qualification may have a statistically significant influence on ICT integration in the teaching of History and Government.

Table 4.10: Regression ANOVA for Linear Relationship between Academic Qualification and ICT Integration in Teaching of History and Government

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.598	1	9.598	28.246	.000[b]
	Residual	8.731	100	0.087		
	Total	18.328	101			

a. Dependent Variable: Acquisition of digital literacy

Summary

This chapter presented both the quantitative and qualitative data that was collected using the research instrument. The information derived from these data has been summarized and presented in the form of tables, bar graphs and pie charts. These are accompanied by brief narratives that explain the general findings from the data analysis, without drawing wider conclusions on their implications to the study. Chapter 5 overleaf presents the detailed discussion of these findings and relates them to the research objectives and questions.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter aims to present interpretation of the findings, draw conclusions, and make recommendations. The purpose of this study was to find out how promotion of ICT influences students' performance in the subject History and Government in public secondary schools in Langata sub-county, Kenya. In response to the first research question, the study sought to examine the extent to which ICT is being used to teach and learn History and Government in public secondary schools in Langata Sub-County. The findings indicate that teachers did not recognize any efforts by institution heads to train and equip them with ICT teaching skills. This deficit was especially so in the teaching of History and Government. In addition, the findings further indicated that a significant majority of teachers do not have access to ICT programs like virtual instructors, discussion boards, or podcasts on their digital devices, which limits their ability to integrate technology effectively into teaching. The small percentage of teachers who agreed suggests that access to such resources is not widespread, hindering the broader adoption of ICT tools in classrooms.

The findings suggest that the majority of teachers believe ICT promotion in schools has positively impacted student performance, indicating that technology integration is seen as beneficial. The study further revealed that most teachers agreed that principals encourage teachers to train in ICT courses, which has enhanced the acquisition of digital literacy and improved student performance. However, a small number of teachers strongly disagreed with the idea.

The second research questions sought to identify the resources in place to support ICT integration on teaching and learning History and Government in public secondary schools in Langata Sub-County. The findings herein revealed that slightly more than half of the teachers

agreed that the school ensures teachers have the basic necessary ICT resources. The findings further indicate that most teachers believe there is a scarcity of ICT resources needed for teaching and learning History and Government, highlighting a significant challenge in resource availability. However, a small percentage (4.8%) disagreed, suggesting that some teachers may have access to adequate digital tools. The findings suggest that most teachers believe that ICT resources, such as computers, have not significantly enhanced student performance in History and Government.

The findings indicate that the majority of teachers feel schools have not developed effective online learning platforms for uploading resources, assignments, and assessments, which limits the potential for ICT integration in teaching. Only a small percentage (4.8%) of teachers agreed, suggesting that access to user-friendly and interactive platforms remains a challenge. The findings suggest that most principals actively encourage teachers to integrate online resources, such as multimedia content, into their teaching. With 61.35% of teachers agreeing, it indicates a positive effort toward ICT integration.

The last question looked into the challenges and opportunities of using ICT to teach and learn History and Government in public secondary schools in Langata Sub-County. Regarding this question, it was revealed that most of the teachers agreed that the use of ICT in teaching and learning is a major challenge in schools. The study further established that majority of the teachers were in agreement that students perform well in History and Government through the use of ICT in teaching and learning. Further findings indicated that the majority of teachers find it easy to teach and enhance the performance of learners through the use of ICT. This suggests that teachers embrace ICT in teaching. However, these findings contradict the views of one of the principals, who mentioned that teachers are challenged by the use of technology in teaching. The findings suggest that a significant majority of teachers believe that the use of ICT enhances digital literacy, which in turn improves student performance in History and Government.

5.2 Discussion /Interpretation of the Findings

The integration of Information and Communication Technology (ICT) into the teaching of History and Government in public secondary schools in Kenya has the potential to transform educational practices significantly. This technological advancement facilitates more interactive learning experiences, where students can engage with digital resources such as historical documentaries, online archives, and interactive timelines. While many educators acknowledge the benefits of ICT, challenges remain, including a lack of adequate training and resources. According to (Kwadwo et al., 2020), despite high academic qualifications among educators, the effective use of computer technology in teaching remains hindered by a lack of competence and coherent initiatives. Furthermore, (Gater et al., 2014) suggests that successful programs emphasize educational outcomes over mere technology delivery.

As educational technology evolves, its potential to engage students and improve their understanding of civic duties and governance cannot be understated. The Technological Pedagogical Content Knowledge is a framework that helps educators understand how to effectively integrate technology into teaching by considering the intersections of technology, pedagogy and content knowledge. The model emphasizes the importance of teachers having a deep understanding of how technology, and content knowledge interact to create effective learning experiences. However, various studies indicate that the effective utilization of ICT often faces challenges, particularly concerning teacher proficiency and the implementation of coherent ICT initiatives in pedagogy. For instance, while many educators possess strong academic backgrounds, a significant proportion struggle with effectively integrating technology into their teaching methodologies, as seen in the findings regarding music education in Ghana (Kwadwo et al., 2020). Furthermore, effective edtech programs should prioritize educational change over mere technological delivery, emphasizing teacher support and robust evaluations of learning outcomes (Gater et al., 2014). Thus, addressing these hurdles is essential for maximizing the positive impact of ICT in learning Government.

5.2.1 To what extent is ICT being used to teach and learn History and Government in public secondary schools in Kenya?

i. Introduction

The integration of Information and Communication Technology (ICT) in education represents a significant shift in pedagogical practices within Kenya, particularly in the realm of public secondary schools. This transformation is driven by the recognition of ICTs potential to enhance learning outcomes, foster greater student engagement, and provide access to diverse educational resources. By facilitating interactive learning environments, ICT enables students to explore historical and governmental concepts more dynamically, moving beyond traditional rote memorization. Additionally, the Kenyan government has initiated various programs aimed at expanding ICT infrastructure in schools, such as the Digital Literacy Programme, which seeks to provide students with essential technological skills. However, the extent to which ICT is effectively utilized in teaching subjects like History and Government remains an area of considerable inquiry, as discrepancies in resource availability, teacher training, and curriculum integration challenge a uniform application of these technological advancements across the nation.

ii. The Role of ICT in Teaching History in Public Secondary Schools

The integration of Information and Communication Technology (ICT) into the teaching of History in public secondary schools in Kenya has the potential to transform educational practices significantly. This technological advancement facilitates more interactive learning experiences, where students can engage with digital resources such as historical documentaries, online archives, and interactive timelines. While many educators acknowledge the benefits of

ICT, challenges remain, including a lack of adequate training and resources. According to (Kwadwo et al., 2020), despite high academic qualifications among educators, the effective use of computer technology in teaching remains hindered by a lack of competence and

coherent initiatives. Furthermore, (Gater et al., 2014) suggests that successful edtech programs emphasize educational outcomes over mere technology delivery. Therefore, to enhance History education effectively, it is essential that ICT initiatives are thoughtfully designed and supported, ensuring that educators are equipped to leverage technology for improved learning outcomes.

iii. The Impact of ICT on Learning Government in Public Secondary Schools

In recent years, the incorporation of Information and Communication Technology (ICT) in the teaching and learning of Government in public secondary schools in Kenya has emerged as a pivotal factor in enhancing educational outcomes. As educational technology evolves, its potential to engage students and improve their understanding of civic duties and governance cannot be understated. However, various studies indicate that the effective utilization of ICT often faces challenges, particularly concerning teacher proficiency and the implementation of coherent ICT initiatives in pedagogy. For instance, while many educators possess strong academic backgrounds, a significant proportion struggle with effectively integrating technology into their teaching methodologies, as seen in the findings regarding music education in Ghana (Kwadwo et al., 2020). Furthermore, effective edtech programs should prioritize educational change over mere technological delivery, emphasizing teacher support and robust evaluations of learning outcomes (Gater et al., 2014). Thus, addressing these hurdles is essential for maximizing the positive impact of ICT in learning Government.

iv. Conclusion

In conclusion, the integration of Information and Communication Technology (ICT) in the teaching and learning of History and Government in public secondary schools in Kenya has shown a nuanced yet transformative impact. While the extent of ICT utilization varies significantly among different institutions, the potential benefits are evident in enhanced engagement, improved accessibility of resources, and the promotion of collaborative learning

environments among students. This technological integration not only facilitates a richer learning experience but also prepares students for a world increasingly reliant on digital literacy. However, challenges such as inadequate infrastructure, limited teacher training, and resource disparities persist, hindering widespread implementation. As educational stakeholders in Kenya seek to fully realize the benefits of ICT, future efforts must focus on addressing these challenges while promoting equitable access to technology. Ultimately, fostering a comprehensive ICT framework in education will enhance the delivery of History and Government curriculum, enriching the future of Kenyan learners. Connectivism, a learning theory proposed by George Siemens and Stephen Downes backs up well this argument. The theory emphasizes the role of technology and networks in the learning process, making it highly relevant to the integration of ICT in education.

5.2.2 Which are the resources in place to support ICT integration in teaching and learning History and Government in public secondary schools in Lang'ata Sub County?

The integration of Information and Communication Technology (ICT) in educational settings has been widely recognized for its potential to enhance student performance, particularly in subjects such as History and Government. By providing access to vast resources, including eBooks, academic journals, and interactive learning tools, ICT facilitates a more engaging learning environment. Students can explore historical events and governmental systems through multimedia presentations, virtual simulations, and online discussions, which promotes critical thinking and analytical skills. Emphasizing the need for dynamic educational approaches, ICT not only supplements traditional teaching methods but also enables personalized learning, allowing students to progress at their own pace. Studies have shown that when integrated effectively, ICT can lead to improvement in comprehension and retention of complex subject matter, ultimately contributing to better academic outcomes in public secondary schools in Kenya. Moreover, the relationship between ICT and student performance is significantly influenced by teachers' proficiency in technology and their

pedagogical strategies. The Technology Acceptance Model explores the perceived usefulness of new technologies in teaching by teachers and their perceived ease of use. To this extent, teachers equipped with ICT skills can better facilitate discussions and encourage collaborative learning among students. This empowerment fosters a supportive learning atmosphere, wherein students are motivated to participate actively in their educational journey. Research indicated that professional development programs focused on enhancing teachers ICT skills can lead to measurable improvements in student engagement and academic achievement in various subjects, including History and Government. Consequently, the success of ICT integration in Kenyan public secondary schools is inherently tied to teachers' capability to utilize technology effectively in their instruction and to adopt innovative teaching strategies that resonate with students learning preferences. In the context of Kenya, the promotion of ICT as a tool for enhancing student performance also faces several challenges. These include limited access to reliable internet connectivity in rural areas, inadequate technological infrastructure, and insufficient training for both teachers and students. Furthermore, the disparities in resource allocation between urban and rural schools exacerbate the effects of these challenges, hindering equitable access to ICT resources. Addressing these issues requires a concerted effort from the government, educational institutions, and non-governmental organizations to improve digital infrastructure and provide comprehensive training programs. As such, promoting ICT in History and Government education will necessitate a multi-faceted approach that not only focuses on the technological aspects but also considers the socio-economic context of schools in Kenya.

5.2.3 What are the challenges and opportunities of using ICT to teach and learn History and Government in public secondary schools in Kenya

i. Introduction

The integration of Information and Communication Technology (ICT) in the teaching of History and Government in Kenya marks a significant shift in pedagogical approaches

within public secondary schools. This transition is particularly vital, given the pressing need for innovative educational strategies to enhance student engagement and understanding of these subjects. The Diffusions of Innovation Theory developed by Everett Rodgers explains how new ideas, products and technologies spread through a population and the willingness of individuals in a population to adopt new ideas. The development of new ICT tools, such as multimedia presentations, online resources, and interactive platforms, can transform traditional teaching methods by providing dynamic content that fosters critical thinking and encourages collaborative learning among students. Moreover, the use of ICT facilitates access to a wealth of information beyond the confines of the classroom, allowing learners to explore diverse historical perspectives and governmental structures in a global context. However, while the potential benefits of ICT integration are substantial, challenges such as inadequate infrastructure, limited teacher training, and disparities in access need to be addressed to fully realize the advantages of this educational paradigm shift.

ii. **Challenges of Implementing ICT in Public Secondary Schools**

The implementation of Information and Communication Technology (ICT) in public secondary schools in Kenya faces significant challenges that hinder its effectiveness in enhancing educational outcomes. A primary concern is the limited e-readiness of schools, as less than 10% currently offer computer studies as part of their curriculum, despite the growing necessity for digital literacy in the 21st-century workforce (Elizabeth et al., 2012). Additionally, largescale investments in edtech, such as computers for student use, do not always translate to improved learning outcomes, often due to inadequate support for teachers and insufficient integration into teaching practices (Gater et al., 2014). Schools frequently lack the infrastructure, such as reliable internet access and appropriate hardware, which exacerbates the inequality in educational resources. Consequently, while ICT holds the potential to enrich the learning experience, the failure to adequately address these

foundational challenges may perpetuate existing disparities in education within the Kenyan context.

iii. Opportunities Presented by ICT for Teaching and Learning

The integration of Information and Communication Technology (ICT) in teaching and learning presents significant opportunities, particularly for public secondary schools in Kenya. ICT facilitates access to diverse educational resources, enabling students and teachers to engage with historical and governmental content through interactive platforms. This engagement can lead to enhanced understanding and retention of complex concepts, as digital tools often offer multimedia support that caters to varied learning styles. Furthermore, during the COVID-19 pandemic, the reliance on online platforms, such as Zoom, highlighted the potential for e-learning to bridge educational gaps, illustrating how technology can maintain continuity in education despite physical constraints (Aghogho et al., 2022). However, to fully harness these opportunities, a concerted effort is necessary to address the disparities in access to ICT tools and digital literacy, as noted in Kenyas evolving digital policy landscape. The push for inclusive digital education can empower students and educators alike, ultimately fostering a more equitable learning environment (Nyabola N, 2024).

iv. Conclusion

In conclusion, the integration of Information and Communication Technology (ICT) in teaching History and Government in public secondary schools in Kenya presents a complex interplay of challenges and opportunities. On one hand, the potential for enhanced engagement, access to diverse resources, and the promotion of interactive learning environments is significant. However, logistical issues such as inadequate infrastructure, limited teacher training, and socio-economic disparities can hinder the effective implementation of ICT strategies. Furthermore, the reliance on technology risks overlooking the critical skills needed for historical analysis and civic understanding. To harness the benefits while mitigating the challenges, a comprehensive framework must be developed that

emphasizes targeted training for educators, investment in infrastructure, and access to technology for all students. Ultimately, by addressing these barriers, ICT can become a powerful tool for fostering a deeper understanding of History and Government among Kenyan youth, contributing to a more informed citizenry.

5.3 Recommendations of the Study

The study, based on the findings, made several recommendations: recommendations for policy, recommendations for practice and the recommendations for further research.

5.3.1 Recommendations for Policy

This study recommends that the ministry of education implements mandatory ICT training programs for all teachers. These programs should focus on digital literacy, effective use of multimedia tools, and integrating ICT into subject-specific teaching methods. Additionally, ongoing professional development should be provided to ensure teachers remain up-to-date with technological advancements, improving both teaching quality and student outcomes in subjects including History and government.

5.3.2 Recommendations for Practice

The study recommends that principals actively promote and facilitate professional development opportunities for teachers focused on ICT integration. This includes encouraging teachers to attend relevant conferences, workshops, and training sessions on ICT, as well as inviting experts to conduct training. Additionally, principals should provide support by allocating resources and creating a collaborative environment where teachers can share best practices and seek assistance with ICT integration challenges in teaching History and Government. By fostering a culture of continuous learning and support for technology, principals can significantly enhance teachers' effectiveness in using digital tools to improve teaching and student performance in History and Government.

The study recommends that the teachers prioritize ongoing professional development in ICT skills. Teachers should actively seek training opportunities to improve their digital literacy and integrate technology into their lessons. Additionally, they should collaborate with colleagues to share best practices, explore online resources, and gradually incorporate multimedia tools to enhance student engagement and learning outcomes in History and government.

5.3.3 Recommendations for Further Research

To researchers, the study recommends that future studies could investigate how specific teacher training programs on ICT affect the integration of technology in History and Government lessons. Research could focus on the relationship between teachers' ICT skills and their ability to use digital tools effectively, and how this directly influences student engagement and academic performance in these subjects. The study also recommends that a similar study to be done to compare the effectiveness of ICT integration in History and Government across different regions or counties in Kenya. This would help identify regional differences in resources, training, and implementation strategies, and provide insights into best practices that could be applied nationally.

REFERENCES

Abdullateef, J. (2022). Usability and utilization of ICT among educational administrators in secondary students in public school. *Indonesian Journal of Educational Research and Education Technology, 7*(5), 210-214.

Abobo, F. (2018). Influence of technology education on Kiswahili achievement in classrooms adoption in high schools. *Educational Technology & Society, 21* (4), 157-170.

Aghogho, D., & Ayo, A. (2022). *E-Learning in Vocational Business Education during Covid-19 Pandemic in Nigeria; Challlenges, Benefits and Way Forward.* https://core.ac.uk/download/524546336.pdf

Bager, J. L. (2018). *Teaching experience, teachers' beliefs, and self-reported classroom management practices: A coherent network.* Retrieved from https://www.researchgate.net/publication/322620593

Belay,T., & Khatete, T. (2020). Availability of ICT resources for teaching and learning biology in secondary schools in the southern region, Eritrea. *International Journal of Technology and Systems, 5*(1), 1-17.

Bonifacio, A.L. (2021). *Developing Information Communication Technology (ICT) Curriculum Standards for K-12 Schools in the Philippines.* Accessed from https://linc.mit.edu/linc2013/proceedings/Session7/Session7Bonifacio.pdf

Brun, M., & Hinostroza, J. E. (2014). Learning to become a teacher in the 21st century: ICT integration in Initial Teacher Education in Chile. *Journal of Educational Technology & Society, 17*(3), 222.

Djong, H. (2023). *Working towards gender equality: The role of teachers and teaching.* Global Partnership for Education. Retrieved from https://www.globalpartnership.org/blog/working-towards-gender-equality-roleteachers-and-teaching

Eksail, A., & Afari, E. (2020). Factors affecting trainee teachers' intention to use technology: A structural equation modeling approach. *Education and Information Technologies, 25*(20), 2681–2697.

Elizabeth, Muema, Redempta, Kiilu (2012). "*An E-Learning Approach to Secondary School Education":* E-Readiness Implications in Kenya. https://core.ac.uk/download/234633836.pdf

Gater, Rosalind, Grant, Catherine, Power, Tom, Winters, et al. (2014). *Educational Technology Topic Guide*. https://core.ac.uk/download/28929587.pdf

Ghavifekr, S., & Kunjappan,T. (2022). Teaching and Learning with ICT Tools: Issues and Challenges from Teachers' Perceptions. *Malaysian Online Journal of Educational Technology, 4*(2), 1-20.

Ghavifekr, S., & Kunjappan, T. (2022). Teaching and learning with ict tools: Issues and challenges from teachers' perceptions. *Malaysian Online Journal of Educational Technology, 4*(2), 2-16.

Harris,J.,& Albataineh, M. (2016). One to One Technology and its Effect on Student Academic Achievement and Motivation. *Contemporary educational technology, 7*(4), 368-381.

ILO. (2021). *Digitalization in teaching and education in Kenya Digitalization, the future of work and the teaching profession project*, ILO: Geneva Machakos County. *International Academic Journal of Law and Society*, *1*(2), 328–352.

Jesson, L.H. (2020). Exploring the Principal's Technology Leadership: Its Influence on Teachers' Technological Proficiency, *International Journal of Academic Pedagogical Research (IJAPR), 4* (6), 4-10.

Kabwika, R. (2019). *Adoption of information and communication technology in improving teaching and learning in Marist secondary schools in the democratic republic of Congo* (unpublished thesis). The catholic university of eastern Arica.

Karunaratne, T., Peiris, C. & Hansson, H., (2018). Implementing small scale ICT projects in Kenya National Bureau of Statistics (2019). *Economic Survey*. KNBS: Nairobi.

Kirongo, A.C., Bundi, D., & Kitaria, T. (2022). C*onducted a study aimed at determining the status and challenges faced by Institutions of Higher Learning (IHL) in Kenya in implementing eLearning to support remote learning during the COVID-19 pandemic.* Accessed from file:///C:/Users/user/Desktop/ToBIUS%2023-032025/F_KJ02M027.pdf

Kwadwo, Klutse Eric, Mawusi, Eddison Foster (2020). *The Role of Technology in Music Education: a Survey of Computer Usage in Teaching Music in Colleges of Education in The Volta Region, Ghana.* https://core.ac.uk/download/287612155.pdf

Mahboubeh F, Soolmaz N, Dinh T., & Mohammad, A. (2022). A Comparative Study of Information and Communication Technology (ICT)-Based and Conventional Methods of Instruction on Learners' Academic Enthusiasm for L2 Learning, *Education Research International, 2*(2)1- 8.

Mahdi, S., Omar, B., & Kardo, R. (2024). Online education via media platforms and applications as an innovative teaching method. *Education and Information Technologies, 28*(1), 507–523.

Makokha, G., Mutisya, N. (2016). Status of e-learning in public universities in Kenya, *International Review of Research in Open and Distributed Learning*, *17*(3), 341-359.

Mathevula, M. D., & Uwizeyimana, D. E. (2014). The Challenges Facing the Integration of ICT in Teaching and Learning Activities in South African Rural Secondary Schools. *Mediterranean Journal of Social Sciences*, *3*(5), 7-26.

Mavellas, S., Wellington, M., & Samuel, F. (2015). Assessment of the availability and utilization of ICT for teaching and learning in secondary schools-case of a high school in Kwekwe, Zimbabwe. *International Journal of Scientific & Technology Research, 4*(8), 282–288.

Molenda,H.(2023). *History and Development of Instructional Design and Technology*. Accessed fromhttps://link.springer.com/referenceworkentry/10.1007/978-981-192080-6_4

Morishita, T., & Yatsuka, M. (2018). *Effect of requiring ICT use in teaching practice on teacher trainee knowledge and skills with ICT*. Retrieved from https://www.researchgate.net/publication/340378543_Effect_

Muinde, S. M., & Mbataru, P. (2019). Determinants of implementation of public sector projects in Kenya: a case of laptop project in public primary schools in Kangundo Sub-County, Machakos County. *International Academic Journal of Law and Society, 1*(2), 328– 352.

Mukhhula, J., & Manyiraho, D. (2021). ICT Adoption Readiness and ICT Policy Implementation in Secondary Schools in Mayuge District, Uganda. *American Journal of Educational Research, 9*(8), 479-487.

Mwongela, W. (2024). Technology & productivity among educational institutions. *Jumuga Journal of Education and Social Sciences, 2*(1), 2-17.

Mwikali, R. K., Gakunga, D. K., & Nungu, M. (2020). The influence of ICT integration in content preparation by ICT- and Non-ICT-trained teachers in secondary schools in Machakos County, Kenya. *European Scientific Journal, 16*(31), 4–16.

Nyaundi, L. (2019). "Why uhuru's flagship laptop project crashed." the star, 22 March.

OECD. (2019). *Getting skills right: Future-ready adult learning systems*, getting skills right. Retrieved from https://www.oecd.org/fr/publications/getting-skills-right-future-readyadult-learning-systems-9789264311756-en.htm

Odinokoya, M. (2019). *Modern aspects of the implementation of interactive technologies in a multidisciplinary university*. Accessed from https://www.e3sconferences.org/articles/e3sconf/pdf/2020/24/e3sconf_tpacee2020_12011.pdf

Orkorful, V., & Burfi, K. A. (2021). Integration of information and communication technology in teaching: Initial perspectives of senior high school teachers in Ghana. *Education and Information Technologies, 1*(5), 4-22.

Reena,S. (2021). *Information communication technology.* Accessed fromhttps://www.researchgate.net/publication/350087090_information_communication_technology.

Ridhuan, M. (2023). Teaching and learning using 21st century educational technology in accounting education: Evidence and conceptualization of usage behavior. *Australasian Journal of Educational Technology, 39*(5), 3-18.

Rouze, R. (2024). Talking about young teachers being as class teachers and cultivating students' professional interest. *Contemporary Education and Teaching Research, 3*(3), 116–118.

Rogeri, V. (2024). *Weaknesses of ICT integration in the initial teacher education curriculum.* ScienceDirect. Retrieved from https://www.sciencedirect.com/science/article/pii/S2666557323000289

Sanu,S., & Manju, S. (2021). A review paper based on paradigm in using e- text books and eLearning apps in the classroom. *International Research Journal of Engineering and Technology, 8*(2), 2395-0056.

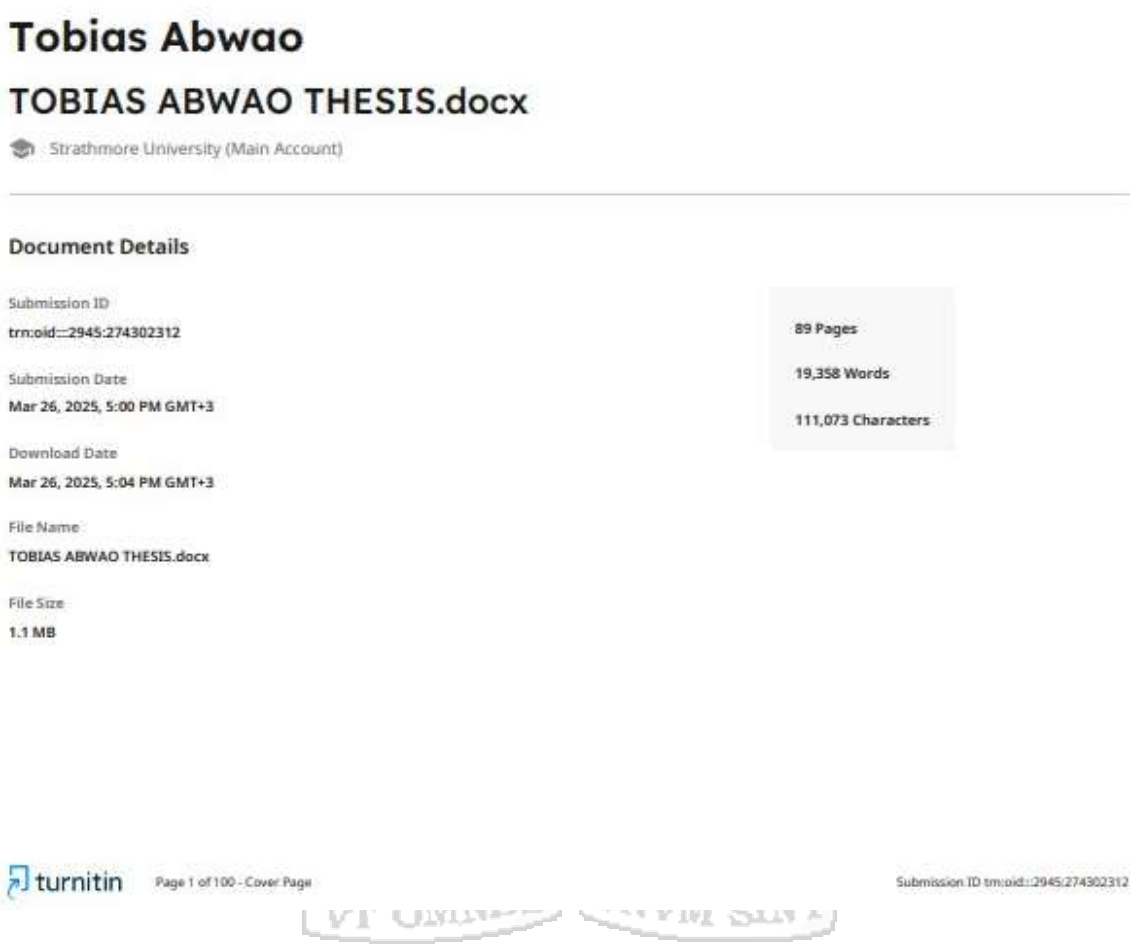
The Standard. (2019). *Jubilee laptops project that failed Kenyan child*. Retrieved fromhttps://www.standardmedia.co.ke/the-standard-insider/article/2001369323/jubilee-laptops-project-that-failed-kenyan-child

UNESCO. (2016). *Information and communication technology (ICT) in education in five Arab States: a comparative analysis of ICT integration and e-readiness in schools in Egypt, Jordan, Oman, Palestine and Qatar.* Accessed fromhttps://unesdoc.unesco.org/ark:/48223/pf000022068

Zheng, Z. (2023). Professional development for young teachers in higher education. *International Journal of Education and Humanities, 10*(2), 67–69.

APPENDICES

Appendix A: Similarity Report



Tobias Abwao

TOBIAS ABWAO THESIS.docx

Strathmore University (Main Account)

Document Details

Submission ID
trn:oid:::2945:274302312

Submission Date
Mar 26, 2025, 5:00 PM GMT+3

Download Date
Mar 26, 2025, 5:04 PM GMT+3

File Name
TOBIAS ABWAO THESIS.docx

File Size
1.1 MB

89 Pages

19,358 Words

111,073 Characters

turnitin Page 1 of 100 - Cover Page Submission ID trn:oid:::2945:274302312

15% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text

Match Groups

- 227 Not Cited or Quoted 14%
  Matches with neither in-text citation nor quotation marks
- 18 Missing Quotations 1%
  Matches that are still very similar to source material
- 0 Missing Citation 0%
  Matches that have quotation marks, but no in-text citation
- 0 Cited and Quoted 0%
  Matches with in-text citation present, but no quotation marks

Top Sources

10% Internet sources
5% Publications
13% Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

Match Groups

227 Not Cited or Quoted 14%
Matches with neither in-text citation nor quotation marks

18 Missing Quotations 1%
Matches that are still very similar to source material

0 Missing Citation 0%
Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%
Matches with in-text citation present, but no quotation marks

Top Sources

10% Internet sources
5% Publications
13% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Submitted works	
Mount Kenya University on 2024-10-19		1%
2	Internet	
su-plus.strathmore.edu		<1%
3	Submitted works	
Tangaza University College on 2024-09-13		<1%
4	Internet	
erepository.uonbi.ac.ke		<1%
5	Internet	
repository.kyu.ac.ke		<1%
6	Internet	
repository.tangaza.ac.ke		<1%
7	Internet	
www.coursehero.com		<1%
8	Internet	
www.iprjb.org		<1%
9	Internet	
www.rsisinternational.org		<1%
10	Submitted works	
Kenyatta University on 2020-10-07		<1%

turnitin Page 3 of 100 - Integrity Overview Submission ID trn:oid::2945:274302312

APPENDIX B: Ethical Clearance Release Letter

Strathmore UNIVERSITY

2nd December 2024

Tobias Abwao
Student Number: 149812
tobias.abwao@strathmore.edu
MSc. EM

Dear Tobias,

RE: Promotion of ICT and Students Performance in History and Government in Public Secondary Schools in Langata Sub-County, Kenya

This is to inform you that the Office of Graduate Studies received your request for exemption from ethical clearance. This is based on the fact that your study cannot be reviewed by the Strathmore University Institutional Scientific Ethics Review Committee (SU-ISERC) since you have already collected data, written the Dissertation and defended it. The ethics approval process is ONLY done before any collection of primary or secondary data. Additionally, ethical clearance is mandatory for all studies including desktop research.

The office notes that: On the grounds of not having completed the ethical clearance process but having obtained the Research permit from NACOSTI, with reason of ethical clearance not having been requested by NACOSTI during your research permit application stage, and henceforth having already proceeded to data collection and prepared your Dissertation before ethical clearance. This is a letter for you to proceed with the next steps of your academic requirements.

Please be advised, that in future, all research proposals should be submitted to the SU-ISERC through the RHInnO Ethics platform: https://strathmoreuniversity.rhinno.net/login

Disclaimer: 1) This is not in any way an ethical approval letter. 2) Should there be any legal implications/actions emanating from the research in terms of any ethical violations, you will be personally liable.

Yours sincerely,

Prof. Bernard Shibwabo
Director of Graduate Studies

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

APPENDIX C: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **757705**

Date of Issue: **26/September/2024**

RESEARCH LICENSE

This is to Certify that Mr.. Tobias Abwao Andere of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Promotion of ICT and students performance in History and Government in public secondary schools in Langata sub-county , Kenya for the period ending : 26/September/2025.

License No: **NACOSTI/P/24/40257**

757705

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions