TEACHERS' PERCEPTION ON THE USE OF SCHOOL INFORMATION SYSTEMS IN MANAGING STUDENTS' ACADEMIC PROGRESS IN PUBLIC SECONDARY SCHOOLS AT KIGOMA MUNICIPALITY, TANZANIA

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION IN ADMINISTRATION, PLANNING AND POLICY STUDIES (MED-APPS)

DEPARTMENT OF EDUCATIONAL PLANNING AND ADMINISTRATION

OF THE OPEN UNIVERSITY OF TANZANIA

2025

CERTIFICATION

The undersigned certify that, they have read and hereby recommend for acceptance by the Open University of Tanzania, a thesis titled **"Teachers' perception on the use of school information systems in managing students' academic progress in public secondary schools at Kigoma municipality, Tanzania"** in fulfilment of the requirements for the Master of education in Administration, planning and policy studies of the open university of Tanzania.

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Date

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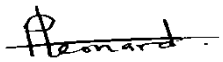
DECLARATION

I, **Paschal Leonard Luchagula**, declare that the work displayed in this dissertation is the first instance. It has never been submitted to any other University or Institution. Where other people's works have been employed, references have been given. It is in this respect that I affirm this work as surely mine. It is therefore presented in partial fulfilment of the prerequisites for the Degree of Master of Education in Administration, Planning and Policy Studies (Med-APPS).



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Signature

2025

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Date

DEDICATION

I humbly dedicate this work to my parents, Leonard Luchagula and Leticia Gembe, for their unwavering encouragement and support throughout my educational journey. Also, I dedicate this work to my family for their prayerful support throughout my educational journey.

ACKNOWLEDGEMENTS

This study emerged from the invaluable contributions of different individuals. It is harder to acknowledge everyone who contributed their ideas to the study; I would like to recognise the few contributors. Foremost, I would like to thank my Almighty God for his merciful blessing, love, strength, and grace from the beginning of this study until the end of the process. Second, I extend my sincere acknowledgement to my supervisors, Dr Christopher Getera and Dr Edgar Nderego, for their unwavering support, expert guidance, and encouragement throughout my master's journey. Their dedication to academic excellence has been instrumental in shaping this study.

Third, I wish to thank all my respondents at Kigoma Municipality, including the head teachers in the primary schools I visited, ward education officers, the district education officer, the district school quality assurers and teachers for their cooperation and consent to participate in this study, which enabled me to accomplish this research report.

ABSTRACT

This study explored teachers' perceptions of the use of the school information system in managing students' academic progress in public secondary schools at Kigoma Municipality. The study focused on three objectives: examining the use of school information systems to manage students' academic progress, assessing the challenges teachers face in using them to do so, and identifying strategies for teachers to enhance their use of these systems to manage students' academic progress. Using a mixed methods approach under a convergent design, the study involved 97 respondents, including 75 teachers, 1 Municipal education officer, 7 Ward Education Officers, 5 school quality assurance officers, and 9 heads of school. Quantitative data from questionnaires were descriptively analysed using SPSS software version 20, and qualitative data were collected through semi-structured interviews and thematically analysed. Purposive sampling was used for district education officers, ward education officers, and head teachers, while stratified random sampling was used for school quality assurance officers and public early childhood teachers. Findings revealed that while the School Information System is considered valid and supported by adequate infrastructure and leadership, its effectiveness is limited by inconsistent training and insufficient ongoing support. Teachers generally feel confident using the system, but face challenges such as unreliable infrastructure, limited professional development, and inadequate follow-up. To improve the use of the School Information System, regular training, better technology, increased motivation, and strong administrative support are essential, along with coordinated efforts from school and municipal leadership.

Keywords: *School Information System, Teachers' Perception.*

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ICT	Information and Communication Technology
EMIS	Education Management Information System
NEMIS	National Education Management Information System
SIMS	Student Information Management System
TAM	Technology Acceptance Model
PReM	Primary School Information Management System
MIS	Management Information System
SDMS	School Data Management System
MEO	Municipal Education Officer
WEO	Ward Education Officer
SQAs	School Quality Assurance Officers

CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE PROBLEM

1.1 Introduction

This chapter presents the background to the problem, the statement of the problem, the research objectives, the research questions, and the significance of the study. The chapter also introduces the scope and delimitations of the study, as well as the operational definitions of the key terms.

1.2 Background to the Problem

The integration of technology, particularly School Information Systems (SIS), is essential for effective school management. SIS helps institutions manage student data, track performance, and enhance communication among stakeholders. It streamlines administrative tasks, supports decision-making, and improves overall efficiency (Clepon et al., 2021; Mmole & Banele, 2024). In developed countries like the USA, UK, and Canada, the transition from manual record-keeping to digital School Information Systems evolved through distinct phases driven by technological advancements and the need for efficiency. From the 1960s to the 1980s, schools relied on paper-based records, with basic computerised systems emerging in universities and large districts. During the 1980s, tools like databases and Microsoft documents were used for student record management. The 1990s to 2000s marked the expansion and standardisation phase, with web-based SIS emerging alongside personal computers and the internet, allowing multi-user access to student data (Smith, 2024).

The adoption of School Information Systems in developed countries like the USA, UK, and Canada accelerated due to government mandates, such as the No Child Left

Behind Act in the USA. Key platforms such as PowerSchool, SIMS, and Infinite Campus emerged during this period. Since the 2010s, modern SIS has used cloud computing to enhance security, scalability, and accessibility, while artificial intelligence and data analytics provide predictive insights into student performance. Mobile-friendly SIS apps enable real-time tracking by teachers, students, and parents. These countries have fully transitioned to digital SIS, leveraging AI, cloud computing, and analytics to enhance usability and personalised learning (Smith, 2024; Chimangeni-Mserembo, 2022).

In African developing countries, the adoption of School Information Systems has been slower due to infrastructure challenges, though steady progress is being made with government and international support. The transition occurred in stages, starting with the early period (pre-2000s), when manual record-keeping was common, especially in rural areas, and governments played a minimal role in centralised data management (Egbe, 2022). In the 2000s to 2010s, the introduction of basic SIS was driven by government reforms and international aid, leading to national student data systems like South Africa's Education Management Information System (EMIS), Kenya's National Education Management Information System (NEMIS), Nigeria's Student Information Management Systems (SIMS), and Ghana's digital student tracking systems.

This phase faced challenges like poor internet access, resistance to change, and inconsistent policies. From the 2010s to 2020s, the expansion of SIS saw the rise of mobile technology and cloud-based systems, improving accessibility and integrating AI and data analytics for student performance tracking. Government-led initiatives in

Kenya, Uganda, and Rwanda further boosted SIS use (Mmole & Banele, 2024; Mussa, 2023).

Tanzania's adoption of School Information Systems has faced several challenges but has seen significant progress through national initiatives and international collaborations. In the early years (1970s–1990s), Tanzania imposed a ban on computers and television sets, delaying digital integration in education. This ban lasted until 1991. Following the ban, Tanzania began integrating technology, with notable developments like the Human Resource for Health Information System (HRHIS) in the 1990s to 2000s (Mmole & Banele, 2024). From the 2010s to the present, international collaborations have played a key role. USAID supported the launch of a School Information System in Zanzibar to improve data access for decision-making in primary education. Additionally, Tanzania participated in regional efforts such as the NEPAD E-School Program (2003) to equip schools across Africa with ICT resources, demonstrating the country's commitment to technology in education (Al-Hunaiyyan et al., 2021).

Teachers perceive School Information Systems as practical tools not only for administrative efficiency but also for directly supporting students' academic performance. By enabling timely access to student data, SIS help teachers identify learning gaps, track progress, and implement targeted interventions, which can lead to improved academic outcomes. Enhanced communication with parents through SIS also promotes greater parental involvement, which research shows positively influences student achievement. However, barriers such as inadequate infrastructure, limited training, and poor system usability can reduce the potential impact of SIS on

student performance. Therefore, improving SIS implementation through investments in technology, comprehensive teacher training, and system design is essential to maximising its role in supporting academic success.

Kigoma Municipality has transitioned from technological hesitancy to the active adoption of School Information Systems, driven by national policies and international partnerships aimed at improving educational infrastructure. Key policies, such as the Tanzanian ICT Policy (2016) and the National Education and Training Policy (2014), highlight the role of ICT in improving the quality, access, and management of education. The government’s vision to establish “smart classes” in every school by 2025, supported by substantial investments in infrastructure and capacity building, includes the distribution of 293,400 tablets to teachers in 2022. Despite these efforts, challenges remain, with many teachers still relying on manual, paper-based methods for managing student data, indicating underutilization of SISs for tracking academic progress (Jukes et al., 2018).

Despite government initiatives to promote the use of School Information Systems in managing students' academic progress, teachers in Kigoma Municipality face significant challenges in transitioning from manual record-keeping to digital systems. Many teachers, particularly those unfamiliar with technology and lacking ICT training, struggle to adopt SIS. Additionally, schools face resource limitations, leading to technical difficulties and high implementation costs. These challenges have prompted the researcher to explore teachers' perceptions of SIS use in managing students' academic progress.

1.3 Statement of the Problem

In Kigoma Municipality, Tanzania, the integration of School Information Systems is intended to enhance the monitoring and management of students' academic progress. However, despite these intentions, schools continue to face significant challenges that hinder effective use of SIS to improve academic performance. Studies have shown that inadequate ICT infrastructure, such as limited access to computers, unreliable internet connectivity, and power issues, impede the seamless functioning of SIS (Barongo, 2020). Furthermore, insufficient training among teachers in the use of ICT tools and management systems results in underutilization of SIS functionalities, limiting their potential to facilitate data-driven instruction and real-time tracking of student progress (Mwalongo, 2011; Nkonoki & Kapinga, 2022).

These barriers create a gap between the intended benefits of SIS and its actual impact on students' academic outcomes in the region. Therefore, this study seeks to explore teachers' perceptions of SIS in managing student progress within Kigoma Municipality and examine how these perceptions, along with contextual challenges, affect the effectiveness of SIS in enhancing academic performance.

1.4 Research Objectives

1.4.1 General Objective

To explore teachers' perceptions of the use of the school information system in managing students' academic progress.

1.4.2 Specific Objectives

The following are research-specific objectives;

i. To examine the use of the school information system in managing students' academic progress.
ii. To assess the challenges that teachers face in using the school information system to manage students' academic progress.
iii. To identify the strategies for teachers to enhance the use of the school information system in managing students' academic progress.

1.5 Research Questions

The following are research questions;

i. What are the uses of a school information system in managing students' academic progress?
ii. What are the challenges that face teachers in using the school information system to manage students' academic progress?
iii. How can teachers' strategies enhance the use of the school information system in managing students' academic progress?

1.6 Significance of the Study

The study will provide insights into the challenges teachers face in using the School Information System and offer solutions to enhance its effectiveness. Hence, it will help teachers improve efficiency in managing students' academic progress while informing administrators about barriers to SIS use, enabling them to implement targeted support programs. Also, policymakers will gain awareness of practical challenges, which will guide policy revisions and improvements to ICT infrastructure. Additionally, the study will assist government authorities and ICT providers in refining SIS design and support. Ultimately, it will enhance academic

performance tracking, benefiting students and contributing to effective education management in Kigoma municipality.

1.7 Scope and Delimitation of the Study

This study explores teachers' perceptions of the school information system's role in managing students' academic progress. The study focuses on public secondary schools at Kigoma Municipality, involving secondary school teachers as primary participants, along with school administrators responsible for SIS implementation and support. The study excludes other factors that influence the management of students' academic progress. The study will limit the data collection to two months due to time and budget constraints.

1.8 Operation Definitions of the Key Terms

1.8.1 School Information System (SIS)

School Information System is a digital platform designed to efficiently manage and automate various administrative and academic tasks within educational institutions. It centralises and organises data on student enrolment, attendance, academic records, fee management, and parent communication, streamlining school operations.

1.8.2 Teachers' perception

Refers to the interpretation and evaluation of a system based on Teachers' knowledge and experience. In the context of the School Information System, it encompasses their views on its usability, effectiveness, and impact on academic management, influenced by factors like ease of use, accessibility, and support.

1.8.3 Student

Refers to an individual enrolled in secondary school who actively engages in learning, acquires knowledge, develops skills, and receives instruction from teachers in various subjects for academic and personal growth.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter introduces the theoretical and empirical literature reviews, the research gap, and the conceptual framework. The chapter is arranged to reflect the specific objectives and their research questions developed in Chapter One.

2.2 Theoretical Literature Review

The theoretical literature review of the study was anchored in the Technology Acceptance Model (TAM), developed by Fred Davis in 1989 to explain how users come to accept and utilise technology. The model posits that two main factors, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), determine an individual's attitude toward using a particular technology, which, in turn, influences their behavioural intention and actual use. Perceived Usefulness refers to the extent to which an individual believes that using a system enhances their job performance, while Perceived Ease of Use relates to the degree of effort required to use the system. Together, these constructs provide a basis for understanding user attitudes, behavioural intentions, and eventual technology adoption. Over time, TAM has been widely applied across sectors such as education, healthcare, business, and e-government to examine how individuals and organisations adopt new technologies and integrate them into their operations.

Despite its wide application and influence, the Technology Acceptance Model has both strengths and weaknesses that determine its effectiveness as a theoretical framework. One of its main strengths lies in its simplicity, clarity, and substantial

empirical support, making it a reliable tool for predicting and explaining user behaviour toward technology. Its constructs are easy to understand and measure, enabling researchers to apply the model across diverse contexts. Additionally, TAM provides a flexible foundation that can be expanded by integrating other variables such as social influence, self-efficacy, or facilitating conditions, thereby enhancing its explanatory power.

However, the model also has limitations. It tends to ignore external and contextual factors such as organisational culture, infrastructure, and resource availability, which can significantly influence technology adoption. Furthermore, it assumes that individuals make purely rational decisions, overlooking emotional, social, and cultural influences on behaviour. The model's limited adaptability across different environments also means it must often be modified to suit specific settings, particularly in educational contexts where multiple interacting factors shape technology use.

In this study, the Technology Acceptance Model was applied to examine how educators and students perceive and utilize School Information Systems in the selected context. The constructs of Perceived Usefulness and Perceived Ease of Use guided the analysis of how users' beliefs and attitudes influence their acceptance and effective use of SIS for teaching, learning, and administrative purposes. For instance, if teachers and students perceive the SIS as helpful in improving efficiency in lesson planning, student assessment, and communication, their likelihood of adopting and consistently using the system will increase. Likewise, if the system is considered user-friendly and easy to navigate, it will encourage higher engagement and

integration into daily school activities. By employing TAM, this study provided insights into the psychological and perceptual factors influencing technology adoption in educational institutions, offering evidence-based recommendations to improve system implementation, user training, and institutional support, thereby enhancing overall effectiveness in educational management and learning outcomes.

2.3 Empirical Literature Review

In this part, the researcher discusses the use of school information systems to manage students' academic progress, the challenges teachers face when using them, and strategies for teachers to enhance their use.

2.3.1 The Use of School Information System in Managing Students' Academic Progress.

Shah's (2013) study in Malaysia highlighted the increasing use of Information Technology in educational management, specifically focusing on Management Information Systems (MIS). Initially, MIS was primarily used for data storage and entry. Still, over time, it has improved school administration by enhancing information accessibility, improving resource management, reducing workload, and enhancing report quality. Challenges to MIS adoption include time constraints, insufficient skills, and inadequate training and technical support. Despite these challenges, MIS has transformed school management, improving leadership, decision-making, resource allocation, and staff evaluation. However, the study used only a qualitative approach, neglecting quantitative data collection. To address this limitation, the researcher in this study will adopt a pragmatist paradigm, which

allows the integration of qualitative and quantitative methods to select the most suitable approach for the research objectives.

The study by Rino and Diang (2022) in the Philippines examined the challenges public secondary school teachers in Marilao South District IV, Bulacan, face in managing student records and identified the characteristics of an ideal Student Information Management System (SIMS). The majority of the 140 teacher-respondents were aged 30-39 years, with a predominance of females (57.14%) and varying levels of education and years of service. Teachers found data entry challenging (average rating: 4.27) and saving student information moderately complex (average rating: 4.15). They moderately agreed on the essential characteristics of an ideal SIMS (2.83) and its functionality (4.62). Statistical analysis revealed no significant differences in SIMS assessments based on demographic factors. The study emphasised the need for an efficient, user-friendly SIMS to enhance student record management. While similar to this study, Rino and Diang's research relied solely on 140 teachers, limiting its scope. This study will include a broader range of participants, including school administrators, to provide a more comprehensive and accurate perspective.

The study by Alexis and Faustin (2024) examined the use of the School Data Management System (SDMS) in Rwanda's 12-Year Basic Education (12YBE) and its impact on student performance. Using a descriptive survey design with both qualitative and quantitative methods, they collected data from 339 respondents via questionnaires and analysed it in SPSS. The study found strong positive correlations between SDMS implementation and student outcomes in academic evaluation

(.938**), infrastructure management (.886**), and personal identification (.908**). While SDMS improves education quality and data-driven decision-making, gaps in ICT tools and teacher-subject linking remain. Despite these insights, the study relied solely on questionnaires, which could introduce bias and limit data accuracy. To improve data reliability, the current research will incorporate both questionnaires and interviews.

Baharia (2024) conducted a qualitative case study in the Meru District Council, Tanzania, to investigate the use of the School Information System to manage government secondary schools. The study, based on data from 37 respondents collected through interviews and questionnaires, found that SIS improves student information management, staff management, data analysis, administrative efficiency, and communication. However, the implementation of SIS is hindered by insufficient facilities, inadequate teacher training, and skills gaps. The study recommends increasing resources, adopting alternative energy sources, providing training, and developing a user-friendly, secure SIS. Despite its valuable insights, the study relied solely on qualitative data, which may limit the comprehensiveness of the findings. Therefore, the current research will adopt a mixed-methods approach, combining qualitative and quantitative data to gain a more comprehensive understanding of the research problem.

The study by Mmole and Banele (2024) evaluated the performance of the Primary School Information Management System (PReM) in Mtoni Kijichi and Bwawani Primary Schools in Dar es Salaam, using both quantitative and qualitative methods. Data collected from 399 respondents, including pupils, parents, teachers, and staff,

revealed that successful PReM deployment relies on adequate hardware, stakeholder involvement, and regulatory adherence. Key benefits identified were reduced workload, time savings, improved monitoring, and increased data accuracy. Respondents viewed the system positively for enhancing education. The study recommended improving hardware, ensuring reliable internet connectivity, and providing training programs to facilitate smoother integration. While the study used random sampling, which may have led to inadequate representation, the current research will employ stratified and purposive sampling techniques to obtain more reliable and accurate data.

2.3.2 The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress

The study by Rino and Diang (2022) in the Philippines examined the challenges public secondary school teachers in Marilao South District IV, Bulacan, face in managing student records and identified the characteristics of an ideal Student Information Management System (SIMS). The study, based on 140 teacher-respondents, revealed that teachers found data entry highly challenging (average rating: 4.27) and saving student information moderately complex (average rating: 4.15). Teachers agreed on the necessary features of an ideal SIMS (average rating: 2.83) and its usefulness (average rating: 4.62). Despite no significant differences in challenges or SIMS assessments by demographics, the study emphasised the need for a user-friendly, efficient SIMS. While the study focused on a limited sample of teachers, this research will involve a broader range of participants, including school administrators, to gather more comprehensive and accurate data.

The study by Ugwude and Ugwude (2020) in Nigeria examined the role of Education Management Information Systems (EMIS) in primary school administration in Nsukka Local Government Education Authority, Enugu State. Using a descriptive survey design, data were collected from 120 respondents (90 teachers and 30 head teachers) across 30 randomly selected schools. The findings indicated that EMIS benefits school administration by aiding pupil attendance tracking and examination management.

However, challenges included a lack of technical support, inadequate user-friendly software, the absence of ICT support centres, and low awareness. The study recommended increasing EMIS awareness, organising training seminars, and seeking donor support. While this study used random sampling, which may limit representation, the current research will employ stratified and purposive sampling techniques to ensure a more informed and representative sample and improve data accuracy.

The study by Nkata and Dida (2019) in Arusha, Tanzania, explored the role of Education Management Information Systems (EMIS) in improving education quality and sustainable development. It highlighted that many secondary schools in Tanzania still rely on manual systems, hindering timely and accurate reporting of academic information and limiting parental involvement, ultimately affecting student achievement. The study used purposive sampling to select 50 schools (25 urban, 25 rural) and simple random sampling to select students, teachers, and parents, and conducted interviews with policymakers to enhance validity. The findings emphasised the importance of EMIS in improving parental engagement and

supporting student success. Despite using random sampling, the study may not have adequately represented the population due to varying levels of knowledge among respondents. In contrast, this study will use both stratified and purposive sampling to ensure more reliable, representative data.

2.3.3 The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress

Braiter and Light (2006) employed both qualitative and quantitative methods to explore how educators use data from the Grow Reports for decision-making at the building and district levels. The study involved structured interviews with 47 educational leaders, ethnographic studies in 15 schools across four districts, and interviews with 31 teachers about their use of the Grow Reports for instructional planning. The findings informed the creation of surveys further to investigate data interpretation and support improvements in instruction. The study emphasised the importance of data-driven decision-making and introduced a framework for practical Management Information Systems (MIS) in education. However, the use of structured interviews with a limited number of educational leaders may have restricted the flow of important information. In contrast, this study will use semi-structured interviews and open-ended questionnaires to generate new ideas and to support a more comprehensive data collection process.

The study by Joseph and Eleojo (2018) examined school management issues and academic performance in secondary schools in the Calabar Education Zone, using an ex post facto design and a proportionate stratified sampling procedure to select 3,616 students. Data were collected using the "Problems of School Management

Questionnaire (PSMQ)" and the Senior Secondary Mathematics Achievement Test (SSMAT), and analysed using descriptive statistics, t-tests, and multiple regression. The findings showed that academic performance was significantly influenced by factors such as disciplinary control, classroom management, and teacher motivation, with disciplinary control having the most tremendous impact. However, the study's reliance on data from only 3,616 students may have limited the diversity of perspectives. In contrast, this study will include samples from various groups, such as school administrators, to provide a more comprehensive and accurate understanding of the issue.

Alexis and Faustin (2024) studied the use of the School Data Management System (SDMS) in Rwanda’s 12-Year Basic Education (12YBE) and its impact on student performance. Using a descriptive survey design with both qualitative and quantitative methods, they collected data from 339 respondents via questionnaires, which were analysed using SPSS. The study found strong positive correlations between SDMS implementation and student outcomes across academic evaluation, infrastructure management, and personal identification. While SDMS improved educational quality and data-driven decision-making, gaps in ICT tools and in teacher-subject linking remained. However, the study relied solely on questionnaires, which may have introduced bias and limited data accuracy. The current research will address this by using both questionnaires and interviews to improve data reliability.

The study by Palilingan et al. (2024) in Indonesia explored information technology management strategies in higher education using a qualitative approach. Data were collected through interviews, observation, and document analysis across multiple

institutions with varying levels of IT management progress. The case study design included structured interviews with IT managers, faculty, staff, and students, as well as direct observation and document analysis. The study proposed a strategy to enhance IT management by aligning IT initiatives with institutional goals, setting performance indicators, and establishing a governance framework. While the study provided valuable insights, it focused only on qualitative data, lacking quantitative data collection. The current research will adopt a pragmatist paradigm to integrate both qualitative and quantitative methods for a more comprehensive approach.

Baharia (2024) investigated the use of the School Information System in managing government secondary schools in Meru District Council through a qualitative case study. The study found that SIS improves student and staff management, data analysis, administrative efficiency, and communication. However, challenges such as insufficient facilities, inadequate teacher training, and limited skills hinder its full implementation. The study recommended increasing resources, providing alternative energy, offering training, and investing in user-friendly, secure SIS systems. It also emphasised the need for clear implementation plans, ongoing technical support, and a collaborative environment. Despite valuable insights, the study focused only on qualitative data, which may limit the scope. The current study will use a mixed research approach to incorporate both qualitative and quantitative data for a more comprehensive understanding.

2.4 The Research Gap

Most existing studies on the use of School Information Systems (SIS) to manage students' academic progress have been conducted outside Tanzania, in contexts

where educational systems, technological infrastructure, and administrative practices differ significantly. Consequently, their findings may not fully reflect the realities of Tanzanian schools, particularly in Kigoma Municipality, where levels of ICT integration, teacher preparedness, and institutional support vary widely. These contextual differences, including policy frameworks, access to digital resources, and technological capacity, limit the generalizability of international evidence to the Tanzanian education setting.

In Tanzania, the limited studies have mainly focused on the general implementation and functionality of SIS, without delving deeply into teachers' perceptions, attitudes, and challenges in using these systems to monitor and enhance students' academic performance. This lack of context-specific evidence has left a critical gap in understanding how teachers interact with and experience SIS as a tool for educational management. Consequently, this study seeks to address this gap by investigating teachers' perceptions of School Information Systems in managing students' academic progress within Kigoma Municipality, providing insights that can inform policy decisions, improve system adoption, and strengthen educational management practices at the local level.

2.5 Conceptual Framework

The conceptual framework in this study illustrates the relationships between the independent, dependent, and intermediate variables that influence teachers' perceptions of using School Information Systems to manage students' academic progress. The independent variables include frequency of use, user engagement, feature usage, and system adoption. These factors affect the dependent variable,

which is the effectiveness of SIS in enhancing academic monitoring and data-driven decision-making. Intermediate variables, such as training, system updates, best practices, and platform integration, support better utilisation of SIS. Challenges like inadequate training, accessibility issues, privacy concerns, and resistance to change may hinder the system's effectiveness. Addressing these challenges with appropriate strategies can improve SIS usage and better manage students' academic progress. This framework in Figure 2.1 guides the study's investigation of how these factors interact and influence the perceived effectiveness of SIS.

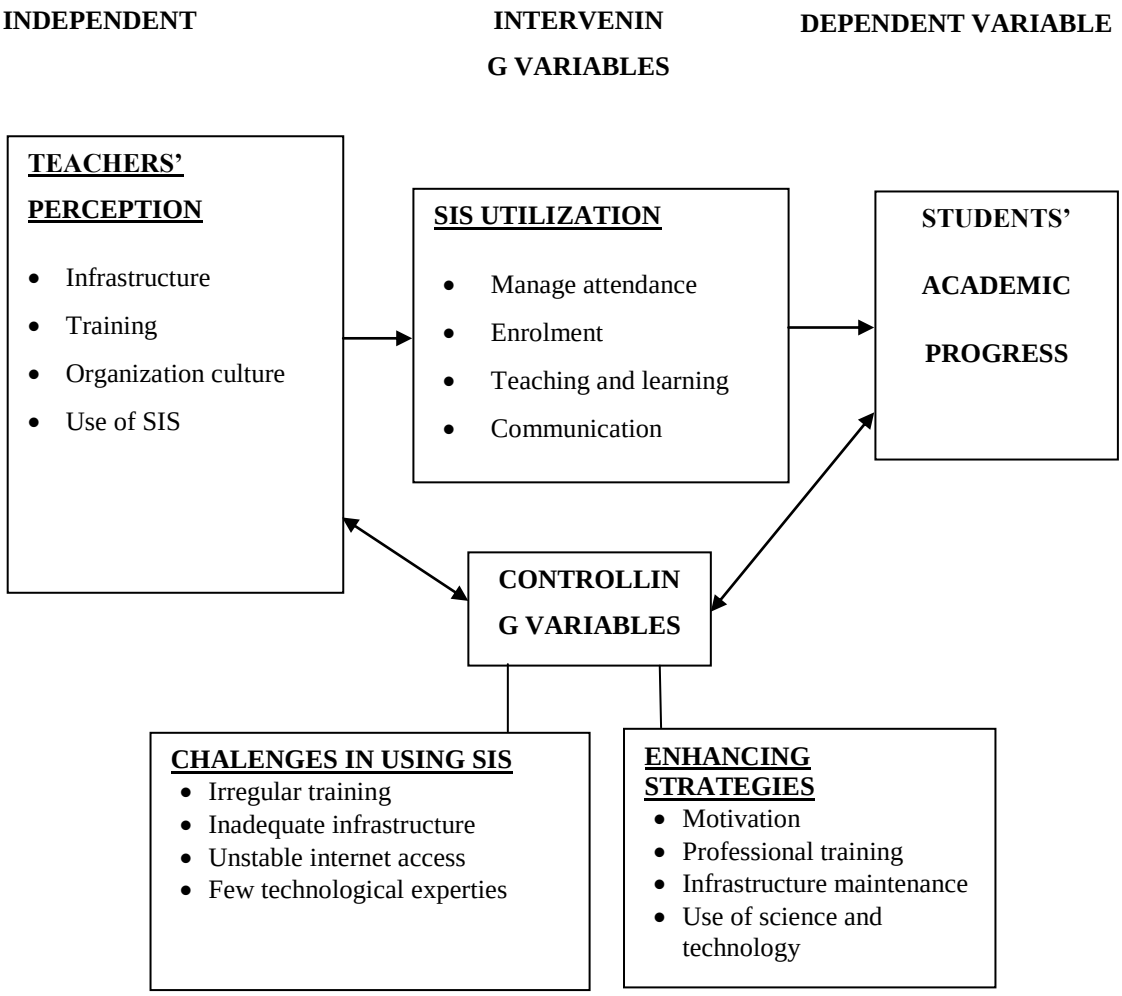

Figure 2. 1: A conceptual Framework showing the Relationship of the Variables in the Study

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines how data were collected and analysed. It involves the research philosophy, research approach, research design, study area, targeted population, sample, sampling techniques, data collection methods, data analysis procedures, validity and reliability, and ethical considerations.

3.2 Research Philosophy

The researcher used a pragmatist research philosophy, which allowed flexibility by integrating both quantitative and qualitative methods. Pragmatism emphasised the use of mixed methods to leverage the strengths of each approach. Quantitative methods provided statistical rigour and generalizability, while qualitative methods offered detailed insights and context. This adaptable, outcome-oriented approach was ideal for addressing complex research questions that could not be fully explored with a single process.

3.3 Research Approach

Guided by a pragmatist philosophy, this study used a mixed-methods approach to gather both quantitative and qualitative data, providing comprehensive insights into teachers' perceptions of the school information system's role in managing students' academic progress (Taherdoost, 2016). Quantitative data were collected through semi-structured questionnaires to assess the use of the school information system statistically. In contrast, qualitative data were obtained through semi-structured

interviews to explore experiences and perceptions using "what," "how," and "why" questions, thereby enhancing depth of understanding.

3.3.2 Research Design

This study employed a convergent research design, integrating quantitative and qualitative methods to gain a comprehensive understanding of teachers' perceptions of using school information systems to manage students' academic progress (Taherdoost, 2016). By merging the strengths of both approaches, the design enabled comparison, contrast, and interpretation of findings to identify consistencies and provide deeper insights into the research problem.

3.4 Area of the Study

In Kigoma Municipality, the implementation of School Information Systems (SIS) faced several challenges. A study by Kiwonde (2024) on the use of ICT in Tanzanian secondary schools revealed that 85% of teachers identified inadequate ICT resources, including unreliable internet and limited computer access, as significant obstacles to SIS adoption. Additionally, 96% of teachers reported insufficient ICT training as a significant barrier, leading to underutilisation and resistance. Financial constraints also complicated SIS deployment, as highlighted by the 2019/20 approval of the National Framework for Teacher Continuous Professional Development, which faced implementation difficulties due to limited funding. Moreover, concerns about data security persisted, emphasising the need for robust safeguards to protect student and institutional information. These challenges motivated the researcher to investigate teachers' perceptions of SIS use to identify barriers and develop strategies for improving educational management in Kigoma Municipality.

3.5 Targeted Population

The targeted population of this study comprised 333 respondents: 1 Municipality Education Officer, 14 School Quality Assurance Officers, 19 Ward Education Officers, 23 Heads of Schools, and 276 Public Secondary School Teachers. These respondents were selected for their executive roles in managing education at the municipal, ward, and school levels, which provided them with valuable knowledge, information, and experience relevant to the study.

3.6 Sample Size and Sampling Techniques

3.6.1 Sample Size

This study surveyed 97 respondents from Kigoma Municipality, including 1 Municipal Education Officer, 7 Ward Education Officers, and 9 Heads of Schools, all purposively selected for their expertise and executive roles in education management. The study also included 5 School Quality Assurance Officers and 75 teachers with at least three years of experience to provide expert evaluations, comprehensive insights, and informed recommendations. The researcher applied stratified sampling to ensure representativeness, manage variability, and enhance statistical rigour.

Table 3.1: Table of Sample Compositions

S/n	Sampling technique	Data Collection Methods	Categories of Study Respondents	Sample size
1	Purposive	Interview	Municipality Education Officer	01
2	Purposive	Interviews	Ward Education Officers	07
3	Purposive	Interviews	Head Teachers	09
4	Stratified	Interviews	School Quality Assurance Officers	05
5	Stratified	Questionnaires	Teachers	75
TOTAL				97

Source: Researcher, 2025.

3.6.2 Sampling Techniques

The study used both probability and nonprobability sampling techniques to gather reliable, detailed information (Dawadi et al., 2021). Stratified sampling was applied to include Public secondary school Teachers and School Quality Assurance Officers with relevant experience, ensuring diverse and representative perspectives. Purposive sampling was used to select key respondents in leadership roles, such as Municipality Education Officers, Ward Education Officers, and Heads of Schools, for their expertise in education management. This combination enhanced the study's credibility by ensuring comprehensive coverage and targeted expertise.

3.5.2.1 Stratified Sampling

To ensure gender representation, the researcher used stratified sampling to include public secondary school teachers and School Quality Assurance Officers. Stratified sampling ensures that sub-groups within the population, such as gender, are represented, enhancing the inclusiveness and reliability of the findings (Dawadi et al., 2021). By categorising respondents based on relevant characteristics, this technique ensures diverse perspectives are captured, providing expert evaluation, comprehensive insights, and informed recommendations regarding teachers' perceptions of school information systems in managing students' academic progress.

3.5.2.2 Purposive Sampling

The study used purposive sampling to select the Municipality Education Officer, Ward Education Officers, and Head teachers based on their executive roles in education management at various levels. This approach allows efficient data collection while saving time and resources (Dawadi et al., 2021). By targeting

participants directly involved in education management, purposive sampling ensures the gathering of relevant, high-quality information. It also reduces non-response errors as these participants are accessible and well-informed, making it a cost-effective and timely method for achieving the study's objectives.

3.7 Data Collection Methods

Questionnaires and interviews were used to collect accurate, relevant information from respondents regarding teachers' perceptions of the school information system's use in managing students' academic progress.

3.7.1 Interview Method

The researcher used semi-structured interviews to collect in-depth data due to their flexibility and ability to adapt to new information as it arises (Kumar, 2011). This method will be employed with the Municipality Education Officer, School Quality Assurance Officers, Ward Education Officers, and Heads of Schools, as they can provide detailed insights into teachers' perceptions of the use of School Information Systems in managing students' academic progress. Interviews were face-to-face, guided by open-ended questions, and conducted in a prepared setting for no more than one hour. The researcher **took notes** during the interviews to capture key points.

3.7.2 Questionnaire Method

The researcher used questionnaires to collect information from public secondary school teachers. An open-ended questionnaire guide was used to collect both qualitative and quantitative data through a mixed-methods approach (Dawadi et al., 2021). In this study, the researcher personally informed the respondents of the

significance of their participation and granted them sufficient time — no less than 1 hour to complete the questionnaires carefully, thereby minimising non-response errors.

3.8 Data Analysis Procedures

This study employed both quantitative and qualitative approaches to achieve a comprehensive understanding of the research problem. The researcher analysed quantitative data using the Statistical Package for the Social Sciences (SPSS), summarising, coding, classifying, and presenting the data in tables showing frequencies and percentages. For qualitative data, the researcher applied an inductive thematic analysis, carefully reading and re-reading interview transcripts to identify open codes, which were then grouped into axial codes and developed into themes (Creswell & Creswell, 2023). Thematic analysis reduced data volume, making it more meaningful and easier to interpret (Brailas et al., 2023). Finally, the researcher compared and contrasted quantitative and qualitative findings to provide an integrated understanding of the study's objectives.

3.9 Validity and Reliability of the Study

3.9.1 Validity of the Study

The researcher requested that research supervisors examine the research instruments and verify whether they are logical, linked, and appropriate for the collection of accurate data. The comments from the research supervisors were considered for corrections and revisions to improve the research instruments. Again, the researcher first piloted the research tools to assess their effectiveness. These steps helped enhance data validity and minimise misinterpretations (Creswell & Creswell, 2023).

With a clear definition of the research objectives, the researcher collected data from the respondents.

3.9.2 Reliability of the Study

To ensure reliability, the study employed triangulation by consulting multiple data sources through semi-structured questionnaires and semi-structured interviews, which were later compared for congruence.

3.10 Ethical Consideration

The researcher obtained permission from the Open University of Tanzania (OUT) to secure an introductory letter addressed to administrators in the selected area. To protect participants, the researcher maintained anonymity and confidentiality and ensured that all participants volunteered, enhancing their confidence and trust. The researcher strictly adhered to ethical research standards, taking care that no participant experienced any negative consequences from the study.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION, ANALYSIS AND DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter presents, interprets, analyses and then discusses the findings. It begins with the demographic characteristics of respondents and proceeds to conclusions based on three research questions that guide the study. The study aimed to explore teachers' perceptions of the use of the school information system in managing students' academic progress in Kigoma municipality, Tanzania.

4.2 Demographic Information of the Respondents

The study involved different respondents, including the Municipal Education Officer, Ward Education Officers, Heads of Schools, School Quality Assurance Officers, and Teachers. Demographic information about teachers was vital because it indicated whether the respondents in this study were qualified for the positions they held in the programs in question.

4.2.1 Demographic characteristics for Teachers

This section provides demographic information about respondents, including Gender, Age Group, Professional Qualification, and Experience. The researcher presented the results quantitatively.

Table 4. 1: Demographic Characteristics of the respondent (n=75)

Item	Variable	Frequency	Percentage
Gender	Male	53	70.7%
	Female	22	29.3%
Age Group	20-29	14	18.7%
	30-39	49	65.3%
	40-49	10	13.3%
	50-59	2	2.7%
Professional Qualification	PhD	-	-
	Master Degree	1	1.3%
	Bachelor Degree	47	62.7%
	Diploma	27	36.0%
Experience	5-9 years	43	57.3%
	10-19 years	28	37.3%
	20-29 years	3	4.1%
	30-39 years	1	1.3%

Source: Field Data, 2025.

The data presented above show that all respondents (100%) participated in the study accordingly. The study involved nine public secondary schools.

4.2.1.1 Gender Information of the Respondents

The data indicate that the great majority of respondents in the study area were male. The study suggests that male teachers comprise the great majority of the workforce, with 70.7%, compared to the extreme minority of 29.3% female teachers. The predominance of male respondents in the study can be attributed to gender disparities in the education sector, particularly in leadership and supervisory roles. Factors contributing to this imbalance include historical male dominance in such positions, limited opportunities for women to advance professionally, and sociocultural norms that discourage female participation in leadership. Additionally, recruitment and promotion practices may unintentionally favour men, and women often face challenges in balancing work and family responsibilities, which can limit their ability to take on demanding roles. These factors collectively result in a higher

number of male respondents than female respondents in the study area (UNESCO, 2019; Morley, 2010).

4.2.1.2 Age Group of the Respondents

In general, the data shown in the table above indicate that the great majority of teachers aged 20–29 and 30–39, representing 84% of the sample, are early- and mid-career professionals, indicating a strong presence of early- and mid-career professionals in the workforce. The extreme minority of teachers aged 40–49 accounts for 13.3%, and the 50–59 age group accounts for 2.7%. The data indicate that leadership and supervisory roles in the education sector, such as heads of schools, school quality assurers, ward education officers, and the municipal education officer, are predominantly held by individuals aged 50–59. This data suggests that these positions require significant experience and years of service.

In contrast, teaching positions are more evenly distributed across age groups, with a notable proportion in the 30–39 age range, followed by 20–29 and 40–49. This finding reflects a mix of early-career and experienced teachers, indicating ongoing recruitment of younger professionals while retaining older staff. Overall, the data imply that higher positions are typically occupied by older, more skilled personnel, whereas teaching roles attract a broader age range (UNESCO, 2022; OECD, 2020).

4.2.1.3 Professional Qualification of the Respondents

The data in the table above indicate that the largest share, 62.7%, holds Bachelor's degrees, suggesting that most teachers possess the expected skills in the field. The minority are Diploma holders, making up 36% and representing a moderate level of

professional preparation, while the extreme minority of 1.3% have obtained a master's degree. Notably, there are no teachers with master's or PhD qualifications, highlighting a lack of advanced academic expertise within the workforce. Overall, the findings show that most respondents have at least a Bachelor's qualification, with higher-level positions generally requiring or attracting individuals with advanced degrees (Author, 2025).

4.2.1.4 Experience of Teachers

The data in the table above indicate that the majority are relatively early in their careers, with 57.3% having 5-9 years of experience. This data reflects a workforce that is still growing professionally, with 37.3% of mid-career educators having 10 to 19 years of experience, a minority. The extreme minority of teachers have 20 years or more in the field, with 4.1% in the 20–29-year range and just 1.3% with 30–39 years of experience. The data reveal that the majority of teachers and school heads fall within the early career stage (1–9 years), while a significant number also have moderate experience (10–19 years). The limited number of personnel with over 20 years of experience suggests potential challenges with institutional memory and leadership continuity, underscoring the importance of retention strategies, mentorship, and succession planning to sustain growth and stability in the sector.

4.3 Presentation and Discussion

This section presents the study's findings. Based on the responses to the questionnaire and interview. The researcher analysed and interpreted the information obtained from the study to meet the identified objectives.

4.3.1 The Use of School Information System in Managing Students' Academic Progress

This objective aimed to examine the use of the school information system in managing students' academic progress. To elicit responses from respondents, the researcher developed five items for teachers to assess the use of the school information system in managing students' academic progress. The result is presented quantitatively.

Table 4. 2: The Use of School Information System in Managing Students' Academic Progress.

Statements	D (%)	SD (%)	U (%)	A (%)	SA (%)
There is enough technological infrastructure (hardware, software, internet connectivity) within the school.	6(8)	7(9.3)	5(6.7)	26(34.7)	31(41.3)
The school influences the adoption and use of school information systems.	3(4)	11(14.7)	8(10.7)	19(25.3)	34(45.3)
Staff members have positive perceptions towards the use of school information systems for managing academic progress.	8(10.7)	2(2.7)	3(4)	37(49.3)	25(33.3)
Training programs have been provided to staff on using school information systems within the past 3 years.	6(8)	10(13.3)	4(5.4)	24(32)	31(41.3)

Source: Field Study, 2025.

Key; *SD=Strongly Disagree, D=Disagree, U=Undecided, A=Agree, and SA=Strongly Agree.*

Therefore, the data from item 1 of this objective revealed that 76% of respondents agreed or strongly agreed that their schools have sufficient technological infrastructure, including hardware, software, and internet connectivity. The extreme minority with 17.3% disagreed and strongly disagreed, while the extreme minority with 6.7% were undecided.

This data indicates that the great majority of respondents feel that the essential tools and systems required to support digital learning and teaching are available and accessible within the school environment. The presence of adequate infrastructure is a key factor in the successful integration of technology into education, as it enables both students and teachers to use digital resources effectively for instruction and learning. However, it also suggests that a notable portion of respondents did not agree, which may highlight disparities in access or differences in individual experiences with the school's technological resources.

These findings align with the study of Mmole and Banele (2024), which evaluated the implementation of the Primary School Information Management System (PReM) in selected schools in Dar es Salaam. Their study revealed that the success of such systems depends heavily on adequate hardware, stakeholder involvement, and adherence to regulations. They also reported benefits such as reduced workload, time savings, improved monitoring, and better data accuracy—echoing the positive impacts noted by respondents and interviewees in the current research.

The findings align with the Technology Acceptance Model (TAM) developed by Fred Davis in 1989, which posits that technology adoption is influenced by two key

factors: perceived usefulness and perceived ease of use. In this study, sufficient technological infrastructure enhances perceived ease of use, while the School Information System's positive impact on administrative efficiency and student performance reflects its perceived usefulness. Together, these factors support teachers' acceptance and effective use of the system, as predicted by the TAM framework.

The findings underscore the critical role of adequate technological infrastructure in supporting the effective use of School Information Systems. Schools equipped with reliable hardware, up-to-date software, and stable internet connectivity enable teachers to manage academic tasks more efficiently. This not only streamlines administrative processes but also positively influences student performance. Consequently, sustained investment in and maintenance of technological resources are essential for enhancing both educational management and learning outcomes. Also, the researcher examined the teachers' perceptions towards the use of school information systems for managing academic progress. The great majority, 82.6% of respondents, agreed or strongly agreed with the use of school information systems to manage academic progress. The extreme minority (13.4%) disagreed and strongly disagreed, while 4% were undecided, indicating different perceptions of the use of school information systems for managing academic progress.

This finding suggests that most teachers recognise the value and usefulness of these systems for tracking student performance, organising academic records, and supporting teaching and learning. Their positive outlook likely contributes to greater acceptance and more effective use of school systems. The different (presumably

negative or neutral) perceptions indicate that not all teachers are equally convinced of the benefits. This may be due to factors such as a lack of training, limited technical support, or challenges in system usability. These mixed perceptions highlight the need for ongoing support, capacity building, and possibly system improvements to ensure that all teachers can confidently and effectively use school information systems.

The findings of the study closely align with those of Shah's (2013) study in Malaysia, which highlight that information systems contribute to improved school management, such as enhanced efficiency, better monitoring, and support for teaching and learning. Additionally, both studies identify similar challenges to system adoption, including a lack of skills, insufficient training, and limited technical support. This consistency across contexts underscores the importance of addressing these barriers to realise the benefits of educational information systems fully.

The findings align with the Technology Acceptance Model (TAM), as most teachers view School Information Systems as helpful in managing academic progress, reflecting strong perceived usefulness. School leadership efforts to provide training and support enhance perceived ease of use, helping more teachers confidently adopt the system. Together, these factors promote greater acceptance and effective use of the technology in schools.

The study's findings show that teachers' positive perceptions and supportive leadership significantly influence the effective use of School Information Systems. Training and encouragement help overcome challenges, leading to better adoption

and improved academic management. Moreover, the researcher examined the provision of staff training programs on the use of school information systems. The data for this item show that the great majority, 73.3% of respondents, agreed or strongly agreed that training programs have been provided to staff for using school information systems within the past 3 years. The extreme minority 21.3% disagreed or strongly disagreed, while 5.4% were undecided. This data suggests that many schools recognise the importance of training in ensuring successful system adoption and usage. However, the 5.4% of respondents who were neutral may reflect inconsistencies in training availability, frequency, or effectiveness. Overall, the data suggests progress in staff development, but also points to the need for more consistent and inclusive training initiatives.

The study also recommends that the lack of follow-up and ongoing support from regulatory authorities limits the long-term effectiveness of these efforts. This finding highlights the need for continuous monitoring, refresher training, and institutional support to ensure consistent and effective use of the systems. Training alone is not sufficient without sustainable implementation strategies.

The findings of this study align closely with those of Rino and Diang (2022), who emphasised that the effective use of school information systems depends not only on training but also on consistent follow-up and institutional support. Rino and Diang found that while many schools had implemented SIS and provided initial training, challenges such as a lack of ongoing technical assistance, insufficient monitoring, and minimal post-training support hindered the complete integration and effectiveness of the systems. Similarly, in the current study, although 73.3% of

respondents reported receiving training, interviews with School Quality Assurance Officers revealed that the lack of regulatory follow-up creates a gap between initial training and sustained use of the system.

Therefore, continuous follow-up, ongoing support, and active involvement from regulatory and school authorities are essential to ensure that staff consistently and effectively use these systems. Without such sustained support, the benefits of training may not fully translate into improved school management and academic progress. This finding underscores the need for comprehensive strategies that integrate training, monitoring, and capacity-building to maximise the impact of school information systems.

The study's findings reveal that although many schools provide training programs on the use of school information systems, the lack of consistent follow-up and ongoing support from regulatory authorities limits the long-term effectiveness of these efforts. This finding highlights that training alone is not enough; continuous monitoring, refresher training, and institutional backing are essential to ensure consistent and effective use of the systems. To maximise the benefits of school information systems in improving school management and academic progress, a comprehensive approach combining training with sustained support and capacity-building is necessary.

The researcher also examined the school's influence on the adoption and use of school information systems in managing students' academic progress. The data shows that 70.6% of respondents both agreed and strongly agree that schools

influence the adoption and use of school information systems. The extreme minority, 18.7% disagreed and strongly disagreed with the school's influence on the use of school information systems, while 10.7% were undecided.

The data suggest that most schools play an active and supportive role in promoting the use of school information systems to manage students' academic progress. This support is reflected in efforts such as establishing clear policies, providing resources and offering training, and fostering a culture that values data-driven practices. However, some respondents indicated that some schools are less effective in this regard, possibly due to leadership challenges, limited resources, or insufficient technical support. This finding highlights the need for stronger interventions and consistent efforts to ensure all schools can effectively adopt and use SIS for educational improvement.

The findings show that schools, with support from municipal authorities, are actively promoting the use of school information systems through training and seminars. This effort helps build staff capacity and encourages system adoption. However, challenges remain in some schools due to limited resources or a lack of ongoing support, highlighting the need for stronger follow-up and consistent implementation to ensure long-term success.

The findings align with Alexis and Faustin (2024), who stressed that strong institutional support, ongoing training, and leadership involvement are key to successfully adopting school information systems. Both studies highlight that while training is essential, its effectiveness depends on continuous follow-up and support.

Without this, some schools may struggle to implement SIS fully, underscoring the need for sustained commitment to maximise its benefits.

The findings highlight that institutional support and training from schools and municipal authorities enhance teachers' acceptance and effective use of the School Information System by improving their perceptions of its usefulness and ease of use. This support builds confidence and motivation, leading to greater adoption and consistent use. Without such backing, teachers may struggle to embrace the system fully. Therefore, ongoing leadership and support are essential for sustained technology use, aligning with the principles of the Technology Acceptance Model. To triangulate the study's findings, the researcher also collected data from MEOs, SQAs, school heads, and WEOs to gain a broader understanding of the use of SIS in managing students' progress.

The responses from face-to-face interviews highlighted the government's commitment to ensuring high investment in school information systems so that teachers can use them as easily as possible. The majority of Head teachers said that;

> "*…through the capitation grants and school fees, we purchase all materials needed for installing the information system at our school. The system introduced at school has indeed simplified the working status and students' performance as well"*

Furthermore, the finding matches with the response of face-to-face conducted with the MEO, who said that;

> *"……. the government is highly investing in modern technology. We are initiating the school information system to ensure the teaching and learning process is successfully bringing a positive impact to the learners...."*

The interview responses confirm that schools are investing in technological infrastructure through grants and fees, and that these systems have improved administrative efficiency and student performance. Additionally, the MEO emphasised the government's commitment to modern technology to enhance teaching and learning, highlighting the positive impact of school information systems. The interview responses reveal a firm commitment from both schools and government authorities toward investing in School Information Systems to improve education. Head teachers reported using funds from capitation grants and school fees to purchase necessary equipment, thereby simplifying administrative tasks and improving student performance. Similarly, the Municipal Education Officer emphasised the government's commitment to modern technology to enhance teaching and learning. Overall, these insights highlight that both financial investment and strategic planning are being directed toward integrating digital systems in schools to support more efficient management and improved academic outcomes.

The study found that schools and government authorities are actively investing in School Information Systems to improve education quality. Head teachers and the Municipal Education Officer highlighted that such investments have enhanced administrative efficiency and student performance. This aligns with Rino and Diang (2022), who emphasised that effective investment in educational technology supports better school management and learning outcomes.

The findings suggest that government commitment and school-level investment in technological infrastructure, such as through capitation grants and school fees, have

played a significant role in supporting the implementation of School Information Systems. These efforts have helped simplify teachers' administrative tasks and improve student performance. The emphasis on modern technology reflects a strategic approach to enhancing teaching and learning. However, to ensure the full effectiveness of these systems, continued support, regular training, and proper maintenance remain essential.

Also, the study emphasises integrating technology into daily academic activities through internal meetings and guidance. This technological integration enables the flow of experiences among teachers, thereby helping them master the school information system. The responses from face-to-face interviews conducted with head teachers, which said that;

> *"……. Our staff, through internal staff meetings, used to insist on the use of technological devices found at school to facilitate the cultivation of knowledge. For those who try to use it with no implication, the school leadership has already prepared for the new skills training ……."*

This statement from head teachers implies that school leadership actively encourages the use of available technological devices to enhance teaching and learning. It shows a deliberate effort to promote the integration of technology into daily academic activities through internal meetings and guidance. Moreover, it emphasises a supportive approach rather than a punitive one toward teachers who struggle with technology. By providing training for those who are less skilled or hesitant, the school leadership demonstrates a commitment to capacity building and continuous professional development. This proactive stance helps ensure that all staff can effectively use technology to improve knowledge delivery and student outcomes.

The findings show that school leadership plays a key role in promoting the integration of technology in daily academic activities through regular internal meetings and supportive guidance. Rather than punishing teachers who struggle, they provide additional training, fostering a culture of collaboration and continuous professional development. This approach encourages all teachers to use technology, thereby improving teaching quality and student outcomes.

Furthermore, the data indicated the need for more regular training on the use of the school information system. This webinar enables teachers to update their skills in using IS to manage. The researcher obtained the response through the face-to-face interview conducted with the school quality assurance officers, as they said that;

> *"…… the teachers at schools report the regular availability of training concerning the school information system, as some of them have attended the training at the national level, regional level, district level and cluster-wise. However, we noticed the poor follow-up from the regulatory authority after training to emphasise the regular use of the systems…"*

The statement highlights that teachers have received training on the school information system at the national, regional, district, and cluster levels. However, it also points out a lack of follow-up from regulatory authorities after the training. This absence of continued support and monitoring may hinder effective implementation and consistent use of the systems. Overall, while training is being provided, its impact is limited without regular follow-up to reinforce usage and address challenges.

The statement means that while there are commendable efforts to provide teachers with training on the use of the School Information System at multiple administrative

levels, the benefits of such training are not fully realised due to a lack of follow-up from regulatory authorities. Without consistent support, supervision, or reinforcement after the training, teachers may struggle to apply what they learned or lose motivation to use the system regularly. This finding suggests that training alone is insufficient; it must be complemented by ongoing monitoring, guidance, and problem-solving support to ensure the proper and sustained implementation of the School Information System in schools.

4.3.2 The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress

This objective aimed to assess the challenges teachers face in using a school information system to manage students' academic progress. To elicit responses from respondents, the researcher developed five items for teachers, aiming to collect responses on the challenges they face in using the school information system to manage students' academic progress. The result was presented quantitatively**.**

Table 4. 3: The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress

Statements	D (%)	SD (%)	U (%)	A (%)	SA (%)
You find it hard to use the school information system	32(42.7)	26(34.7)	5(6.6)	8(10.7)	4(5.3)
The training you attended has positively affected the use of the school information system	6(8)	11(14.7)	2(2.7)	26(34.6)	30(40)
Technological infrastructure (hardware, software, and internet connectivity) is well-maintained	5(6.7)	11(14.7)	3(4)	29(38.6)	27(36)
The administration encourages and supports teachers in using school information systems effectively.	7(9.3)	10(13.3)	3(4)	33(44)	22(29.4)

Source: Field Study, 2025.
Key; *SD=Strongly Disagree, D=Disagree, U=Undecided, A=Agree, and SA=Strongly Agree.*

Therefore, the data from item 1 of this objective revealed that the great majority (77.4%) of respondents disagreed and strongly disagreed with having difficulty using the school information system. The extreme minority, with 16% of respondents, agreed and strongly agreed that there was some hardship in using the school information system, while 6.6% were undecided.

This data indicates that most respondents feel that the essential tools and systems required to support digital learning and teaching are available and accessible within the school environment. The presence of adequate infrastructure is a key factor in the successful integration of technology into education, as it enables both students and teachers to use digital resources effectively for instruction and learning. However, it also suggests that a notable portion of respondents did not agree, which may highlight disparities in access or differences in individual experiences with the school's technological resources.

The findings align with Ugwude and Ugwude (2020), who emphasised that strong school leadership and responsive support are key to the successful adoption of school information systems. As in their study, the current findings show that when school management actively addresses teachers' challenges and provides the necessary resources, it creates a supportive environment that encourages effective system use. The findings show that strong school management support reduces teachers’ difficulties in using the School Information System. By addressing challenges and providing resources, schools enhance teachers’ confidence and ease of use, leading to greater acceptance and effective adoption of the system. This finding reflects the importance of organisational support in encouraging technology

use, as highlighted by the TAM framework.

The Finding shows that strong and responsive school management plays a crucial role in reducing teachers' difficulties with the School Information System. By actively addressing challenges and providing necessary resources, school leadership creates a supportive environment that enhances teachers' confidence and ease of use, leading to greater acceptance and effective adoption of the system. This finding underscores the importance of ongoing organisational support for successful technology integration in schools. Also, the researcher assessed whether the administration encourages and supports teachers in using school information systems effectively. 73.4% of respondents agreed or strongly agreed that the administration encouraged and supported them in using school information systems effectively. The extreme minority (22.6%) of respondents disagreed or strongly disagreed, while 4% were undecided, indicating a different view on being encouraged and supported by the administration to use school information systems effectively.

This data means that most teachers feel they receive encouragement and support from school administration to use school information systems effectively. Such support likely includes motivation, guidance, training, and resources that help teachers integrate these systems into their daily work. However, a smaller portion of teachers feel they do not receive sufficient encouragement or support, which could hinder their ability to utilise the systems fully. This finding suggests that while many schools foster a positive environment for using school information systems, there is still a need to address gaps in support to ensure all teachers can benefit equally.

The findings show that strong administrative support and regular maintenance of technology are vital for teachers to use school information systems effectively. While most teachers feel supported, some still face challenges, underscoring the need for ongoing, consistent support. Active leadership involvement helps reduce technical issues and boosts teacher confidence, ensuring better system adoption and use across all schools. The findings align with Nkata and Dida (2019) in Arusha, showing that strong administrative support and regular maintenance are key to effective use of school information systems. Both studies highlight that active leadership involvement reduces technical problems and boosts teacher confidence, but ongoing support is still needed to address challenges and ensure consistent system adoption across schools.

The findings align with the Technology Acceptance Model, showing that strong administrative support and regular maintenance improve teachers' perceptions of the system's usefulness and ease of use. This support reduces challenges, builds confidence, and encourages effective adoption of the school information system. Without such support, teachers may struggle, highlighting the importance of leadership involvement for successful technology use.

The study demonstrates that strong administrative support and regular maintenance are crucial for enhancing teachers' acceptance and effective use of school information systems. By improving perceived usefulness and ease of use, these external factors help overcome challenges, boost confidence, and promote sustained adoption. Therefore, active leadership involvement and continuous technical support are vital for successful integration and consistent utilisation of school information

systems.

Also, the researcher assessed the challenges teachers face with technological infrastructure, including hardware, software, and maintenance of internet connectivity. The data for this item show that a significant majority, 74.6% of respondents, agreed and strongly agreed that technological infrastructure, including hardware, software, and internet connectivity, is maintained. The extreme minority, with 21.4% of respondents, disagreed and strongly disagreed, while 4% were undecided.

This data reveals that a significant portion of teachers believe these aspects are being adequately maintained, suggesting that schools have made some effort to support the technological needs for effective teaching and learning. However, a noticeable portion of respondents remained neutral on the issue, which may indicate varying levels of access or inconsistent maintenance across different schools. This neutrality could also reflect teachers' uncertainty about who is responsible for maintaining the infrastructure or a lack of clear communication about maintenance procedures. These findings highlight the importance of not only providing infrastructure but also ensuring its consistent upkeep and making maintenance efforts visible and reliable to all staff.

While school heads report proactive efforts to maintain technological infrastructure using government capitation funds, teachers’ responses reveal a more mixed perception. Although many acknowledge that maintenance is underway, the neutrality of some suggests inconsistencies in implementation or a lack of clear

communication. This gap between administrative claims and teachers' experiences underscores the need for greater transparency, consistent maintenance practices across schools, and greater teacher involvement in infrastructure-related planning and evaluation. Ensuring reliable and well-maintained technology is not only about funding but also about effective management and alignment between policy and practice.

Teachers' views on the use of government funds to maintain technological infrastructure are mixed, pointing to inconsistencies and communication gaps. This finding aligns with Ugwude and Ugwude (2020) in Nigeria, who found that funding alone is insufficient without proper coordination, accountability, and teacher involvement. The finding highlights the need for effective management and alignment between policy and practice to ensure meaningful technology use in education. Therefore, to ensure the effective use of technological infrastructure in schools, it is essential not only to allocate adequate funding but also to establish clear, consistent maintenance practices, enhance communication between school leadership and teachers, and actively involve educators in decision-making.

The findings show that many teachers believe technological infrastructure, such as hardware, software, and internet connectivity, is being maintained, but some remain uncertain, suggesting inconsistencies or unclear communication about maintenance. School leaders report actively using government funds to support these resources, yet teachers' mixed perceptions reveal a gap between administrative efforts and their actual experiences. This finding highlights the need for greater transparency, consistent maintenance practices, and greater teacher involvement in decision-

making. The results align with previous research, which emphasises that funding alone is insufficient without effective management and coordination to ensure reliable technology use in schools.

Furthermore, the researcher assessed the effects of training on the use of the school information system to determine whether the training positively affected SIS usage at school and whether it was challenging for those who attended and those who did not participate. The data show that 74.6% of respondents agreed or strongly agreed that the training they attended had a positive effect on their use of the school information system. While 2.7% of respondents were undecided, the extreme minority disagreed and strongly disagreed that the training you attended has positively affected the use of the school information system.

The data suggest that Training plays a key role in helping teachers gain confidence and skills to use the school information system effectively. However, some teachers felt the training didn’t fully meet their needs, possibly due to issues such as quality, relevance, or a lack of ongoing support. This finding highlights the need for well-designed, practical training programs and continuous professional development to ensure all teachers can benefit from the system.

The findings indicate that although many teachers benefit from regular training on the school information system at various levels, the overall impact is hindered by insufficient follow-up and support from regulatory authorities. This gap makes it challenging to sustain and reinforce the effective use of the system after training. Therefore, alongside providing training, there is a clear need for continuous

professional development and stronger post-training support to help teachers fully integrate the system into their everyday practices.

The findings indicate that although many teachers benefit from regular training on the school information system at various levels, the overall impact is hindered by insufficient follow-up and support from regulatory authorities. This gap makes it challenging to sustain and reinforce the effective use of the system after training. Similarly, Rino and Diang (2022) emphasised that while initial training programs are essential for building user capacity, continuous support and monitoring are critical to ensuring long-term adoption and effective use of educational technologies. Therefore, alongside providing training, there is a clear need for ongoing professional development and stronger post-training support to help teachers fully integrate the system into their daily practices.

The findings show that training improves teachers' confidence and skills in using the School Information System, increasing its perceived usefulness and ease of use. However, the lack of ongoing support and follow-up from the authorities limits sustained use and full integration of the system. According to the Technology Acceptance Model, combining quality training with continuous backing is essential for long-term adoption and effective use of the technology.

The study's findings reveal that training significantly improves teachers' confidence and skills in using the School Information System, thereby enhancing their perceptions of its usefulness and ease of use. However, the lack of sustained support and follow-up from authorities limits the system's sustained adoption and full

integration into daily teaching practices. According to the Technology Acceptance Model, combining initial quality training with ongoing professional development and strong post-training support is essential to maintain positive user perceptions and ensure effective, long-term use of the technology.

To triangulate the findings, the researcher also collected data from MEO, SQAs, school heads, and WEOs to gain a broader understanding of the challenges teachers face in using the school information system to manage students' academic progress.

The data revealed different challenges that teachers face when using a school information system to manage students' academic progress. The SIS infrastructure maintenance emerged as a significant challenge for the adoption and use of SIS in managing students' academic progress. This finding correlated with the responses from interviews conducted with MEO, which said that;

> *"…… .Some teachers do indeed experience some challenge in using the school information system; however, the municipal leadership is highly supportive and encouraging the adoption of these systems to teachers by ensuring regular maintenance of the technological infrastructure……."*

The statement acknowledges that some teachers face difficulties with the school information system, a common issue during the adoption of new technologies. However, it emphasises that municipal leadership is actively supporting teachers by providing encouragement and practical assistance. One key way this support is demonstrated is through the regular maintenance of the technological infrastructure, ensuring that hardware and software remain functional and reliable. This ongoing upkeep helps minimise technical problems that could discourage teachers from using the system, thereby promoting smoother adoption and greater confidence among

users. Overall, the statement reflects leadership's commitment to proactively addressing challenges and creating a conducive environment for the effective use of school information systems.

This finding aligns with Ugwude and Ugwude (2020), who emphasise that reliable technological infrastructure is critical to the successful adoption and sustained use of educational technologies. The support from municipal leadership, particularly through regular maintenance of hardware and software, aligns with Ugwude and Ugwude's recommendation that continuous technical support and infrastructure upkeep are essential to reduce disruptions and build user confidence. This proactive approach helps overcome common barriers to technology use, facilitating smoother integration of SIS into daily academic management and promoting more effective system utilisation by teachers.

To further enhance the effective use of the system, education authorities should not only maintain infrastructure but also invest in regular training and follow-up support for teachers. Addressing both technical and human factors will create an enabling environment in which teachers feel confident and motivated to integrate SIS into their daily work, ultimately improving student academic progress. Continuous collaboration among school leadership, municipal authorities, and teachers is essential to ensure the system’s long-term success and to maximise its benefits for educational management.

Also, the data indicated that the lack of regular training was the primary challenge teachers face in using the school information system to manage students’ academic

progress. As the teachers lack updates on SIS use. The responses from interviews conducted with MSQA commented that,

> *"…… the teachers at schools report the regular availability of training concerning the school information system, as some of them have attended the training at the national level, regional level, district level and cluster-wise. However, we noticed the poor follow-up from the regulatory authority after training to emphasise the regular use of the systems…"*

This response implies that teachers have access to regular training sessions on the school information system, as many have attended them. However, there is a lack of follow-up or ongoing support from the authorities after the training sessions are completed. This absence of follow-up makes it harder to encourage and ensure that teachers consistently use the system in their daily work. In other words, while training is available, the support needed to reinforce and sustain the system's use after training is weak or absent. While many teachers have access to training on the School Information System, the main challenge lies in the lack of follow-up and ongoing support from authorities after the training. This gap makes it difficult for teachers to consistently and effectively use the system in their daily work, despite having received initial training.

The findings indicate that although many teachers have access to and participate in training on the School Information System, the key challenge is the lack of follow-up and continuous support from regulatory authorities. While initial training equips teachers with basic knowledge, the lack of ongoing guidance and reinforcement limits the effective, sustained use of the system to manage students' academic progress. This finding highlights the need not only to provide regular training but also to establish systematic follow-up mechanisms to ensure the consistent and

practical application of SIS in schools.

4.3.3 The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress

Under this objective, the researcher identified strategies for teachers to enhance the use of the school information system in managing students' academic progress. To elicit responses from the respondents, the researcher posed 5 questions to teachers, aiming to identify strategies to enhance the use of the school information system in managing students' academic progress. The researcher also interviewed MEOs, SQAs, WEOs, and Head Teachers. The results were presented quantitatively.

Table 4.4: The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress

Statements	D (%)	SD (%)	N (%)	A (%)	SA (%)
Regular training will ensure the effective use of the school information system.	8(10.7)	4(5.3)	5(6.7)	32(42.6)	26(34.7)
Clear follow-up from the administration on the use of the school information system after training will improve students' academic progress.	6(8)	11(14.7)	2(2.7)	26(34.6)	30(40)
Improving the Technological infrastructure is essential for the use of the school information system.	5(6.7)	11(14.7)	6(8)	16(21.3)	37(49.3)
Motivating teachers to use school information systems will positively affect students' academic progress.	7(9.3)	10(13.3)	3(4)	33(44)	16(29.3)

Source. Field Study, 2025.

Key; *SD=Strongly Disagree, D=Disagree, U=Undecided, A=Agree, and SA=Strongly Agree.*

The researcher examined whether ensuring regular training will enable effective use

of the school information system as a strategy for teachers to enhance its use in managing students' academic progress. The data show that 77.3% of respondents agreed or strongly agreed that ensuring regular training will enable effective use of the school information system. The extreme minority, 16% of respondents, disagreed and strongly disagreed that ensuring regular training will allow effective use of the school information system, while 6.7% were undecided.

The data indicate that most teachers believe regular training is essential for effectively using the School Information System to manage students' academic progress. This finding suggests that ongoing professional development helps teachers better understand and use the system's features, leading to more accurate data entry and more efficient tracking of student performance. The findings emphasise the importance of equipping teachers with the necessary skills and confidence to use digital tools effectively. However, some teachers felt that other factors, such as system design or available support, may also impact how well the system is used.

The findings clearly highlight the critical role of regular training in enhancing teachers' effective use of the School Information System for managing students' academic progress. Regular training not only helps teachers stay up to date with technological advancements but also ensures consistent, accurate use of the system across the school. To maximise the impact of the School Information System on student performance and academic management, education stakeholders must prioritise and institutionalise ongoing teacher training programs.

The study's findings align with Baharia's (2024) study in Meru, Tanzania, demonstrating that regular training is crucial for teachers to use the School Information System effectively to manage students' academic progress. Continuous professional development enhances teachers' confidence and skills, ensuring consistent and accurate use of the system. The findings further indicate that without regular training, schools cannot fully realise the system's benefits. Therefore, education stakeholders are urged to prioritise and institutionalise ongoing SIS training to strengthen academic management and improve student outcomes.

The study shows that regular training is crucial for teachers to effectively use the School Information System in managing students' academic progress. Continuous professional development helps improve teachers' system use, accuracy, and confidence. While some believe other factors also affect system use, the findings emphasise the need for education stakeholders to prioritise and institutionalise ongoing SIS training to enhance academic management and student outcomes.

Also, the researcher identified that improving the technological infrastructure is essential for the use of the school information system. In the study, when the researchers collected data from the teachers, the great majority (70.6%) of respondents agreed and strongly agreed that improving the technological infrastructure is essential for the use of the school information system. The extreme minority (21.4%) disagreed and strongly disagreed that enhancing the technological infrastructure is necessary for the use of the school information system, while 8% were undecided.

The study found that most teachers believe improving technological infrastructure is essential for the effective use of the School Information System. Teachers highlighted the need for reliable internet, access to digital devices, stable electricity, and technical support to fully utilise the system in managing academic tasks. Without adequate infrastructure, even well-trained teachers may struggle to use the system effectively, leading to delays and inefficiencies. While some teachers viewed other factors, such as training or administrative support, as more critical, the overall findings stress that a strong technological infrastructure is a foundational requirement for maximising the system's benefits in schools.

The findings emphasise that improving the technological infrastructure is a key factor in ensuring effective use of the School Information System. Teachers' responses show a shared understanding that reliable infrastructure, such as functional devices, internet access, and stable electricity, is necessary for the smooth operation of the system. The strategic use of government capitation grants to maintain this infrastructure demonstrates school management's proactive commitment to preventing challenges that may hinder system use. Therefore, the findings conclude that both infrastructure investment and sound financial management at the school level are essential for supporting teachers in effectively using the School Information System and improving academic management.

Furthermore, the researcher found that motivating teachers to use school information systems will positively affect students' academic progress. The data show that 73.3% of respondents agreed or strongly agreed that motivating teachers to use school information systems will positively affect students' academic progress. The extreme

minority, 22.6% disagreed and strongly disagreed that giving teachers motivation to use school information systems will positively affect students' academic progress, while 4% were undecided.

This finding suggests that most teachers believe motivating them to use the School Information System can positively influence students' academic progress. Motivation encourages teachers to engage more actively with the system, leading to better monitoring and support for students. While some teachers feel other factors may be more critical, the overall result highlights motivation as a key element in improving the effective use of the system and enhancing student outcomes.

These findings align with Baharia's (2024) study, which emphasised that teacher motivation plays a crucial role in the adoption and sustained use of educational technologies. Baharia found that when teachers feel supported, recognised, and rewarded for their efforts in using digital tools such as the School Information System, they are more committed and effective in applying them to support teaching and learning. Both studies reinforce the idea that, beyond infrastructure and training, motivational strategies are essential to drive meaningful use of school information systems and improve academic performance.

The study found that teacher motivation plays a key role in the effective use of School Information Systems, thereby enhancing students' academic progress. This finding supports the Technology Acceptance Model, which posits that motivated teachers are more likely to perceive the system as helpful and easy to use, thereby increasing their willingness to adopt and apply it consistently.

The study highlights that teacher motivation is a key factor in the effective use of School Information Systems, which positively influences students' academic progress. When teachers feel encouraged, supported, and recognised, they are more likely to engage with the system consistently and purposefully. This finding leads to improved monitoring, record-keeping, and student support. Therefore, providing motivational support should be a priority for school leadership and education stakeholders to enhance the overall impact of digital tools on teaching and learning outcomes.

To triangulate the findings, the researcher also collected data from MEOs, SQAs, school heads, and WEOs to gain a broad understanding of the challenges teachers face in using the school information system to manage students' academic progress. The responses from face-to-face interviews with the Ward Education Officer prompted the administration to provide clear follow-up on the use of the school information system after training to improve students' academic progress, as WEOs said.

> "……*the municipal leadership has assigned the school quality assurance team to assess the progress of the school information system. The team will ensure the report is submitted to the respective authority for more consideration…."*

The statement indicates that the municipal leadership has tasked the school quality assurance team with evaluating the implementation of the School Information System. The team will monitor its progress and submit a report to the relevant authorities for further review and action. Also, the heads of school recommended that;

> "……*the internal school quality committee under the guidance of the municipal quality assurance team has initiated the follow-up for the use of the school information system. This enables the effective*

use of these systems…."

The statement indicates that the internal school quality committee, operating under the supervision of the municipal quality assurance team, has initiated a follow-up process to monitor the use of the School Information System in schools. This initiative aims to promote effective and consistent system use, demonstrating a coordinated effort at both the school and municipal levels to enhance the performance and impact of the SIS through regular oversight and support.

The findings reveal a strong recognition of the need for continuous follow-up and oversight to ensure the effective use of the School Information System after training. Insights from face-to-face interviews with the Ward Education Officer and school heads highlight that both municipal and school-level leadership are actively engaged in monitoring SIS implementation. The assignment of the school quality assurance team by the municipal leadership and the initiation of follow-up efforts by internal school quality committees reflect a coordinated approach to support proper system usage. These efforts aim to reinforce the impact of training, ensure consistent use of the SIS, and ultimately improve student academic progress.

These findings align with the study of Alexis and Faustin (2024), which emphasised the importance of post-training monitoring and administrative follow-up as critical components in sustaining the effective use of educational technology. Their study concluded that without consistent oversight and institutional accountability, the benefits of initial SIS training often diminish over time. The study underscores that ongoing support, supervision, and feedback mechanisms are essential in reinforcing

teachers' practices and improving academic outcomes through the effective use of school information systems.

The study found that regular training is essential for teachers to effectively use the School Information System in managing student progress. Training builds teachers' skills and confidence, while ongoing follow-up and monitoring by school and municipal leaders ensure consistent and proper system use. According to the Technology Acceptance Model, this combination of training and support enhances teachers' perceptions of the system's usefulness and ease of use, leading to sustained adoption and better academic outcomes.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides an overview of the summary, conclusions, and recommendations related to the objectives of this study, which aim to explore teachers' perceptions of the school information system's role in managing students' academic progress. This chapter is divided into four subsections. The first subsection provided an overview of the study, focusing on the purpose, objectives, literature review, and methodology used to collect and analyse the data. The second subsection summarised the study's significant findings and implications, and the third subsection presented the study's conclusion. The fourth subsection presents recommendations based on the study findings.

5.2. Summary of the Study

The study investigates teachers' perceptions of using the School Information System (SIS) to manage students' academic progress in Kigoma Municipality. It was guided by three specific research objectives: (1) to examine how teachers use the SIS to manage students' academic progress, (2) to assess the challenges teachers face in using the SIS, and (3) to identify strategies that can enhance teachers' effective use of the SIS in managing students' academic progress.

The study was guided by the Technology Acceptance Model (TAM), developed by Fred Davis in 1989, which explains how users' perceptions influence technology adoption. TAM identifies two key factors: Perceived Usefulness (PU), the belief that a system enhances performance, and Perceived Ease of Use (PEOU), the degree to

which a system is considered easy to use. These factors shape users' attitudes, intentions, and actual technology use. While TAM has been widely applied in fields such as education and healthcare, it has limitations, including its neglect of external influences (e.g., social and organisational factors), its assumption of purely rational decision-making, and its limited adaptability across contexts. Despite these drawbacks, TAM remains a foundational framework for analysing technology adoption, particularly in examining how educators and students perceive and use School Information Systems (SIS).

The study reviewed relevant literature from both international and Tanzanian contexts to develop a comprehensive understanding of the use of SIS in managing students' academic progress, the challenges teachers face in its use, and strategies to enhance its effective implementation. The study employed a mixed-methods approach within a convergent research design, integrating both quantitative and qualitative methodologies. This design enabled the researcher to collect both quantitative and qualitative data simultaneously, mitigating the limitations of each while leveraging their strengths, thereby enhancing the credibility and depth of the findings. The study involved 97 respondents from seven wards and nine schools, including 75 teachers, 1 municipal education officer, 7 ward education officers, 5 school quality assurance officers, and 9 head teachers.

Qualitative data were collected through semi-structured interviews with municipal and ward education officers, school quality assurers, and school heads, and analysed using thematic analysis. Quantitative data were collected through questionnaires administered to teachers and analysed using descriptive statistics in SPSS version 20,

with findings presented as percentages and in tables. The study employed purposive and stratified sampling techniques to ensure representative and meaningful data.

5.3 Summary of the Major Findings

5.3.1 The Use of School Information Systems in Managing Students' Academic Progress

The study aimed to examine the use of the School Information System in managing students' academic progress and collected both quantitative and qualitative data. Quantitative results revealed that 62.7% of teachers agreed or strongly agreed that their schools had adequate technological infrastructure — hardware, software, and internet connectivity — highlighting favourable conditions for SIS implementation; however, a minority expressed disagreement, suggesting disparities. Additionally, 70.6% of respondents acknowledged that their schools actively influenced SIS adoption through leadership support, policies, and training. In comparison, 69.3% reported positive perceptions of SIS, recognising its usefulness for tracking student performance and managing academic records. Furthermore, 65.3% of teachers reported receiving SIS-related training within the past three years, though 13.4% were neutral, suggesting inconsistencies in training availability or effectiveness.

Qualitative data supported these findings, with head teachers and education officers emphasising the government's substantial investment in educational technology through capitation grants and school fees, which have improved administrative efficiency and student outcomes. Regular internal staff meetings and peer guidance were cited as key to promoting technology integration, with school leadership providing additional training to teachers who needed support.

Despite efforts to train teachers at various administrative levels, national, regional, district, and cluster quality assurance officers at the school level reported a lack of follow-up from regulatory authorities, which limited the long-term effectiveness of the training. Overall, while infrastructure, training, and leadership support are in place, the study emphasises the need for sustained follow-up, ongoing support, and institutional commitment to ensure the effective and consistent use of SIS to improve academic management.

5.3.2 The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress

The study found that while most teachers are comfortable using the School Information System (SIS) and feel supported by school administration, challenges still exist. A significant majority (64%) reported not experiencing difficulties using the system, and 61.3% acknowledged that training positively influenced their use of the SIS. School quality assurance officers highlighted issues such as inconsistent maintenance of technological infrastructure and insufficient follow-up support after training. Although 57.3% of teachers reported that infrastructure is well maintained, a notable number remained neutral, indicating possible inconsistencies.

Furthermore, despite many teachers attending SIS training, the absence of continuous professional development and follow-up from authorities limits the system's full integration. Qualitative data from education officers also confirmed that while efforts are made to maintain infrastructure and provide training, gaps remain in ongoing support and communication. These findings underscore the importance of consistent maintenance, effective leadership, and continuous professional support to

ensure the long-term and effective use of SIS in managing student academic progress.

5.3.3 The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress

The study identified key strategies to enhance teachers' use of the School Information System (SIS) in managing students' academic progress. Quantitative data revealed that 77.3% of teachers agreed that regular training enables effective SIS use, emphasising the importance of continuous professional development in improving teachers' skills, confidence, and accuracy in data handling. Similarly, 70.6% of respondents believed that improving technological infrastructure, such as internet connectivity, reliable electricity, and access to digital tools, is essential for effective system use, though 21.4% disagreed, indicating a need for equitable resource distribution.

Furthermore, 65.4% agreed that motivating teachers positively influences SIS engagement and, by extension, student outcomes, aligning with the Technology Acceptance Model and studies like Baharia (2024), which highlight motivation as critical to technology adoption. Additionally, 61.3% of teachers agreed that clear administrative follow-up post-training enhances SIS usage.

Qualitative interviews supported this, with school and municipal leaders initiating monitoring efforts through quality assurance teams to reinforce training outcomes and promote consistent system application. These findings confirm that regular training, robust infrastructure, teacher motivation, and ongoing administrative follow-up are vital strategies for optimising SIS use and improving academic

management.

5.4 Conclusions

The study drew three conclusions based on the findings presented, in line with the research objectives.

First, regarding the use of the School Information System to manage students' academic progress, the study concluded that although a majority of teachers acknowledged the availability of essential infrastructure and supportive school leadership, there remains a need for consistent training and sustained institutional support. The system was widely recognised as applicable, and many teachers had received training, but variations in access to training and post-training follow-up limit its effectiveness.

Second, regarding the challenges teachers face in using SIS, the findings revealed that although many teachers feel confident using the system, such difficulties as inconsistent infrastructure maintenance, limited continuous professional development, and limited follow-up support still hinder optimal use. These challenges suggest that without structured, ongoing support mechanisms, the system's full potential for improving student academic management may not be realised.

Third, concerning strategies to enhance the use of SIS, the study found that regular training (supported by 77.3% of respondents), improved technological infrastructure (70.6%), teacher motivation (65.4%), and administrative follow-up (61.3%) are essential for enhancing effective use. Qualitative data confirmed that coordinated

efforts by school and municipal leadership are crucial in promoting sustained engagement with SIS.

5.5 Implications of the Study Findings

Based on the study's objectives, the findings have several important implications for policy, practice, and future research regarding the use of the School Information System in managing students' academic progress.

First, the positive perceptions of SIS, supported by adequate technological infrastructure and leadership support, imply that schools are generally prepared for effective SIS adoption. However, disparities in infrastructure and inconsistent training highlight the need for equitable resource allocation and standardised, continuous professional development programs. Policymakers and education authorities should prioritise consistent funding and infrastructure upgrades to ensure that all schools have reliable access to the technology they need.

Second, the challenges identified, such as insufficient follow-up and gaps in ongoing support, suggest that initial training alone is inadequate for sustained SIS effectiveness. This calls for institutionalising continuous professional development and strengthening supervisory mechanisms at all administrative levels. Education stakeholders must develop clear policies to mandate regular monitoring, feedback, and technical support to ensure that teachers maintain competence and motivation in using SIS.

Third, the strategies identified regular training, improved infrastructure, teacher motivation, and administrative follow-up, emphasising a multifaceted approach to

enhancing SIS use. This finding suggests that effective SIS integration requires coordinated efforts from school leadership, municipal authorities, and policymakers. Schools should implement motivational incentives and structured follow-up processes to reinforce training outcomes and encourage consistent system use.

5.6 Recommendations of the Study

The study's results, discussions, and conclusions have led to the following recommendations.

5.6.1 Recommendation for Actions

The study findings developed recommendations for actions to education stakeholders as follows. The study recommends that education authorities and school leaders institutionalise regular training programs to continuously enhance teachers' skills in using the School Information System. It is essential to improve and maintain reliable technological infrastructure, including hardware, software, internet, and electricity, ensuring equitable access across all schools. Ongoing monitoring and follow-up by quality assurance teams should be implemented to support consistent and effective SIS use. Motivating teachers through incentives and recognition can increase engagement with the system, while firm leadership commitment is crucial to prioritise SIS integration and resource allocation. Additionally, fostering collaboration among staff and establishing clear policies will promote accountability and best practices.

Finally, schools should allocate budgets for system maintenance and upgrades, and further research is needed to evaluate the long-term impact of SIS on academic

outcomes. These actions, taken together, will strengthen SIS adoption and improve student academic management.

5.6.2 Recommendation for Further Studies

Researchers should explore the long-term impact of the School Information System on students' academic performance and overall school management to better understand its effectiveness. Future research could investigate the role of teacher attitudes and digital literacy in the successful adoption of SIS, as well as examine barriers faced by schools with limited resources.

Comparative studies across regions or school types may provide insights into the contextual factors that affect SIS implementation. Additionally, qualitative research involving students and parents could offer a broader perspective on how SIS influences learning outcomes and engagement. Finally, evaluating the cost-effectiveness of various training and infrastructure strategies would help optimise resource allocation for SIS programs.

REFERENCES

Alexis, & Faustin, (2024). Use of School Data Management System (SDMS) For Performance of Students in Twelve Years of Basic Education in Rwanda. *International Journal of Social Science and Humanities Research,* 7(10), 58-70.

Al-Hunaiyyan, A., Alhajri, R., Alghannam, B. and Al-Shaher, A. (2021). Student Information System: Investigating User Experience (UX). International Journal of Advanced Computer Science and Applications (IJACSA), 12(2), 80 – 87.

Baharia, S. (2024). The use of school information systems in strengthening the management of government secondary schools in Meru District. *International Journal of Innovative Science and Research Technology.*

Brailas, A., Tragou, E., & Papachristopoulos, K. (2023). Introduction to qualitative data analysis and coding with Qual Coder. *American Journal of Qualitative Research, 7*(3), 19–31.

Breiter, A., & Light, D. (2006). Data for School Improvement: Factors for Designing Effective Information Systems to Support Decision-Making in Schools. *Journal of Educational Computing Research,* 35(2), 125–153.

Chimangeni-Mserembo, P. K. (2022). Perception of the education management information system by rural head teachers and schoolteachers in Kasungu District in Malawi (Doctoral dissertation, University of Portsmouth).

Clepon, et al. (2021). Designing and Implementing e-School Systems: An Information Systems Approach to School Management of a Community College in Northern Mindanao. Philippines. *International Journal of*

Computing Sciences Research. 5 (1).

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage Publications.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Dawadi, S., et al. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education.*

Egbe, A. (2022). The contribution of the education management information system on the administrative effectiveness of secondary schools in Yaoundé municipality (Doctoral dissertation, University of Yaounde I).

Joseph, A., & Eleojo, A. (2018). Applicability of sampling techniques in social sciences. *Net Journal of Social Science, 7.*

Jukes, M., Tibenda, J., Mosha, P., Mgonda, N., Betts, K., Jeremiah, G., Bub, K., Nsolezi, F., Owens, C., & Sou, S. (2018). Developing a Culturally Relevant Assessment of Social and Emotional Learning for Tanzania. RTI International.

Kiwonde, F. M. (2024). *The use of ICT in Tanzanian secondary schools: Experiencing obstacles in teaching and learning*. Journal of Issues and Practice in Education (JIPE), 16(1).

Kumar, R. (2011). *Research methodology: A step-by-step guide for beginners* (3rd ed.). Sage Publications.

Ministry of Education and Vocational Training. (2014). *Education and training policy.* Government Press.

Ministry of Information, Culture, Arts and Sports, Tanzania. (2016). *National*

Information and Communications Technology Policy 2016.

Mmole, L.J, & Banele, S. D. (2024). Assessing the Performance of Primary School Information Management Systems (PReM) in Data Provision: A Focus on Two Selected Public Primary Schools at Temeke Municipal Council, Dar es Salaam, Tanzania. *African Journal of Empirical Research.* 5(4). pp. 717-729.

Mussa, J. (2023). EMIS implementation in Dodoma, Tanzania. Dodoma City.

Nkata, A. S., & Dida, M. A. (2019). Centralised Education Management Information System for Tracking Students' Academic Progress in Tanzanian Secondary Schools. *International Journal of Modern Education and Computer Science*, 11(10), 25–32.

Palilingan, V. R., Batmetan, J. R., & Liando, O. E. S. (2024). Information Technology Management Strategy in Higher Education Provision. In *Proceedings of the 2023 International Conference on Virtual Education* (pp. 56-72).

Riño, J. L., & Daing, C. A. (2022). Challenges in Handling Student Records and Characteristics of a Student Information Management System in a Public Secondary School in Marilao, South District IV, Bulacan. *International Journal of Advanced Research in Education and Technology*, 4(2), 78–85.

Shah, M. (2013). Impact of Management Information Systems (MIS) on School Administration: What the Literature Says. *Procedia - Social and Behavioural Sciences*, 116, 2799– 2804.

Smith, J. (2024). Data management practices in school-based EMIS: A U.S. perspective. International Journal of Educational Management, 4(9), 23-28.

Taherdoost, H. (2016). Sampling methods in research methodology: How to choose

a sampling technique for research. *International Journal of Academic Research in Management.*

Ugwude, A. C., & Ugwude, D. I. (2020). Challenges of education management information systems in primary school administration in the Nsukka Local Government Education Authority of Enugu State. *National Journal of Educational Leadership,* 5(2), 49–56.

Barongo, S. I. (2020). *The role of ICT in improving the quality of education in Kigoma Municipal*. Journal of Global Research in Education and Social Science, 14(5), 37–45.

Mwalongo, A. (2011). Teachers' perceptions of ICT for teaching, professional development, administration, and personal use. *International Journal of Education and Development using ICT*, 7(3).

Nkonoki, E., & Kapinga, O. S. (2022). Influence of teacher training on ICT usage in School Management Information Systems: A case of Rorya District, Tanzania. *International Journal of Research and Scientific Innovation (IJRSI)*, 9(4), 188–194.

APPENDICES

APPENDIX A: QUESTIONNAIRE FOR PUBLIC SECONDARY SCHOOL TEACHER

My name is Paschal Leonard Luchagula. I am a student at the Open University of Tanzania pursuing a Master of Education in Planning, Administration and Policy Studies. I am carrying out Research entitled **"Teachers' Perception on The Use of School Information System in Managing Students' Academic Progress in Public Secondary Schools at Kigoma Municipality".** I humbly request that you complete this questionnaire as accurately as possible. The responses and opinions given will only be used for academic purposes.

PART 1: Personal Profile: Please tick ✓) in the appropriate space.

Age

20-29(years)	30-39(years)	40-49(years)	50-59(years)

Sex

Male	Female

Education level

Certificate	Diploma	Degree	Masters	PhD

Working experience in the current Job Position

1-9 (years)	11-19 (years)	20-29 (years)	30-39 (years)

PART 2: Please tick ✓) or fill the gap in the appropriate space.

Section A: The Use of School Information System in Managing Students' Academic Progress.

s/n	Statement	Agree	Strongly agree	Undecided	Disagree	Strongly disagree
i.	There is enough technological infrastructure (hardware, software, internet connectivity) within the school.					
ii.	The school influences the adoption and use of school information systems.					
iii.	Staff members have positive perceptions towards the use of school information systems for managing academic progress.					
iv.	Training programs have been provided to staff for using the school information systems within three years.					

v. What other ways do you use to improve the use of the school information system in managing students' academic progress?

……

……

……

Section B: The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress.

s/n	Statement	Disagree	Strongly disagree	Undecided	Agree	Strongly agree
i.	You find it hard to use the school information system.					
ii.	The training you attended has positively affected the use of the school information system.					
iii.	The technological infrastructure (hardware, software, and internet connectivity) is well-maintained.					
iv.	The administration encourages and supports teachers in using school information systems effectively.					

v. What are the other challenges that face teachers in using the school information system to manage students' academic progress?

……

……

……

……

Section C: The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress.

s/n	Statement	Disagree	Strongly disagree	Undecided	Agree	Strongly agree
i.	Regular training will ensure the effective use of the school information system.					
ii.	Clear follow-up from the administration on the use of the school information system after training will improve students' academic progress.					
iii.	Improving the Technological infrastructure is essential for the use of the school information system.					
iv.	Motivating teachers to use school information systems will positively affect students' academic progress.					

Suggest the strategies to enhance the use of the school information system.

……

……

……

……

Thank you

APPENDIX B: INTERVIEW GUIDE FOR HEAD OF SCHOOL

My name is Paschal Leonard Luchagula. I am a student at the Open University of Tanzania pursuing a Master of Education in Planning, Administration and Policy Studies. I am carrying out Research entitled **"Teachers' Perception on The Use of School Information System in Managing Students' Academic Progress in Public Secondary Schools at Kigoma Municipality".** I humbly request that you complete this questionnaire as accurately as possible. The responses and opinions given will only be used for academic purposes.

PART 1: Personal Profile

Age	Sex	Highest Education Level	Experience in current Job Position

PART 2: Section A: The Use of School Information System in Managing Students' Academic Progress.

1. How do you ensure sufficient technological infrastructure (hardware, software, internet connectivity) within the school?
2. How do you influence the adoption and use of school information systems?
3. How do you organise and prepare school information systems training sessions at your school?

Section B: The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress.

4. What are the challenges you face in influencing the adoption and use of school information systems**?**

5. How did you address the challenges you face in influencing the adoption and use of school information systems in your school?

Section C: The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress.

6. Suggest the strategies to enhance the use of the school information system in your school.

Thank you.

APPENDIX C: INTERVIEW GUIDE FOR WARD EDUCATION OFFICER

My name is Paschal Leonard Luchagula. I am a student at the Open University of Tanzania pursuing a Master of Education in Planning, Administration and Policy Studies. I am carrying out Research entitled **"Teachers' Perception on The Use of School Information System in Managing Stu ıts' Academic Progress in Public Secondary Schools at Kigoma Municipality".** I humbly request that you complete this questionnaire as accurately as possible. The responses and opinions given will only be used for academic purposes.

PART 1

Personal Profile

Age	Sex	Highest Education Level	Experience in current Job Position

PART 2

Section A: The Use of School Information System in Managing Students' Academic Progress.

1. How do you ensure enough technological infrastructure (hardware, software, internet connectivity) within your ward?
2. How do you influence the adoption and use of school information systems within your ward?
3. How do you organise and prepare school information systems training in your ward?

Section B: The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress.

4. What challenges do you face in influencing the adoption and use of school information systems within your ward?
5. How did you address the challenges you face in influencing the adoption and use of school information systems in your ward?

Section C: The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress.

6. Suggest the strategies to enhance the use of the school information system in your ward.

Thank you

APPENDIX D: INTERVIEW GUIDES FOR SCHOOL QUALITY ASSURANCE OFFICERS

My name is Paschal Leonard Luchagula. I am a student at the Open University of Tanzania pursuing a Master of Education in Planning, Administration and Policy Studies. I am carrying out Research entitled **"Teachers' Perception on The Use of School Information System in Managing Students' Academic Progress in Public Secondary Schools at Kigoma Municipality".** I humbly request that you complete this questionnaire as accurately as possible. The responses and opinions given will only be used for academic purposes.

PART 1

Personal Profile

Age	Sex	Highest Education Level	Experience in current Job Position

PART 2

Section A: The Use of School Information System in Managing Students' Academic Progress.

1. How do you assess the availability of sufficient technological infrastructure (hardware, software, internet connectivity) within your municipality?
2. How do you influence the adoption and use of school information systems within your municipality?

Section B: The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress

3. What are the challenges you face in influencing the adoption and use of school information systems within your municipality?
4. How do you address the challenges you face in influencing the adoption and use of school information systems in your municipality?

Section C: The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress.

5. Suggest the strategies to enhance the use of the school information system in your municipality.

Thank you

APPENDIX E: INTERVIEW GUIDE FOR DISTRICT EDUCATION OFFICER

My name is Paschal Leonard Luchagula. I am a student at the Open University of Tanzania pursuing a Master of Education in Planning, Administration and Policy Studies. I am carrying out Research entitled **"Teachers' Perception on The Use of School Information System in Managing Students' Academic Progress in Public Secondary Schools at Kigoma Municipality".** I humbly request that you complete this questionnaire as accurately as possible. The responses and opinions given will only be used for academic purposes.

PART 1

Personal Profile

Age	Sex	Highest Education Level	Experience in current Job Position

PART 2

Section A: The Use of School Information System in Managing Students' Academic Progress.

1. How do you ensure sufficient technological infrastructure (hardware, software, internet connectivity) within your municipality?
2. How do you influence the adoption and use of school information systems within your municipality?
3. How do you organise and prepare school information systems training in

your municipality?

Section B: The Challenges That Face Teachers in Using the School Information System to Manage Students' Academic Progress.

4. What are the challenges you face in influencing the adoption and use of school information systems within your municipality?
5. How do you address the challenges you face in influencing the adoption and use of school information systems in your municipality?

Section C: The Strategies for Teachers to Enhance Use of the School Information System in Managing Students' Academic Progress.

1. Suggest the strategies to enhance the use of the school information system in your municipality.

Thank you

APPENDIX F: RESEARCH CLEARANCE LETTER

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

THE OPEN UNIVERSITY OF TANZANIA

Ref. No OUT/PG2022001284 **21st May, 2025**

Municipal Director,
Kigoma Municipal Council,
P.O. Box 44,
KIGOMA.

Dear Director,

RE: RESEARCH CLEARANCE FOR MR. PASCHAL LEONARD LUCHAGULA, REG NO: PG2022001284

2. The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1st March 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1st January 2007.In line with the Charter, the Open University of Tanzania mission is to generate and apply knowledge through research.

3. To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief background, the purpose of this letter is to introduce to you **Mr. Paschal Leonard Luchagula, Reg.No: PG2022001284,** pursuing **Masters of Education in Administration Planning and Policy Studies (MEDAPPS).** We here by grant this clearance to conduct a research titled **"Exploring Teachers' Perception on the Use of School Information System in Managing Students' Academic Progress at Kigoma Municipality, Tanzania"** He will collect his data at your area from 23rd May to 30th June 2025.

4. In case you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O.Box 23409, Dar es Salaam. Tel: 022-2-2668820.We lastly thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours sincerely,

THE OPEN UNIVERSITY OF TANZANIA

Prof.Gwahula Raphael Kimamala

For: VICE CHANCELLOR

Kinondoni Biafra, Kawawa Road; P.O 23409; Dar es Salaam; Tel: +255 22 2668 445;
E-Mail:vc@out.ac.tz|| Website:www.out.ac.tz

APPENDIX G: RESEARCH DATA COLLECTION LETTER

THE UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE
REGIONAL ADMNISTRATION AND LOCAL GOVERNMENT
KIGOMA UJIJI MUNICIPAL COUNCIL

KIGOMA UJIJI MUNICIPAL COUNCIL

In reply please quote:
Ref. No .KUMC/L.40/4/28

Date: 23th March, 2025

For: Vice Chancellor
The Open University of Tanzania,
P. O. Box 23409,
DAR ES SALAAM.

RE: RESEARCH CLEARANCE FOR DATA CORRECTION.

Reference is made to your letter with reference No.OUT/PG2022001284 dated on 21st May, 2025.

2. This is to inform you that your request has been **accepted.** Your student **Mr. Paschal Leonard Luchagula** *allowed* to conduct research Titled ' " **Exploring Teachers' Perception on the use of School Information System in Managing Students, Academic Progress at Kigoma Municipality,Tanzania"** from 23th May, 2025 to 30th June , 2025 .

3. During research he will be attached at within Kigoma Ujiji Municipal Council.

Charles A. Lihimba
For: MUNICIPAL DIRECTOR,
KIGOMA UJIJI

For: MUNICIPAL DIRECTOR KIGOMA/UJIJI

C.C MSEO,
Kigoma Ujiji Municipal Council
" School Quality Assurance Officer
Kigoma Ujiji Municipal Council
" Ward Education Officers
Kigoma Ujiji Municipal Council
" Head of Schools
Kigoma Ujiji Municipal Council

Director's Office, Kigoma Ujiji Municipal Council P.O Box 44 Kigoma Tel:-0282802535 Fax:- 0282802535 Email:- Municipal@Kigomaujijimc.go.tz