

**DATA TYPES AND MANAGEMENT OF SECONDARY SCHOOLS IN MBALE
DISTRICT, UGANDA**

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RJ22/MUC/MED/005

**A DISSERTATION SUBMITTED TO THE SCHOOL OF EDUCATION IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER
EDUCATION ADMINISTRATION AND PLANNING OF UGANDA CHRISTIAN UNIVERSITY**

August, 2025

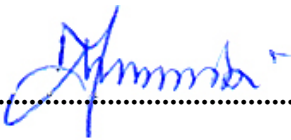


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DECLARATION

I WAMBI PIUS declare that this is my original work, is not plagiarized and has not been submitted to any other institution for any award

Sign..........Date.....26/08/25.....

Wambi Pius

APPROVAL

This is to confirm that the research study was carried out under the topic “*Data Types and Management of Secondary Schools in Mbale District*”

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ACKNOWLEDGMENT

I am so grateful to the almighty God in a special way for the gift of life, his love; care and protection that has enabled me finish this research study. May the glory and honor remain His forever. I also acknowledge the work of my supervisor Dr. Hannah Gidudu for her guidance, advice, comments, constructive criticisms and correction for without which this study would have not been possible. I also acknowledge the contribution of the following members: Muluka Samuel Baker, Bakhulindile Robert, Matsanga Robert and more importantly my wife Agnes Nandutu for her encouragement, my son Emmanuel Victor Wambi. Finally, I would like to express my sincere appreciation to all my friends for the motivation and encouragement they gave me during this research journey.

May the almighty God bless you all.

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LIST OF ACRONYMS

BOG	:	Board of Governors
EMIS	:	Education management information System
MOES	:	Ministry of Education and Sports
NAPE	:	National assessment of progress in education
SPSS	:	Statistical Package for social Scientists
NCES	:	National Centre for Education statistics
OECD	:	Organization for economic corporation and development
UNEB	:	Uganda national Examination Board
UTSEP	:	Uganda Teacher and School Effectiveness Project
UNESCO	:	United Nations Educational Scientific and Cultural organization

ABSTRACT

This study sought to ascertain the effect of data types and management of secondary schools in Mbale district. The study objectives were (i) Effect of student performance data on planning in secondary schools in Mbale district. (ii) Effect of teachers performance data on staffing in secondary schools in Mobile district. (iii) Effect of Facilities data in controlling secondary schools in Mbale district. The study employed a descriptive research design. Target population was 247 respondents and a sample of 176 respondents was selected into the sampling frame using both purposive and simple random sampling techniques. The study used questionnaire and interview guide to collect primary data. The study used descriptive analysis, Pearson correlations and regression analysis to analyze the data. The descriptive statistics revealed that secondary schools in Mbale district generally utilize data in the management of secondary schools; with 88.6% of the respondents agreeing that in their school data is utilized to account for students' performance. 83.4% of the respondents agreed that the school data is utilized to appraise teachers' performance. The Pearson correlation coefficient showed significant positive relationships between student academic performance data and planning ($r=0.787$, $p=0.01<0.05$), teachers' performance data and staffing ($r=0.727$, $p=0.021<0.05$) and facilities data and controlling ($r=0.678$, $p=0.003<0.05$). The regression analysis indicated that data types significantly predict management with an adjusted R squared of 0.395 ($\beta=0.629$, $p=0.001<0.05$). The study concludes that data-driven decision making is essential for effective school management and that secondary schools in Mbale district can benefit by utilizing data to inform management functions. The study recommends the District Education Authorities to establish centralized and comprehensive data management systems that track student performance across grades and subjects. Additionally, the distinct local government should carry out annual infrastructure needs assessments in schools focusing on identifying priority areas for renovation and construction.

Key words: data-driven, infrastructure/facilities control, decision-making, secondary education, academic performance.

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

This chapter contains the background to the study, statement of the problem, main objective of the study, specific objectives of the study, research questions, scope of the study, justification, the significance of the study, conceptual frame work, and operational terms.

1.1.1. Historical Background

Globally secondary education has evolved significantly over the centuries, influenced by changing societal needs, economic conditions and technological advancements (UNESCO, 2019). The industrial revolution, for instance led to an increased demand for skilled labor. Prompting governments to expand access to secondary education (Goldin & Katz, 2008). In recent years, the global emphasis on improving education quality, equity and access has driven reforms and innovations in secondary education (OECD, 2020).

In east Africa, secondary education has faced similar challenges and opportunities. The region has experienced rapid population growth, urbanization and economic development which have placed pressure on existing education systems (World Bank, 2020). Regional initiatives such as the east African community's efforts to harmonize education policies, have aimed at improving the quality and relevancy of secondary education (EAC, 2018).

In Uganda, the development of secondary education has been shaped by the country's history including colonial policies that prioritized academic education for a select few (Ssekamwa, 2000). After independence in 1962, the government expanded access to education including secondary education. However the sector has faced numerous challenges including inadequate infrastructure, teacher shortages and limited resources (Ministry of education and sports, 2007).

In Mbale district, secondary education faces unique challenges and opportunities. The district has experienced rapid population growth and urbanization which have placed pressure on existing infrastructure and resources (Uganda Bureau of Statistics, 2020). This study builds on national efforts to improve education quality by examining the

relationship between data types and management functions in secondary schools in Mbale district. This study can provide insights into how data-driven decision-making can address the challenges facing the sector and improve student outcomes.

1.1.2 Theoretical Background

This study is grounded in Henri fayol's theory of management, which provides a framework for understanding management in secondary schools. Fayol's theory identifies five key management functions: planning, staffing, commanding, coordinating and controlling. For the study, we focus on planning, staffing and controlling. According to fayol, planning involves setting goals and objectives, identifying strategies, and allocating resources. In secondary schools, planning involves using data types (student academic performance data, teacher performance data, and facilities data) to inform goal setting and strategic decision-making. Staffing involves using data to inform decisions about teacher recruitment, selection and development. Controlling involves, monitoring performance, and taking corrective action to ensure goal attainment.

Fayol's theory of management is relevant to the study because it provides a framework for understanding management functions in secondary schools highlights the importance of planning, staffing, and controlling and informs the development of data-driven decision-making strategies. By applying fayol's theory, this study can examine how data types influence planning, staffing and controlling functions in secondary schools, ultimately contributing to improved student outcomes and school effectiveness in Mbale district.

1.1.3 Conceptual Background

This study is grounded in the notion that effective management of secondary schools is contingent upon the utilization of relevant data types. The conceptual framework for this study posits that data types, comprising student academic performance data, teacher performance data and facilities data serve as the independent variable. These data types are hypothesized to influence the dependent variable, which is the management of secondary schools, encompassing planning, staffing, and controlling. Student academic performance data refers to the information and records that provide insight into student learning outcomes, progress, and achievement. Teacher

performance data are used for evaluation of teacher's effectiveness, instructional quality, and professional development needs. Facilities data are information about infrastructure, resources, and environmental conditions that support learning. Planning refers to setting goals, identifying strategies, and allocating resources to achieve desired outcomes. Staffing refers to recruiting, selecting and developing teachers and staff to ensure effective instruction and support. Controlling refers to monitoring performance, identifying areas of improvement, and taking corrective action to ensure goal attainment.

The conceptual framework for this study suggests that the effective utilization of student academic performance data, teachers' performance data and facilities' data positively influences the management of secondary schools as follows; Student academic performance data informs planning, and instructional decisions. Teachers' performance data guides staffing, and professional development initiatives. Facilities data supports planning and resource allocation for infrastructure development and maintenance.

By examining the relationship between data types and management of secondary schools, this study aims to provide insights into how data-driven decision-making can enhance the effectiveness of secondary schools in Mbale district.

1.1.4. Contextual Background

The effective management of secondary schools is crucial for providing quality education and achieving academic excellence. Recent studies in Uganda emphasize the importance of data-driven decision-making in education management. According to a study by Nsubuga et al (2022), data-driven decision making is essential for improving student outcomes and school effectiveness in Ugandan secondary schools. The use of data can help school administrators make informed decisions, identify areas of improvement, and optimize resource allocation.

In mbale, secondary schools face various challenges, including limited resources, inadequate infrastructure and high student enrollment rates. A study by wamala et al. (2020), found that Ugandan secondary schools struggle with inadequate facilities, teacher shortages, and poor infrastructure, which negatively impact student learning outcomes. To address these challenges, school administrators need to rely on accurate

and reliable data to inform their decision-making processes. This study focuses on three key data types: student academic performance data, teachers' performance data, and facilities' data. Students' academic performance data provides insights into student learning outcomes; while teachers' performance data helps evaluate teacher effectiveness. Facilities data, on the other hand, informs decisions about infrastructure development and maintenance.

The management of secondary schools in Mbale district involves several critical functions including planning, staffing, and controlling which are essential for achieving school goals and objectives. According to a study by Kasozi et al. (2021), effective school management is critical for improving student outcomes and school effectiveness in Ugandan secondary schools.

This study investigates the relationship between data types (student academic performance data, teachers' performance data, and facilities data) and the management of secondary schools in Mbale district, Uganda. Specifically the study seeks to explore how these data types influence planning, staffing and controlling functions in secondary schools. By examining the relationship between data types and school management, this provides valuable insights into how data-driven decision-making can improve the effectiveness of secondary schools in Mbale District, Uganda

1.2. Statement of the Problem

The ideal scenario for secondary schools in Mbale District, Uganda involves effective management, leveraging data-driven decision-making to enhance student outcomes, teacher effectiveness, and resource allocation (Marsh (2012)). However, despite efforts by the Mbale district local government to improve secondary school management through induction of board members, support supervision, and routine inspections, the district continues to struggle with below-average academic performance. According to the National Assessment of Progress in Education (NAPE) report for 2018, Mbale District ranked 90th out of 112 districts with a mean score of 38.8%, below the national average of 44.7%. This persistent underperformance affects the country's human resource development and increases government expenditures on expatriates for technical tasks. Given the importance of effective data management there is a need to investigate the effect of data types (student academic performance data, teachers' performance data, and facilities data) on management functions in secondary schools in Mbale District. The

study aims to explore how these data types influence planning, staffing, and controlling functions, providing insights into how data-driven decision-making can improve secondary school effectiveness in Mbale district.

1.3. Main Objective of the Study

The main objective of the study is to investigate the effect of data types and management of secondary schools in Mbale district.

1.4. Specific Objectives of the Study

- i. To examine the effect of students' academic performance data on planning of secondary schools in Mbale District.
- ii. To assess the effect of teachers' performance data on staffing of secondary schools in Mbale District.
- iii. To establish the effect of facilities data on controlling of secondary schools in Mbale District.

1.5. Research Questions

- i. What is the effect of students' academic performance data on planning of secondary schools in Mbale District?
- ii. What is the effect of teachers' performance data on staffing of secondary schools in Mbale District?
- iii. How does facilities data affect control of secondary schools in Mbale District?

1.6 Justification

Data utilization and management have become a critical aspect of education management. The use of locally generated data has been shown to enhance evidence-based decision-making, leading to better academic performance (UNESCO, 2018). In Mbale district, there is a need to investigate how locally generated data utilization and management can enhance academic performance in secondary schools. There is limited research on the effect of locally generated data utilization and management in secondary schools in Mbale district. Most studies in the education sector in Uganda focus on primary schools, leaving out the secondary schools. Thus, there is a gap in knowledge regarding the effect of locally generated data utilization and management in secondary schools in Mbale district. The findings from this study may have policy implications for

the education sector in Mbale district. The District education authorities can use the findings to design policies that enhance the utilization and management of locally generated data in secondary schools. The study may also contribute to the national discourse on education policies in Uganda.

1.7 Significance of the Study

The significance of the study on the effect of locally generated data utilization and management of secondary schools in Mbale District lies in its potential to contribute to the improvement of education outcomes in the District and to inform policy and practice at the national level as follows,

- The study findings would provide insights into how the use of locally generated data could be leveraged to enhance the management of secondary schools in the district.
- The study envisaged to identify gaps and challenges in the use of school data, as well as best practices that could be replicated in other schools.
- The study will help to explore the impact of data utilization on key aspects of school management, such as teacher performance, student outcomes, and resource allocation.
- The findings of the study may inform the development of policies and strategies aimed at improving data management practices in secondary schools in Mbale District and beyond. This can lead to better decision-making by school administrators, improved accountability, and ultimately, better education outcomes for students.

1.8. Scope of the Study

This study was guided by three levels of scope that included: content scope, time scope and geographical scope as below:

1.8.1. Content Scope

This study focused on effects of data types and management of secondary schools in Mbale District. The study looked at aspects of the independent variable which paid

attention to the importance of collecting and analyzing students' academic performance data utilizing ways in which data can be collected (e.g., tests, assessments, surveys). It analyzed the teachers' performance using data which was collected using classroom observations, student feedback, performance reviews. Utilizing infrastructure and facilities data which was collected e.g., facility inspections, surveys. This data is important because guided in identifying maintenance needs, allocating resources. The study looked at aspects of the dependent variable with specific focus on management of secondary schools in Mbale District.

1.8.2. Time Scope

The study investigated the effects of data types and management in secondary schools in Mbale district, Uganda, over a five-year period (2019-2023) which included the impact of the COVID-19 pandemic. The research aimed at analyzing data utilization and management practices before and during the pandemic, examining their impact on educational outcomes such as academic performance, student engagement, attendance rates and teacher effectiveness. Additionally the study sought to identify challenges faced during the pandemic and potential strategies for future improvement.

The investigation explored how schools adapted to remote learning environments, utilizing online platforms and alternative data collection methods, and assessed the effectiveness of data utilization in supporting teaching and learning. By considering both pre-pandemic and pandemic contexts, the study recognized the disruptions caused by COVID-19 and the need for adaptive data utilization and management practices. Overall the study provides insights into the role of data-driven decision-making in enhancing educational outcomes, particularly in the face of unforeseen challenges

1.8.3. Geographical Scope

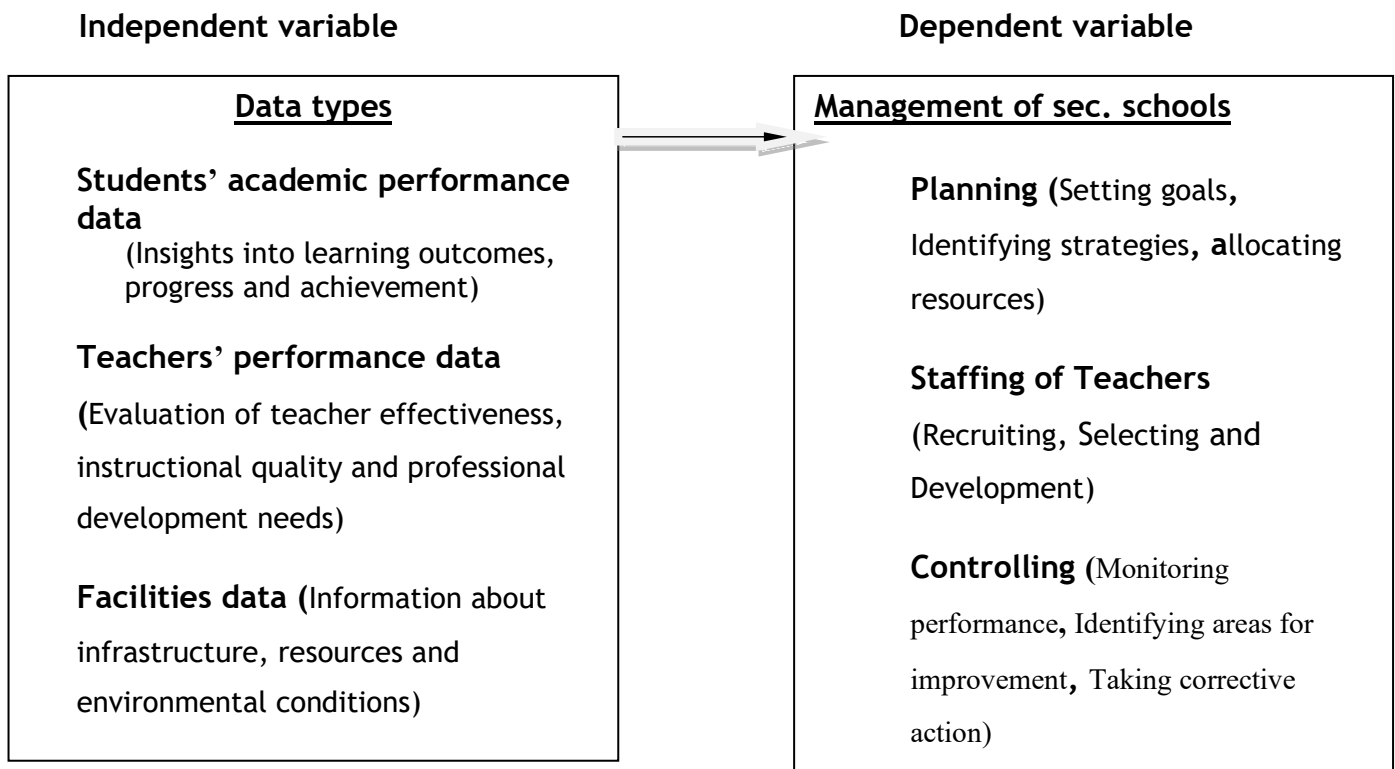
Mbale District is located in the Eastern Region of Uganda, with geographic coordinates 1°01'N 34°11'E. It is bordered by the districts of Bududa to the north, Sironko to the northeast, Manafwa to the east, Tororo to the south, Pallisa to the southwest, and Kumi to the northwest. The district is further divided into administrative units called sub-counties and towns which make up the local government structure. The local government of Mbale District is responsible for providing essential services to its citizens, including education, health, and infrastructure development, among others.

1.9. Conceptual Framework

The conceptual framework for this study posits that data types (independent variable) influence management functions of (dependent variable) in secondary schools in Mbale district

The relationship between data types and management in Mbale district's secondary schools can be seen as a cyclical process. Data is collected, analyzed, and utilized to inform decision-making, targeted interventions, allocate resources, drive continuous improvement, and promote accountability. This data-driven approach ultimately supports effective management practices and leads to improved educational outcomes for students in the district

The conceptual framework for the relationship between data types and management of secondary schools in Mbale district.



Source: adopted from: Wanzala, et al. (2017); UNESCO, (2018); Okello and Mugagga (2018) and modified by the researcher, 2023.

Figure 1: A conceptual framework for the relationship between data types and management of secondary schools in Mbale district.

The conceptual framework (Figure 1) illustrates the relationship between data types and management of secondary schools. Data types measured in terms of: students' academic performance data, teachers' performance data and facilities data, and the management of secondary schools measured in terms of: Planning, staffing and controlling.

The framework suggests that the independent variable (data types) influences the dependent variable (management of schools). Specifically student academic performance data influences planning, teachers' performance data influences staffing and facilities data influences controlling.

The framework provides a structure for understanding the relationship between data types and management in secondary schools, guiding investigation and analysis of the study.

1.10. Operational Terms

Data: is a set of values of qualitative or quantitative variables. Data is facts or figures from which conclusions can be drawn. Data also refers to any information, textual or numerical, that can be used in a systematic way to inform educational practice.

Data utilization: refers to the process of using data on a continuous basis to achieve improved school outcomes such as reduced dropout rates.

Student enrollment: This indicator measures the number of students enrolled in a secondary school. It is an important indicator because it reflects the popularity of the school and the demand for education in the area.

Student-teacher ratio: This indicator measures the number of students per teacher in a secondary school. A lower ratio is generally considered better because it indicates that teachers can provide more individual attention to each student.

Teacher qualifications: This indicator measures the percentage of teachers in a secondary school who hold the required qualifications for teaching in Uganda. It is an important indicator because it reflects the quality of teaching in the school.

Infrastructure: This indicator measures the availability and quality of infrastructure in a secondary school, including classrooms, laboratories, libraries, and other facilities. Good infrastructure is important for creating a conducive learning environment.

Academic performance: This indicator measures the academic performance of students in a secondary school, including pass rates and average grades. It is an important indicator because it reflects the quality of teaching and learning in the school.

Dropout rates: This indicator measures the percentage of students who drop out of a secondary school before completing their studies. High dropout rates may indicate problems with the management of the school, such as poor teacher motivation, inadequate resources, or lack of parental involvement.

Planning: Refers to setting objectives and determining the best course of action to achieve them.

Staffing: Refers to the process of recruiting, selecting, training and managing employees for specific roles within the school organization.

Controlling: It implies measurement of accomplishments against standards and correction of deviations if any to ensure achievement of organizational goals.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter looks at theoretical frame work and research objectives presented as sub-themes. The study has reviewed literature from scholar sources that include peer reviewed articles, Textbooks and government reports.

2.1. Theoretical Framework

The theoretical framework provides a conceptual foundation and guiding framework for conducting research. It consists of established theories, concepts, and models that help to structure the research study and provide a lens through which data analysis and interpretation can be conducted. The theoretical framework for the effect of data utilization on the management of secondary schools draws on several theories and concepts related to data-driven decision making, organizational learning, and school improvement. This framework aims to provide a theoretical basis for understanding how data utilization can impact school management, including teacher performance, student achievement, and overall school effectiveness.

Data-driven decision making is a process by which data is collected, analyzed, and used to make informed decisions (Bernhardt, 2013). This process involves several steps, including identifying data sources, collecting and analyzing data, interpreting results, and making decisions based on the findings. Data-driven decision making is essential for effective school management, as it allows educators to identify areas for improvement, set goals, and monitor progress over time (Davenport & Harris, 2007).

Organizational learning is a process by which organizations acquire new knowledge and skills that enable them to improve their performance (Argyris & Schön, 1978). In schools, organizational learning involves creating a culture of continuous improvement, where data is used to identify areas for growth and inform decision making (Senge, 1990). Organizational learning is critical for school management, as it allows educators to adapt to changing circumstances and improve student outcomes over time (Huber, 1991).

School improvement is a process by which schools work to improve student outcomes by implementing evidence-based practices (Elmore, 2000). School improvement involves

several key elements, including setting goals, monitoring progress, and using data to inform decision making (DuFour et al., 2010). The goal of school improvement is to create a culture of continuous learning, where educators work collaboratively to improve student achievement and overall school effectiveness.

Several studies have examined the effect of data utilization on school management in secondary schools. For example, a study by Asaba and Kabali (2016) found that the use of teacher performance data had a positive effect on school management, leading to increased accountability and improved teacher performance. Similarly, a study by Balyejusa-Kyomuhendo (2012) found that the use of performance data led to improved teaching practices and increased student achievement.

Other studies have explored the role of organizational learning in school management. For example, a study by Muijs and Harris (2003) found that schools with a strong culture of learning were more effective at improving student outcomes. Similarly, a study by Fullan (2001) found that schools with a focus on continuous improvement were more successful at achieving their goals. In addition, research has shown that effective school improvement requires a focus on data-driven decision making. For example, a study by Schmoker (2006) found that schools that focused on a few key indicators of student achievement were more successful at improving student outcomes than those that did not. Similarly, a study by DuFour et al. (2010) found that schools that used data to monitor progress and inform decision making were more successful at implementing evidence-based practices and improving student outcomes. The theoretical framework for the effect of data utilization on the management of secondary schools draws on several key theories and concepts related to data-driven decision making, organizational learning, and school improvement. Studies have shown that the use of data can have a positive effect on school management, leading to improved teacher performance, increased accountability, and improved student outcomes. By creating a culture of continuous learning and using data to inform decision making, schools can work towards improving student achievement and overall school effectiveness.

2.2 Empirical review

2.2.1 Students' academic performance data and management of secondary schools

Students' academic performance data and the management of secondary schools refers to the collection and analysis of quantitative and qualitative information related to

students' educational outcomes, achievements, and progress within the context of secondary school management. It involves the systematic tracking and assessment of various indicators, such as grades, test scores, attendance rates, graduation rates, and other relevant data points, to evaluate the effectiveness of management practices and interventions in secondary schools (Prasetyo & Huda, 2021). This data provides insights into the overall educational quality, effectiveness of instructional strategies, and the impact of management decisions and policies on students' academic outcomes. It helps identify areas of improvement, inform evidence-based decision-making, and support targeted interventions to enhance students' learning experiences and achievements (Prasetyo & Huda, 2021).

The use of students' academic performance data has been shown to have a positive effect on the management of secondary schools in Uganda. The Uganda Education Management Information System (EMIS) collects and analyzes data on student enrollment, teacher qualifications, and academic performance in secondary schools across the country. This data is used by school administrators and policymakers to make informed decisions about resource allocation and curriculum development (UNESCO, 2018).

In recent years, the utilization of data has become increasingly important in the management and improvement of secondary schools in Uganda, and Mbale District serves as a case study. This includes data on students' academic performance, data on teachers' performance, data on infrastructure and facilities, and data on the overall management of secondary schools. In Uganda, the Ministry of Education and Sports has recognized the importance of data utilization in improving the quality of education. The Education Management Information System (EMIS) is a government initiative that collects and analyzes data on all aspects of education, including student enrollment, teacher qualifications, and infrastructure and facilities (Ministry of Education and Sports, 2019). The EMIS provides policymakers and education stakeholders with accurate and reliable data to inform decision-making and planning.

Similarly, data on teachers' performance is important for improving the quality of education. A study by Ndiema (2018) found that teacher performance data can be used to identify areas where teachers need additional training and support. The study recommended that regular teacher evaluations and data analysis be conducted to improve teacher effectiveness.

Infrastructure and facilities data are also important for the effective management of secondary schools in Mbale district. A study by Mugula, Nabutola, and Wanakacha (2018) found that inadequate infrastructure and facilities negatively impact student academic performance. The study recommended that data on infrastructure and facilities be regularly collected and analyzed to ensure that schools have the necessary resources to support learning. Therefore, data on the management of secondary schools is important for identifying areas for improvement and increasing overall school effectiveness. A study by Wagaba, Onen, and Okot (2019) found that effective financial management practices can improve service delivery in secondary schools. The study recommended that data on financial management be regularly collected and analyzed to ensure that schools are using their resources effectively. It is important to note that data utilization is critical for improving the quality of secondary education in Mbale District and Uganda as a whole. Data on students' academic performance, teachers' performance, infrastructure and facilities, and management practices are all important for informing decision-making and improving school effectiveness. However, there is a need for standardized data collection methods and tools, as well as adequate training and technology infrastructure, to ensure that data is collected and analyzed effectively.

A study conducted by Kiconco and Kanyesigye (2018) found that the use of student performance data helped secondary school administrators in Uganda to identify areas of weakness in their schools and to develop strategies for improvement. The study also found that the use of data improved teacher motivation and student achievement. The study conducted by Kiconco and Kanyesigye (2018) focused on the impact of using student performance data on secondary school administration in Uganda. The study involved 120 secondary school administrators and was conducted in four districts in Uganda.

The study found that the use of student performance data had a positive impact on the administration of secondary schools in Uganda. Specifically, the use of data helped school administrators to identify areas of weakness in their schools and to develop strategies for improvement. This is consistent with the findings of other studies, which have shown that the use of data can be a powerful tool for identifying areas of weakness and developing targeted interventions to address them.

In addition, the study found that the use of data had a positive impact on teacher motivation. When teachers were provided with data on their students' performance,

they were more motivated to improve their teaching and to help their students succeed. This is consistent with the findings of other studies, which have shown that the use of data can be a powerful tool for motivating teachers and improving their performance. Finally, the study found that the use of data had a positive impact on student achievement. When schools used data to identify areas of weakness and to develop targeted interventions, students performed better on exams and other assessments. This is consistent with the findings of other studies, which have shown that the use of data can be a powerful tool for improving student achievement.

The study conducted by Kiconco and Kanyesigye (2018) provides strong evidence that the use of student performance data can have a positive impact on the administration of secondary schools in Uganda. By using data to identify areas of weakness and to develop targeted interventions, schools can improve teacher motivation and student achievement. These findings are important for policymakers and educators in Uganda and other developing countries, as they suggest that investing in data-driven approaches to school administration can lead to significant improvements in education outcomes.

A case study conducted by the World Bank (2016) examined the impact of a program in Uganda that provided schools with access to information on student performance and other indicators. The study found that schools that had access to this information were able to make more informed decisions about resource allocation and curriculum development, which led to improved academic performance.

Another study conducted by Okwakol, Opio, and Bukenya (2019) examined the impact of a teacher professional development program on student academic performance in Uganda. The study found that the program led to significant improvements in student performance, and that the use of data was an important factor in the success of the program. The use of students' academic performance data has been shown to have a positive effect on the management of secondary schools in Uganda. It can help administrators to identify areas of weakness, develop strategies for improvement, and make informed decisions about resource allocation and curriculum development. The Uganda EMIS, case studies, and research studies provide evidence of the effectiveness of this approach.

2.2.2 Teachers' performance data and management of secondary schools

The use of teacher performance data in the management of secondary schools in Uganda has been a topic of increasing interest in recent years. There are a number of studies

that have examined the impact of teacher performance data on school management, and this literature review will explore some of these studies. One study by Asaba and Kabali (2016) examined the effect of teacher performance data on the management of secondary schools in Uganda. The study found that the use of teacher performance data had a positive effect on school management, leading to increased accountability and improved teacher performance.

Another study by Balyejusa-Kyomuhendo (2012) also found that the use of teacher performance data had a positive effect on school management in Uganda. The study found that the use of performance data led to improved teaching practices and increased student achievement. A case study conducted by the World Bank (2019) examined the impact of the Uganda Teacher and School Effectiveness Project (UTSEP), which aimed to improve the quality of teaching and learning in primary and secondary schools in Uganda. The study found that the use of teacher performance data was a key component of the project and led to improved teacher performance and increased accountability. In addition to these studies, there are also a number of policies and initiatives in Uganda that emphasize the importance of using teacher performance data in school management. For example, the Uganda National Teacher Policy (2015) emphasizes the need for teacher appraisal and performance management, and the Uganda Education Sector Strategic Plan (2015-2020) includes a focus on teacher performance management. The literature suggests that the use of teacher performance data can have a positive effect on the management of secondary schools in Uganda. Studies have found that the use of performance data leads to increased accountability, improved teaching practices, and increased student achievement. Policies and initiatives in Uganda also emphasize the importance of using performance data in school management.

2.2.3 Facilities data and management of secondary schools

Facilities are important factors in the management of secondary schools in Uganda. The availability of adequate infrastructure and facilities can have a significant impact on the quality of education provided; the retention of students, and the recruitment and retention of qualified teachers. The Ministry of Education and Sports in Uganda has made significant efforts to improve the infrastructure and facilities in secondary schools. According to the Ministry, as of 2020, the government had constructed and renovated over 1,200 classroom blocks in secondary schools across the country, with plans to

construct more (Ministry of Education and Sports, 2021). Additionally, the government has provided grants to schools for the purchase of furniture, equipment, and other materials.

Statistics from the MoES indicate that progress has been made in improving infrastructure and facilities in secondary schools in Uganda. As of 2020, the MoES reported that 87% of secondary schools in Uganda had classrooms, 63% had laboratories, and 67% had libraries (MoES, 2020). However, despite these improvements, there is still a significant need for further investment in infrastructure and facilities in secondary schools in Uganda.

In addition to the provision of infrastructure and facilities, the management of these resources is also important. Schools must ensure that infrastructure and facilities are well-maintained and that they are used effectively to support teaching and learning. A study conducted by the World Bank in Uganda found that many schools faced challenges in managing their infrastructure and facilities effectively (World Bank, 2014). The study recommended the need for improved management systems to ensure that infrastructure and facilities were used effectively and efficiently.

Research has shown that the availability and quality of infrastructure and facilities have a significant impact on the management of secondary schools in Uganda. A study by Kanyesigye et al. (2019) found that the availability of infrastructure and facilities such as classrooms, laboratories, and libraries had a positive impact on student achievement. The study also found that the availability of these facilities influenced teacher morale and retention.

Another study by Ntayi and Ntayi (2018) found that the availability of infrastructure and facilities was a key determinant of teacher motivation and job satisfaction in secondary schools in Uganda. The study found that inadequate infrastructure and facilities, such as classrooms, toilets, and housing, contributed to teacher dissatisfaction and low morale. The availability and quality of infrastructure and facilities also have a significant impact on the management of resources in secondary schools. A study by Atwine et al. (2017) found that inadequate infrastructure and facilities led to inefficient use of resources and wastage. For example, schools with inadequate classroom space often had to conduct lessons in shifts, which resulted in reduced teaching time and increased workload for teachers. It should be noted that infrastructure and facilities are critical aspects of the management of secondary schools in Uganda. The availability and quality of these

facilities have a significant impact on the teaching and learning environment, teacher morale, and student performance. The government of Uganda has made significant efforts to improve the infrastructure and facilities in secondary schools, but more needs to be done to ensure that all schools have adequate facilities and resources to support effective teaching and learning.

A study by Mugula, Nabutola, and Wanakacha (2018) found that data on infrastructure and facilities are important for identifying areas where improvements are needed to support student academic performance. It is worth noting that the utilization of data in the management of secondary schools in Uganda, particularly in Mbale district, can be grounded in several theoretical frameworks, including the goal-setting theory, systems theory, and data-driven decision-making framework. These frameworks help to explain the importance of data utilization in improving the quality of education and inform effective practices in data collection and analysis.

According to a study conducted by the Uganda National Examinations Board (UNEb), inadequate infrastructure and facilities are among the leading factors contributing to poor performance in secondary schools in Uganda (UNEb, 2016). The study found that schools with inadequate infrastructure and facilities were more likely to perform poorly in national examinations than those with adequate infrastructure and facilities. Infrastructure and facilities are important factors in the management of secondary schools in Uganda. Adequate infrastructure and facilities can have a positive impact on the quality of education provided, the retention of students, and the recruitment and retention of qualified teachers. The MoES has recognized the importance of infrastructure and facilities and has made efforts to improve their provision in secondary schools. However, there is still a significant need for further investment in infrastructure and facilities, as well as improved management systems to ensure their effective use

CHAPTER THREE

METHODOLOGY

3.0. Introduction

This chapter presents appropriate methods that were used in data collection. It describes and discuss the research design, study population, sample size determination, sampling techniques, data collection methods, data collection instruments, validity and reliability, data interpretation & analysis, measurement of variables, ethical considerations and limitations.

3.1. Research Design

According to Akhtar, (2016) research design is defined as a framework of methods and techniques chosen by a researcher to combine various components of research in a reasonably logical manner so that the research problem is efficiently handled. A research design is the arrangement of conditions for collection and analysis of data in a way that combines relevance of research purpose with economy in procedure (Kothari, 1990). It provides insights about “how” to conduct research using a particular methodology. A descriptive survey research design was adopted and both quantitative and qualitative approaches were used as a way of triangulation that enhanced the quality of the findings. The design was used because it is a method of investigation in which self-report data collection from samples of pre-determined interests can be done (Creswell, 2008). Quantitative methods of data analysis can be of great value to the researcher who is attempting to draw meaningful results from a large body of respondents. It allows the researcher to summarize results in numerical terms to be given with a specified degree of confidence. The quantitative methods establish quantifiable data of the study.

3.2 Area of study

Mbale District is a district in Eastern Uganda. It is named after the largest city in the district, Mbale, which also serves as the main administrative and commercial center in the sub-region. Mbale District is bordered by Sironko District to the north, Bududa District to the northeast, Manafwa District to the southeast, Tororo District to the south, Butaleja District to the southwest and Budaka District to the west. Pallisa District and Kumi District lie to the northwest of Mbale District. The current population

(2024), according to the citizen report is estimated to be around 586,300. The main ethnic group in the district are the Bamasaba or Bagisu. The primary economic activity in the district is agriculture.

3.3 Source of information

The study used both primary and secondary data to obtain information of the study

In primary sources, the study used the questionnaire, interview guide to obtain in depth information pertaining the variables of the study.

In secondary sources, the study used documentary checklist to further obtain data on the variables under study.

3.4 Study Population and sampling techniques

A study population is the universe of interest (Kothari, 2005). It is the total number of subjects or the total environment of interest to the researcher. Similarly, Mugenda and Mugenda (2003) defined population as the entire group of individuals who have common observable characteristics. The study population was 247 respondents who included: District Education Officer, District Inspectors of Schools, Center Coordinating Tutors, Members of District Executive and, members of District education committee and Members of Board of Governors and head teachers.

3.4.1 Sample Size Determination

A total sample of 176 respondents was selected from study population of 247 to participate in the study using Krejcie and Morgan table (1970) of sample size determination.

Table 3.1 Showing the Sample Size determination

Category of Population	Study Population	Sample Size	Sampling Techniques
District Education Officer	01	01	Purposive sampling
District Inspectors of Schools	04	03	Purposive sampling
Center Coordinating Tutors	04	03	Purposive sampling
Members of District Executive	05	05	Purposive sampling
Members of District Education team	12	08	Simple random sampling
Members of BOG	17x12=204	144	Simple random sampling
Head teachers	17	12	Simple random sampling
Total	247	176	

Source: Mbale District Education Report (2023)

3.4.2 Sampling Techniques

According to Amin (2005), sampling is a process of selecting elements from the population in such a way that the sampled elements represent the population under study. The researcher therefore used simple random, and purposive sampling techniques. The details of how each technique was used are discussed below:-

3.4.2.1 . Purposive Sampling

This is a non-probability sampling method whereby a researcher selects a number of objects that have features of interest from the given population to form part of the sample (Haruna, 2010). This sampling procedure, according to (Amin, 2005) is a probability sampling method where a stratifying variable is used to minimize sampling error. It also takes into effect the heterogeneous nature of the population to be sampled. Purposive sampling was used to select District Education Officer, District Inspectors of Schools, Center Coordinating Tutors, and Members of District Executive since they are more knowledgeable and have in-depth information about the

phenomenon. Their information helped to enrich the study findings in form of triangulation as compared to quantitative data that emphasize numbers.

3.4.2.2 Simple Random Sampling

The researcher used simple random sampling technique (randomization) as it gives the same probability and equal chances to all members in the population. Therefore, the researcher made a random sampling in selecting the employees to get the required sample because of their understanding of the phenomena. This is a probability technique of sampling whereby every element of the population has an equal chance and independent chance of being selected for the sample (Amin, 2005). The respondents were selected using this technique to collect the data. Simple random sampling gave a potential participant an equal opportunity to take part in the research study. He wrote their names on the list of small papers (each name on its own paper), folded them and poured them in a box. The researcher shook the box vigorously before picking out a paper at random after which the researcher noted down the name on that paper on a separate sheet of paper and notebook. The researcher then folded the paper and put it back into the box to maintain the probability and ensured the equal chance aspect. The same criterion was repeated from the part of picking out a paper until the required sample was obtained. Thus the researcher therefore used the people whose names appear on the separate sheet of paper as the sample respondents during the study. This sampling technique was used to select Members of District Education team, Members of Board of Governors and Head teachers.

3.5 Variable definitions and measurements

Student performance data: means data relating to student performance, including data on state, local and national assessments, course-taking and completion, grade-point average, remediation, retention, degree, diploma, or credential attainment, enrollment, and demographic data. The study used a likert scale with 1 = Strongly disagree, 2 -disagree, 3-undecided, 4-agree, 5- strongly agree while measuring the items of this variable

Teacher performance data: Teacher Performance is the assessment of a teacher's performance rating. The study used a likert scale with 1 = Strongly disagree, 2 -

disagree, 3-undecided, 4-agree, 5- strongly agree while measuring the items relating to teachers performance data across secondary schools in Mbale district.

Facilities data: Facility means a building, structure, or network of buildings, pipes, controls, and equipment that provide transportation, utilities, public education, or public safety services. This includes water treatment plants, public roads, public transportation systems, and related equipment and facilities. A likert scale was used to measure this variable in relation to facilities in secondary schools across Mbale district.

Management of secondary schools: the study used three dimensions to measure the variable that is to say planning, staffing and controlling. A likert scale was used to rate the items within the variable and the best component with the highest mean was used to measure this outcome variable.

3.6 Procedures of Data Collection

The researcher in this study obtained an introduction letter from the Uganda Christian University to facilitate the process of obtaining permission from Mbale District authorities to collect data. The data collection process included various methods such as face-to-face interviews with key informants, administration of questionnaires, and review of relevant documents. The researcher, along with three research assistants, personally administered the questionnaires to respondents. Prior to completing the questionnaires, respondents were provided with general instructions and all items on the questionnaires were checked for accuracy. The researcher used an interview guide to conduct face-to-face interviews with the intended participants. The interview process involved building rapport with the interviewee and discussing how best to conduct the interview. The researcher took accurate and adequate notes to record the proceedings of the interview. All data collected were processed, analyzed, and reported in written form, ensuring that the privacy and anonymity of participants are maintained.

3.7 Data Collection Methods

In this section, the study used the data collection methods of key informant interview, questionnaires survey and document analysis.

3.7.1. Interview Method

The qualitative data collection method chosen by the researcher is the interview method. According to Kothari (2005), this method involves the use of oral-verbal stimuli

and replies in the form of oral-verbal responses. The interview required the researcher to present oral-verbal questions to the respondents, who will provide responses through face-to-face verbal exchanges. The questions asked will be specific and aimed at meeting the research objectives. The researcher ensured that respondents restrict their answers to these questions. The interview method has the advantage of allowing on-spot explanations, adjustments, and variations during the data collection process. Through the use of facial and body expressions, tone of voice, gestures, feelings, and attitudes, the interviewer can capture verbal and nonverbal information (Amin, 2005, p. 178). The study has adopted this method because it allows for the probing of in-depth information where questions are not fully understood. It also captures emotions and behaviors that may not be easily captured verbally. Additionally, the interviewer has control over the interview and can keep the interviewee focused and on track to completion, ensuring that the data collected is of high quality.

3.7.2. Questionnaire Survey

According to Babbie & Mouton (2001) a questionnaire is a set of written questions or statements to which the research subjects are to respond in order to provide data which are relevant to a research topic. The questionnaire was administered from office to office since all respondents were confined in one location. This was the best method of collecting data from Members of District Education team, Members of Board of Governors and Head teachers since they can read and understand and conceptualize ideas. The questionnaires were structured with close ended questions formulated from the objectives. The study used questionnaires because of the nature of the data which sought for feelings and perceptions of respondents given the time available and the objective of the study. Questionnaires were used to avoid subjectivity that results from close contact between researcher and the respondents. The questionnaire was preferred because it was used to collect a lot of information over a short time and is less expensive.

3.7.3. Document Analysis

Some data was collected through analyzing data from schools by analyzing documents like registers, planning meetings, memos and communications concerning staffing and those of administrative nature.

3.8. Data Collection Instruments

The study used appropriate instrument for each method. In Key Informant Interview, the researcher used interview guide, in questionnaire survey, the researcher used questionnaire and checklist was used for the document analysis method.

3.8.1. Interview Guide

The researcher used an interview guide to collect data from key respondents and a set of structured questions were developed which were responded to in the interview sessions and answers were recorded by the researcher. An interview guide is an oral questionnaire where the researcher gathers data through direct verbal interactions with the respondent (Amin, 2005). The oral questions were open ended or closed ended. The interviews were both structured and semi- structured. This tool was preferred because it helps to collect in-depth data from key respondents. It also gives room for probing and making clarifications.

3.8.2. Questionnaire

The researcher chose to use close-ended questionnaires as the main research instrument for the study. This decision was made because self-administered questionnaires produce fewer errors, ensure confidentiality, and give respondents the chance to answer in their own time. In addition, the Likert scale with a range of 1-5 from strongly disagrees to strongly agree was used for respondents to indicate their level of agreement with the items. The questionnaire was designed carefully to collect data in accordance with the research questions and constructs, and as expected, this instrument gathered large amounts of information quickly and conveniently. In presenting the findings, the responses for strongly agree and agree were combined as they are positive, while those for strongly disagree and disagree were combined as they are negative. This simplified the presentation of results and made it easier to interpret the data collected. The use of questionnaires is a convenient and efficient way to gather large amounts of data, and by carefully designing the questionnaire, the researcher ensured that the data collected is relevant and accurate. The “not sure” was left as it is. The interpretation of the scale was used is as below.

Response	Scale
Strongly agree(very high)	4.1 to 5.0 very high
Agree(high)	3.1 to 4.0 high
Not sure (moderate)	2.1 to 3.0 moderate
Disagree(low)	1.1 to 2.0 low
Strongly disagree(very low)	0-1.0 very low

In mean values, “very high” means that the disparity in answers is minimal while “very low” meant that many respondents have varying answers.

3.8.3 Documentary checklist

This tool was used to obtain further information on the staffing data of various schools across mbale district. Documents pertaining performance across different years were reviewed for different schools by the researcher. Furthermore documents relating to asset register were sought.

3.9. Validity and Reliability

Validity and reliability was obtained by assessing the questionnaire items during their construction.

3.9.1. Validity

Validity is a critical aspect of research that ensures that the data collected measures what it was intended to measure. In this study, the researcher ensured the validity of data by using appropriate instruments for each data collection method and subjecting all data to scrutiny and interpretation without bias. Consultation with supervisors and experts were consulted to ensure that appropriate questions and questionnaires are used. Additionally, all questionnaires were subjected to factor analysis and rating, and the context validity index was computed. To establish validity, the instruments were given to two experts to evaluate the relevance of the forty items in the instrument to the objectives. They rated each item on the scale of very relevant (4), relevant (3), somewhat relevant (2) and not relevant (1). A total of 28 items were rated as relevant by both experts while 12 items had only one expert agree. A content validity index was

calculated for each item and then an overall CVI of 0.85 was obtained. The context validity index should be 0.7 and above; any score below this indicates incorrectness of the data. By ensuring validity of the data collected, the research findings were reliable and credible.

3.9.2. Reliability

In this study, reliability refers to the consistency of the measuring instruments used to collect data. The researcher ensured that the instruments produce consistent results when the same group of individuals is measured under the same conditions (Amin, 2005). To determine the reliability of the data, the researcher repeated the data collection procedures using appropriate instruments. A pre-test was conducted, where the instrument was administered to 30 respondents from Mbale city secondary schools outside the study population. Cronbach's alpha coefficient of 0.769 was obtained and used to verify the reliability of the data. Cronbach's Alpha coefficient was computed to determine the correlation between the items in the questionnaire. The coefficient ranges from 0 to 1, and a high coefficient indicates high reliability of the data. In this case a coefficient of 0.7 and above was accepted as indicative of a high reliability. By computing Cronbach's Alpha coefficient, the researcher was able to ensure that the items in the questionnaire are measuring the same construct consistently. This improved the reliability of the data collected and increased the accuracy of the results obtained.

3.10. Data processing and analysis

The researcher used both qualitative and quantitative techniques for data analysis. Quantitative analysis was used in interpreting numerical data while qualitative analysis was used in interpreting non- numerical data.

3.10.1. Quantitative Data Analysis

The quantitative technique in this study involved administering questionnaires that were coded, sorted, categorized, and entered into the computer using statistical package for social sciences (SPSS) version 26. Data analysis was conducted using frequencies, percentages, means, and standard deviation. Regression analysis was utilized to measure the effect of data utilization on management of secondary schools in Mbale district. Regression analysis is a statistical technique that is used to establish the relationship between two or more variables. In this case, the researcher used regression analysis to establish the relationship between data utilization and the management of secondary

schools in Mbale district. A Pearson correlation was used to test the relationship between the independent variables and the dependent variable that is student performance data and planning, teacher performance data and staffing, infrastructure/facilities data and controlling.

3.10.2. Qualitative Data Analysis

In this study, the researcher employed the content analysis technique (Amin, 2005) to analyze the qualitative data. This technique involved conducting face-to-face interviews with key informants, recording all conversations in a book, and reviewing the interview content. Only relevant extracts related to the study were presented in a narrative form, placed in quotes, and used to complement the quantitative data obtained from the questionnaires. The interviews were organized according to objectives and content scope, and they were interpreted and explained.

3.11. Ethical Considerations

According to Mugenda and Mugenda (2003), ethics refers to a system of moral principles that guides an individual's behavior and actions. In this study, the researcher took the necessary measures to ensure ethical conduct. These measures included obtaining a letter of introduction from the university to seek permission from Mbale District authorities to collect data. The researcher ensured that the work is original, and plagiarism and fraud are avoided. Additionally, the researcher gave due credit to the contributions of others that have been reviewed in relation to the study. It is essential to note that fraud entails falsifying data, and the researcher avoided such actions. To safeguard the privacy and anonymity of the participants, the researcher maintained confidentiality and protected the privacy of individuals involved in the study to prevent potential misquoting by others. The data obtained was used solely for study purposes and was stored securely; limiting access by un authorized persons. The researcher ensured informed consent of the participants by first explaining to the participants the purpose, procedure, duration and potential discomforts of the interview. This allowed the participants freedom of choice to participate, in the interview and also to withdraw from the study any time they would wish.

3.12 Methodological constraints.

This study's findings should be considered in light of the following general methodological constraints. The research was limited by time and resource constraints,

which impacted data collection and analysis depth. A Work plan was drafted to overcome this predicament while in due course of the study.

Access and participation particularly in rural areas may have introduced bias. Ethical considerations, such as ensuring informed consent and confidentiality required careful navigation. Additionally, research bias and assumptions may have influenced data interpretation. Testing of normality of data was sought before analysis was taken and this eliminated biasness in data analysis.

Finally limitations in the literature review and theoretical framework may have restricted the study's conceptual scope. These constraints underscore the need for cautious interpretation and consideration of potential avenues for future research. But in depth review of literature pertaining variables of study was sought across a panel data set and this eliminated limitations related with the conceptual scope.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter presents the findings of the study in terms of the demographic characteristics of respondents, as well as the effects of students' academic performance data, teachers' performance data and infrastructure and facilities data on planning, staffing and controlling of secondary schools in Mbale district. Uganda.

4.1. Biographical data

Table 4.1 Gender of respondents

Gender	Frequency	Percentage
Male	101	64.3%
Female	56	35.7%
Total	157	100%

Source: Field data

The table 4.1 above shows that a total of 157 respondents participated in the study of which 101 were males representing 63.4% while 56 respondents were females representing 35.7%

Table 4.2. Ages of respondents

Age bracket	Frequency	Percentage
20-30 years	43	27.4
31-40 years	49	31.2
41-50 years	44	28.0
51years and above	21	13.4
Total	157	100.0

Source: Field data

The table above shows the age distribution of the respondents , whereby 43 respondents representing 27.4% were aged between 20-30 years, 49 respondents representing 31.2% were aged between 31-40 years, 44 respondents representing 28% were aged 41-50 years while those aged above 50 years were 21 representing 13.4%

Table 4.3. Educational level of respondents

Education level	Frequency	Percentage
Certificate	1	.6
Diploma	33	21.0
Degree	105	66.9
Postgraduate	18	11.5
Total	157	100.0

Source: Field data(2024)

The table above shows educational level of respondents as follows; 1 respondent representing 0.6% holds a certificate, 33 respondents representing 21.0% hold diplomas, 105 respondents representing 66.9% hold degrees , while 18 respondents representing 11.5% hold postgraduate qualifications.

Table 4.4. Length of service of respondents

Length of service	Frequency	Percentage
below one year	8	5.1
1-10 years	67	42.7
11-20 years	52	33.1
21 years and above	30	19.1
Total	157	100.0

Source: Field data

The above table 4.4 shows length of service of respondents as follows; 8 respondents representing 5.1% had served for a period less than one year, 67 respondents representing 42.7% had served for between 1-10 years, 52 respondents representing

33.1% had served for between 11-20 years, while 30 respondents representing 19.1% had served for over 21 years

4.2 Management of schools (Planning)

The study ascertained management of schools in line with planning. The findings from the study are presented in the table below;

Table 4.5 The descriptive statistics on management of schools (planning) among schools in Mbale district

Sn	Item	SD	DA	UD	A	SA	mean	STde
1	In my school data is utilized to avoid confusion	11(7.%)	9(5.7%)	13(8.3%)	83(52.9%)	41(19.1%)	3.85	1.09
2	In my school data is utilized to avoid uncertainties	8(5.1%)	11(7.0%)	21(13.4%)	91(58.0%)	26(16.6%)	3.73	.988
3	In my school data is utilized to avoid risk	5(3.2%)	11(7.0%)	26(16.6%)	75(47.8%)	40(25.4%)	4.03	2.59
4	In my school data is utilized to avoid wastages	1(.6%)	10(6.4%)	25(15.9%)	82(52.2%)	39(24.8%)	3.94	.849
5	In my school data is utilized to help in-human resources	6(3.8%)	7(4.5%)	18(11.5%)	74(47.1%)	52(33.1%)	4.01	.987
6	In my school data is utilized to get non-human resources	9(5.7%)	16(10.2%)	41(41%)	62(39.5%)	29(18.5%)	3.54	1.08
7	In my school data is utilized to do proper planning	2(1.3%)	10(6.4%)	6(3.8%)	66(42.0%)	73(46.5%)	4.26	.899
8	In my school data is utilized for proper utilization of human resources	3(1.9%)	5(3.2%)	14(8.9%)	79(50.3%)	56(35.7%)	4.14	.853
9	In my school data is utilized for future targets	6(3.8%)	7(4.5%)	22(14.0%)	69(43.9%)	53(33.8%)	3.99	1.00
	Mean						3.948333	

Source: Field data (2024)

SA=Strongly agree A=agree UD=undecided D=disagree SD= Strongly disagree
STde = standard deviation

The study findings reveal that (124) 72% of the respondents strongly agreed that in their school data is utilized to avoid confusion, (20) 12.7% of the respondents disagreed with the statement, the findings from the study imply that the school data is utilized to avoid confusion in schools in Mbale district.

Furthermore the study revealed that (117) 74.6% of the respondents strongly agreed that in their school, data is utilized to avoid uncertainties, (19) 12.1% of the respondents disagreed with the statement, the findings from the study suggest that there is usage of school data to avoid uncertainties

Additionally, the study revealed that (115) 73.2% of the respondents strongly agreed that in their school data is utilized to avoid risk, (16)10.2% of the respondents disagreed with the statement, and the findings from the study indicate that there is usage of school data in avoiding risk.

Further still (121) 77% of the respondents agreed that in their school data is utilized to avoid wastages,(11) 7% of the respondents disagreed with the statement, this implies that there is usage of school data to avoid wastages.

Moreover (126) 80.2% of the respondents strongly agreed that in their school data is utilized to help in-human resources,(13) 15.9% of the respondents disagreed with the statement, the findings from the study indicate that the school data is utilized to help in human resources in schools in Mbale district

In tandem with the above, (71) 58%of the respondents strongly agreed that in their school data is utilized to get non-human resources, (21) 15.9% of the respondents disagreed with the statement, the findings from the study indicate that the school data is utilized in getting non-human resources among schools in Mbale district

Equally important, (139) 88.5% of the respondents agreed that in their school data is utilized to do proper planning, (12) 7.7% the respondents disagreed with the statement,

the findings from the study imply that school data is utilized to enhance proper planning among schools in Mbale district.

Correspondingly, (135) 86% of the respondent agreed that in their school data is utilized for proper utilization of human resources, (8) 4.5% of the respondents disagreed with the statement,, the findings from the study indicate that school data is utilized to enhance proper utilization of human resources among schools in Mbale district.

Notwithstanding, (122) 77.7% of the respondents agreed that in their school data is utilized for future targets, (13) 8.3% of the respondents disagreed with the statement. The findings from the study infer that school data is utilized for future targets among schools in Mbale district.

4.3 Management of schools (staffing)

The study ascertained management of schools in line with staffing. The findings are presented in the table below;

Table 4.6 The descriptive statistics on the management of schools in line with staffing in Mbale district

Sn	Item	SD (%)	DA (%)	UD (%)	A (%)	SA (mean	STde
1	In my school data is utilized for selection of staff	4 (2.5%)	15 (9.6%)	20 (12.7%)	80 (51.0%)	38 (24.2%)	3.84 71	.981 66
2	In my school data is utilizes for placement of staff in their proper positions	6(3.8%)	17(10.8%)	20(12.7%)	80(51.0%)	34(21.7%)	3.75 80	1.03 404
3	In my school data is utilized for promotion	7(4.5%)	19(12.1%)	27(17.2%)	78(49.7%)	26(16.6%)	3.61 78	1.04 105
4	In my school data is utilized for appraisal	6(3.8%)	14(8.9%)	22(14.0%)	81(51.6%)	34(21.7%)	3.78 34	1.00 842
5	In my school data is utilized for training	7(4.5%)	11(7.0%)	22(14.0%)	82(52.2%)	35(22.3%)	3.80 89	1.00 724
6	In my school data is utilized for staff development	5(3.2%)	14(8.9%)	26(16.6%)	79(50.3%)	33(21.0%)	3.94 90	2.53 133
7	In my school data is utilized for staff transfer	6(3.8%)	26(16.6%)	26(16.6%)	69(43.9%)	30(19.1%)	3.57 96	1.09 268
8	In my school data is utilized for remuneration	6(3.8%)	24(15.3%)	25(15.9%)	75(47.8%)	27(17.2%)	3.59 24	1.06 190
9	In my school data is utilized for staff recruitment	5(3.2%)	10(6.4%)	28(17.8%)	75(47.8%)	39(24.8%)	3.84 71	.975 11
	Mean						3.7537	

Source: Field data (2024)

SA= strongly agree A= agree UD= Undecided D=disagree SD= strongly disagree, STde = standard deviation

The findings from the study indicate that (118) 75.2% of the respondents agreed that in their school data is utilized for selection of staff, (19) 12.1% of the respondents disagreed with the statement. This implies that school data is utilized in selection of staff members among schools in Mbale district.

Concurrently, (114) 72% of the respondents agreed that in their school, data is utilized for placement of staff in their proper positions, (23) 14.6% of the respondents disagreed

with the statement, the findings from the study connote that school data is utilized for placement of staff members across schools in Mbale district.

In addition (104) 66.3% of the respondents agreed that school data is utilized for promotion, (26) 16.6% of the respondents disagreed with the statement; the findings from the study imply that the school data is utilized to enhance promotion within the human resource department in schools across Mbale district.

Furthermore (115) 73.3% of the respondents agreed that in their school data is utilized for appraisal, (20) 12.7% of the respondents disagreed with the statement, the findings from the study imply that school data is utilized for appraisal with the human resource among schools in Mbale district.

Additionally, (117)74.5% of the respondents agreed that in their school data is utilized for training, (18) 11.5% of the respondents disagreed with the statement, the findings from the study indicate that school data is utilized to enhance training in schools in Mbale district

Equally important,(112) 71.3% of the respondents agreed that in their school data is utilized for staff development, (19) 12.1% of the respondents disagreed with the statement; the findings from the study indicate that school data is utilized to enhance staff development among schools in Mbale district.

Furthermore (99) 63% of the respondents agreed that in their school data is utilized for staff transfer, (32) 20.4% of the respondents disagreed with the statement, the findings from the study suggest that school is data is utilized for staff transfer among schools in Mbale district.

In addition (102) 65% of the respondents agreed that in their school, data is utilized for remuneration, (30) 19.1% of the respondents disagreed with the statement; the findings from the study imply that schools in Mbale district utilize data for remuneration.

Further still, (114) 72.6% of the respondents agreed that in their school, data is utilized for staff recruitment, (15) 9.6% of the respondents disagreed with the statement, the findings from the study insinuate that data is utilized for recruitment among schools in Mbale district

4.4 Management of schools (controlling)

The study ascertained the management of schools (controlling) in Mbale district. The findings are presented in the table below;

Table 4.7 Descriptive statistics on management of schools in Mbale district

Sn	Item	SD	DA	UD	A	SA	Mean	STde
1	In my school data is utilized to establish standards	3(1.9%)	10(6.4%)	25(15.9%)	66(42.0%)	52(33.1%)	3.98 72	.963 78
2	In my school data is utilized for corrective action	1(.6%)	13(8.3%)	28(17.8%)	86(54.8%)	29(18.5%)	3.82 17	.851 12
3	In my school data is utilized to measure actual performance	4(2.5%)	12(7.6%)	28(17.8%)	78(49.7%)	35(22.3%)	3.81 53	.952 87
4	In my school data is utilized for finding out of deviations if any	3(1.9%)	15(9.6%)	30(19.1%)	78(49.7%)	31(19.7%)	3.75 80	.943 27
5	In my school data is utilized for checking whether or not proper progress is being made towards the set objectives	2(1.3%)	11(12.7%)	20(12.7%)	78(49.7%)	46(29.3%)	3.98 73	.905 73
6	In my school data is utilized to predict deviations before they occur	4(2.5%)	23(14.6%)	31(19.7%)	71(45.2%)	28(17.8%)	3.61 15	1.02 313
	Mean						3.830167	

Source: Field data (2024)

SA=Strongly agree A=agree UD=undecided D=disagree SD= Strongly disagree

STde = standard deviation

The findings from the study reveal that (118) 75.1% of the respondents agreed that the school data is utilized to establish standards, (13) 8.3% of the respondents disagreed with the statement; the findings from the study imply that school data is utilized to establish standards among schools in Mbale district.

Furthermore (115) 73.3% of the respondents agreed that in their school data is utilized for corrective action, 8.9% (14) of the respondents disagreed with the statement, the findings from the study indicate that the school data is utilized for corrective action among schools in Mbale district.

In addition (113) 72% of the respondents agreed that In my school data is utilized to measure actual performance, (19) 10.1% of the respondents disagreed with the statement, the findings from the study imply that data is utilized to measure actual performance among schools in Mbale district.

Concurrently, (109) 69.4% of the respondents agreed that in their school data is utilized for finding out if there are any deviations, (18) 11.5% of the respondents disagreed with the statement, the findings from the study indicate that school data is utilized to ascertain deviations among schools management in Mbale district.

Supplementing the above, (124) 79% of the respondents agreed that in their school data is utilized for checking whether or not proper progress is being made towards the set objectives, 14% (13) of the respondents disagreed with the statement, the findings from the study indicate that school data is utilized for checking whether or not proper progress is being made towards the set objectives among schools in Mbale district

Further still, (99) 63% of the respondents agreed that in their school, data is utilized to predict deviations before they occur, (27) 17.1% of the respondents disagreed with the statement, the findings from the study imply that school data is utilized to predict deviations from school plans before they occur among schools in Mbale district.

4.6 Students' Performance data

The study ascertained the descriptive statistics on student performance data. The findings are presented in the table below;

Table 4.8 Descriptive statistics on the student performance data in Mbale district.

Sn	Item	SD	D	UD	A	SA	mean	STde
1	In my school data is utilized to guide students	4 (2.5%)	13 (8.3%)	15 (9.6%)	73 (46.5%)	46 (33.1%)	3.99 36	.996 77
2	In my school data is utilized to promote students to the next class	3 (1.9%)	9 (5.7%)	9 (5.7%)	68 (43.3%)	68 (43.3%)	4.20 38	.925 00
3	In my school data is utilized for counseling purposes	3(1.9%)	10(6.4%)	28(17.8%)	80(51.0%)	36(22.9%)	3.86 62	.906 50
4	In my school data is utilized for comparison of actual performance with the standards set	2(1.3%)	14(8.9%)	21(13.4%)	76(48.4%)	44(28.0%)	3.92 99	.941 32
5	In my school data is utilized to account for students' performance	2(1.3%)	5(3.2%)	11(7.0%)	86(54.85)	53(33.8%)	4.16 56	.791 36
6	In my school data is utilized for students' placement	4(2.5%)	8(5.1%)	16(10.25)	83(52.9%)	46(29.3%)	4.01 27	.912 78
	Mean						4.028633333	

Source: Field data (2024)

SA =strongly agree A=agree UD=undecided D= Disagree SD= Strongly disagree

STde= Standard deviation

The findings from the study indicate that (119) 79.6% of the respondents agreed that their school data is utilized to guide students, (17) 10.8% of the respondents disagreed with the statement, the findings from the study imply that school data is utilized to guide students among schools in Mbale district.

The findings from the study also show that (136) 86.6% of the respondents agreed that their school data is utilized to promote students to the next class, (12) 7.6% of the respondents disagreed with the statement, the findings from the study suggest that school data is utilized in ascertain promotion of students to the next class among schools in Mbale district.

Furthermore the study revealed that (116) 73.9% of the respondents agreed that in their school data is utilized for counseling purposes, (13) 8.3% of the respondents disagreed with the statement, the findings from the study deduce that data is utilized for counseling purposes among schools in Mbale district.

In addition, (120) 76.4% of the respondents agreed that in their school data is utilized for comparison of actual performance with the standards set, (16) 10.2% of the respondents disagreed with the statement, the findings from the study indicate that data is utilized for comparison of actual performance with the standards set among schools in Mbale district.

In furtherance (139) 88.6% of the respondents agreed that in their school data is utilized to account for students' performance, (8) 4.5% of the respondents disagreed with the statement; the findings from the study imply that their school data is utilized to account for student performance among schools in Mbale district.

Equally important, (129) 82.2% of the respondents agreed that in their school, data is utilized for students' placement, (20) 7.6% of the respondents disagreed with the statement; the findings from the study imply that schools use data for students' placement in Mbale district

Students' performance trends

One of the respondents said that:

“We use the data to monitor the academic progress of students, so as to help them individually”

Another respondent said that;

Tests help us to identify areas of weakness and strength in addition to curriculum adjustment.

Furthermore a respondent said that;

“Performance trends are captured to inform curriculum development, manage student-teacher ratios and to identify areas of strength and weaknesses”.

In addition a respondent said that:

“Data collected concerns students such as class/lesson attendance, assessment records, in addition to disciplinary data”.

4.7 Teachers performance data

The study ascertained teachers’ performance data among schools in Mbale district. The findings are presented in the table below;

Table 4.9 The descriptive statistics on the teachers performance data among schools in Mbale district

Sn	Item	SD	D	UD	A	SA	Mean	STde
1	In my school data is utilized to assess teachers' performance	6(3.8%)	6(3.8%)	12(7.6%)	71(45.2%)	1(.6%)	4.36	3.17
2	In my school data is utilized to appraise teachers' performance	5(3.2%)	10(6.4%)	11(7.0%)	85(54.1%)	46(29.3%)	3.78	1.00
3	In my school data is utilized to enhance teachers' performance	5(3.2%)	9(5.7%)	17(10.8%)	93(59.2%)	33(21.0%)	3.89	.909
4	In my school data is utilized to raise teachers' motivation	6(3.8%)	18(11.5%)	32(20.4%)	70(44.6%)	31(19.7%)	3.64	1.04
5	In my school data is utilized to maintain teachers' performance	4(2.5%)	16(10.2%)	20(12.7%)	80(51.0%)	37(23.6%)	3.82	.988
	Mean						3.90318	

Source: Field data (2024)

SA =strongly agree A=agree UD= undecided D=disagree SD= strongly disagree STde= standard deviation

The findings from the study revealed that (72) 45.8% of the respondents agreed that the school data is utilized to assess teachers' performance, (12) 7.6% of the respondents disagreed with the statement, the findings from the study imply that the data on schools is utilized to assess teachers performance across schools in Mbale district.

Furthermore (131) 83.4% of the respondents agreed that the school data is utilized to appraise teachers' performance, (15) 9.6% of the respondents disagreed with the statement, the findings from the study imply that school data is utilized to appraise teachers performance among schools in Mbale district.

In addition (126) 80.2% of the respondents agreed that in their school data is utilized to enhance teachers' performance, (15) 8.99% of the respondents disagreed with the statement, the findings from the study indicate that school data is utilized to enhance teachers performance among schools in Mbale district.

Furthermore the study revealed that (101) 64.3% of the respondents agreed that in their school, data is utilized to raise teachers' motivation, (24) 15.3% of the respondents disagreed with the statement, the findings from the study indicate that data is utilized to raise teachers motivation among schools in Mbale district.

Furthermore (117)74.6% of the respondents agreed that their school data is utilized to maintain teachers' performance, (20) 12.7% of the respondents disagreed with the statement, the findings from the study imply that school data is utilized to maintain teachers performance among schools in Mbale district.

Qualitatively

Recruitment

One of the respondents said that:

“Data on teachers’ performance in form of teachers’ attendance, lesson performance, qualification and certification which we use to make decisions while hiring teachers, identifying staffing gaps”

Another respondent said that:

“Data about teachers such as school/lesson attendance, lesson observation, record of work covered, schemes of work and lesson plans. Some of these data are collected as a requirement by MOES, for planning purposes and future reference”

Capacity building

One of the respondents said that:

“These data are used to recognize outstanding performance, adjust learning strategies as well as ensuring professional development of teachers”

Another respondent said that:

“Performance trends are captured to inform curriculum development, manage student-teacher ratios and to identify areas of strength and weaknesses”.

4.8 Infrastructure and facilities data

The study ascertained the infrastructure and facilities data among schools in Mbale district. The findings from the study are presented in the table below;

Table 4.10 The descriptive statistics on the infrastructure and facilities data among schools in Mbale district

Sn	Item	SD	D	UD	A	SA	mean	STde
1	In my school data is utilized to improve on infrastructure	10(6.4%)	11(7.0%)	33(21.0%)	74(47.15%)	29(18.5%)	3.64	1.06
2	In my school data is utilized to improve on facilities	4(2.5%)	14(8.9%)	34(21.7%)	76(48.4%)	29(18.5%)	3.71	.954
3	In my school data is utilized to purchase furniture	4(2.5%)	17(10.8%)	22(14.0%)	76(48.4%)	38(24.2%)	3.80	1.00
4	In my school data is utilized to renovate infrastructure	5(3.2%)	18(11.5%)	25(15.9%)	90(57.8%)	19(12.1%)	3.63	.948
5	In my school data is utilized to build classes	8(5.1%)	15(9.6%)	30(19.1%)	73(46.5%)	31(19.7%)	3.66	1.05
	Mean						3.69298	

Source: Field data

SA = Strongly agree A=agree UD = Undecided D=disagree SD= Strongly disagree STde= standard deviation

The study revealed that (103) 68.15% of the respondents agreed that their school data is utilized to improve on infrastructure, (21) 13.4% of the respondents disagreed with the statement; the findings from the study imply that schools data is utilized to enhance or improve on infrastructure among schools in Mbale district.

Furthermore (105) 66.9% of the respondents agreed that their school data was utilized to improve on facilities, (18) 11.4% of the respondents disagreed with the statement, the findings from the study imply that the school data was utilized to improve on facilities among schools in Mbale district.

In addition the study revealed (124) 72.6% of the respondents agreed that the school data is utilized to purchase furniture, (21) 13.3% of the respondents disagreed with the statement, the findings from the study implied that the schools data was used to purchase furniture among schools in Mbale district.

In addition (109) 69.4% of the respondents agreed that the school data is utilized to renovate, (23) 4.7% of the respondents disagreed with the statement, and the findings from the study implied that school data was utilized to enhance on renovation of buildings among schools in Mbale district.

Furthermore (104) 66.2% of the respondents agreed that the school data is utilized to build classes,(23) 14.7% of the respondents disagreed with the statement, the findings from the study implies that the schools data was utilized to build classes among schools within Mbale district.

Qualitatively

Adequate resources;

One of the respondents said that:

“We collect data on infrastructure and facilities through asset register, inventories and inspection reports, these data help us to ensure we have adequate resources for the school programs”.

Prioritize key areas

Another respondent said that:

“The school also collects data on the infrastructure and facilities of the school such as classroom, laboratories, play grounds etc. these data are used to optimize spaces for school activities , prioritize renovation and construction of projects in the school”

Furthermore one said that *“Facility data are also collected to enable the district administration undertake renovation and construction projects in school, budgetary allocation and maintenance”*

4.9 Correlation analysis

The study used Pearson correlation analysis to ascertain relationship between student performance data and planning, teachers’ performance data and staffing among schools in Mbale district, infrastructure and facilities data and controlling among schools in Mbale district.

4.9.1 Student performance data and planning among schools in Mbale district

The study ascertained student performance data and planning among schools in Mbale district. The findings from the study are presented in the table below;

Table 4.11 correlation between student performance data and planning among schools in Mbale district.

		Student performance data	Planning
Student performance data	Pearson Correlation	1	.787*
	Sig. (2-tailed)		.001
	N	157	157
Planning	Pearson Correlation	.787*	1
	Sig. (2-tailed)	.001	
	N	157	157

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

The study revealed that there is a strong positive correlation between student performance data and planning among schools in Mbale district. The Pearson correlation coefficient (0.787) is significant at 5% significance level since the P-value ($0.01 < 0.05$). This gives us evidence that there is significant relationship between student performance data and planning among schools in Mbale district.

4.9.2 Teachers performance data and staffing among schools in Mbale district

The study ascertained the teachers' performance data and staffing among schools in Mbale district. The findings from the study are presented in the table;

Table 4.12 Correlation between teacher's performance data and staffing among schools in Mbale district

		teacher's performance data Staffing.	
teacher's performance data	Pearson Correlation	1	.727*
	Sig. (2-tailed)		.021
	N	157	157
Staffing	Pearson Correlation	.727*	1
	Sig. (2-tailed)	.021	
	N	157	157

*. Correlation is significant at the 0.05 level (1tailed).

The findings reveal that there is a strong positive correlation between teacher performance data and staffing among schools in Mbale district. The Pearson correlation coefficient (0.727) is significant at 5% significance level since P-value ($0.021 < 0.05$). This gives us evidence that there is significant relationship between teachers' performance data and staffing among schools in Mbale district

4.9.3 Infrastructure and facilities data and controlling as a management component among schools in Mbale district

The study ascertained the relationship between infrastructure/facilities data and controlling as a management component among schools in Mbale district. The findings are presented in the table below

Table 4.13 Pearson correlation relationship between infrastructure/facilities data and controlling as a management component among schools in Mbale district.

		Infrastructure and facilities data	Management (Controlling).
Infrastructure and facilities data	Pearson Correlation	1	.678*
	Sig. (2-tailed)		.003
	N	157	157
Management (Controlling)	Pearson Correlation	.678*	1
	Sig. (2-tailed)	.003	
	N	157	157

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

The study reveals that there is a strong correlation between infrastructure/facilities and Management (controlling) as shown by the coefficient of 0.678. The coefficient is significant at 5% significance level since the P-value ($0.003 < 0.05$). The findings from the study imply that there is significant relationship between infrastructure/facilities and management (controlling) among schools in Mbale district.

4.10 Regression analysis

The study carried out a multiple linear regression between students' performance data, teachers' performance data, infrastructure/facilities data and management of schools in Mbale district. The findings are presented in the table below;

Table 4.14 The multiple linear regression between students performance data, teachers performance data, infrastructure/facilities data and management of schools in Mbale district

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.424 ^a	.402	.395	.93741

a. Predictors: (Constant), student performance data, teachers performance data, infrastructure facilities data

The study revealed that 39.5% changes in management in schools in Mbale district is explained by students' performance data, teachers' performance data, infrastructure/facilities data among schools in Mbale district. The 60.5% is explained by other factors. The model is significant at 5% significance level since the p-value is (0.001<0.05). This implies that students performance data, teachers performance data, infrastructure data affect management of schools in Mbale district.

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	3.026	.198	2.81	15.263	<.001
	Student's performance data.	.138	.067	.211	2.055	.042
	Teacher's performance data	.178	.069	.290	2.579	.011
	Infrastructure/facilities data	.288	.060	.333	2.806	.022

a. Dependent Variable: management of schools

$$Y = 2.81 + 0.211 X_1 + 0.290 X_2 + 0.333X_3 + \mu$$

From the table above, leaving other factors constant, the management of secondary schools in Mbale city standards at 281%. The constant is significant at 5% significant since the (P-value is less than 0.05).

From the study a change in students' performance data leads to 21.1% change in the management of schools in Mbale district. The Coefficient is significant at 5% significance level since the P-value ($0.042 < 0.05$). Therefore there is significant relationship between student performance data and management of schools in Mbale district.

Furthermore a change in teachers' performance data leads to 29% change in management of schools in Mbale district. The coefficient is significant at 5% significance level since the P-value ($0.011 < 0.05$). Therefore there is significant relationship between teachers' performance data and management of schools in Mbale district

In addition a change in infrastructure/ facilities data leads to 33.3%changes in management of schools in Mbale district. The coefficient is significant at 5% significance level since the P-value ($0.022 < 0.05$). Therefore there is significant relationship between infrastructure/facilities data and management of schools in Mbale district.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.0 Introduction

This chapter presents the discussion of the findings, as guided by the objectives of the study that is to say student's performance data and planning among schools in Mbale district, teachers' performance data and staffing among schools in Mbale district, infrastructure/facilities data on controlling among schools in Mbale district.

5.1 Discussion of the findings

The findings revealed that 101 were males representing 63.4%, 49 respondents representing 31.2% were aged between 31-40 years, 105 respondents representing 66.9% hold degrees, 67 respondents representing 42.7% had served for between 1-10 years. The biodata imply that the study obtained the desired information pertaining the variables under study since most of the respondents had on average spent 6 years in the schools and they were elites since they had at least a bachelors degree in the level of education.

5.1.1 Effects of students performance data and management of schools (Planning) in Mbale district.

The study indicate that (119)79.6% of the respondents agreed that their school data is utilized to guide students. The findings are in agreement with the literature by (Prasetyo & Huda, 2021) who noted that the students' performance data provides insights into the overall educational quality, effectiveness of instructional strategies, and the impact of management decisions and policies on students' academic outcomes. Therefore students' performance data is utilized to guide students among schools in Mbale district.

One of the interviewee articulated that, We use the data to monitor the academic progress of students, so as to help them individually". The findings are in line with the study by (Prasetyo &

huda, 2011), therefore student performance data enable schools in coming with strategies that enhance students academic achievement

In addition, the findings from the study show that (136) 86.6% of the respondents agreed that their school data is utilized to promote students to the next class. The study is in line with the literature by (Prasetyo & Huda, 2021) who noted that the students' performance data provides insights into the overall educational quality, effectiveness of instructional strategies, and the impact of management decisions and policies on students' academic outcomes. This means that student performance data is used to obtain standards for promotion of students to the next class.

From the qualitative aspect, *“Performance trends are captured to inform curriculum development, manage student-teacher ratios and to identify areas of strength and weaknesses”*. The findings are consistent with (Prasetyo & Huda, 2021) who noted that student performance data is used to develop the education quality and strategies.” Therefore student performance trends stimulate effective planning within the education sector.

Furthermore the study revealed that (116)73.9% of the respondents agreed that in their school data is utilized for counseling purposes. The findings are in line with the literature by Kiconco and Kanyesigye (2018) who found that the use of student performance data helped secondary school administrators in Uganda to identify areas of weakness in their schools and to develop strategies for improvement. Therefore the findings imply that the students performance data is used to enable school management develop counseling policies for students across schools in Mbale district.

Further still, (120) 76.4% of the respondents agreed that in their school data is utilized for comparison of actual performance with the standards set. The findings are consistent with the literature by Kiconco and Kanyesigye (2018) who found that the use of student performance data helped secondary school administrators in Uganda to identify areas of weakness in their schools and to develop strategies for improvement. Usage of students' performance data aids in setting actual performance with standards among secondary schools in Mbale district.

In furtherance the study (139) 88.6% of the respondents agreed that in their school data is utilized to account for students' performance. The findings are consistent with the literature by (Prasetyo & Huda, 2021) who noted that the students' performance data provides insights into the overall educational quality, effectiveness of instructional strategies, and the impact of management decisions and policies on students' academic outcomes. Therefore this implies that students' performance data is utilized to account for student performance across schools in Mbale district

Additionally, (129)82.2% of the respondents agreed that their school data is utilized for students' placement. The findings are consistent with the literature by (Prasetyo & Huda, 2021) who noted that the students' performance data provides insights into the overall educational quality, effectiveness of instructional strategies, and the impact of management decisions and policies on students' academic outcomes. Therefore students' performance data is used to determine the placement of students in different schools in Mbale district.

Decisively, the study revealed that there is a strong positive correlation between student performance data and planning among schools in Mbale district. The Pearson correlation coefficient (0.787) is significant at 5% significance level since the P-value ($0.01 < 0.05$). From the study a change in students' performance data leads to 21.1% change in the management of schools in Mbale district. The Coefficient is significant at 5% significance level since the P-value ($0.042 < 0.05$). The findings are in agreement with the study conducted by Kiconco and Kanyesigye (2018) which found that the use of student performance data helped secondary school administrators in Uganda to identify areas of weakness in their schools and to develop strategies for improvement. The study also found that the use of data improved teacher motivation and student achievement. The usage of students performance data enables school administration to come up with strategies that can motivate both teachers and students to perform better to achieve the schools mission.

Therefore the findings answer our first research question "*what is the relationship between students' performance data and planning among secondary schools in Mbale district*".

5.1.2 Effects of teachers performance data and management of schools (staffing) among secondary schools in Mbale district.

The findings from the study revealed that (72) 45.8% of the respondents agreed that the school data is utilized to assess teachers' performance. A study by Ndiema (2018) found that teacher performance data can be used to identify areas where teachers need additional training and support. Therefore teacher performance data is used to assess teachers' performance and this enables schools to come up with strategies in capacity building.

Furthermore (131) 83.4% of the respondents agreed that the school data is utilized to appraise teachers' performance. The findings are consistent with the study by Balyejusa-Kyomuhendo (2012) who found that the use of teacher performance data had a positive effect on school management in Uganda. The study found that the use of performance data led to improved teaching practices and increased student achievement. Therefore utilization of teachers' performance data leads to appraising of teachers performance which enhances their ability in instructing students.

Further still (126) 80.2% of the respondents agreed that in their school data is utilized to enhance teachers' performance. The findings are in agreement with the literature by A case study conducted by the World Bank (2019) examined the impact of the Uganda Teacher and School Effectiveness Project (UTSEP), which aimed to improve the quality of teaching and learning in primary and secondary schools in Uganda. The study found that the use of teacher performance data was a key component of the project and led to improved teacher performance and increased accountability. Therefore effective usage of teachers' performance data stimulates improvement in teachers' capabilities in instructing students across schools in Mbale district.

One of the respondents said that *“Data on teachers' performance in form of teachers' attendance, lesson performance, qualification and certification which we use to make decisions while hiring teachers, identifying staffing gaps”* the response in agreement with the world bank report (2019) on Uganda teacher and school effectiveness project. Therefore teacher performance data creates an opportunity where

schools can obtain effective teachers who can execute their mission and vision.

Additionally, the study revealed that (101) 64.3% of the respondents agreed that in their school, data is utilized to raise teachers' motivation. The findings are in line with the literature Balyejusa-Kyomuhendo (2012) who found that the use of teacher performance data had a positive effect on school management in Uganda. The study found that the use of performance data led to improved teaching practices and increased student achievement. Therefore effective usage of teachers' performance data creates an avenue of developing strategies that lead to teacher motivation across schools in Mbale district.

One of the respondent said that “Data about teachers such as school/lesson attendance, lesson observation, record of work covered, schemes of work and lesson plans. Some of these data are collected as a requirement by MOES, for planning purposes and future reference” the response is in line with the study by (Balyejusa-Kyomuhendo (2012) who found that teachers' performance data led effective school management. Therefore teachers' performance data enables school authorities in coming with strategies that enhance effectiveness of teachers in instructing their students.

Moreover (117) 74.6% of the respondents agreed that their school data is utilized to maintain teachers' performance. The findings are also consistent with the study by Balyejusa-Kyomuhendo (2012) who found that the use of teacher performance data had a positive effect on school management in Uganda. The study found that the use of performance data led to improved teaching practices and increased student achievement. Therefore effective usage of teacher's performance data leads to maintaining of teachers performance.

Ultimately, the findings reveal that there is a strong positive correlation between teacher performance data and staffing among schools in Mbale district. The Pearson correlation coefficient (0.727) is significant at 5% significance level since P-value

(0.021<0.05). Furthermore a change in teachers' performance data leads to 29% change in management of schools in Mbale district. The coefficient is significant at 5% significance level since the P-value (0.011<0.05). The findings from the study are consistent with the study by Asaba and Kabali (2016) who examined the effect of teacher performance data on the management of secondary schools in Uganda. The study found that the use of teacher performance data had a positive effect on school management, leading to increased accountability and improved teacher performance. This implies that increased usage of teachers' performance data creates an avenue of talent development and intellectual stimulation which later leads to effectiveness of teachers in executing their tasks and responsibilities.

The findings answer our second research question "*what is the effect of teachers' performance data on staffing of secondary schools in Mbale district.*"

5.1.3 Effects of infrastructure/facilities data and management of schools (controlling) among schools in Mbale district

The study revealed that (103) 68.15% of the respondents agreed that their school data is utilized to improve on infrastructure. The findings are consistent with the study by a report (MoES, 2020) which noted Statistics from the MoES indicate that progress has been made in improving infrastructure and facilities in secondary schools in Uganda. As of 2020, the MoES reported that 87% of secondary schools in Uganda had classrooms, 63% had laboratories, and 67% had libraries. Therefore infrastructure data enhances or improves facilities development among schools in Mbale district.

The study furthermore revealed ((105) 72.6% of the respondents agreed that the school data is utilized to purchase furniture. The findings are in agreement with the literature by Atwine et al. (2017) who found that inadequate infrastructure and facilities led to inefficient use of resources and wastage. Therefore effective usage of infrastructure data creates an avenue for prioritizing the purchase of furniture and other needed requirements among schools in Mbale district.

Concurrently, the study revealed (124) 69.4% of the respondents agreed that the school data is utilized to renovate. The findings are consistent with the study by Mugula, Nabutola, and Wanakacha (2018) found that data on infrastructure and facilities are important for identifying areas where improvements are needed to support student

academic performance. Therefore effective usage of infrastructure and facilities data provides avenue where renovations can be made on the different facilities within schools which enhances students' academic attainment.

One of the interviewee said that “*We collect data on infrastructure and facilities through asset register, inventories and inspection reports, these data help us to ensure we have adequate resources for the school programs*”. The response is consistent with the study by Nabutola and Wanakacha (2018) who noted that data on infrastructure and facilities are important for identifying areas where improvement is needed. Therefore infrastructure and facilities data enable effective management of schools because it creates room for identifying gaps that exist in line with programs and school schedules.

Equally important, (109) 66.2% of the respondents agreed that the school data is utilized to build classes. The findings are consistent with the literature by Mugula, Nabutola, and Wanakacha (2018) found that data on infrastructure and facilities are important for identifying areas where improvements are needed to support student academic performance. Therefore effective usage of infrastructure data gives room to construct classes among required facilities among schools in Mbale district.

Finally, the study reveals that there is a Moderate positive correlation between infrastructure/facilities and Management (controlling) as shown by the coefficient of 0.678. The coefficient is significant at 5% significance level since the P-value ($0.003 < 0.05$). A change in infrastructure/ facilities data leads to 33.3% changes in management of schools in Mbale district. The coefficient is significant at 5% significance level since the P-value ($0.022 < 0.05$).

The findings concur with the study by Ntayi and Ntayi (2018) found that the availability of infrastructure and facilities was a key determinant of teacher motivation and job satisfaction in secondary schools in Uganda. The study found that inadequate infrastructure and facilities, such as classrooms, toilets, and housing, contributed to teacher dissatisfaction and low morale. Therefore usage of infrastructure facility data

creates an avenue of mobilizing resources for the infrastructure development which in turn leads to teachers' job satisfaction and engagement thus affecting students' performance.

Therefore this answers our third research question "*How does facilities data affect control of secondary schools in Mbale district*".

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents conclusions and recommendations of the study based on the study objectives;

6.1 Conclusions

6.1.1 Effects of students performance data and management of schools (Planning) in Mbale district.

Students' performance data plays a vital role in informing school decisions, driving academic success and fostering personalized learning. The strategic use of this data enables schools to guide student learning, inform promotion decisions, develop effective counseling policies, evaluate performance against standards, ensure accountability across schools and optimize student placement.

By leveraging students' performance data, schools can enhance student outcomes, improve instructional effectiveness, foster data-driven decision making, promote equity and accountability and support personalized learning. There is significant relationship between student performance data and management o schools (planning) in secondary schools.

Students' performance data is the least contributor to management of schools with a coefficient (beta) (0.211) though significant at 5% significance level. This satisfies our research question which states that “what is the *effect of students' performance data on management of secondary schools (planning) in Mbale district*”

6.1.2 Effects of teachers performance data and management of schools (staffing)) in Mbale district.

Teacher performance data informs school strategies for capacity building, improving teaching practices and increasing student achievement. Effective use of this data enhances teacher capability, maintains high performance standards, fosters teacher motivation and informs teacher professional development.

Ultimately, leveraging teacher performance data drives instructional excellence and promotes student success. There is significant relationship between teachers' performance data and management of schools (staffing) in Mbale district

The effect of teachers' performance data is the second contributor to management of secondary schools with a coefficient beta (0.29) which is significant at 5% significance level. This answers our second research question which states that "*What is the effect of teachers' performance data on management of secondary schools (staffing) in Mbale district*"

6.1.3 Effects of infrastructure/facilities data and management of schools (controlling) in Mbale district.

Infrastructure data informs and optimizes school facilities development, enabling prioritized purchasing of furniture and essential requirements, targeted renovation of existing facilities and the strategic construction of new classrooms and facilities.

Effective use of infrastructure data improves facility planning and management, enhances learning environments and supports school growth and development. Infrastructure facilities data has a significant positive relationship with management of schools (controlling) among secondary schools in Mobile district.

The effect of infrastructure facilities data is the greatest contributor to the management of secondary school with coefficient (Beta) of (0.333) which is significant at 5% significance level therefore this satisfies our research question which is "*how does infrastructure facilities data affect management of secondary schools (controlling) in Mbale district*"

6.2 Recommendations

The study recommends the following;

6.2.1 Students' performance data and management of schools (Planning) in Mbale district.

District Education Authorities should establish centralized and comprehensive, data management systems that track student performance across grades and subjects,

providing real-time access to data for educators and administrators to enable data-driven decision making.

6.2.2 Teachers performance data and management of schools (staffing) in Mbale district.

Schools should consider developing and implementing continuous data-informed professional development programs for teachers focusing on identifying areas for improvement, enhancing teacher capabilities and motivation

6.2.3 Infrastructure/facilities data and management of schools (controlling) in Mbale district

The district local government should carry out annual infrastructure needs assessments in schools focusing on identifying priority areas for renovation and construction, strategic plans for furniture and equipment procurement and budgetary allocation based on assessed needs.

6.3. Areas for further research studies

There is need to conduct a longitudinal research study on data utilization and performance of students across secondary schools in Mbale district.

Furthermore there is need to conduct an empirical study on different motivation techniques that can be employed to enhance teachers performance across schools in Mbale district

In addition there is need to conduct a study on the factors affecting the infrastructure development across various schools in the country.

Another study could be carried out to compare data-driven approaches across different educational settings.

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APPENDIX I

APPENDIX 1: QUESTIONNAIRE

Dear Respondent,

My name is Wambi Pius. Am a Master student at Uganda Christian University pursuing Master of Education Planning and Management. As part of my course at Uganda Christian University, I am carrying out research on the Topic: Data Types and management of secondary schools in Mbale district. This study is purely for academic purposes. Your responses will be treated with utmost confidentiality. As one of the target respondents, your view and opinion are very important to this study. I hereby request you to spare some time and fill this tool. The responses obtained will be confidential and strictly be used for academic purposes only.

SECTION A: Demographic Information (Please tick appropriately inside the boxes as below);

Gender of Respondent:

Male Female

Age Bracket of the Respondent

20-30 31-40 41-50 51+

Level of Education

Certificate Diploma Degree Postgraduate Qualification

Length in service

Below 1 year 1-10 years 11-20 years 21 and above

Please indicate the extent you Agree or Disagree with following statements by ticking;

Strongly Disagree (SD)	Disagree (D)	Not Sure (NS)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

SN	SECTION B Management of schools(Planning).	SD	D	NS	A	SA
1	In my school data is utilized to avoid confusion					
2	In my school data is utilized to avoid uncertainties					
3	In my school data is utilized to avoid risks					
4	In my school data is utilized to avoid wastages					
5	In my school data is utilized to help in human resources					
6	In my school data is utilized to get non- human resources					
7	In my school data is utilized to do proper planning					
8	In my school data is utilized for proper utilization of human resources					
9	In my school data is utilized for future targets					
	Management of schools(staffing).					
10	In my school data is utilized for selection of staff					
11	In my school data is utilized for placement of staff in their proper positions					
12	In my school data is utilized for promotion					
13	In my school data is utilized for appraisal					
14	In my school data is utilized for training					
15	In my school data is utilized for staff development					
16	In my school data is utilized for staff Transfer					
17	In my school data is utilized for Remuneration					
18	In my school data is utilized for staff Recruitment					
	Management of schools(controlling).					
19	In my school data is utilized for establishing standards					

20	In my school data is utilized for Corrective action					
21	In my school data is utilized for Measurement of actual performance					
22	In my school data is utilized for Comparison of actual performance with the standards set.					
23	In my school data is utilized for finding out deviation if any.					
24	In my school data is utilized for checking whether or not proper progress is being made towards the set objectives					
25	In my school data is utilized for to predict deviations before they actually occur.					
	SECTION E: Data utilization(students' performance data)					
26	In my school data is utilized to guide students					
27	In my school data is utilized to promote students to the next class.					
27	In my school data is utilized counseling purposes					
28	In my school data is utilized to account for students' performance					
42	In my school data is utilized for students' placement					
	SECTION F: Data utilization(teachers' performance data)					
46	In my school data is utilized to assess teachers' performance.					
47	In my school data is utilized to appraise teachers' performance.					
48	In my school data is utilized to enhance teachers performance					

49	In my school data is utilized to raise teachers' motivation.					
50	In my school data is utilized to maintain teachers' performance					
Data utilization(infrastructure and facilities data)						
52	In my school data is utilized to improve on infrastructure					
53	In my school data is utilized to improve on facilities					
54	In my school data is utilized to purchase furniture					
55	In my school data is utilized to renovate infrastructure					
56	In my school data is utilized to build classes.					

Thank you for your time.

APPENDIX II
INTERVIEW GUIDE

Dear Respondent,

My name is Wambi Pius. Am a Master student at Uganda Christian University pursuing Master of Education Planning and Management. As part of my course at Uganda Christian University, I am carrying out research on the Topic: Data type and management of secondary schools in Mbale district. This study is purely for academic purposes. Your responses will be treated with utmost confidentiality. As one of the target respondents, your view and opinion are very important to this study. I hereby request you to spare some time and respond to my questions.

1. Do you collect data in your school?
2. If yes do you collect data on students performance
3. How has this data helped to improve on school planning
4. Does the school collect data on teachers performance
5. How has this data enhanced the staffing in the school?
6. Does the school collect data on infrastructure and facilities
7. Has this data helped in improving management of the school?
8. Suggest any recommendations on the management of schools in Mbale district?

Thank you for your cooperation.

APPENDIX III

Documentary checklist guide

1. Documents pertaining students performance for several years
2. Documents on teachers performance
3. Documents on budgeting process of the different schools
4. Documents on the asset register of the different schools

APPENDIX IV



UGANDA CHRISTIAN
UNIVERSITY
A Centre of Excellence in the Heart of Africa
MBALE UNIVERSITY COLLEGE

Office of the Academic Registrar

To THE CHIEF ADMINISTRATIVE OFFICER,
MBALE DISTRICT

Dear Sir/Madam,

Re: Academic Research

Christian greetings!

We are honored to introduce to you Mr. Mrs./Miss WAMBI PIUS

Of Registration Number; R122/muc/mea/005 pursuing a Masters'
Degree/Postgraduate Diploma / Bachelor's Degree MEDAP

He/ she is required to carry out an academic research on the topic

DATA UTILIZATION AND MANAGEMENT OF
SECONDARY SCHOOLS IN MBALE DISTRICT

and thereafter produce a well bound hard cover research report (MAROON) in color for undergraduate and three (BLACK) copies for Postgraduate students as a University requirement for the award of a degree/diploma in the academic discipline that he / she is pursuing.

We shall be grateful for the help you may offer to him or her accordingly.

Thank you.

Yours faithfully,

19 FEB 2024

Mr. Akampurira Timothy

Academic Registrar

|