Local government administrative efficiency and change in education outcome in Uganda

by

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Abstract

This study set out to investigate local government (LG) administrative efficiency and change in education outcomes in Uganda. The unit of study was the local governments. The study used achievement data from the local government performance assessment for 2022 undertaken by the Office of the Prime Minister. Change in Education outcomes was measured by change in the Primary Leaving Examinations (PLE) pass rate by primary schools in local government. The following variables were used as predictors of education outcomes; human resources practices, financial/budgetary practices, oversight, support supervision, and reporting. Data were analysed using descriptive statistics and binary logistic regressions between the predictors and outcomes variable. Human Resource (HR) practices were measured through hypotheses; adequate number of teachers, substantively recruited critical staff, appraisal of headteachers and LG staff, continuous teacher development as well as appraisal of teachers and LG staff as predictor of change in PLE pass rate. Similarly, Timely submission and communication of UPE capitation grant releases to schools, and finally, schools' inspections, support to schools to develop improvement plans, support supervision and reporting as predictors of change in PLE pass rate. The results of the study, controlling for household income and minimum infrastructural/facilities standards, suggest that (1) recruitment of adequate number of teachers, substantive recruitment of critical LG staff, appraisal of teachers and LG staff, continuous teacher/professional development, timely submission and communication of UPE capitation grants as well as schools inspection, support supervision and reporting are not predictors of change in education outcomes, measured as change in PLE pass rate by primary schools in LGs. The findings of this study are informative for policy makers in teacher development and the overall improvement of the education outcomes in local governments, with particular focus on those areas that will promote holistic improvement in learning outcomes.

General Summary

This study investigated administrative efficiency and change in education outcomes of primary schools in local governments in Uganda. The study used archived data from the local government performance assessment for 2022 undertaken by the Office of the Prime Minister. The study analyzed data using descriptive statistics and binary logistic regressions between the predictors and outcomes variable. The results of the study suggest that the predictors of education outcomes are not significant. Specifically, the results of the study indicate that an adequate number of teachers does not predict performance on the national standardized examination by primary schools. The study also found that other predictors, such as compliance to reporting guidelines, substantively recruiting LG staff, appraisal of headteachers and LG staff, teacher profession development, financing practices, as well as school inspection, support supervision, and reporting, are not associated with change in education outcomes.

The results show that most administrative efficiency indicators do not predict change in education outcomes. The only statistically significant predictor is "Schools Meeting Minimum Infrastructure/facilities Standards", which was negatively associated with change in education outcomes in this. However, this was used as a covariate in this study. The study concludes that administrative efficiency indicators may not be the primary drivers of change in education outcomes in Uganda. Instead, policymakers should focus on a holistic approach that emphasizes quality education, rather than compliance with guidelines.

Glossary

Substantively recruited staff, are employees (Education Officer, Sports Officer, Inspector of Schools, etc.) appointed by local governments into the civil service on a permanent and pensionable basis.

Adequate number of teachers, as used in this study, refers to a situation where Local Governments (LGs) had recruited the required number of teachers in proportion to the number of learners, in accordance with the basic minimum standards set by the Central Government through the Ministry of Education and Sports.

Continuous teacher/professional development, as used in this study, refers to the structured and ongoing process through which teachers improve their professional competencies, knowledge, and pedagogical skills. This process includes participation in both formal and informal learning opportunities such as Continuous Professional Development (CPD) sessions, in-service training, school-based mentorship, peer learning activities, and further academic qualifications.

Timely submission and communication of release of UPE capitation grants, as used in this this refers to (i) districts confirming their spending limits to Ministry of Finance and Economic Planning (ii) the act of promptly informing beneficiary schools that UPE capitation grants have been released or are available for spending. This communication can be via official letters, circulars, or public notices

Appraisal of teachers and LG staff- extent to which local governments have conducted formal performance evaluations of primary school headteachers and local government education staff within the assessment year.

Continuous teacher appraisal- ongoing; documented evaluation processes assessing teachers' performance and professional growth throughout the academic year, as reported in district records.

Support to schools with development of school improvement plans- the extent of technical and supervisory assistance provided by district officials to schools in drafting and implementing School Improvement Plans (SIPs).

Number of schools inspected- total number or proportion of primary schools within a district that were inspected per school term during assessment year, based on inspection records.

Compliance to reporting guidelines- degree to which districts submit required education management and performance reports in accordance with Ministry of Education standards and timelines.

Basic infrastructure standards- in this context will me presence and adequacy of essential school facilities (e.g., classrooms, latrines, teacher housing), assessed against national infrastructure standards.

Education outcome- is defined as change in Primary Leaving Examination (PLE) pass rates at the district level between 2021 and 2022.

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Dedication

This work is dedicated to my loving family (Spouse and Children).

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Chapter 1: Introduction

1.1 Introduction

"*Education is a critical element in building human capital and capacities for sustainable, democratic, peaceful and prosperous societies.*" (Global Partnership in Education, 2024)

Local Government Performance Assessment (LGPA) has been widely embraced by governments that operate a local governance and administration system. Performance assessments, according to Andrews et al. (2008), are used to measure the achievements of local governments on the pre-determined assessment indicators, including education. LPGA is a tool in ensuring compliance and accountability to the provision of public goods and services, including in education by sub-national governments (Cillers et al., 2021; Farooqi & Forbes, 2019; Lockwood & Porcelli, 2013; Maractho, 2017; Mgema, 2022; Risakotta & Akbar, 2018; Wargadinata & Hendiyani, 2017). Education is touted as a catalyst for the development of national economies. Globally, governments endeavour to devise strategies to improve education service provision as a public good (Boyne, 2003; Zickafoose et al., 2024). Many studies (Dzhurylo, 2019; Fissha and Brehanu, 2017; Kjær & Muwanga, 2019; Kuhon, 2020; Penner, 2021) show that nations that have prioritized and made significant investment in education have registered better education outcomes for their learners and ultimately better economies. The current study relates to indicators on the Local Government Performance Assessment and how they are associated with change in the educational outcome of schools in Uganda.

In the context of the present study, educational outcome is defined as learners' academic achievement and performance on national standardized primary school examinations. The study is situated in Uganda, a low-income country where, like in many other low- and middle-income economies, education has not been consistently prioritized as a

foundational driver of national development (Ra et al., 2023; Khan et al., 2017; Mason & Galway, 2022). Despite that, number four (4) of the United Nations Sustainable Development Goals (SDGs) emphasizes "ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all" (SDG Progress Report, 2024, p.21). While progress has been made since its inception, the SDG Progress Report (2024) indicates that "Only 58% of students worldwide achieved at least the minimum proficiency level in reading at the end of primary schooling in 2019" (United Nations, 2024, p. 28). This is collaborated by Zickafoose et al. (2024) who opine that a significant number of countries are moving backward in learning outcomes at the end of lower secondary school.

Globally, governments have progressively embarked on sectoral reforms to improve public service provision, including education. In the early 1990s, many governments started implementing what they termed as New Public Management (Boyne, 2003; Kuhon, 2020; Locatelli, 2019; Marks, 2017) aimed at improving accountability and compliance in the provision of public services and goods. Accordingly, New Public Management became the focus of reforms of the public sector across developing economies (Maulid, 2017; Gorton & Alston, 2019) as one of the avenues to promote good governance. Amongst the reforms introduced then was organizational change to improve effectiveness and efficiency in delivery of public goods and services to the citizenry, under the decentralization form of governance (Fissha & Brehanu, 2017; Kuhon, 2020; Lockwood & Porcelli, 2013). The system of local governance/decentralization was adopted by some governments with a promise it would bring services nearer to the citizens and subsequently improve the provision of public goods and services.

According to Rondinelli, Nellis, and Cheema (1983), decentralization is the transfer of authority and/or power and responsibilities to the lower levels of government from the central government. This system of governance was intended to enhance the effectiveness

and efficiency of public goods and service delivery (Conyers & Cheema, 1999; Dzhurylo, 2019). Education, as both a public good and a public service, falls within this scope. While there is broad consensus that decentralization has brought educational services closer to communities (Maractho, 2017; Wargadinata & Henduyani, 2017), many jurisdictions that have adopted this system of governance continue to face challenges in improving educational outcomes (Malesky et al., 2022; Venkataraman & Keno, 2015; Yatun et al., 2021).

In order to further improve service provision, including education outcomes, reforms in administrative efficiency give local governments the mandate to primarily plan and directly manage the education sector in their jurisdictions (Khan, 2022; Kjær & Muwanga 2019, Locatelli, 2019). In Indonesia, Uganda, as well as Tanzania, local governments have the responsibility over primary schools as well as some supervisory roles over secondary schools (Mgema, 2022; Namara, 2020; Wargadinata & Hendiyani, 2017). In Tanzania, adds Mgema (2022), local governments were given the power of planning and improving building infrastructure as well as improving teachers' remuneration. In developing countries, a significant part of resources to facilitate education activities at the local government level comes from the central government (Locatelli, 2019; Namara, 2020).

Local governments in Uganda carry out the hiring and promotion of primary school teachers as well as supervision and inspection of school activities, though with a high degree of upward accountability with downward accountability only seen at the time of elections (Cilliers et al., 2021; Khan, 2022; Mgema, 2022). Upward accountability refers to the obligation of local government officials and institutions to be accountable to higher levels of government or authority, while downward accountability refers to the responsibility of local government officials and institutions to be accountable to the citizens or residents within their jurisdiction, who are ideally the electorates (Locatelli, 2019). While several studies (Mickens, 2022; Namara, 2020) have criticized this arrangement, in reality, it persists,

especially in sub-Saharan African countries where central governments provide almost 100% of budgetary requirements towards educational activities at the local government level. This is so, because many local governments have limited ability to fund their own budgets, due to limited local revenue realised in their jurisdictions. Predictably, there must be some form of oversight by the central government to follow the resources that are remitted to local governments (Locatelli, 2019), as this fits well with the Regulation Theory.

The Theory of Regulation, as developed by Michel Aglietta (1979), conceptualizes the interplay between central and local governments in resource allocation, delegation, and accountability. It posits that when the central government allocates funding or authority to local entities, oversight mechanisms are essential to ensure efficient resource use align with policy goals. In Uganda, local governments handle primary school teacher management and school supervision but rely almost entirely on central government funding. (Cilliers et al., 2021; Khan, 2022). This financial dependency fosters upward accountability to the central government rather than downward accountability to local citizens (Locatelli, 2019). Aglietta's framework reveals the tension between central oversight and local autonomy. In Uganda, the central government's role as the primary funder justifies strong regulatory controls to combat inefficiencies and corruption, a critical need in resource-constrained regions like sub-Saharan Africa (Mickens, 2022; Namara, 2020).

However, as Aglietta's framework suggests, such centralization, though intended to enhance oversight and curb inefficiencies, can undermine local autonomy by restricting local governments' capacity to raise their own revenues and respond to specific community needs. This imbalance weakens the reciprocal accountability between local authorities and citizens, ultimately limiting the effectiveness of decentralized governance (Mgema, 2022). While Regulation Theory emphasizes oversight to ensure national priorities, it also highlights the challenge of balancing this with empowering local governments and fostering responsiveness

to local populations (Cilliers et al., 2021). Jurisdictions including Indonesia, the United Kingdom, Tanzania, and Ethiopia, among others, are some of the countries with local governance and administration systems that undertake performance assessments (Choi & Park, 2023; Dyzhurylo, 2019; Maractho, 2017; Namara, 2020).

Performance assessment became a pivotal aspect of public service delivery, focusing on evaluating the effectiveness and efficiency of public entities in providing goods and services (Andrews et al., 2008; Choi & Park, 2023). Beyond evaluating performance, these assessments have served as critical tools for generating actionable insights to design interventions aimed at improving institutional outcomes. As Lockwood and Porcelli (2013) argue, performance assessments play a crucial role in informing policymakers and central government officials, enabling them to enhance the quality, outcomes, and cost-effectiveness in education (Malesky et al., 2022). Moreover, performance assessments generate vital data that support continuous improvement, promote transparency, and strengthen accountability to the public, thereby reinforcing evidence-based decision-making and public trust.

Globally, governments are increasingly focused on improving educational outcomes and enhancing academic achievement. To boost efficiency and effectiveness within the education sector, external regulation has been widely adopted as a key strategy (Boyne, 2003; Malesky et al., 2022). Among the most common regulatory tools are performance assessments and audits, which are central to new public management reforms (Downe et al., 2010). Performance assessments of local governments are particularly important, not only to ensure compliance with established policies and guidelines but also to promote accountability and drive improvements in education service delivery by district education offices (Mgema, 2022; Namara, 2020). For instance, in the United Kingdom, the central government implemented a performance management system at the local level that rewards high performance and imposes sanctions for underperformance (Andrews et al., 2005; Lockwood

& Porcelli, 2013). Similarly, in countries such as Indonesia, Tanzania, and Ethiopia, Local Government Performance Assessments (LGPA) are employed to hold district education officers accountable and ensure adherence to established standards. Notably, while the UK system targets elected officials, other jurisdictions including Vietnam primarily focus on public sector managers (Malesky et al., 2022).

Governments allocate substantial resources to the education sector, recognizing its critical role in driving economic growth and national development. Investment in education is widely regarded as a catalyst for both economic advancement and human development (Malesky et al., 2022). For the education sector to function effectively, key elements such as competent human resources, sound budgetary and financial practices, and strong support supervision are essential to the efficient management and administration of educational programs and initiatives (Fryer et al., 2009; Khan, 2017).

The Local Government Performance Assessment (LGPA) is a structured process for evaluating the effectiveness, efficiency, and quality of local government operations, services, and management. Its primary goal is to identify strengths and gaps, enhance administrative performance, and ensure that local governments respond effectively to community needs. In public sector management, LGPA serves as a tool to improve governance, increase transparency, and promote accountability. *Educational performance* is assessed through trends, such as improvements, stability, or declines in students' performance on the national standardized examinations at the primary school level within each district.

While performance assessments are widely used as mechanisms to enhance accountability in public sector institutions, their effectiveness remains a subject of academic debate. On one hand, scholars argue that performance assessments serve as practical tools to promote transparency, ensure responsible use of public resources, and incentivize better service delivery (Kjær & Muwanga, 2019; Risakotta & Akbar, 2018). In contexts where

democratic institutions are still evolving, such as in most parts of Sub-Saharan Africa, performance-based accountability has been promoted as a means to curb inefficiencies and corruption (Erdal et al., 2012; Malesky et al., 2022).

However, several scholars have raised concerns about the over-reliance on these assessments as sole indicators of performance. Choi and Park (2023) and Andrews et al. (2005) caution that such metrics may oversimplify complex governance dynamics, ignoring contextual factors such as resource constraints, local political environments, and community engagement. They argue that a focus on measurable outcomes may encourage "gaming the system" or the neglect of non-measurable but important aspects of public service. Moreover, performance assessments can inadvertently reinforce central control at the expense of local autonomy, limiting the adaptive capacities of local governments (Hood & Dixon, 2015; Pollitt, 2013). Despite these criticisms, in the absence of viable alternatives, performance assessments remain a widely accepted tool for promoting accountability and transparency in public administration.

Several theories have been used to explain management about performance improvement in public service. This study is guided by the Theory of Bureaucratic Regulation where the key feature in public sector management is the extent of regulation by an external entity (Painter, 1991). As Aglietta (1998) observed, regulation serves as a fundamental norm across public organizations, functioning as a key mechanism for promoting accountability and ensuring compliance. Indeed, public service technocrats and policymakers must work within the guidelines of policy regimens and must carry out their functions within strict policy guidelines and regulations (Goodwin & Halford, 1992; Risakotta & Akbar, 2018; Talesh, 2016). According to Goodwin and Halford (1992), the range of regulatory instruments instituted may include: audits, inspections, financial controls,

and performance assessments through indicators, among others. It is argued that the regulations in turn will promote compliance, adherence as well as accountability by the sub-units created, including the local governments and ultimately subsequently this will improve educational outcomes at the local government level.

1.2 The Ugandan context for local government and management service delivery

Uganda adopted decentralization in the mid-1990s, transferring the responsibility for primary school administration to local governments (Cilliers et al., 2021; Khan, 2022; Mgema, 2022; Namukasa & Buye, 2009; Locatelli, 2019). This reform was intended to enhance efficiency in resource allocation, bring services closer to communities, and improve overall service delivery (Locatelli, 2019; Dzhurylo, 2019; Kjær & Muwanga, 2019; Venkataraman & Keno, 2015). Under the decentralized system, local governments are tasked with managing school capitation and facility grants, as well as recruiting, deploying, and supervising teachers (Namara, 2020; Kjær & Muwanga, 2019). Meanwhile, the central government, through the Ministry of Education and Sports (MoES), retains responsibility for policy formulation, curriculum development, teacher licensing, and quality assurance (Maractho, 2017; Namara, 2020; Jaar et al., 2022).

The decentralization of primary education aimed to improve educational performance by fostering accountability and responsiveness within smaller administrative units (Kjær & Muwanga, 2019; Maractho, 2017). In line with this objective, Uganda introduced Universal Primary Education (UPE) in 1997, assigning local governments the mandate to implement and oversee primary schooling (Maractho, 2017; Namara, 2020). While notable progress has been made globally in expanding access to education—such as increased primary school enrolment—the quality of education in many developing countries, including Uganda,

remains below acceptable standards (Kjær & Muwanga, 2019; Namara, 2020; SDG Progress Report, 2024). In Uganda, the introduction of Universal Primary Education (UPE) in 1997 led to a significant increase in primary school enrolment, rising from 2.5 million pupils in 1996 to 5.3 million in 1997, a remarkable 73% growth in just one year (UNESCO, 2024). By 2017, enrolment numbers had reached approximately 8.6 million, reflecting continued efforts to expand access to education (UNESCO, 2024; Uwezo, 2016). However, despite this progress, Uganda faces persistent challenges in primary education outcomes. Completion rates for primary schools remain alarmingly low, with only 53% of pupils completing the primary education cycle, one of the lowest rates globally (UNESCO, 2024; Uwezo, 2016).

Furthermore, literacy outcomes are deeply concerning, as up to 83% of Ugandan children were found to be unable to read and comprehend age-appropriate texts by the age of 10 (UNESCO, 2024; Uwezo, 2019). This literacy crisis, often referred to as "learning poverty," according to Uwezo (2019), undermines the potential benefits of increased enrolment and highlights critical gaps in teaching quality and resource allocation (Uwezo, 2019, p. 28). Efforts to improve educational governance, such as the introduction of a local government administrative system and performance assessments, have not yet yielded significant improvements in learning outcomes (UNESCO, 2024).

According to United Nations (2024), it has been reported that an increase in the enrolment of learners in primary schools does not always result in positive learning outcomes. This, perhaps is exacerbated by disparities associated with socio-economic status. Consequently, the United Nations SDG Progress Report (2024) notes that;

> Only half of all primary schools have the basic infrastructures and materials to provide an adequate schooling experience to pupils with disabilities and one in five primary schools globally does not have single-sex sanitation facilities. (p. 9).

In Uganda, local governments comprise districts, cities, and municipalities (LGMSD Manual, 2020). Each Local Government Authority (LGA) is overseen by an Accounting Officer, who is typically the Chief Administrative Officer, who is appointed by the Ministry of Local Government in consultation with the Ministry of Public Service (Local Government Act, as amended 2013). Local governments are structured into departments, usually a minimum of nine, including the Education Department. This department is headed by the District Education Officer (DEO), who is responsible for the management and supervision of primary schools within the local government jurisdiction. Key personnel in the District Education Office include the Senior Inspector of Schools, Senior Education Officer, Guidance and Counselling Officer, Special Needs Education Officer, Sports Officer, and Inspector of Schools. Although the role of each officer is broadly defined, specific responsibilities include inspection and monitoring of school activities; communication with schools; ensuring delivery and adherence to the curriculum; ensuring standardized teaching; administration of standardized examinations; coordination and communication with development partners as well as the central government Ministry of Education and Sports; and transfer of teaching aides such as textbooks (Khan et al., 2017; Mgema, 2021; Maractho, (2017; Namara, 2020).

The District Education Officer (DEO) is responsible for primary education human resources- including recruitment and evaluation for the teachers, management of the wage bill, as well as the administration of the education development budget, among others. Relatedly, the DEO ensures that their office as well as the district has an adequate number of teachers to carry out the teaching functions in the LGA, which is thought to ultimately improve academic performance of schools (Cilliers et al., 2021; UNESCO, 2016). The DEO is answerable to the District Council and to the Ministry of Education and Sports at the central level. The DEO is ideally the link between the schools and district authorities, as well as with the Ministry of Education and Sports at the central government level (Maractho,

2017). For the District Education Office to ably undertake its functions, the office shall ensure the critical positions in this office are substantively recruited for. It may be a challenge for this office to carry out its functions, for example, inspection of schools as well as planning function for the benefit of the schools in the LGA, if staff are not adequately recruited (Kalule & Bouchamma, 2014; Khan et al., 2017; Namara, 2020).

To promote adherence to policy guidelines, enhance efficiency, and strengthen accountability within District Education Offices, the Government of Uganda, through the Office of the Prime Minister and with support from the World Bank, introduced the Local Government Management and Service Delivery (LGMSD) performance assessment (Kjær & Muwanga, 2019; LGPA Manual, 2020). Launched in 2017, this annual assessment evaluates the performance of local government authorities across key service sectors, including education, using standardized indicators aimed at improving learning outcomes. The initiative is intended to foster a culture of accountability and align local government actions with national education priorities.

While existing literature highlights the important role local governments play in enhancing service delivery and district performance (Cilliers et al., 2019; Malesky et al., 2022), there remains a critical gap in understanding the predictive relationship between specific performance indicators in the Local Government Management and Service Delivery (LGMSD) tool and educational outcomes, particularly students' performance on national standardized examinations. Bridging this gap is essential for improving the design and application of performance assessments to more effectively support learning outcomes and ensure the successful implementation of education policies under Uganda's decentralized governance system. Many countries with decentralized governance systems—including Indonesia, Tanzania, Ethiopia, Lesotho, and the United Kingdom—have adopted Annual Local Government Performance Assessments (ALGPA) as tools to monitor policy adherence,

ensure compliance with national guidelines, and promote accountability at the local level (Venkataraman & Keno, 2015; Lockwood & Porcelli, 2013; Maractho, 2017). The underlying assumption is that decentralization enhances service delivery by bringing decision-making closer to communities, thereby improving educational quality and responsiveness to local needs.

However, evidence from Uganda suggests that decentralization alone has not resolved critical challenges within the education sector. Despite increased administrative autonomy, many primary schools continue to face significant infrastructure deficits, such as inadequate classrooms, teacher accommodation, and sanitation facilities (United Nations, 2024). For example, United Nations (2024) notes that, "on average, 44% of primary schools had access to the Internet in 2022, almost double the rate in 2021" (p. 10)—a positive trend, yet one that highlights the vast disparities in access to essential educational resources. These ongoing limitations suggest that while decentralization offers a framework for localized decision-making, its effectiveness in improving educational quality depends heavily on adequate resourcing, institutional capacity, and consistent performance monitoring.

Studies have indicated that even with the decentralization of primary education, the quality and number of teachers remain low, especially in sub-Saharan Africa. Absenteeism among teachers especially in hard-to-reach areas is a common occurrence (Namara, 2020; Venkataraman & Keno, 2015). Attracting qualified teachers in hard-to-reach areas where there is a high attrition rate presents challenges for (LGAs) coupled with a high attrition rate (Khan et al., 2017; Mgema, 2021; Namara, 2020). Teachers who leave teaching positions have persistently pointed to inadequate remuneration due to the high cost of living, the heavy workload, as well as lopsided teacher-student ratios (Kjær & Muwanga 2019; Namara, 2020). This has had adverse effects on the students' education outcomes and particularly their

performance on the standardized national examinations （Glewwe & Muralidharan, 2016; UNESCO, 2023).

While performance indicators as captured in the LGMSD performance assessment may predict the performance of the education sector (performance on the national standardized examination), the results may also be due to other intervening variables. Such variables may include socio-economic factors as well as the accessibility of the LG including access to amenities, such as roads. As Davies and Davies (2014) observe, schools that are easy to access may be able to attract and retain more effective teachers than their counterparts that are hard to reach, hence having a more positive impact on academic achievements by the schools. While the assessment results in Uganda have been consistently documented, by way of assessment reports, these findings are not backed by scholarly literature. This study aims to use the data from assessment and link findings with available literature for purposes of validating same against scholarly work.

The performance of local governments on key service delivery indicators is shaped by a complex interplay of factors, including the quality of district leadership, geographical accessibility, and broader socio-economic conditions (Khan, 2022; Locatelli, 2019). Within decentralized education systems, human resource capacity, the frequency and quality of routine oversight and supervision, and sound budgeting and financial management have been identified as critical determinants of effective service delivery (Cilliers et al., 2021; Maractho, 2017). This study investigates the extent to which these administrative and operational dimensions predict educational outcomes, measured by variations in student performance on standardized national primary school examinations across districts in Uganda (Namara, 2020). By focusing on these predictors, the study contributes to ongoing debates about the effectiveness of decentralized governance in improving education quality in low-resource settings.

1.3 Problem statement

Countries that operate under decentralized governance systems, such as Tanzania, Indonesia, Ethiopia, and Uganda have institutionalized local government performance assessments to monitor compliance with centrally formulated policies, regulations, and operational guidelines (Locatelli, 2019; Malesky et al., 2022; Wargadinata & Hendiyani, 2017). For instance, Locatelli (2019) explores how decentralized structures in Ethiopia shape education governance through locally driven accountability mechanisms, while Malesky et al. (2022**)** highlights how performance evaluations in Vietnam's local governments help ensure transparency and alignment with national standards. Similarly, Wargadinata and Hendiyani (2017) examine the implementation of good governance principles in Indonesia, noting that local assessments have been instrumental in promoting administrative discipline and policy compliance.

In parallel, a broad body of international scholarship has examined key levers of education quality, including teacher effectiveness, school financing, and inspection regimes, among others. For example, Mason and Galway (2022) discuss how education budgets and equitable funding mechanisms in the United States influence student learning outcomes. Lamascolo (2019) underscores the impact of systematic school inspections on pedagogical standards and teacher accountability in the United Kingdom, while in Tanzanian, Gaines Mgema (2022) demonstrates how decentralized management has enhanced teacher performance monitoring. Yatun et al. (2021) show how teacher professionalism and accountability mechanisms, such as school-based supervision in Indonesia, contribute to improving learning outcomes. Together, these studies underscore the importance of localized

governance, robust teacher oversight, and financing mechanisms in enhancing education service delivery within both Global North and Global South contexts.

The United Kingdom (UK) introduced a balanced scorecard system to evaluate local government performance, categorizing them from 5-star performers for exceptional performance to 1-star for poor performance (Andrews et al. 2005; Andrews et al. 2008; Fryer et al., 2009). Similarly, countries like Indonesia, Uganda, Tanzania, and Ethiopia have adopted annual local government performance assessment systems to enhance accountability and service delivery (Venkataraman & Keno, 2015). For example, in Tanzania, (LGAs) are assessed using indicators on the assessment tool, categorizing them as high performers, average performers, or poorly performing (Andrews et al., 2005; Andrews et al., 2008). Studies consistently reveal significant variation in LGPA performance across local governments, influenced by factors such as leadership, institutional capacity, and socio-economic contexts (Andrews et al., 2005; Talesh, 2016; Downe et al., 2010).

While Uganda and the UK share the goal of ensuring accountability through local government performance assessments, their approaches differ significantly. The UK system is more decentralized, citizen-focused, and adaptable to local contexts, fostering innovation and responsiveness at the community level (Andrews et al., 2005). In contrast to more decentralized performance assessment systems, Uganda's Local Government Performance Assessment (LGPA) operates within a highly centralized framework. It is primarily output-focused and emphasizes compliance with nationally prescribed standards and procedures (Fryer et al., 2009; Locatelli, 2019; Namukasa & Buye, 2009; Nassaka, 2016). This structure reflects a top-down approach to governance, where local governments are assessed based on their adherence to directives from central authorities rather than on locally defined priorities or citizen-driven outcomes. Such an approach may limit flexibility, responsiveness, and innovation at the local level, potentially reducing the effectiveness of interventions tailored to

local educational needs. These differences underscore the diversity of governance models employed across countries in assessing local government performance and highlight the importance of aligning assessment systems with the broader goals of accountability, responsiveness, and service delivery.

In countries such as Australia, the United Kingdom, and China, where human resource management and strong financial practices have consistently contributed to administrative efficiency, there has been a notable improvement in educational outcomes for all learners (Batty, 2013; Liang et al., 2016; Marks, 2017; Zheng & Thomas, 2019). However, many regions, particularly in sub-Saharan Africa, continue to struggle with achieving even basic improvements in educational outcomes (Mason & Galway, 2022; United Nations, 2024). In Uganda, the introduction and implementation of LGPA were expected to significantly enhance the efficiency and effectiveness of public services, including education. The LGPA has been promoted as a tool for promoting accountability within local governments, with the goal of improving educational outcomes (Cilliers et al., 2019). Despite the annual assessments, education outcomes in local government schools have not met the desired targets, including those outlined under SDG Goal 4.

Education outcomes across Uganda's local governments have exhibited concerning patterns, with some districts experiencing a decline while others remain stagnant (LGMSD Synthesis Report, 2023). Maractho (2017) documented significant disparities in academic achievement on national standardized primary examinations between two adjacent districts. These differences were not attributed to variations in institutional capacity but rather to the distribution of private schools. Districts with a higher concentration of private primary schools consistently demonstrated superior academic performance compared to those with fewer. However, when the analysis was limited to government-aided schools, the performance gap significantly narrowed (Maractho, 2017). This suggests that the presence of

private schools may distort the overall picture of district-level education performance, masking underlying inefficiencies within the public education system.

Globally, similar patterns have been observed in wealthier regions, where access to better resources, higher teacher qualifications, and well-maintained infrastructure contribute to stronger academic performance. Wealthier school districts or countries often benefit from better funding, allowing for smaller class sizes, innovative teaching methodologies, and the integration of technology into learning, all of which create an environment conducive to higher achievement (Nassaka, 2016; Gorton & Alston; Lee et al., 2019; 2019; Mason, & Galway, 2022). In contrast, resource-constrained areas, whether in Uganda or elsewhere, grapple with underfunded schools, poor infrastructure, and a lack of teaching materials, which collectively impede student outcomes.

While existing studies frequently highlight structural challenges such as inadequate financing and poor infrastructure, they often overlook the specific policies and administrative practices enacted by central governments and implemented by local authorities, factors that may hold predictive value for educational outcomes (Lee et al., 2019; Mason & Galway, 2022; Namukasa & Buye, 2009). It remains to be seen whether addressing this gap is crucial for understanding how local governance mechanisms can be optimized to advance educational equity and quality.

Although Uganda's Local Government Management and Service Delivery (LGMSD) assessment findings are published through annual synthesis reports, these reports often lack grounding in existing scholarly literature, limiting opportunities for cross-referencing, validation, and theoretical integration. Furthermore, the assessment outcomes are not sufficiently framed within a conceptual or theoretical context. This study addresses this gap by employing the 2022 LGMSD assessment dataset alongside Regulation Theory to examine how various performance indicators predict changes in primary education outcomes.

Specifically, it investigates the association between key dimensions of local government performance, such as human resource capacity, supervision, and financial management, and student achievement on standardized national examinations across Local Government Authorities in Uganda. The overarching aim is to determine whether and to what extent government efficiency contributes to improved primary school performance.

This study adopts a quantitative research design and utilizes secondary data derived from Uganda's 2022 Local Government Performance Assessment (LGPA). The primary objective is to explore, analyze, and interpret the extent to which specific performance indicators outlined in the LGPA assessment tool (see Appendix I), predict changes in educational outcomes, particularly primary school achievement on national standardized examinations. By examining these predictors, the study aims to contribute empirical insights into how local government administrative efficiency influences education service delivery.

1.4 Research question

This study addresses the following research question:

How do local government human resources management, financial practices, oversight and routine supervision, predict change in primary education outcomes, holding socio-economic factors and infrastructural facilities constant?

Hypotheses:

H0: Adequacy of the number of primary school teachers does not predict change in education outcomes

H1a: Adequacy of the number of primary school teachers is a predictor of change in education outcomes in local governments

H0: Having substantively recruited critical staff at the district education office is not a predictor of change in education outcomes

H1b: Having substantively recruited critical staff at the district education office is a predictor of the change in education outcomes

H0: Teacher appraisal is not a predictor of change in education outcomes

H1c: Appraisal of teachers is a predictor of academic achievement by schools

H0: Continuous teacher development is not a predictor of change in education outcomes

H1d: Continuous teacher development is a predictor of change in education outcomes

H0: Timely submission and communication of release of UPE capitation grants is not a predictor of change in education outcomes

H2: Timely submission and communication of the release of UPE capitation grants is a predictor of change in education outcomes

H0: School inspection, support supervision and reporting are not a predictor of change in education outcome of primary schools in local governments

H3: School inspection, support supervision and reporting are a predictor of change in education outcomes

1.5 Purpose of the study

The purpose of this study is to explore local government administrative efficiency and its impact on changes in education outcomes in Uganda. These outcomes will be assessed through performance on the Primary Leaving Examinations (PLE), a standardized national examination administered by the Uganda National Examinations Board (UNEB). The study focuses on key dimensions of local government administration, including human resource practices, budgeting and financial management, as well as oversight and support supervision practices, and examines how these factors predict the academic achievement of primary school pupils.

Uganda presents a compelling and critical setting for this study due to its decentralized governance structure and its focus on Universal Primary Education (UPE),

introduced in 1997. While UPE has significantly expanded access to education, disparities in education outcomes remain a pressing issue, with primary school completion rates and literacy levels among the lowest globally. Local governments in Uganda are tasked with implementing education policies and managing resources at the district level, making their administrative practices pivotal to improving education outcomes. However, persistent challenges such as inadequate funding, poor infrastructure, and variability in administrative efficiency across districts make Uganda an important case for studying how local government performance affects education outcomes.

Although significant research has been conducted globally on predictors of education outcomes, there is limited exploration of these predictors within the framework of local government performance assessment in Uganda. By examining this context, the study addresses a critical gap in the literature and provides valuable insights into the interplay between local government practices, as dictated by the Regulation Theory, and change in primary education outcomes. This research will contribute to the broader body of knowledge on education in resource-constrained settings and offer evidence-based recommendations to enhance governance and improve change in education outcomes in Uganda's primary schools.

Chapter 2: Literature Review

2.0 Introduction

This chapter focuses on the literature related to the study topic. It is divided into three parts. The first part is about the theoretical framework employed to explain the arguments in the study. The second part is about the conceptual framework, and finally the third part reviews related literature; identifying the gaps in the literature that this study seeks to fill. The literature review in this study is arranged under themes and sub-themes. The main themes/constructs are: human resources practices, budgeting and financial practices (public management financing) as well as routine oversight and supervision. Many studies (e.g., Eckert, 2018; Maractho, 2017; Namara, 2020; Ra et al., 2023; Risakotta & Akbar, 2018) have been undertaken about predictors of educational outcomes for learners as well as schools in different contexts. However, limited studies have been conducted with a focus on performance assessment tools as predictors of education outcomes in local governments. This study therefore attempts to add the perspective of how educational outcomes are predicted by the various constructs as applied under the local government performance assessment (LGPA) in Uganda.

2.1 Theoretical framework

This study is underpinned by the Regulation Theory. Aglietta (1979) theorized that capitalist social relations are reproduced vertically and horizontally at all levels of government. Aglietta's *Regulation Theory* (1979) explores how capitalism evolves through different modes of regulation, which are systems of rules, institutions, and practices that shape economic activities. According to Aglietta, capitalism cannot function without a regulatory framework that adapts to shifts in production, consumption, and the overall organization of the economy. Aglietta's Regulation Theory presents capitalism as a system that continuously adapts to internal and external contradictions through a changing

framework of regulation. This framework both stabilizes and enables capitalism to evolve, addressing crises while shaping social and political outcomes. Such practices, notes Painter (1991), are handed down from higher levels of government to reproduce the bureaucratic system of government at the sub-national level, through prescribed minimum standards, guidelines as well as policies, in line with the provision of public goods and services. This, it is theorized, promotes accountability at the sub-national level and ultimately, it is assumed to promote better service delivery (Painter & Goodwin, 1995) and in this case better education outcomes. Those in charge of public sector entities operate within strict policy guidelines and constraints that are handed down from a higher authority, usually policymakers (Boyne, 2003; Painter, 1991). Using the United States capitalist experience, Aglietta (1979) opined that through regulation, governments at the centre operationalize laws that define parameters within which functions of service provision must be implemented.

Regulation instruments by the central government to sub-national governments may include but are not limited to: performance assessments, value-for-money audits, routine supervision and inspection, and financial controls, among others (Painter, 1991; Painter & Goodwin, 1995). The regulation of public entities has become an instrument for promoting performance in service provision. While some scholars (Ehren et al., 2013; Risakotta & Akbar, 2018) have argued that regulation may be counterproductive, it is a justified practice because of the need for accountability, since resources, as appropriated, belong to the taxpayer who needs to be kept abreast of how their taxes are spent (Boyne, 2003; Painter, 1991). A large body of literature (Choi & Park, 2023; Ehren et al., 2013; Painter & Goodwin, 1995; Painter, 1991) suggests that regulation will more likely lead to desired outcomes if the local governments view it as supportive. Notwithstanding, regulation is about accountability and compliance with a primary goal of improving administrative performance by the sub-

national governments. Regulation features entail conformity as opposed to a consultancy (Ehren et al., 2013).

While regulation cannot be promoted as a magic bullet for promoting service provision at the local government level, due to varying needs, backgrounds, contexts, and expectations, this theory offers a reasonable starting point as far as accountability and compliance by sub-national levels is concerned. Regulation ensures that public sector employees use their authority within prescribed guidelines, to promote transference and minimize abuse of office (Boyne, 2003; Painter, 1991).

2.2 Human resources practices and education outcome

Human resources are universally acknowledged as the cornerstone of institutional success, including within educational systems (Armstrong & Taylor, 2023). Their value transcends mere staffing; they serve as the engine through which strategic objectives are envisioned, operationalized, and achieved. A growing body of research affirms the pivotal role human resources play in shaping educational outcomes for both learners and schools across diverse socio-political contexts (Steyn & van Niekerk, 2008; Ehren et al., 2019; Lockwood & Porcelli, 2013; Mason & Galway, 2022; Maractho, 2022). These studies demonstrate that the effectiveness of education systems often hinges on the capacity, motivation, and management of personnel at all levels.

Despite their recognized importance, human resources are not yet fully leveraged as strategic assets in many educational institutions and public-sector organizations. Scholars (Armstrong, 2016; Maractho, 2017; Kuhon, 2020; Kim & Holzer, 2016; Jabbar et al., 2022; Sharma & Sharma, 2017; Venkataraman & Keno, 2015) highlight a persistent gap between the theoretical centrality of human capital and its practical integration into strategic planning and policy implementation. This disconnect undermines organizational performance, given that all aspects of institutional development, including the management of physical

infrastructure and financial resources are orchestrated by people (Harrington & Lee, 2015; Liebowitz & Porter, 2019; Tyler & Taylor, 2012).

However, there is limited empirical research on how human resource-related indicators are positioned within frameworks that assess local government performance, especially in low- and middle-income countries. The Annual Local Government Performance Assessment (ALGPA) tool in Uganda, for instance, includes metrics that implicitly reflect human resource management practices, such as: the timely deployment of staff, communication, and administrative responsiveness, but their association to changes in educational outcomes remains underexplored. This study seeks to address that gap by examining how variations in these ALGPA indicators are associated with improvements or declines in primary school achievement, thereby contributing to both educational and public administration literature.

2.2.1 Recruitment of critical staff and adequacy of the number of primary school teachers and education outcome

Teachers play a significant role in improving learners' education outcomes (Gorton & Alston, 2019; Hoy & Miskel, 2013; Steyn & Niekerk, 2008; Uwezo Uganda Report, 2016). Attracting qualified teachers play a pivotal role in education performance improvement and ultimately education outcomes. Available literature highlights those initiatives designed to create an enabling environment for teachers, such as the provision of staff accommodations, adequate teaching facilities, and sufficient scholastic materials play a critical role in supporting teachers' performance and effectiveness (Maractho, 2017; Mgema, 2022; Namara, 2020; Papay & Kraft, 2016). Unfortunately, many jurisdictions, particularly in developing economies, continue to grapple with a general lack of qualified teachers as well as attrition (Farooqi & Forbes, 2019; Gaines, 2019; Hoy & Miskel, 2013; Lamascolo, 2019; Maractho, 2017; Mason & Galway, 2022). Investing in teachers, through comprehensive training,

provision of adequate teaching resources, and continuous professional development, remains one of the most effective strategies for enhancing teaching quality and, consequently, improving student learning outcomes (Darling-Hammond et al., 2022; UNESCO, 2023). Quality teaching has a direct and sustained impact on learners' academic achievement, particularly in resource-constrained settings where teacher competence can mitigate broader systemic challenges (Evans & Popova, 2016; Kraft & Bleiberg, 2022).

Effective teachers foster inclusive, engaging, and supportive learning environments that cater to diverse student needs. Such environments not only promote cognitive development but also contribute to students' emotional well-being, motivation, and sense of belonging in school (OECD, 2021). When learners feel supported and intellectually stimulated, their likelihood of staying in school increases significantly. This is particularly crucial in low- and middle-income countries, where dropout and out-of-school rates remain high due to a combination of socioeconomic, institutional, and pedagogical barriers (García & Weiss, 2022; World Bank, 2023). Similarly, recent research also highlights that investments in teacher support systems, such as mentoring, instructional coaching, and recognition of professional autonomy enhance job satisfaction and reduce teacher attrition, indirectly contributing to continuity in learning and school improvement (Nguyen et al., 2023; Sims & Fletcher-Wood, 2021). Therefore, prioritizing teacher development is not just a pedagogical imperative but a strategic lever for achieving long-term educational equity and excellence. UNESCO (2023) argues that:

> High-quality education delivered by well-supported teachers equips students with essential skills, knowledge, and confidence, setting them on a trajectory for long-term success in both their academic and professional lives. (p. 52).

The observation above emphasizes that investing in teachers is crucial for improving educational access, achievement, and future opportunities for students. This argument is

supported by Scherer and Nilsen (2016), and Evans and Popova (2016) who argued that teachers and headteachers play a crucial role in improving learning outcomes in schools. Scholars in Tanzania, Ethiopia, Indonesia, Pakistan as well as China, among others, have documented that where a qualified and adequate number of teachers have been recruited, there has been visible positive learner academic achievement (Farooqi & Forbes, 2019; Kuhon, 2020; Mgema, 2022; Wargadinata & Hendiyani, 2017; Yatun et al., 2012; Zheng & Thomas, 2022). Maractho (2017) emphasizes that principals and teachers are central to ensuring better education outcomes for learners and consequently schools. It is on this premise that UNESCO (2015) advocates for countries to emphasize hiring of qualified, as well as well-motivated teachers.

Teachers' adequacy in numbers as well as their quality predicts success in education outcomes (Loeb et al., 2012; Evans & Popova, 2016). Similar studies have indicated that the right kind and number of teachers is important in promoting the quality of education and consequently contributes to the improvement of educational outcomes (Keno, 2015; Liebowitz & Porter, 2019; Maractho, 2017; Namara, 2020; Venkataraman & Loeb et al., 2012). Jurisdictions that have ensured that the right number of teachers are on the payroll have shown a corresponding success in academic achievements by their learners (Liebowitz & Porter, 2019; Loeb et al., 2012; Venkataraman & Keno, 2015). One goal of this study is to widen the literature about the significance of availability of teachers towards education outcomes, while also enriching the same from the perspective of local government performance assessment. Sub-Saharan Africa jurisdictions, with a few exceptions, tend to lack qualified teachers placed on their payroll. This has been extensively documented as being a hurdle towards academic achievement by learners (Chudgar, 2015; Gore et al., 2016; Keno, 2015; Maractho, 2017; Namara, 2020). While such shortage in some jurisdictions has been attributed to a general lack of trained teachers, in other jurisdictions including Ethiopia,

Indonesia, and Pakistan, the government simply lacks the resources to hire enough teachers (Farooqi & Forbes, 2019; Kuhon, 2020; Lamascolo, 2019; Wargadinata & Hendiyani, 2017). In rural and hard-to-reach areas though, studies have indicated a general shortage of teachers is partly attributed to the failure by such jurisdictions to attract and retain teachers due to poor infrastructure and a general lack of basic services (Farooqi & Forbes, 2019; Venkataraman & Keno, 2015).

Governments faced with budgetary restraints also face challenges in availing of resources towards improving the basic services and infrastructure in the rural areas. More effective teachers will avoid these to-reach areas and instead go to schools in local governments that they deem easily accessible, as well as have minimum basic facilities to support their livelihood (Batty, 2013; Zickafiise et al., 2024). It is no surprise that teachers in many jurisdictions including developed nations tend to be concentrated in urban areas while the rural areas and hard-to-reach areas struggle to attract sufficient numbers and qualified teachers (Lamascolo, 2019; Mason & Galway, 2023). Teachers who teach in hard-to-reach areas may not be effective, due to motivation issues that may arise from a lack of staff housing and a lack of good schools for their school-age children, among others (Uwezo, 2016).

The most pressing issue in the education system in most developing economies interestingly is not the failure to attract the right kind of teachers, but limited resources to hire the right number of teachers. As Chudgar (2015) argues, teachers supply has been reported to outpace demand in some jurisdictions. For example, Uganda phased out what they used to call “Licensed Teachers” in the early 2000s as it became apparent that the number of trained teachers in the country had reached saturation levels (Maractho, 2017; McEwan, 2015; Uwezo, 2019). In the context of Uganda, licensed teachers were individuals who did not undergo formal teacher training but held at least a Uganda Certificate of Education (UCE). In

other words, licensed teachers lacked specific qualifications or training as educators, relying solely on the minimum academic requirement of the UCE. The government employed these individuals to address the shortage of trained and qualified teachers. Over time, as the number of properly trained and qualified teachers increased, licensed teachers were gradually phased out. This transition was driven by the confidence of policymakers and technocrats at the Ministry of Education and Sports, who believed that the country had developed a sufficient pool of qualified teachers to meet its personnel needs (Kjaer & Muwanga, 2019; Nassaka, 2016). However, some local governments, especially those in rural and hard-to-reach areas continue to face significant challenges related to teacher attrition (Maractho, 2017; Namara, 2020). This has led to adverse effects on the educational outcome of learners (Chudgar, 2015). While there cannot be a single predictor of education outcome, many studies (e.g., Musah & Aawaar, 2022; Tabe, 2023) have consistently argued that teachers have a significant role to play in the academic achievements of students and the schools.

In some jurisdictions, the absence of an adequate number of teachers has been attributed to other factors, including nepotism (Gore et al., 2016). Studies suggest that nepotism and sometimes outright cronyism may be at play as a hurdle towards recruitment of an adequate number of teachers (Maractho, 2017; Namara, 2020). In her study in Eastern Uganda, Namara (2020) reports that 33% of the respondents believed that nepotism had negatively influenced the performance outcomes of schools because good teachers from other tribes/districts are excluded from recruitment. Politicians were reportedly interfering in the education system especially where teachers are arbitrarily transferred, sometimes as a punishment or due to favouritism (Farooqi & Forbes, 2019; Namara, 2020; Papay & Kraft, 2016). Teachers who benefit from nepotism to be recruited are likely to have low productivity as they tend to undermine their supervisors as they pay allegiance to the "godfather" who influenced their recruitment into the system (Farooqi & Forbes, 2019; Papay

& Kraft, 2016). Expectedly, this will affect their commitment to teaching, and as a result performance of students will be negatively impacted. Armed with this knowledge, this study examines the hiring of teachers by Ugandan local governments, where supply tends to outstrip demand across the local governments. As Namara (2020) and Maractho (2017) observe, Uganda produces more qualified and trained teachers than the education system can currently absorb into public service. The core challenge for local governments lies not in the availability of trained personnel, but in the limited financial resources necessary to recruit, deploy, and retain an adequate number of teachers within the system.

Closely related to hiring an adequate number of teachers, it is equally important to have the local governments have the District Education Office (DEO) staffed with critical staff, who are responsible for undertaking its oversight role of inspection monitoring as well as providing support supervision to schools (Tabe, 2023). It is the staff at the District Education Office that drives and implements the policies and mandate of the education sector at the sub-national level (Cilliers et al., 2019; Papay & Kraft, 2016; Tabe, 2023). Similarly, the DEO is responsible for monitoring the quality of education in the district, which is achieved through regular data collection, and is done through carrying out school visits (UNESCO, 2016). Having a well-staffed District Education Office, the officers monitor, provide support supervision, and report about the education sector in the district. Successfully recruiting for these critical positions may be determined by factors which include but are not limited to accessibility, the ability of the local governments to attract qualified individuals, supply and demand factors as well as the ability to conduct recruitment exercises by some local governments. Despite their widely documented role in ensuring seamless running of the education programs in the district, it is not unusual to find some DEOs in local government grossly understaffed (Musah & Aawaar, 2022; Tabe, 2023; Papay & Kraft, 2016; UNESCO, 2016).

2.2.2 Educator appraisal and education outcomes

As part and parcel of performance management, teacher performance appraisal cannot be over-emphasized. Studies on employee appraisal have documented the contributions of educator appraisal toward improving educators' motivation (Liang, et.al., 2016; Tyler & Taylor, 2012). According to Harrington and Lee (2015), teacher appraisal system promotes job satisfaction if approaches have developmental purpose and are judged by teachers to be fair, transparent and clear and applied uniformly. Motivation plays a significant role in increasing the effectiveness of teachers, as it leads to clear expectations and roles which in turn will enhance skills needed to fulfil their responsibilities (Harrington & Lee, 2015; Tyler & Taylor, 2012). Scholars, including (Cilliers, et.al., 2019; Gore, et.al., 2016; Jabbar. et.al., 2022; Zheng & Thomas, 2022) add that for staff appraisals to be effective, it should be developmental as opposed to being judgemental. Judgemental educator appraisal, it is argued, can be counterproductive toward teachers' motivation and ultimately impact negatively the learning outcomes of schools (Jabbar, et.al., 2022; Sharma & Sharma, 2017). Given the benefits of employee appraisal (Harrington & Lee, 2015; Kin & Holzer, 2016; Steyn & Niekerk, 2008; Tyler & Taylor, 2012) teachers will embrace the process if it is used to appreciate their work in addition to offering them professional support to improve their capacities (Steyn & Niekerk, 2008). Moreso, as Jabbar. et.al. (2022) and Tyler and Taylor (2012) add, educator performance appraisal is a key feature of performance management in human resources practice.

In many jurisdictions including Tanzania, Pakistan, and Uganda, among others, teachers are appraised against performance targets, including the academic achievements of their learners in schools (Hoy & Miskel, 2013; Loeb et.al., 2012). In Pakistan, the appraisal of teachers is a critical component of the education system, designed to ensure that teaching standards are maintained and that educational outcomes for learners are consistently

improved. Teacher appraisal processes in Pakistan involve evaluating teachers' performance based on various criteria, including classroom management, subject knowledge, pedagogical skills, and the ability to foster an engaging and effective learning environment. This process is intended not only to assess the effectiveness of individual teachers but also to identify areas for professional development and support. Farooqi and Forbes (2019) note that teacher appraisal is central to the broader goal of enhancing educational quality across the country. Through these evaluations, educators are provided with constructive feedback that helps them refine their teaching methods and improve their interactions with students. Moreover, the appraisal system is designed to align with national education policies and reforms, emphasizing the importance of teacher accountability, professional growth, and continuous improvement.

In addition to improving individual teaching practices, a developmental-oriented appraisal system serves as a tool for measuring the effectiveness of educational policies and identifying systemic issues within the schooling system. However, challenges such as inconsistencies in implementation, inadequate training for evaluators, and limited resources for follow-up support remain. Despite these challenges, teacher appraisal remains a key strategy for ensuring that teachers are equipped to deliver quality education and ultimately improve student outcomes in Pakistan. Research on educator appraisal highlights its critical role in promoting teacher effectiveness by fostering professional development, enhancing instructional quality, and ensuring accountability. Consequently, teacher evaluation has become an integral component of education sector reforms in many countries (Tuytens & Devos, 2017). It should be reiterated, though, that teachers are motivated differently and that their influence on learners may vary, even though such teachers undergo the same appraisal system (Gaines, 2019; Tyler & Taylor, 2012). Although many studies have been conducted to predict teacher productivity towards education outcomes, the current study uses a model

based on indicators under the local government performance assessment in Uganda, and it is believed the results will present a unique perspective on predictors of education outcomes.

For performance appraisal to effectively achieve its intended goals, it must be perceived by employees not merely as a mechanism for rewards and sanctions, but as a constructive tool for professional development and continuous improvement (Armstrong & Taylor, 2023; Sharma & Sharma, 2017). The pitfall of using appraisal as a rewards and sanctions scheme is that employees will perceive it as judgmental and punitive, instead of being viewed as a way to improve weak areas by the teachers/employees (Choi & Park, 2023). Despite the widely documented benefits of educator performance appraisals (Choi & Park, 2023), teachers in some jurisdictions view them as of no consequence since they have been turned into a ritual, as opposed to an improvement tool. In Pakistan, teachers have reported that performance appraisals are sometimes misused as instruments of punishment for those at odds with supervisors or as rewards for those favoured by them (Farooqi & Forbes, 2019; Wargadinata & Hendiyani, 2017). Such practices erode trust in the appraisal system, leading to teacher demotivation, which can ultimately hinder students' academic achievement.

Scholars have shown that teachers, motivated by their self-efficacy, are driven by the success of their students (Jabbar et al., 2022; Mandefro, 2020; Tabe, 2023). Teachers are more likely to feel motivated when they perceive the appraisal process not only as a recognition of their success but also as a means to support their professional growth, ultimately helping them better assist students in achieving their academic goals (Farooqi & Forbes, 2019; Gaines, 2019). In many educational systems, the traditional principal-agent model remains prevalent. In this model, the relationship between teachers and administrators tends to be hierarchical and focused on monitoring performance rather than fostering continuous development. The hierarchical structure often fails to promote teacher

improvement or provide the necessary support for professional growth, limiting its effectiveness in enhancing educational outcomes (Choi & Park, 2016; Liebowitz & Porter, 2019).

The use of the traditional principal-agent appraisal model has consistently been shown to be counterproductive to the purpose it is expected to serve (Choi & Park, 2023), basically because teachers perceive it as rhetoric rather than addressing the real issues at hand. Despite the shared shortcomings, this model is still used widely in many public service sectors. If the appraisal is done in such a way that it involves the teachers throughout the process, it has been reported that it will lead to teacher professional development and consequently better education outcomes for learners (Liebowitz & Porter, 2019; Sharma & Sharma, 2017). More so, performance appraisal is more effective toward teachers' professional development if treated as a continuous process as opposed to a one-off event (Steyn & Niekerk, 2008; Tyler & Taylor, 2012). Treating performance appraisals without biases and prejudices is crucial in ensuring that evaluations are objective-based rather than subjective, as emphasized by Sharma and Sharma (2017). In an objective-based appraisal system, the focus is placed on observable, measurable performance indicators that reflect the actual work and contributions of the teacher. This includes factors such as student learning outcomes, lesson planning, teaching methods, and classroom management, which can be evaluated through clear metrics and data.

Although ensuring fairness in teacher appraisal can be challenging, eliminating biases and prejudices from the process is essential. Doing so promotes equity by guaranteeing that all teachers are evaluated according to consistent standards, irrespective of personal characteristics such as gender, ethnicity, or their relationship with supervisors. This not only creates a level playing field but also enhances the credibility and fairness of the evaluation process. In contrast, subjective evaluations, which may be influenced by personal opinions,

preferences, or external factors, can lead to unfair assessments, resulting in dissatisfaction, demotivation, and a lack of trust in the appraisal system.

An objective-based appraisal system promotes transparency by ensuring that both evaluators and teachers are aware of the specific criteria guiding performance evaluations. This clarity facilitates the delivery of constructive feedback, offering teachers actionable insights for professional growth. When evaluations are grounded in consistent standards, they foster a growth-oriented mindset, enabling educators to understand how their performance aligns with expectations and where improvement is needed. Such an approach contributes to a more accountable, equitable, and professional learning environment for both teachers and students (Farooqi & Forbes, 2019). However, with the continued reliance on the traditional principal-agent model of performance appraisal within Uganda's education system (Nassaka, 2016), questions remain about its effectiveness in enhancing teacher performance and its broader implications for student learning outcomes, particularly within the framework of local government performance assessments.

Armstrong and Taylor (2023) have pointed out the significance for managers to realize that the objectives and strategic goals of an institution are best achieved through people. It is therefore important that teachers be provided with tools that will facilitate a better performance on their expected outputs (Hoy & Miskel, 2013). It is, therefore, imperative to focus on teacher improvement as the outcomes lead to greater teacher satisfaction and commitment, as well as higher morale leading to school improvement and learner academic achievement (Hoy & Miskel, 2013; Mason & Galway, 2022). Providing teachers with greater professional opportunities is significant in ensuring they perform to their expectations. Scholars (Choi & Park, 2023; Gaines, 2019; Liang et al., 2016; Liebowitz & Porter, 2019; Villavicencio et al., 2012) have documented that if teachers are not provided

with opportunities for professional growth and improvement, education outcomes for learners will also be negatively affected.

Research points to the overall benefits of education managers' skills and leadership concerning the performance appraisal system (Choi & Park, 2023; Tabe, 2023), the dynamics in the appraisal system (Penner, 2021; Plackle et al., 2022), and the intended objectives in teacher appraisal (Gorton & Alston, 2019). Education managers should aim at providing an enabling environment for teachers to improve their performance, and consequently, teachers will work towards learner education outcomes (Liebowitz & Porter, 2019; Perkins, 2018). As earlier pointed out, teachers will embrace the performance appraisal if they view the system as fair (Liebowitz & Porter, 2019; Sharma & Sharma, 2017; Perkins, 2018). They are likely to be less welcoming to the feedback resulting from performance appraisal, if there was no prior agreement on the targets to be achieved at the end of the appraisal period (Kim & Holzer, 2016; Perkins, 2018). Instead of seeing the appraisal process as judgmental and punitive, it should be viewed as a way of improving weak areas by the teacher and consequently promoting academic achievement by learners (Kim & Holzer, 2016).

For educators to perform effectively (Kim & Holzer, 2016; Perkins, 2018), they must be motivated, understand the expectations of their roles, and have the ability and skills needed to fulfil their responsibilities. Harrington and Lee (2015) add that for teacher appraisal to be effective, it should be developmental as opposed to being judgemental, as it has been documented that judgemental educator appraisal (Kalule & Bouchamma, 2014) can be counterproductive to learning outcomes for both the students and the teachers. With the importance attached to educator appraisal in the current study, it remains to be seen if it relates to performance by teachers in schools and ultimately influences learning outcomes under the local government performance assessment.

2.2.3 Continuous educator development and change in education outcome

Continuous professional development (CPD) is essential for ensuring that teachers remain current with evolving pedagogical trends and practices. As Tabe (2023) notes, teaching encompasses a wide array of complex responsibilities, which require not only strong training but also sustained motivation and professional growth. Despite widespread recognition of CPD's value, some education systems either neglect its implementation or offer only superficial support. For instance, in Pakistan, opportunities for professional development are limited, particularly in rural areas, leaving many teachers without regular access to skill enhancement or pedagogical updates (Farooqi & Forbes, 2019). This lack of ongoing training can hinder teachers' ability to deliver quality instruction, ultimately affecting student learning outcomes and school performance.

Research points to the overall benefits of teachers continuing development including improving teachers' abilities to teach through activities (Farooqi & Forbes, 2019; Tabe, 2023). This, according to Liebowitz and Porter (2019), could be through support supervision and monitoring as well as refresher courses, and training workshops, among others aimed at equipping them with new approaches to teaching and learning. Similarly, Paredes and Sevilla (2013) found that teachers training significantly improved the learner's education outcomes by improving their academic achievements on test scores. While support supervision and monitoring have consistently been shown to improve performance in schools, where they are effectively done, studies have shown that not all teachers may be reached (Farooqi & Forbes, 2019; Tabe, 2023).

In Pakistan, the available supervisors are spread thin on the ground and this drastically reduces their effectiveness to carry out their functions. The majority of teachers are unable to upgrade their academic qualifications due to their inability to fund the rather expensive higher qualification programs (Woolner & Duthilleul, 2022). Teacher salaries are perennially

low, particularly in developing economies, and the wages they do receive are not enough to fund their education (Chudgar, 2015; Tabe, 2023). Governments that are expected to support teachers' professional development often allocate little to no resources for further training (Gore et al., 2016), despite the crucial role of such development in improving teaching quality (Batty, 2013; Musah & Aawaar, 2022). For instance, the limited government funding for teacher development often ends up benefiting teachers who have favourable relationships with education managers, rather than being distributed based on merit or need (Farooqi & Forbes, 2019). This practice undermines the effectiveness of professional development programs and perpetuates inequities in the education system.

Globally, the right to quality education for every child is paramount, irrespective of race, sex, religion, or economic status (United Nations 2024; UNESCO, 2016). Ensuring the availability of well-trained and skilled teachers is amongst the features of accessing quality education by learners (Batty, 2013). Kjaer and Muwanga (2019) have pointed out this is not reflected in practice across the spectrum in both developing and developed economies. From Australia to the United States, there are still inherent issues of inequity in the education system (Davies & Davies; Gore et al., 2016; Penner, 2021; Plackle et al., 2022). In Australia, the issue of inequality was mitigated through more allocation of resources to schools that are attended by children coming from low economic backgrounds (Gore et al., 2016), while the United States as a high-income country still struggle on that front (Brookhart, 2013; Penner & Kraft, 2016; Villavicencio, 2012). Although Canada is often recognized for its strong education system, some jurisdictions inside the country still face challenges in attracting and retaining high-quality teachers, despite government efforts to ensure equitable distribution of resources (Marks, 2017). Nevertheless, data from the Programme for International Student Assessment (PISA) indicate that performance gaps among students from diverse backgrounds remain relatively narrow. This suggests that

equity-focused policies have had some success. Meanwhile, in the context of developing countries, school-based interventions such as teacher training have been shown to significantly improve student achievement. For instance, McEwan (2015) found that teacher training had a substantial positive effect on learning outcomes in primary schools. These findings underscore the importance of investing in teacher quality, through recruitment, support, and ongoing professional development in both developed and developing education systems.

The world is dynamic, and this calls for flexibility to respond to education trends in our societies (Paredes & Sevilla, 2023). In their study, Villavicencio et al. (2012) discuss extensively continuous professional development, and collaboration was pointed out to be among the ways for teachers to share experiences. Collaboration, they added, could be either informal or formal in schools and out of the schools. For instance, teachers of special needs students may meet together to discuss the standard practices and emerging issues in teaching in their area (Villavicencio et al., 2012). Similar studies (Batty, 2013; Tabe, 2023; Chudgar, 2015; McEwan, 2015) found that teachers meeting with counterparts helps in sharing experiences and better meet the needs of their learners. As Villavicencio et al., (2012) point out: “Strong social networks among teachers with high levels of expertise engaging in high depth interactions support instructional improvement over time” (p. 2). Sharing knowledge and discussing standard practices emerging out of the dynamic context can go a long way to promote the academic achievements of learners. Studies have indicated that teachers interacting with teachers from other schools or across institutional settings will have a greater positive impact on education outcomes.

Despite the well-documented benefits of continuous professional development for teachers (Zickafoose, 2024), many educators still face significant barriers to accessing meaningful training opportunities that would equip them with the competencies needed to

meet instructional expectations (Gore et al., 2016; Plackle et al., 2022). In sub-Saharan Africa, these challenges are often compounded by limited government resources, which constrain efforts to provide adequate teacher training and professional growth opportunities (Mason & Galway, 2023). As a result, teachers are frequently deployed to classrooms without the requisite pedagogical skills, a situation that can negatively impact student learning outcomes.

In Uganda, for instance, Maractho (2017) found that some teachers in the districts of Nebbi and Arua were delivering lessons without lesson plans, while others who prepared them did so inadequately. The study further revealed that teacher motivation was low, partly due to perceived favoritism in awarding opportunities for further qualifications. This stands in contrast to practices in countries such as China and Japan, where continuous professional development is a structured and equitable component of the education system.

In Shanghai, all teachers are entitled to equal access to further education opportunities and are required to complete 360 hours of professional training within their first five years of service (Jaafar et al., 2022; Liang et al., 2016). In Ecuador, teacher advancement is contingent upon undergoing specialized training and passing a compulsory knowledge test (Paredes & Sevilla, 2024). Meanwhile, Japan employs a contextually relevant model that emphasizes teacher collaboration alongside in-service training to enhance classroom practice (Liang et al., 2016). These international examples illustrate how strategic investment in teacher development directly supports efforts to improve student academic achievement, an objective shared globally but realized with varying degrees of effectiveness.

2.3 Financing and education outcome

Financing, like in any other sector, is critical in improving educational outcomes and cannot be over-emphasized. Goal number 4 of SDGs calls for “ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all” (United

Nations, 2024). Yet, low- and middle-income countries are still lagging on some of the targets under this goal (Namara, 2020; United Nations, 2024). While some progress has been made, for example on enrolment in primary and secondary schools, low and middle-income countries are lagging on other targets of this goal and the main contributor to the shortcoming is inadequate financing (Zickafoose et al., 2024). Previous scholarship on financing in the education sector and local government in particular have largely focused on the remuneration of teachers as well as funding for infrastructure, among others (Chudgar, 2015; Gore et al., 2016; Musah & Aawaar, 2022). This study examines financial management practices, with particular attention to the timeliness of resource disbursement to schools and the prompt communication of such disbursements within the timelines mandated by the central government. These practices illustrate a regulatory framework in which local governments operate under strict procedural guidelines imposed by higher authorities (Aglietta, 1979; Painter & Goodwin, 1995).

Uganda runs a decentralized local governance system, where primary education administration and management are placed under the jurisdiction of local governments (Kalule & Bouchamma, 2014; Namukasa & Buye, 2009; Namara, 2020) where primary school education is free for every school-going child and financing is largely by the central governments, rather than from local government revenue (Maractho, 2017). Literature has consistently indicated economies that have made adequate budgetary allocations toward their education sector have registered better education outcomes (Ra et al., 2023; Tabe, 2023). Their findings are congruent with the theory of public service improvement, that the more the resources, the better the results (Boyne, 2003). While adequate resources are essential for the effective delivery of education services, achieving meaningful learning outcomes also depends on efficient public financing and sound financial management practices (UNESCO, 2023). In Australia, China, and Sweden, studies indicate that

significant amounts of resources are allocated towards the education sector (Dzhurylo, 2019; Liang et al., 2016; Marks, 2017). This will be expected because the said countries, belong to the high economies brackets. In developing economies, in addition to budgetary constraints, the allocated resources may all be delayed in finally reaching the school, in which they are spent (McEwan, 2015; Maractho, 2017; Musah & Aawaar, 2022; Uwezo, 2019), hence disrupting the implementation of school programs and ultimately negatively impacting on the academic achievement of schools.

In many low- and middle-income economies, almost all funding for primary schools at the local government level comes from the central government (Mgema, 2022; Musah & Aawaar, 2022; Wargadinata & Hendiyani, 2017). Studies have shown that the financial resources disbursed from the central government cater to teachers' wage bills, school infrastructure (including classroom, latrine, and teachers' accommodation construction), and scholastic materials, among other resources and targets (Maractho, 2017; Wargadinata & Hendiyani, 2017). In Uganda, the government allocates approximately $5.41 USD per primary school pupil annually (Uwezo, 2019). While this amount is already modest by international standards, delays in the disbursement of these funds further undermine schools' capacity to plan and deliver essential educational services (Mackintosh et al., 2020; Twaweza, 2020).

Previous studies (Kalule & Bouchamma, 2014; Liang et al., 2016; Marks, 2017) have shown that jurisdictions that have placed effective financial mechanisms in the education sector are succeeding in narrowing the inequality gap. By allocating adequate resources to disadvantaged schools and regions, these systems ensure that all students, regardless of socio-economic background, have access to quality education. Targeted funding helps improve infrastructure, increase teacher salaries, provide learning materials, and support inclusive programs for marginalized groups. Such financial strategies not only address immediate

needs but also foster long-term improvements in educational equity (Gore et al., 2016). Moreover, these jurisdictions often implement financial policies that promote accountability and transparency in how funds are used, ensuring that resources are efficiently directed toward areas with the greatest need. While improved financial support can enhance a school's capacity to offer personalized learning, invest in teacher professional development, and implement student well-being programs, evidence suggests that the impact of these investments varies across contexts (Liang et al., 2016; Pritchett, 2015). In settings where governance and accountability systems are strong and robust, such investments are more likely to lead to improved student performance, lower dropout rates, and greater educational attainment. However, in resource-constrained or poorly managed environments, increased funding alone may not yield the intended outcomes, highlighting the importance of contextual factors in shaping educational effectiveness.

In sub-Saharan Africa, while access to education opportunities by school-going children has tremendously increased, this has not been followed by improvement in the quality of education (United Nations, 2024). Subsequent studies indicate budgetary allocation toward the education sector is below the expectation, compared to the corresponding number of enrolled students (Maractho, 2017). Budgetary constraints have handicapped schools, particularly in rural areas of developing economies without basic requirements including infrastructure but also a general lack of scholastic materials, negatively impacting academic achievements for learners (Zickafoose et al., 2024; Musah & Aawaar, 2022). Despite the considerable amounts of financial resources transferred to their respective local governments, countries, including Tanzania, Kenya, Burundi, and Ethiopia still present with unsatisfactory learning outcomes for their students (Fissha & Brehanu, 2017; Khan et al., 2017; Kjær & Muwanga, 2019; Mgema, 2022). This study seeks to

contribute a new perspective on how delays in the disbursement of already limited financial resources influence changes in educational outcomes.

Delays in the disbursement of allocated financial resources significantly impede the implementation of key education programs such as the procurement of teaching materials, infrastructure development, and teacher training (Khan et al., 2017Kjær & Muwanga, 2019). These delays disproportionately affect disadvantaged areas where schools depend heavily on timely government funding to maintain basic operations and ensure equity in educational opportunities. When budgeted funds are not released on time or withheld altogether, schools are forced to operate under constraints that negatively impact learning outcomes and widen existing inequalities (Fissha & Brehanu, 2017; Musah & Aawaar, 2022; Zickafoose et al., 2024).

In high-economy countries like Australia and Sweden, additional funding mechanisms such as parental contributions or targeted government support to help address funding gaps and improve access for learners from marginalized backgrounds (Batty, 2013; Woolner & Duthilleul, 2022). On the contrary, in many developing countries, including Uganda, the government remains the sole financier of basic education, and the funding allocated per pupil is often insufficient to meet even minimum learning needs (Jaafar et al., 2022). Without timely and adequate investment, efforts to promote educational equity and improve learning outcomes remain largely aspirational.

2.3.2 Timely submission and communication of UPE capitation grant releases

Studies associated with educational financing have concentrated on aspects like the provision of furniture as well as technology and infrastructure (Zickafoose et al., 2024). While this is legitimate, there are limited studies on financial practices pertaining to infrastructure projects in conjunction with education outcomes. Yatun et al. (2021) point out that effective financial management of resources requires financial resources to be disbursed

on time so that government programs are implemented within the planned timelines. This is supported by Wahyuni et al. (2017) who raised dimensions of expenditure quality in education including; timeliness, transparency, and accountability, among others. While timely budgeting, disbursement, and reporting are widely regarded as sound financial management practices that enhance transparency and accountability, the implications of delays in these processes warrant critical attention. Although such practices are intended to strengthen education service delivery, persistent delays in the fund disbursement can compromise the implementation of essential school activities. Scholars have noted that when schools do not receive resources on time, it disrupts planning and undermines efforts to improve teaching and learning, ultimately weakening student academic performance (Musah & Aawaar, 2019; Yatun et al., 2021). In Uganda, Twaeza (2020) observed that late capitation grant disbursements leave schools unable to meet basic operational needs, particularly in rural areas. These delays not only jeopardize academic outcomes but also threaten the equity goals of public education systems, as the most under-resourced schools are often the hardest hit (Davies & Davies, 2014).

In Uganda, under Universal Primary Schools, the central government Ministry of Education and Sports retained core functions of primary education including providing standards on the teaching curriculum as well as having the overall oversight and contribution to the construction of basic school facilities such as classrooms, libraries, and latrines, among others (Kjaer & Muwanga, 2019; Maractho, 2017; Namara, 2020). The Ministry of Education and Sports, through local governments, provides facility grants directly to schools to cover expenditure on teaching and learning materials, inspection and monitoring of schools, extra-curricular activities, maintenance, and operations among other costs (Kalule & Bouchamma, 2014; Maulid, 2017; Uwezo, 2016). The grant ensures that schools carry out their core function of providing education to the learners at each level. The District Education

Office directly manages this funding. While some studies (Davies & Davies, 2014) suggest financial autonomy could promote academic achievement, through boosting flexibility in using resources, there is as of yet no unanimous agreement that delayed disbursement of funding to schools impacts academic achievement.

2.4 Routine oversight, compliance and education outcome

2.4.1 School inspection and education outcome

Oversight in schools may include inspections as well as support supervision. According to Hong and Thomas (2022), school inspection is widely used in assessing and evaluating the quality of school educational outputs and in enhancing accountability through monitoring. Maractho (2017) argues that school inspections essentially aim at accountability, improvement, and compliance. Inspections are used as a tool of regulation, agreeing with the tenets of regulation theory (Aglietta, 1979). This argument is supported by Ehren et al. (2013) and Kalule and Bouchamma (2014), whose studies highlight the growing use of school inspections as a mechanism to enforce compliance and promote accountability across education systems. Ehren et al. (2013) found that when school inspections are designed to provide formative feedback and are coupled with professional support, they can lead to improvements in teaching practices and student outcomes. Similarly, Kalule and Bouchamma (2014) observed that in the Ugandan context, school inspections encouraged greater teacher commitment and institutional focus on performance targets, thereby contributing to improved school functioning. However, both studies caution that accountability measures are only effective when implemented transparently, with follow-up support and capacity-building, otherwise, they risk becoming punitive and demotivating for educators. Therefore, while accountability through inspections has the potential to improve quality and learning outcomes, its effectiveness depends on how the process is framed and operationalized.

Reforms in the education sector came with new dimensions on how to improve academic achievements at the various levels of schooling (Kalule & Bouchamma, 2014). Studies from Pakistan, Ethiopia, Tanzania, and South Africa have documented that school inspections remain inadequate, often characterized by insufficient frequency, limited scope, and a lack of thorough follow-up. These inspections frequently fail to address key areas of school performance, such as teaching quality, resource allocation, and student outcomes, and are often hindered by a shortage of trained inspectors and inadequate funding (Farooq & Forbes, 2019; Fissha & Brehanu, 2017; Namara, 2020; Maractho, 2017; Tabe, 2023).

Uganda was amongst the first countries south of the Sahara to implement Universal Primary Education, or UPE (Maractho, 2017). The aftermath of the introduction of UPE was the exponential growth of enrolment of pupils, and consequently, this came with challenges, including the quality of education provided to the learners (Kjaer & Muwanga, 2019). This called for improved inspection of schools and the aspect of continuous teacher development (Kalule & Bouchamma, 2014; Maractho, 2017; UNECEF, 2010; Paredes & Sevilla, 2023). Almost 20 years after the introduction of UPE, many developing economies, including Uganda are still struggling with assessing the quality of education (Kalule & Bouchamma, 2014). Regular inspection is one way in which performance in schools can be monitored and consequently supported for improvement in academic achievement. Previous studies (Ehren & Shackleton, 2016; Ehren et al., 2013; Mgema, 2022; Woolner & Duthilleul, 2022) consistently show that limited engagement and oversight by school inspectors can negatively impact educational outcomes. In particular, reduced frequency of inspections and follow-up support weakens school accountability mechanisms and hinders improvements in teaching and learning. Scholars further highlight that when school inspection is neglected altogether, schools are more likely to deviate from set standards, resulting in diminished instructional quality and reduced learner achievement (Ehren & Shackleton, 2016).

Lack of or inadequate school inspections can contribute to student dropout in several ways. Namara (2020) highlighted that insufficient school inspection routines by the District Education Office played a role in the high dropout rates among primary school students in Eastern Uganda. School inspections are critical for ensuring that schools maintain a high standard of teaching, learning resources, and overall school management. Without regular inspections, issues such as poor teaching quality, inadequate classroom resources, and ineffective school leadership may go unnoticed and unresolved, leading to a decline in student engagement and performance.

School inspections help identify and address challenges faced by students, such as bullying, poor infrastructure, or a lack of support for learners with special needs (Namara, 2020). When such issues are overlooked due to infrequent or ineffective inspections, students may become discouraged or disengaged, ultimately leading to higher dropout rates. Inadequate inspection also means that teachers are deprived of the professional feedback and support necessary to enhance their instructional practices, further impacting student learning and motivation (Mgema, 2022; Twaweza, 2020). Consequently, the absence of a robust school inspection framework contributes to an environment where both learners and educators feel unsupported. One major contributing factor to weak inspection systems is the chronic understaffing of inspectorate offices and the inadequate allocation of financial and logistical resources to support inspection activities, particularly in low- and middle-income countries. Studies from Indonesia, Tanzania, and Ethiopia confirm that limited monitoring and supervisory support is a significant predictor of school dropout (Mandefro, 2020; Mgema, 2020; Risakotta & Akbar, 2018; Venkataraman & Keno, 2015).

In the United Kingdom, the frequency of inspections of schools is undertaken as determined by need, in that if the school performance is judged to be satisfactory, then the number of inspections will be fewer, while the frequency of inspections as well as support

supervision will be increased if the school performance is judged to be unsatisfactory (Andrews et al., 2005; Batty, 2013; Ehren & Shackleton, 2016). Proponents of this inspection model argue that it is cost-effective and facilitates a more proactive approach to school oversight, enabling early identification of challenges (Ehren & Shackleton, 2016). As Batty (2013) further explains, this approach allows for individualized support supervision, where schools that fall short of performance expectations receive targeted interventions through customized school improvement plans.

In Uganda, local governments, through their respective district education offices are mandated to supervise and inspect all public and private primary schools within their jurisdictions (Maractho, 2017; Mgema, 2022; Namara, 2020). However, existing literature highlights that many district education offices are critically understaffed, which significantly hampers their ability to effectively execute these responsibilities (Kjaer & Muwanga, 2019; Mason & Galway, 2022). While some districts have made efforts to engage community stakeholders to supplement the limited staff, participation remains low. This reluctance is often attributed to community perceptions that their involvement is undervalued (Nassaka, 2009; Kalule & Bouchamma, 2014; Nassaka, 2016; Namara, 2020).

Research points to the contributions of school inspection in that education inspectors can capture the issues at hand and corrective actions aimed at school improvement recommended (Hong & Thomas, 2012). While different jurisdictions may adopt different inspection models, the objectives are common oversight and forced compliance, leading to better education outcomes. In the Netherlands and the United Kingdom, jurisdictions have adopted a reward regime for good-performing schools, while perennially poor-performing schools may be sanctioned (Hong & Thomas, 2022). Studies have, though, indicated sanctions may not necessarily promote better performance, as they could even be counterproductive (Cillier et al., 2021; Zheng, 2020). In Dubai, inspection serves as a quality

assurance instrument, mainly in private schools (Jaafar et al., 22023). Scholars have indicated that it is therefore important for the inspection process to look at the school as a whole as well as interact with teachers, students, and administrators (Zheng & Thomas, 2022; Liang et al., 2016). Focusing on certain features in the school may be an avenue for undermining the core objectives of the education process (Choi and Park, 2023; Gorton & Alston, 2019; Hong & Thomas, 2022).

Several scholars (Ehren et al., 2013; Liebowitz & Painter, 2019; Nassaka, 2016) emphasize that for school inspection to be effective, it should be approached as a developmental and learning-oriented process rather than merely a fault-finding exercise. According to Ehren and Shackleton (2016), feedback to teachers by the school was found to play a significant role in motivating teachers. These findings agree with school inspectors who are known to give feedback guidance to headteachers on areas of strengths as well as where improvement may be required (Zheng, 2020). Good feedback by the school inspectors is that which is contextually based and appropriate to performance issues identified during the inspection. As earlier noted, inspection aims at ensuring conformity and compliance by the schools, as dictated by the regulation theory (Cilliers et al., 2019; Ehren & Shackleton, 2016). In Tanzania, for example, school inspections are often inspired by school effectiveness research, to ensure the conformity of schools with particular statutory requirements (Mgema, 2022). As Mgema (2022) adds, Tanzania is particularly salient in this context because of its unique challenges and efforts to reform its education system.

With a rapidly growing population and a large proportion of students in rural and underserved areas, the country faces significant obstacles in ensuring educational quality and equity. School inspections, therefore, play a crucial role in monitoring progress toward achieving the government's educational goals, ensuring that schools are not only compliant with statutory requirements but also striving for continuous improvement. These inspections

help to identify gaps in performance and provide the data needed to implement targeted interventions, making them a vital tool for fostering educational development in Tanzania. School inspection has always been an essential feature of education management in pursuit of promoting learning outcomes. School inspections can better achieve results if they are interactive and capture the views of the schools, as opposed to only focused on accountability and compliance (Zheng & Thomas, 2022).

Scholars have widely documented the pros and cons of school inspection with the benefits greatly outweighing the negative effects (Ehren et al., 2013; Ehren & Shackleton, 2016). Moreover, school systems in the developing world still require regular support for better school education outcomes. As Ehren and Shackleton (2016) as well as Khan (2022) have demonstrated, more school inspection and supervision is associated with improved school performance. Despite these widely documented benefits, the inspectors may fail to reach all schools, as this is attributed to an inadequate number of school inspectors in the local government education office (Lamascolo, 2019; Mgema, 2022), while attempts to co-opt other stakeholders quickly lose traction due to inadequate facilitation to effectively reach all the schools in their jurisdictions (Namara, 2020). This, according to Shackleton (2016), is further exacerbated by the fact that in the decentralized system of governance, inspection and support supervision tend to be victims of inadequate resource allocations.

When the allocated funds are disaggregated, for example, in Uganda, it is apparent that a significant proportion is used to facilitate activities not directly related to school inspection, such as administrative expenditures, workshops, and/or travel allowances (Jaafar et al., 2022; Namara, 2020). This misalignment of priorities has implications for the effectiveness of inspection systems, which are intended to ensure accountability and improve school performance (Nganga, 2014). Available literature emphasizes the critical role of parents and other local stakeholders in enhancing learning outcomes, particularly through

participatory school governance and support for teaching and learning processes (Liang et al., 2016; Penner, 2021; Plackle et al., 2022). Research from developed contexts such as Canada, the United States, and Australia reveals that active parental engagement and collaborative school-community relationships are often embedded in educational policy and practice, contributing significantly to student achievement (Gore et al., 2016; Marks, 2017; Penner, 2012).

Conversely, in many developing countries, structural and socio-political barriers limit the depth of stakeholder involvement. Nevertheless, countries like Tanzania, Ethiopia, Indonesia, Vietnam, and Pakistan have made strides through the establishment of School Management Committees (SMCs), which serve as a platform for parental and community engagement in school oversight (Mason & Galway, 2022; Maulid, 2017; Malesky et al., 2022; Yatun et al., 2021; Wargadinata & Hendiyani, 2017). These committees often collaborate with school inspectors to monitor performance, facilitate resource mobilization, and mediate between schools and local authorities. SMCs are also intended to represent the interests of diverse community groups in school governance. However, empirical evidence indicates that in some contexts, SMCs have been co-opted by local elites who dominate decision-making processes, thereby undermining inclusivity and transparency (Khan, 2017; Namara, 2020; Uwezo, 2019). This elite capture can diminish the potential of SMCs to function as effective accountability mechanisms, especially in resource-constrained settings.

Inspection and monitoring under the decentralized system have improved especially in terms of regularity, and inspectors have more time to interface with both teachers and pupils at school than before (Ehren et al., 2013). In Tanzania and Vietnam, inspection has contributed to a reduction in absenteeism by both teachers and pupils (Ehren & Shackleton, 2016; Namara, 2020). In Holland, performance on the national standardized examination

improved after two years of introducing the risk-based inspection (Ehren & Shackleton, 2016).

2.4.2 Support supervision, reporting and education outcome

Support supervision is important as it helps to identify areas of weakness and work with the school to address those areas of weakness (Yatun et al., 2021; Zheng & Thomas, 2022). Support supervision, in this context, refers to a collaborative and developmental process through which education authorities, such as school inspectors or district education officers, work closely with school leaders and teachers to enhance professional practice (Matete, 2021; Penney et al., 2018). Rather than being punitive or compliance-oriented, this approach emphasizes guidance, constructive feedback, and ongoing professional development. The goal is to strengthen instructional quality, improve school management practices, and create supportive learning environments. When effectively implemented, support supervision contributes to improved teacher motivation, accountability, and instructional strategies that are directly linked to better student learning outcomes and overall school performance. It also fosters a culture of continuous improvement, where schools are supported in identifying challenges and co-developing solutions tailored to their local contexts.

Studies indicate the best way to make support supervision work is to make it formative and interactive, where teachers are involved along the chain of the supervision process (Kalule & Bouchamma, 2014; Mandefro, 2020), and it has been widely documented that a well-conceived supervision process aides in promoting teacher professional development (Ehren & Shackleton, 2016). As Kalule and Bouchamma (2014) argue, supervision will primarily enable teachers to improve their teaching skills and become better professionals. The headteachers play a significant role within the school as they are expected to supervise the teaching activities of the teachers. This supervision ensures teachers are

fulfilling their mandate, but also this is part of accountability on the side of the teachers (Kalule & Bouchamma, 2014).

Similarly, reporting is important, as all school activities have to be documented for accountability purposes among others (Ehren et al., 2013; Hoy & Miskel, 2013; Penney et al., 2018). Gorton and Alston (2019) argue that regular reporting acts as a way of quality assurance of education activities and this can be indicated in the performance and/or academic achievement of learners in schools. Literature indicates that through reporting, the policymakers will be able to compare performance of different localities. In Tanzania, for example, performance on the primary national standardized examination has consistently indicated that urban area schools have better academic achievement than rural-based schools (Uwezo, 2016; Maulid, 2017). This can be attributed to mismatches in the status of facilities, where the rural areas are faced with poor facilities, including a lack of classrooms, teacher accommodation, and a general lack of scholastic material (Maulid, 2017, Mgema, 2022). It is important to note that across diverse regions, including China, Europe, North America, Sub Saharan Africa, and other jurisdictions, routine supervision and oversight commonly serve the shared purpose of enhancing teaching quality and improving student learning outcomes (Lamascolo, 2019; Zheng & Thomas, 2022). In the current study, it remains to be seen how reporting and support supervision play out, and if at all it is a predictor of academic achievement.

2.5 Academic achievement/education outcome in Uganda

Primary school achievement in Uganda has faced persistent challenges, despite significant efforts to improve educational outcomes. According to the Uwezo Annual Learning Assessment reports, learning outcomes remain consistently low, with a large proportion of children unable to perform basic literacy and numeracy tasks expected for their grade level. Primary school completion rates in Uganda have received considerable attention

in recent literature (Maractho, 2017; UNESCO, 2024; Uwezo, 2016). Despite commendable efforts to improve foundational learning, such as the implementation of Universal Primary Education (UPE) and the early grade reading programme, which reportedly reaches 80% of public primary schools and benefits around 6 million pupils (Twaweza, 2020), completion rates remain among the lowest globally, at just 53% (UNESCO, 2024; Uwezo, 2019). Nevertheless, enrolment has seen significant growth, rising from 6.5 million in 2000 to 9 million in 2017 (Uwezo, 2019).

Local governments, which are responsible for overseeing primary education at the grassroots level, have experienced mixed success in improving learning outcomes. Limited financial resources constrain the ability of local governments to provide adequate instructional materials, maintain school infrastructure, and recruit and retain qualified teachers. Additionally, capacity gaps in education management, including weak supervision and accountability mechanisms, have further hindered progress (Maractho, 2017; Namara, 2020). Corruption, inefficient allocation of funds, and a lack of community involvement in school governance also contribute to the persistent struggles in achieving quality education. As a result, many schools continue to face overcrowded classrooms, high pupil-to-teacher ratios, and inadequate learning environments, ultimately limiting students' academic success.

The academic expectations for primary school leavers in Uganda are defined through the Primary Leaving Examination (PLE), which serves as the key assessment to determine whether students qualify for secondary education. The decentralized governance system, which was intended to improve education outcomes by tailoring approaches to local needs, has faced challenges. Namukas and Buye (2009) argue that while decentralization holds promise, its success is contingent on the adequacy of local governance structures, with significant variations across regions. In Eastern Uganda, for example, decentralized

governance has not always led to improved performance due to limited local administrative capacity and the challenges associated with rural school settings (Namara, 2020).

In Uganda and in many other jurisdictions, socio-economic status and parental education levels are significant predictors of primary school achievement, with children from wealthier families and more educated parents generally performing better academically (Kjær & Muwanga, 2019). Children from wealthier households and those whose parents have higher educational attainment tend to perform better academically. The Uwezo reports consistently show a correlation between parental education and student performance, as educated parents are more likely to invest in their children's education and provide support at home. Furthermore, children from low-income households often face multiple barriers to learning such as lack of learning materials, poor nutrition, and inadequate parental support (Uwezo, 2016; Uwezo, 2019), which negatively impacts their academic performance. As Maractho (2017) emphasizes, local governments must address these disparities by improving access to quality education and supporting disadvantaged communities, especially in rural areas, where socio-economic challenges are more pronounced.

Academic achievement in this study will mean change in performance on Primary Leaving Examinations, which is a national standardized examination administered at the end of primary schooling. The change in education outcome will be measured by whether performance on the standardized national examination improved or declined from the previous academic year. Yatun et al. (2021) defined educational performance as achievement measured against inputs, processes, outputs, and outcomes. The outcome of this study is change in performance on the standardized national primary school examination. Using a change variable rather than a static score allows for a more accurate assessment of the dynamic nature of learning, capturing students' progress over time and providing insight into the effectiveness of educational interventions and policies. This dynamic approach provides a

more nuanced understanding of learning because it reflects growth or setbacks, rather than just offering a snapshot. It helps to evaluate how well educational interventions, teaching methods, or policy changes are working by showing whether and how students are actually progressing. For example, if a school implements a new reading program, a change score would reveal whether students improved after its introduction, which a single score could not.

Many studies including Musah and Aawaar (2022), Wahyuni et al. (2017), and Zickafoose et al. (2024) have discussed educational outcomes under varying predictors. Yatun et al. (2021) focused on how financing has affected school infrastructure and teachers' accommodation, while other studies (Freer, 2010; Mgema, 2022; Musah & Aawaar, 2020; Namara, 2022) have linked financing and quality of education. Limited attention has been paid to financial as well as human resources practices to predict education outcomes in the local government dimension.

2.6 Conceptual framework

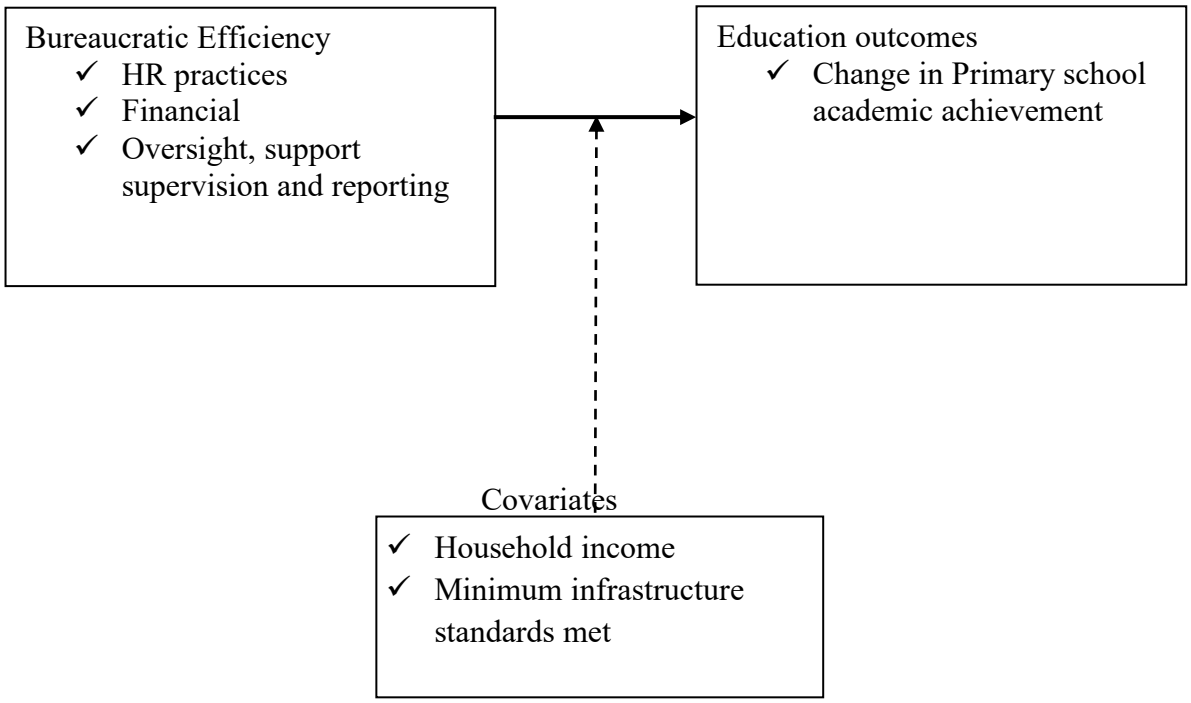
This study examines the predictors of change in educational outcomes in primary schools within local governments in Uganda. Specifically, it investigates the influence of human resources, financial management, and routine support and supervision practices by district education offices on school performance. In this study, human resource practices were assessed through key indicators, including the recruitment of an adequate number of teachers, substantive appointment of critical staff (such as the District Education Officer and the Senior Inspector of Schools), performance appraisal of head teachers and local government staff, and continuous teacher professional development. These factors formed the basis for statistical hypothesis testing.

Similarly, budgeting and financial management practices were evaluated based on the timely submission and communication of Universal Primary Education (UPE) capitation grant releases to schools and other government entities. Lastly, oversight, compliance, and

reporting were measured through indicators such as the number of school inspections conducted, adherence to reporting guidelines, and support to schools in developing improvement plans, among others.

Performance by local government is not entirely up to them to decide but some external levers by the central government hands down practices that must be performed to promote performance improvement in terms of service provision.

Figure 1: Conceptual framework for predictors and change in education outcomes



Source: Developed and customized based on Michel Aglietta's explanation of the theory of capitalist regulation (1979).

Figure 1, above indicates that predictors for local government performance under the Local Government Performance Assessment include Human Resources, Financial as well as

Routine and support supervision, for this study. The way these are executed by the local government entity will determine the level of academic achievement in their jurisdiction.

Chapter 3: Methodology

3.0 Introduction

This chapter discusses the methodology used in the study. This chapter describes the methods and procedures used, which include the research design, the study unit, the research instruments, and the data analysis technique.

3.1 Study design

A descriptive and predictive correlational research design is adopted for this study, to investigate local government administration predictors' relationship with academic achievement. A correlational research design is a type of study that explores the relationship or association between two or more variables without manipulating them. This design is particularly useful in educational research for identifying patterns and associations that can inform policy and practice. It aims to determine whether and to what extent variables are related, but does not establish cause-and-effect relationships. Correlational studies measure the strength and direction of the relationship using statistical tools, often calculating correlation coefficients, which indicate how closely the variables move together. This design is useful for identifying patterns and making predictions but cannot determine causal links between the variables (Creswell & Creswell 2017).

This study is quantitative in nature and involves a comprehensive statistical analysis of existing data from the 2022 Local Government and Management Service Delivery (LGMSD) Performance Assessment administered by the Office of the Prime Minister (OPM), Uganda. A quantitative study, according to Roni et al. (2020) uses numerical data and enables the researcher to understand relationships between measured constructs. Accordingly, quantitative methods, were used to enable the researcher to develop a predictive model that captures the association between the predictor variables and change in education outcomes. The education outcome/achievements by primary schools in this study are measured through

change in pass rates on the standardized national examination, which is the Primary Leaving Examinations, administered by the Uganda National Examinations Board (UNEB). Schools' achievement results on the national standardized primary examination are aggregated to evaluate the performance of district/local government.

3.2 Data and data sources

Since 2017, the Government of Uganda, through the Ministry of Finance, Planning, and Economic Development, has engaged independent consulting firms to assess local governments' performance in managing service delivery, following the guidelines outlined in *the* Local Government Management of Service Delivery Performance Assessment Manual (2020). The Office of the Prime Minister serves as the client for these assessments. The consulting firms collect data from both national-level secondary sources, as stipulated in the LGMSD Manual, and district-level documentary evidence. The data used in this study is drawn from these assessments and includes information from both privately owned and public primary schools, providing a comprehensive view of the education sector's performance across different school types.

The data were collected starting November 2021 and compiled in March 2022. While the dataset contains information on Health, Water, Education, Micro-Scale Irrigation, Local Government Planning and Financing, Local Government Human Resources and Development, Environment Management and Social Safeguards, the current study concentrated solely on the education dataset, which was extracted for this purpose. Education data contain statistics on constructs that are comprised of human resources practices, financing and budgetary practices as well as oversight, support supervision, and reporting practices. The predictor variables were: human resources management (recruitment of adequate number of teachers, substantively recruited LG staff, appraisal of teachers and LG staff, as well as continuous teacher development- preparation of training plan). Similarly,

financial and budgetary practices were measured under (i) timely invoicing and communication of UPE grant releases to schools, and (ii) timely submission of warrants for school's capitation within 5 days after cash limits have been uploaded on the Integrated Financial Management Information System (IFMIS) which is managed by the Ministry of Finance, planning and Economic Development (OPM, 2021). Warranting in the Uganda Government means local governments undertake timely communication and submission to Ministry of Finance, Planning and Economic Development (MoFPED) as well as other Lower Governments to confirm receipt of expenditure ceilings, usually within 5 days after receiving this information from the Central Government. The timelines are dictated by the Ministry of Finance, Planning and Economic Development (MoFPED). All LGs are mandated to comply.

Variables and indicators include, but are not limited to: recruitment of critical staff, appraisal of teachers and staff, and adequacy of the number of teachers, among others. In the current study, the following variables were investigated as predictors of the outcome variable: adequacy of recruited primary school teachers, substantively recruited critical staff, appraisal of teachers and LG staff, continuous teacher appraisal, timely submission and communication of UPE capitation releases, support to schools with development of school improvement plans, number of schools inspected, and compliance to reporting guidelines. The study included the minimum infrastructure standards from the dataset as one of the covariates. Socio-economic variables, particularly household income for LGs, were included as a covariate. This was lifted from the Uganda household survey report of 2019. Specifically, the household income across LGs was categorized as either below 10 million or above, then coded into binary (0,1) for purposes of running statistical analysis.

The dependent variable in this study was the change in educational performance, measured by the variation in primary schools' pass rates on the Primary Leaving Examination

(PLE) within local governments. The PLE is Uganda's national standardized examination taken by all candidates at the end of primary school as a prerequisite for entry into secondary education. Students who fail the PLE may not proceed to secondary school.

In this study, "change in PLE pass rate" was defined as whether a school's pass rate (i) increased (improved) or (ii) remained static or declined when comparing the results of the previous academic year with those of the year before it. This measurement controlled for socioeconomic factors and basic infrastructure standards, allowing for a more accurate assessment of changes in educational outcomes. The unit of analysis in this study was the Ugandan district/local government and number of LGs were (n= 154). This study uses secondary data from the Local Government and Management Service Delivery (LGMSD) Performance Assessment, administered by the Office of the Prime Minister, of the Republic of Uganda. Access to the data sets was obtained through writing to the OPM requesting and seeking permission to use data sets solely for this study.

Secondly, I make use of the Uganda Household Demographic Survey (UDHS, 2020) which captured the average socio-economic status of households in each LGA. This inclusion of these data allowed for the control for socio-economic determinants of learning outcomes. This dataset includes basic socio-economic characteristics such as household income, asset ownership, and access to water and electricity, among others. For each of the selected variables, I determined an income cut-off and calculated the proportion who met that cut off (household income) for each district, and merge these aggregates with the overall dataset used in this study. The data are publicly accessible and can be retrieved from the official website of the Uganda Bureau of Statistics. The minimum infrastructure standards of schools in the local governments (LGs) were included as a covariate to control for this variable, which could potentially influence both the independent and dependent variables, thereby leading to spurious or misleading conclusions (Creswell & Creswell, 2017). Including this

variable in the study enabled the isolation of the effects of the predictor variables on the outcome variable, providing a clearer understanding of the intended predictors. Creswell and Creswell (2017) highlight the importance of controlling for confounding variables to enhance the internal validity of the study, ensuring that the observed effects are truly attributable to the variables of interest and not to other extraneous factors. This approach contributes to the overall credibility and robustness of the research findings.

3.3 Data cleaning and analysis

Data were cleaned using R and R Studio Software. The cleaning involved removing/making inactive the performance areas and indicators not desired for this study, and standardizing formats. Several variables were ordinal, which presented analytical challenges, so levels were collapsed into binary variables as shown in Table 1 below. The final cleaned dataset was then analysed in IBM Statistical Package for Social Sciences (v. 28). Data analysis following a systematic approach was used to test the research hypothesis and answer the research questions. Specifically, inferential statistics were used to test the hypotheses of the study as indicated in Section 1.4. First, descriptive (frequencies, means) and measures of dispersion (standard deviation, standard error, variance) were employed, as well as correlation to describe relationships among variables. Next, inferential statistical techniques were used for data analysis. Binary logistic regression was employed to analyse the outcome (Change in PLE pass rate) variable as predicted by the independent variables (human resources practices, financial/budgetary practices as well as oversight and routine supervision). Binary logistic regression, according to Knapp, 2022) does not assume a linear relationship between the dependent and independent variables, because the outcome variable is usually dichotomous, after transformation to binary data through coding.

3.4 Validity

Gall et al. (1996) define research validity as the extent to which the inferences drawn from a study are appropriate, meaningful, and useful. Establishing validity in research is crucial to ensuring that findings accurately reflect the constructs under investigation and are not distorted by methodological flaws (Mitchell, 1985). To strengthen the validity of this study, I ensured the credibility of the data, which originate from a reputable government entity (Office of the Prime Minister of the Government of Uganda) and were collected through rigorous methodologies incorporating multiple quality control measures.

According to Creswell and Creswell (2017), well-established data sources maintain high standards for data collection and processing, reducing the likelihood of systematic errors. The reliability of correlational research, as emphasized by Mitchell (1985), hinges on minimizing sources of bias and ensuring that data are both representative and appropriately measured. In this study, after the initial data collection, an independent verification agent was engaged to review and validate the assessment results as an added quality control measure (Office of the Prime Minister, 2023). This independent verification aligns with best practices for reducing errors and increasing the trustworthiness of research findings.

Furthermore, rigorous data cleaning procedures were implemented, including the removal of irrelevant records, ensuring that only valid data were retained for analysis. By doing so, the dataset remained precise, reducing potential confounding effects. The data were also scrutinized to ensure that the measured variables directly addressed the research questions, reinforcing construct validity.

To enhance external validity, the dataset was carefully filtered to include only educational data relevant to this study's context. Mitchell (1985) highlights that valid correlational research must ensure that the selected variables are relevant and accurately capture the phenomena under investigation. Additionally, the dataset was sufficiently recent,

having been collected between November and December 2022. As a result, it reflects current trends and conditions pertinent to this study, increasing the applicability and timeliness of the findings. By adhering to these methodological precautions, the validity of this research is well supported, ensuring that the conclusions drawn are both meaningful and reliable.

Chapter 4: Results

4.1 Introduction

In this chapter, the analyses of the collected data are presented in two sections. Section 4.2 contains the descriptive statistics for each of the measures. Section 4.3 presents the statistical analysis, which used the multiple logistic regression analysis between the predictors and outcome variables (change in PLE pass rate).

4.2 Descriptive statistics

Table 1 below presents the coded and collapsed categories for the predictor and outcome variables. The outcome variable in the present analysis is the change in the PLE pass rate for primary schools in local governments. Minimum infrastructure for school facilities and infrastructure was included as one of the covariates in this model.

Table 1: Data coding and category collapsed (0, 1), (N=154)

Variable	Category (Dichotomous)	Count	Evaluation criteria
Change in PLE Pass Rate	No improvement (0)	89	LGs with schools that did not register a change in or whose PLE pass rate remained static
	Between 1 and 5% (1)	40	Schools in LGs whose PLE pass rate improved between 1% and 5%
	>5% (1)	25	LG schools with change in PLE pass rates that improved greater than 5%
Compliance to Report Guidelines	<80% (0)	95	Fewer than 80% of LGs with schools that submitted their reports
	80-99% (1)	9	80%-99% of schools submitted their reports
	100% (1)	50	100% of schools in LGs submitted their reports
Appraisal of Teachers and Staff	<99% (0)	66	LGs that did not appraise 100% of primary school headteachers
	100% (1)	88	LGs that appraised 100% of the primary school headteachers

Timely invoicing and communication of UPE capitation grant releases	No (0)	114	LGs that did not communicate and publicize release of UPE capitation grants to schools within 3 working days after release from MoFPED*
	Yes (1)	40	LGs that communicated and publicized release of UPE capitation grants to schools within 3 working days after release from MoFPED*
Timely Submission of Warrants	No	125	LGs that did not do timely submissions
	Yes	29	LGs that timely made submissions
Percent of UPE Schools that were Inspected and Monitoring Reports Produced	<80% (0)	29	Fewer than 80% of LGs inspected schools and compiled a monitoring report
	80-99% (0)	27	80%-99% of schools in the LGs were inspected and compiled monitoring report
	100% (1)	98	100% of LGs inspected schools and compiled monitoring report
Recruited DEO/PEO	No	42	Number of LGs that did not substantively recruit or formally request for secondment of District Education/Principal Education Officer
	Yes	112	Number of LGs that substantively recruited or formally requested for secondment of District Education/Principal Education Officer
Recruited primary school teachers	<70% (0)	26	LGs that recruited teachers below 70% as per prescribed MoES staffing guidelines
	70-79% (0)	27	LGs recruited teachers between 70%-79% as per prescribed MoES staffing guidelines
	80-99% (1)	79	LGs recruited teachers between 80%-99% as per prescribed MoES staffing guidelines
	100% (1)	22	LGs that recruited teachers at 100% as per prescribed MoES staffing guidelines
Support to schools to develop School Improvement Plans	<30 (0)	32	Fewer than 30% of the LGs that supported schools to prepare and implement SIPs in line with inspection recommendations

	40%-49% (0)	8	Between 40%-49% of LGs supported schools to prepare and implement SIPs in line with inspection recommendations
	>50 (1)	114	At least 50% and above of LGs that supported schools to prepare and implement SIPs in line with inspection recommendations
Preparation of training plan	No (0)	23	Number of LGs that did not have a prepared training plan
	Yes (1)	131	LGs that prepared a training plan
Recruited School Inspectors	No (0)	18	LGs that did not substantively recruit or formally request for secondment of District Education/Principal Education Officer
	Yes (1)	136	Number of LGs that substantively recruited and/or formally requested for secondment of District Education/Principal Education Officer
Schools meeting Minimum	<50% (0)	34	Percent of schools in LG with Minimum Infrastructure Standards below 50%
Infrastructure Standards	Btn 50%-59% (0)	5	Percent of schools in LG with Minimum Infrastructure Standards between 50%-59%
	Btn 60%-69% (0)	16	Percent of schools in LG with Minimum Infrastructure Standards between 60%-69%
	>70% (1)	99	Percent of schools in LG with Minimum Infrastructure Standards above 70%

** MoFPED is an acronym for Ministry of Finance, Planning and Economic Development*

From the table above, 89 LGs had schools that did not show improvement in PLE performance, while 65 LGs had schools that showed improvement.

Table 2: Change in PLE pass rates against the predictor variables

	Declined/no improvement in PLE Pass Rate	Improvement in PLE Pass Rate
Recruitment of Teachers Per Guidelines		
Did not meet guidelines	37.1% (33)	30.8% (20)
Met guidelines	62.9% (56)	69.2% (45)
Total	100% (89)	100% (65)
Compliance to Budgeting and Reporting Guidelines		
Did not comply to reporting guidelines	58.5% (38)	64.0% (57)

Complied to reporting guidelines	41.5% (27)	36.0% (32)
Total	100%	100%
Supported Schools to Develop SIPs		
Did not support schools to develop SIPs	29.2% (19)	23.6% (21)
Supported schools to develop SIPs	70.8% (46)	76.4% (68)
Total	100%	100%
Percentage of schools inspected		
Inspected below 80%	39.3% (35)	32.3% (21)
Inspected > 80%	60.7% (54)	67.7% (44)
Total	100%	100%
Discussion of Inspection Reports		
Did not discuss reports	27% (24)	16.9% (110)
Discussed reports	73.5 (64)	83.1% (54)
Total	100%	100%
Timely submission of warrants for school's capitation to MoFPED		
Did not submit on time	81.5% (53)	80.9% (72)
Submitted on time	18.5% (12)	19.1% (22)
Total	100%	100%
Timely Invoicing and Communication for release of UPE Capitation Grant		
Did not invoice and communicate timely	72.3% (47)	75.3% (67)
Invoiced and communicated timely	27.7% (18)	24.7% (22)
Total	100%	100%
Preparation of Training Plan		
Did not prepare training plan	18.0% (16)	10.8% (7)
Prepared training plan	82.0% (73)	89.2% (58)
Total	100%	100%
Appraisal of LG Staff		
Did not appraise staff	46.1% (41)	38.5% (25)
Appraised staff	53.9% (48)	61.5% (40)
Total	100%	100%
Appraisal of Primary School Teachers		
Did not Appraise teachers	43.8% (39)	41.9% (27)

Appraised teachers	56.2% (50)	58.5% (38)
Total	100%	100%
Recruited District/Principal Education Officer		
Did not recruit	27.0% (24)	27.7% (18)
Recruited	73.0% (65)	72.3% (47)
Total	100%	100%
Recruitment of Inspector of Schools		
Did not recruit Inspector of Schools	12.4% (11)	10.8% (18)
Recruited Inspector of Schools	87.6% (78)	98.2% (58)
Total	100%	100%
Schools Meeting Minimum Infrastructure Standards		
Did not meet minimum Infrastructure standards	45.5% (25)	64.6% (64)
Met minimum infrastructure standards	54.5% (30)	35.4% (35)
Total	100%	100%

Table 2 above presents the descriptive statistics for predictor variables categorized by the outcome variable. From the results, 69.2% of the LGs that showed improvement on the outcome variable also met guidelines for recruitment of primary school teachers. Interestingly, 62.9% of the LGs that declined in performance met the recruitment guidelines for teachers over the same period. Similarly, 37.1% of the LGs who change in PLE pass rate declined did not meet recruitment of adequate number of teachers' guidelines.

At least 73% of the LGs whose change in PLE pass rate declined had recruited a District Education Officer, while 72.3% of the LGs with an improvement on change in PLE pass rate had a substantively recruited District/Principal Education Officer. However, 98.2% of the LGs that showed improvement on the outcome variable had a substantively recruited Inspector of Schools.

Likewise, the descriptive statistics indicate 58.5% whose change in PLE pass rate improved had appraised headteachers per the guidelines, while 43.8% of the LGs with declined pass rate did not appraise head teachers per the guidelines. Similarly, 61.5% of the

LGs whose change in PLE pass rate improved had appraised LG staff, while 46.1% that had their pas rate decline, did not have their staff at the Education Office appraised.

Results from the table above also indicate that 89.2% of LGs whose change in PLE pass rate improved did prepare training whereas 18% of LGs with a decline on change in PLE pass rate also did not have a training plan in place. This assumes that LGs with training plan in place were more likely to have an improvement on PLE pass rate, compared to their counterparts without a training plan.

At least 81.5% of the LGs that registered improvement on the outcome variable did not timely submit and communicate release of UPE capitation grants. Interestingly, 80.9% of the LGs with a decline on the outcome variable, did not communicate UPE capitation releases to stakeholders. On the contrary, 19.1% of the LGs that registered a decline on outcome variable did timely communicate the submission of UPE capitation releases.

Lastly, at least 67.7% of LGs that registered improvement on the outcome variable inspected their schools, while 60.7% LGs that registered a decline on the outcome variable did not inspect schools as per the guidelines.

Table 3: Descriptive statistics for household income in million Uganda shillings

Variable	N	Mean	SD	Min	Max
SES	154	92.14	3.99	83.60	98.20

Mean and standard deviation for the household income as a covariate are displayed in Table 3 above. The mean household income was 92.14 (SD=3.99), indicating majority income for households below 10 million Uganda Shillings. The minimum was 83.60, while maximum was 98.20.

4.3 Logistic regression results

This study set out to investigate the administrative efficiency indicators on the Local performance assessment tool as predictors of change in education outcomes of primary schools in Uganda. This part of the study presents the preliminary analysis and binary logistic regression analysis which was used to measure the relationship between the predictive variables and the dependent variable. Regression analysis, according to Knapp (2022), allows researchers to predict outcomes and examine the unique contribution of each predictor while holding others constant.

The study investigated the question: Do administrative efficiency indicators on the local government performance tool predict changes in education outcomes/academic achievement at the primary school level? The research questions were verified by testing the null hypotheses using logistic regression.

All these were examined while also holding socio-economic factors constant. The socio-economic factor used as a proxy in this study was the household income in the district. Similarly, the basic requirements and minimum standards (infrastructural facilities) were also used as covariates. Change in education outcomes/academic achievement as the dependent variable was determined by measuring change on the pass rate/performance on the standardized national examinations, which is the Primary Leaving Examination (PLE). Binary Logistic Regression was used to analyse the outcome (Change in PLE pass rate). Both variables (dependent and independent) were coded dichotomously (0,1).

4.3.1 Overall model summary

A logistic regression was conducted to assess the association between various predictors and the likelihood of change in education outcome (change in PLE pass rate) by the schools in LGs.

Table 4: Omnibus model results

	Chi-square	df	Sig.
Model	18.230	16	.311

The logistic regression model overall result was not statistically significant, $\chi 2(16) = 18.2$, $p > .05$ indicating that the predictors could not reliably distinguish between the predictor and outcome variable (change in education outcome).

Table 5: Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
191.504[a]	.112	.150

The model explained approximately between 11.2% (Cox & Snell R Square and 15% Nagelkerke R Square) of the variance on the outcome variable and correctly classified 66.9% of the cases. As shown in table 7 below, all predictors did not significantly contribute to the model.

4.3.2 Hosmer and Lemeshow Test

The table below presents the Hosmer and Lemeshow statistic model of the study.

Table 6: Hosmer and Lemeshow Test

Chi-square	df	Sig.
11.481	8	.18

Table 6 above presents the Hosmer and Lemeshow statistic of the model. The Hosmer Lemeshow will indicate a poor fit if the significance value is less than .05. In this study, the significance value is above .05, hence the Hosmer Lemeshow suggested a good fit to the data ($\chi 2(8) = 11.48$, $p = .18$). The model adequately fits the data and the logistic regression model's predicted probabilities do reflect the observed outcome variable reasonably well.

4.3.3 Summary of individual predictor variables in the model

The logistic regression model overall result was not statistically significant, $\chi 2(16) = 18.2$, $p > .05$ indicating that the predictors could not reliably distinguish between the predictor and outcome variable (change in education outcome). The coefficients for individual predictors are summarized in Table 7 below.

Table 7: Logistic regression predicting the likelihood of change in PLE pass rate

Predictor Variable	*B*	S.E.	Sig.	Exp(B)
Recruitment of Primary Teachers per MoES guidelines	.405	.383	.291	1.499
Recruited District Inspector of schools	-.228	.591	.699	.796
Recruited D/PEO	-.146	.415	.725	.864
Appraisal of LG Staff	.223	.404	.580	1.250
Appraisal of Primary Teachers	.111	.409	.785	1.118
Preparation of Training Plan	.779	.596	.191	2.180
Timely Invoicing and Communication of UPE Capitation Grant Releases to Schools	.351	.471	.457	1.420
Timely submission of warrants to MoFPED	-.025	.549	.963	.975
Support to schools to develop SIPs	-.760	.451	.092	.468
Percentage of Schools Inspected	.460	.409	.261	1.583
School compliance with MoES budgeting and reporting guidelines	.501	.390	.199	1.650
Household Income below 10m	-.035	.053	.511	.965
Schools Meeting Minimum Infrastructure Standards	-1.123	.440	.011	.325

From Table 7 above, values greater than 1 mean that as the predictor variables increase, so do the odds of change in PLE pass rate. In our case, most of the values of the predictor variables are above 1. However, the significance of each was greater than .05, indicating a lack of statistical significance, except for schools meeting minimum infrastructure standards. Each of the predictor variables against the outcome variables are interpreted in the following sub-sections.

4.3.4 Covariate results.

Table 8 below presents results of the covariate variables against the outcome variable in the model.

Table 8: Logistic regression for covariate variables

Covariate Variable	B	S.E.	Sig.	Exp(B)
Household Income below 10m	-.035	.053	.511	.965
Schools Meeting Minimum Infrastructure Standards	-1.123	.440	.011	.325

In the logistic regression model, household income, measured in Uganda Shillings, was not a significant predictor (*B*=-.035*, SE*=.053*, p*=.51*, Exp (B)*=.96*),* suggesting that increasing household income was not associated with higher odds of a change in the PLE pass rate. In contrast, meeting minimum infrastructure standards was a significant negative predictor (*B* = -1.123, *SE* = 0.440, *p* = .011, Exp(*B*)= of 0.33, 95% CI (.14, .75), indicating, interestingly that schools meeting these basic infrastructure standards were less likely to experience a change in the PLE pass rate. These variables were included to parse out variance attributable to SES and enable a focus on the model's variables related to local government efficiency.

4.4 Hypotheses testing

The regression analysis addressed the hypotheses and the results presented as below.

4.4.1 Adequacy of the number of primary school teachers as a predictor of change in education outcomes

This hypothesis focuses on the adequacy of number of teachers as a predictor of change in education outcomes of primary schools in the local governments. Change in education outcome was measured as change in PLE pass rate. This involved comparing performance of the previous academic year but one (2020) and the previous academic year (2021).

According to Table 5, the regression analysis suggests that the recruitment of primary school teachers according to MoES staffing guidelines in this model is not significant (*B*=.41, *SE*, =.38, *p*=.29, *Exp (B)*=1.50), indicating that recruiting an adequate number of primary school teachers is not associated with higher odds of change in PLE pass rate by schools in a local government. This appears interesting given a large odds ratio of 1.50, which would potentially indicate that LGs that had recruited an adequate number of teachers were 1.5 times more likely to report an improvement in PLE pass rates compared to those that had not (OR = 1.50). Similarly, the model was not statistically significant while controlling for household income as well as minimum infrastructure standards (school infrastructure and facilities).

4.4.2 Having substantively recruited critical staff at the District Education Office as a predictor of change in education outcomes

This hypothesis was measured by comparing LGs who had substantively recruited a District Education Officer as well as the Inspectors of schools. These were considered, as per the assessment tool, to be the critical staff within the District Education Office. The hypothesis asks if substantively recruiting critical staff significantly predicted change in education outcome- which is measured by the change in PLE pass rate.

In this model, substantively having recruited a District Education Officer for districts or a Principal Education Officer for Municipal Councils was not significant *(B*=-.15, *SE*=.42,

p=.73, *Exp* (*B*)=.86), suggesting that substantively having recruited a District Education Officer is less likely to contribute to change in the outcome variable. Similarly, substantively having recruited a District Inspector of Schools was not significant (*B*=-.23, *SE*=.59, *p*=.70, *Exp*(*B*)=.80), suggesting that recruiting a School Inspector is less likely to be associated to change in PLE pass rate.

4.4.3 Appraisal of headteachers, staff as a predictor of change in education outcomes

In this model, appraisal of headteachers was not significant (*B*=.11*, SE*= .41*, p*=.79, *Exp (B*)=1.12), suggesting that appraising headteachers is not associated with higher odds of change in PLE pass rate over the two academic years. Similarly, appraisal of LG staff was not significant (B=.23, SE=.40*, p*=.58, *Exp (B*)=1.25), Accordingly, appraisal of LG staff alone appears not to predict change in PLE pass rates by schools in LGs, holding covariates of socio-economic status (household income) as well as meeting the minimum infrastructure standards constant. The result of the model is interesting given an odds ratio of 1.25, which would potentially indicate a 1.25 times likelihood to register a better change in PLE pass rate.

4.4 Continuous Teacher development as a predictor of change in education outcomes

This construct was measured by testing the hypothesis; development of a training plan by the LG is a predictor of change in PLE pass rate. The results of the regression model were not significant (*B*=.78, *SE*=.59*, p*=.19, *Exp (B*)=2.18), indicating that the predictor variable is not associated with odds of change in PLE pass rate, keeping the covariates constant. Although the model yielded a relatively large odds ratio (OR = 2.18), suggesting that the likelihood of a better change in the outcome variable was 2.18 times higher, this result was not statistically supported within the model.

4.5 Financing and budgetary practices as a predictor of change in education outcome

In the binary logistic regression model, the submission of warrants for schools' capitation to MoFPED was not a statistically significant predictor of changes in the PLE pass rate (B = .35, SE = .47, p = .46, Exp(B) = 1.42). Although the odds ratio of 1.42 suggests a 42% higher likelihood of a change in the outcome variable, the lack of statistical significance indicates no reliable association. Similarly, timely invoicing and communication of UPE capitation grant releases was also not significant (B = .78, SE = .59, p = .19, Exp(B) = 2.18). Despite an odds ratio of 2.18 suggesting that local governments (LGs) that invoiced and communicated UPE capitation grants in a timely manner were over twice as likely to see a change in the PLE pass rate, this effect was not statistically significant when controlling for socioeconomic status (SES) and meeting minimum infrastructure standards.

4.6 Oversight, support supervision and reporting as a predictor of change in education outcome

This parameter was measured by carrying out a logistic regression analysis on, (i) schools' compliance to budgeting and reporting guidelines (ii) support to schools towards the development of the School Improvement Plan (iii) percentage of schools inspected.

The results of the logistic regression analysis indicated that schools' compliance with budgeting and reporting guidelines was not a statistically significant predictor of the outcome variable (B = .50, SE = .39, p = .20, $Exp(B)$ = 1.65). Although the odds ratio of 1.65 suggests that schools complying with budgeting and reporting guidelines were 1.65 times more likely to experience a change in PLE pass rates, the lack of statistical significance suggests no reliable association.

Similarly, the model for support to schools in developing improvement plans approached significance (B = -.76, SE = .45, p = .09, Exp (B) = .47). The odds ratio of .47 indicates that local governments supporting schools to develop improvement plans were 53%

less likely to register a change in PLE pass rates. This result suggests that such support alone may not predict changes in educational outcome for schools in local governments.

Finally, the logistic regression model for the percentage of schools inspected was also not significant (B = .46, SE = .40, p = .26, $Exp\ (B)$ = 1.58). Despite an odds ratio of 1.58, which implies that schools inspected were 1.58 times more likely to experience a change in PLE pass rates, the lack of statistical significance indicates that school inspection is not a reliable predictor of the outcome when holding other covariates constant. These findings highlight that while some predictors show promising odds ratios, their associations with changes in PLE pass rates are statistically weak.

4.7 Summary

All study predictors, although some showed positive or negative associations, did not reach statistical significance at the conventional level ($p < .05$). This indicates that the majority of the examined predictors may not have a meaningful impact on the outcome in this model. Further investigation and refinement of the model may be necessary to uncover stronger predictors or clarify relationships. The covariate variable- “Schools Meeting Minimum Infrastructure/Facilities Standards", however, had a statistically significant effect on the dependent variable, though with a negative association. The negative association observed for infrastructure standards may be attributable to several contextual and theoretical factors. First, while adequate infrastructure is a necessary condition for effective teaching and learning, it may not be sufficient on its own to drive improvements in academic performance. Research (Glewwe et al., 2011; Mason and Galway, 2023; Namukasa & Buye, 2009; Maractho; 2017) suggest that without corresponding improvements in instructional quality, teacher effectiveness, and learning resources, infrastructure alone may not yield the intended outcomes. Additionally, in resource-constrained settings, meeting minimum infrastructure standards might be prioritized in lower-performing areas as a reactive measure, thereby

correlating negatively with academic outcomes due to reverse causality (Banerjee et al., 2017).

Given these complexities, further investigation is warranted. Future studies should consider refining the model to incorporate potential mediating variables, such as teacher quality, school management practices, or learner background characteristics that might influence the association between infrastructure and student achievement.

Chapter 5: Discussion

5.1 Introduction

This study investigated education indicators on Uganda's local government performance assessment tool as predictors of change in education outcome of primary schools. Change in education outcomes was measured by performance on the standardized national examination- the PLE pass rate, of primary schools in local governments. The study used achievement data from the Local Government and Management Service Delivery (LGMSD) performance assessment for 2022. The PLE pass rate was determined by comparing performance for the previous academic year (2020) to the base year (2021). Performance on PLE was determined as either to have increased or declined from the previous academic year (2020) compared to the academic year (2021). This chapter discusses the findings of the study in the context of relevant research based on the statistical analysis of the LGMSD performance assessment data.

5.2 Findings of the study

The results from the logistical regression analysis indicate that an adequate number of teachers does not significantly predict performance on the national standardized examination by primary schools in the local governments. Similarly, regression analysis of recruitment of critical staff in the education department, appraisal of teachers and LG staff, continuous professional development, financial practices, and budgeting as well as support supervision and reporting returned non-significant statistical results, indicating these variables do not predict change in performance on the standardized national examination, in this model, contrary to other studies in different contexts. Perhaps and probably, the use of a change variable could have meant that LGs that were already doing well would not be captured as "positive." The following sub-sections discuss the findings of this study as well as offer explanations of the findings.

5.2.1 Change in education outcomes according to adequacy of number of teachers

The regression analysis suggests that the recruitment of an adequate number of primary school teachers according to the Ministry of Education and Sports (MoES) staffing guidelines in this model was not a significant predictor of change in the academic performance of primary schools on the standardized national examination, the Primary Leaving Examinations (PLE) in local governments. The non-significant statistical *p*-value was indicative that recruitment of an adequate number of teachers per the guidelines has little to no direct impact on the change in PLE pass rates. This, though, runs counter to previous studies (Maractho, 2017; Sharma & Sharma, 2017; Matete, 2021; Twaweza, 2020) that have consistently indicated the significance played by the adequacy of number of teachers in predicting change in education outcomes. Similarly, GPE (2024) has summarized the contribution of teachers: "Investing in teachers improves learning outcomes, reduces the number of out-of-school children and puts students on the path to success" (Social Media Post: https://www.linkedin.com/feed/hashtag/?keywords=investinteachers.).

While the broader literature consistently supports the assertion that jurisdictions hiring an adequate number of qualified teachers experience improvements in education outputs for learners, the model in this study appears to suggest that simply recruiting teachers according to MoES staffing guidelines does not necessarily lead to an improvement in PLE pass rates in the context of Uganda. This is both surprising and illuminating. For example, Mgema (2022) demonstrated a significant correlation between professionally trained teacher recruitment and learner performance in resource-constrained contexts. Similarly, Yatun et al. (2021) found that increasing both the number and competency of teachers positively influenced academic achievement. Wargadinata and Hendiyani (2017) emphasized the role of qualified teachers in enhancing learning effectiveness, while Zheng and Thomas (2022) provided comparative

evidence showing that better teacher-to-student ratios and certification rates predict improved educational outcomes.

It is becoming increasingly evident that achieving meaningful improvements in educational outcomes requires a focus on quality, particularly through investments in teachers and infrastructure development. The regression model in this study revealed that schools meeting basic requirements and minimum infrastructure standards, such as having adequate classrooms and libraries, were statistically significantly associated with academic achievement ($p = .01$, $p < .05$). However, the negative coefficient found in the analysis indicated that, contrary to expectations, meeting these infrastructure standards was linked to lower academic performance.

While investments in infrastructure are crucial for creating conducive learning environments, several factors could explain the non-significant results and the negative coefficient observed. First, improvements in infrastructure may have been too recent for their effects to manifest in academic outcomes, as educational gains often take time to materialize (Glewwe et al., 2011). Second, the mere presence of facilities like libraries and classrooms does not guarantee their effective use; without proper management, training, and alignment to instructional needs, resources may remain underutilized (Barrett et al., 2019). Furthermore, unmeasured confounding factors such as teacher absenteeism, community instability, or student health challenges may dilute the potential benefits of infrastructure investments (Bold et al., 2017). It is also possible that infrastructure impacts learning outcomes only after reaching a certain threshold, after which improvements depend more on the quality of instruction than on physical resources (Glewwe & Muralidharan, 2016). Lastly, Coleman et al. (1966) remind us that socioeconomic conditions often exert a more powerful influence on academic achievement of learners than material school characteristics, emphasizing the multifaceted nature of educational success.

The non-significant results could be attributed to the model, and not necessarily that the predictor variable has no locus on the outcome variable. The study also highlights potential gaps in the data, particularly its limitation to a single year, which may not adequately capture long-term trends. Furthermore, the descriptive statistics suggest that logistic regression models perform more effectively with larger study populations. It is possible that the results would have differed with a larger dataset. This is evidenced by the finding that, despite the higher odds ratio indicating that schools with an adequate number of recruited teachers are approximately 1.5 times more likely to perform better than schools that fail to meet recruitment guidelines, the model produced results that were not statistically significant. It is therefore critical for central and local governments to move beyond merely achieving quantitative recruitment targets—a common approach in Uganda—and instead prioritize the quality of teachers deployed in schools. Efforts should focus on promoting continuous teacher development, improving the learning environment and infrastructure, and ensuring merit-based recruitment practices. This underscores the idea that the quality and effectiveness of teachers, along with the teaching environment, including infrastructure, are likely more significant predictors of educational outcomes than simply meeting numerical teacher recruitment targets.

The observations above point to the complexity of education systems, where multiple factors, including: teacher quality, job satisfaction, infrastructure, and community involvement- need to align for improved learner outcomes, not just the number of teachers adhering to the MoES guidelines. However, the findings in the current study seem to suggest this assumption may not hold across all contexts. There could be a potential need to review and possibly enhance the recruitment policies and processes to ensure that they more effectively address quality aspects of the education outcomes in primary schools in Uganda. This is consistent with the studies by Namara (2020) and Maractho (2017), where they

argued that recruitment of teachers in Uganda suffers from influence peddling from politicians, where the quality of teachers recruited by the LGs leaves much to be desired. Recruitment alone may not be a reliable predictor of student outcomes, especially if these contextual factors are not conducive to effective teaching.

Chudgar (2015) and Maractho (2017) have consistently highlighted that more effective teachers tend to avoid hard-to-reach areas, gravitating instead toward local governments that are easily accessible. Despite this trend, the scarcity of teaching positions across Uganda and the large number of qualified teachers seeking opportunities suggest that all local governments have access to a wide pool of potential recruits. The primary challenge these local governments face is not a lack of qualified teachers but budgetary constraints, which are centrally controlled and limit their ability to hire the required number of educators. Even local governments that managed to recruit an adequate number of teachers only demonstrated a slight change in PLE pass rates compared to those with staffing shortages. This underscores the importance of not only ensuring sufficient teacher recruitment but also prioritizing teacher motivation and providing infrastructure that meets the basic and minimum requirements for effective learning to occur.

Investing in continuous professional development and in-service training may prove more effective in driving improvements in PLE pass rates, as supported by the findings of Zickafoose et al. (2024). Educational authorities should prioritize not only meeting staffing guidelines during teacher recruitment but also ensuring that teachers possess the necessary competencies and motivation to enhance student learning outcomes. The findings of this study, which indicate that teacher recruitment in alignment with guidelines does not significantly impact changes in PLE pass rates, highlight the need for a more comprehensive approach to improving educational outcomes. Key factors such as school infrastructure,

student support services, parental involvement, and curriculum relevance are likely to play pivotal roles in fostering meaningful progress (Paredes & Sevilla, 2023).

While the challenge of hiring teachers in hard-to-reach areas is a global issue, it is particularly acute in developing economies. In Uganda, despite having a significant pool of qualified teachers, reports of dissatisfaction among educators are widespread. Teachers have expressed grievances about various issues, including inadequate staff housing, the absence of quality schools for their children, poor remuneration, and limited opportunities for professional development, among other concerns. These findings align with the research of Mason and Galway (2022) and Lamascolo (2019). Notably, local governments (LGs) in Uganda's hard-to-reach areas continue to struggle with poor educational outcomes. Although teachers are pivotal to the learning process, this study suggests that simply increasing teacher numbers does not necessarily lead to improved education outcomes. This conclusion is supported by previous studies (Maractho, 2017; Namara, 2020), which highlight the importance of factors beyond staffing levels. As noted earlier, while having an adequate number of teachers is a prerequisite for effective learning, achieving meaningful educational outcomes also requires prioritizing the quality of teachers recruited and addressing critical aspects of teacher motivation and support.

5.2.2 Substantively recruited critical staff at the District Education Office as a predictor of change in education outcome

Logistic regression analysis was used to test if substantively recruiting critical staff significantly predicted change in education outcomes. The educational outcome was measured by the change in the PLE pass rate. The results of the logistic regression analysis model for this variable were statistically not significant, $P>.05$, $P= 0.73$, hence indicating that the predictor variable did not have a significant impact on change in PLE performance. With the odds value of close to .70, it is interesting that the regression results for this model is not

significant, despite the descriptive statistics (Table 2 above) indicating that LGs that registered a better change in PLE pass rate had substantively recruited a School Inspector and as well as the District Education Officer.

While similar studies (Musah & Aawaar, 2022; Papay & Kraft, 2016; Tabe, 2023) as well as Cilliers et al. (2019) and Farooqi and Forbes (2019) demonstrate that critical staff at the District Education Office play a significant role in the educational outcomes, the current study indicated otherwise. This suggests that having substantively recruited critical staff at the LG District Education Office (DEO) does not work in isolation towards the positive impact of change in education outcome, but rather with other factors.

With socioeconomic variable- particularly using household income as a covariate, the results remained statistically non-significant (p=0.24). This suggests that household income, another commonly cited predictor of educational success (Namara, 2020; Nassaka, 2016; Uwezo, 2016), did not substantively impact change in school performance on the standardized national examination in the context of Uganda's local governments. However, meeting basic requirements and minimum standards- which is associated with school infrastructure returned significant findings, indicating it is a predictor of change in education outcome. Accordingly, policymakers in this context may want to pay more attention to those areas- including basic infrastructure development- that seem to impact directly on change in education outcomes.

While previous studies (Kuhon, 2020; Namara, 2020; Venkataraman & Keno, 2015) have indicated that recruiting critical staff is important for ensuring administrative efficiency, it is not categorized as being a reliable predictor of educational outcomes. This discrepancy could be due to various factors, including socioeconomic barriers, budget constraints, and political interference in the education sector (Maractho, 2017; Namara, 2020). In Uganda, education administrative effectiveness as well as efficiency is often hampered by limited

financial resources remitted from the central government. Administrative barriers often pose significant challenges to effective education management, which may help explain why the recruitment of District Education Officers (DEOs) and Inspectors of Schools did not lead to a statistically significant impact on change in PLE pass rates in this study. Although administrative leadership is crucial, its effects may be diluted if systemic challenges such as bureaucratic inefficiencies, limited resources, and weak accountability structures persist. This finding aligns with broader research (Glewwe et al., 2011; Hong & Thomas, 2022; Nilsen, 2016; United Nations, 2024) that showed that administrative efficiency, alongside the quality of teachers, the relevance of the curriculum, and the availability of adequate learning materials, are critical, interconnected factors that influence educational outcomes. When these factors are not addressed holistically, improvements in administrative staffing alone may be insufficient to drive measurable gains in student achievement.

Internationally, similar challenges have been noted in various low- and middle-income countries. Research in Sub-Saharan Africa and South Asia has highlighted the importance of teacher quality, curriculum design, and access to learning materials as stronger predictors of student performance than administrative staffing alone (Nilsen, 2016). This aligns with findings from countries like India and South Africa, where systemic factors such as underfunded schools and unequal access to resources have a more direct influence on educational outcomes (Lockwood & Porcelli, 2013; Zickafoose et al., 2024). Thus, while the recruitment of critical staff is necessary, it may not be sufficient to guarantee improved student performance, particularly in resource-constrained environments.

In Uganda, the District Education Office plays a crucial role in overseeing the administration of primary education, implementing policies, conducting school inspections, and ensuring infrastructure maintenance. Data from the study indicated that out of 154 local governments, 112 had substantively recruited a DEO, 136 had hired an Inspector of Schools,

while 18 had not. It was expected that local governments with fully staffed offices would show better educational outcomes. However, the study found no significant differences in education outcomes between districts that had recruited these critical staff members and those that had not, suggesting that other factors may be more influential in determining educational success. As Hoy and Miskel (2013) pointed out, school principals and those in board leadership positions had only an indirect effect on learning outcomes. This is similar to what the current study found out. Other factors likely contribute significantly to educational outcomes. In Uganda, it is essential for educational authorities to prioritize not only the recruitment of critical staff but also their continuous professional development and access to necessary resources. Enhancing education sector performance requires a comprehensive approach that addresses curriculum development, school management practices, student support services, and community engagement.

Efforts to enhance recruitment practices and ensure that key positions are filled with competent personnel could lead to improvements in educational outcomes. A more comprehensive approach addressing other aspects such as teacher training, resources, infrastructure, and management practices should be considered to achieve better results. Investment in recruiting and retaining qualified and effective staff is crucial. However, resources should also be allocated to other areas that impact education sector performance, such as professional development, curriculum enhancement, and school facilities.

To improve educational outcomes, for this case, performance on PLE by primary schools, a more comprehensive approach will play a greater role. While recruiting critical staff is important, it should be complemented by ongoing training, support, and the provision of adequate resources as well as infrastructure development in schools. The model used in this study indicated infrastructure to be statistically significant, thus a predictor of the outcome variable. As the OECD (2018) opines, successful education systems focus not only on

administration but also on enhancing teacher quality, developing robust curricula, and ensuring that students have access to essential learning materials.

Investments in teacher training and curriculum enhancement are critical to creating an environment where both teachers and students can thrive. While socio-economic factors as a covariate were shown not to have an impact on PLE change rates in our model, it is still important for the Ugandan government and local education authorities to allocate more resources aimed at reducing socioeconomic barriers and minimizing political interference, both of which have been shown before to negatively impact education systems in low-income countries. This is consistent with the findings in previous literature (Maractho, 2017; Nassaka, 2016).

While recruiting critical staff such as District Education Officers and School Inspectors is essential for maintaining administrative efficiency, this study found that it does not significantly predict educational outcomes in terms of change in PLE pass rates in Uganda. Continuous teacher development and adequate resource allocation appear to be crucial for ensuring that critical staff can perform their roles effectively. Addressing aspects of administrative efficiency assumes better education outcomes for primary schools in LGs.

5.2.3 Appraisal of headteachers is a predictor of academic achievement by school

Teacher performance appraisal has long been regarded as an essential tool for enhancing educational outcomes, but its actual impact on student achievement remains debated. In this study, the descriptive statistics reveal that at least 57% of local governments (LGs) conducted performance appraisals of both primary school headteachers and District Education Office staff. Despite the widespread use of appraisals, the logistic regression analysis results in this study show that teacher appraisal alone does not significantly predict academic achievement, with a p-value of 0.79 ($p > 0.05$). This indicates that the appraisal

process, as it currently exists, has no statistically significant impact on the variability in primary school learners' academic performance in this context.

Appraisals of LG staff at the District Education Office also failed to predict performance variability on standardized examinations, with a non-significant p-value ($p > 0.05$). The findings suggest that while literature (Gore et al., 2016; Liang et al., 2016; Thomas, 2022) observe that appraisal impacts on change in education outcomes, the data used in this study show they are not predictors in this context. This aligns with prior research, which has suggested that teacher appraisals can only be effective when properly implemented and linked to broader educational reforms (Farooqi & Forbes, 2019; Liang et al., 2016). The fact that headteachers are almost at the top of the career ladder within the local governance civil service, they may see few opportunities after their current positions and will be preparing to retire. After being a headteacher, one can only become a District Education Officer to which there is only one such position in the local government. This is similar to schooling worldwide as teaching leadership positions are limited in numbers (Gaines, 2019).

Headteachers rarely lose their positions due to poor school performance, making it difficult to attribute a school's poor outcomes solely to their leadership (Namara, 2020). Numerous factors contribute to poor performance, including demotivated teachers due to inadequate pay, disciplinary issues among staff, and limited authority for headteachers to address such issues, particularly when some teachers have connections to influential figures within the district leadership. As Kim and Holzer (2016) observes, teachers' perceptions of performance appraisal are influenced by the quality of their relationship with their supervisors. When the supervisor-teacher relationship is positive, teachers are more likely to accept and engage with performance appraisals. Conversely, a poor-quality relationship is often associated with a perception of illegitimacy in the appraisal process. These insights align with Namara's (2020) findings, which demonstrate that developmental performance

appraisals are positively correlated with favourable employee outcomes, such as commitment and satisfaction with the appraisal process. To deepen understanding of these dynamics, a qualitative study could explore teachers' perceptions of the appraisal system and its impact on their motivation and performance.

In addition, the relationship between access and performance may be overstated, as evidenced by the performance of local governments such as Karenga, Kotido, and Yumbe—areas that are geographically remote yet outperform more accessible districts like Luwero, Kagadi, and Kyankwanzi in the education sector (Office of the Prime Minister, 2023). This observation challenges the assumption that proximity to resources and administrative support directly correlates with higher educational performance. Moreover, the working conditions of teachers play a significant role in shaping their effectiveness and job satisfaction. Teachers who perceive that their efforts are not adequately rewarded may experience demotivation, particularly in environments where promotions are primarily based on seniority rather than merit. In some cases, promotions may also be influenced by informal practices, such as patronage networks or political favouritism, rather than genuine performance. As a result, some teachers may leave for private schools, while others who remain may be less motivated. In either case, student achievement suffers, as teacher engagement and morale are closely linked to educational outcomes.

This study contradicts the idea that teacher appraisal alone leads to improved academic performance. The non-significant results remained consistent even when controlling for socio-economic factors, such as household income, indicating that appraisal systems are not contributing to academic achievement in this context, holding household income constant, as well as the minimum infrastructure standards. This speaks directly to policymakers in the education sector, to focus on ensuring schools have in place infrastructural facilities that are conducive to learning.

One possible explanation for the lack of significance in the results may lie in how teachers perceive the appraisal process. If teachers see appraisals as mere formalities or rituals, with no meaningful consequences or opportunities for professional growth, they are less likely to engage with the process in ways that improve their teaching practice. This view is supported by Choi and Park (2023), Armstrong and Taylor (2023), and Sharma and Sharma (2017) who argue that teacher perceptions of appraisals directly affect their engagement and motivation. When teachers believe that appraisals serve no real purpose or are not tied to actionable outcomes, they are likely to view the process as burdensome rather than beneficial.

In some jurisdictions, such as Pakistan, teacher appraisal systems are sometimes misused as punitive tools, punishing "problematic" teachers while rewarding those who comply with the system (Sharma & Sharma, 2017). If similar dynamics are at play in this context, where appraisals are seen as a mechanism for control rather than improvement, teachers may lose trust in the system. This distrust could undermine the appraisal process, leading teachers to disengage from it entirely, further reducing its potential to improve academic outcomes.

The findings of this study suggest that teacher appraisal, in isolation, may be insufficient to drive significant improvements in academic achievement. Although teacher evaluations are widely implemented to monitor and improve instructional practices, their effectiveness is often limited when not embedded within a comprehensive system of professional development and school support. Research (Darling-Hammond et al., 2017; Namukasa & Buye, 2009; Nassaka, 2016) increasingly highlight the need for a multifaceted approach to enhancing educational quality, that extends beyond appraisal mechanisms alone. Armstrong and Taylor (2023) contend that factors such as curriculum quality, access to adequate teaching resources, and effective school leadership have a more substantial and sustained impact on student learning outcomes than performance appraisals in isolation.

Similarly, OECD (2020) and United Nations (2024) underscore the importance of aligning teacher appraisal systems with broader educational goals, professional development opportunities, and collaborative school cultures that support instructional improvement.

In light of these findings, it is essential for policymakers and school leaders to re-evaluate how teacher appraisals are designed and implemented. To enhance their effectiveness, teacher appraisals should be integrated into a broader framework of continuous professional learning. This includes providing timely, constructive feedback; identifying specific areas for growth; and delivering targeted support such as coaching, mentoring, or in-service training. Such an approach repositions appraisal not as a compliance-driven, summative process, but as a formative tool for fostering reflective practice and sustained professional growth (OECD, 2013; Twaweza, 2020, GPE, 2024). Ultimately, appraisal systems that are development-oriented and context-sensitive are more likely to contribute meaningfully to the improvement of teaching quality and, by extension, student achievement.

Finally, while teacher appraisals are an important component of education reform, they cannot stand alone as a predictor of academic achievement. The current study suggests that appraisals, as practiced in local government schools, do not significantly impact students' performance in national examinations.

5.2.4 Continuous teacher development and change in education outcomes

The logistic regression analysis results revealed that continuous professional development (CPD), measured as preparation of the training plan by the LG, was not a statistically significant predictor of changes in the Primary Leaving Examination (PLE) pass rate ($p > .05$, $p = .19$). Since the p-value exceeds the .05 threshold, the variable's influence lacks statistical significance, suggesting that continuous professional development did not predict changes in PLE pass rates.

Previous research (Chudgar, 2015; Farooqi & Forbes, 2019; Liebowitz & Porter, 2019; Musah & Aawaar, 2022; Tabe, 2023; Woolner & Duthilleul, 2022) has highlighted the significant role of teacher professional development in enhancing educational outcomes in primary schools, particularly in local governments. These studies suggest that investing in continuous teacher development can substantially contribute to students' learning outcomes. The current study challenges these findings, implying that training alone does not necessarily predict educational outcomes in this specific context.

However, these findings may also have some weaknesses because the indicator used to measure CPD against the outcome variable may not be the appropriate measure. There seems to be a discrepancy in the measurement used to assess teacher continuous development. While it is a good practice for institutions to have a training plan in place, it would be irresponsible on the side of the school to assume the skills of teachers will improve, without necessarily implementing the contents of the training plan. For CPD to be appropriately measured, and perhaps return with statistically significant results, we would expect actual training of the teachers to have taken place. What is important though, is that this is missing entirely, and this may have contributed to the non-statistically significant results.

The descriptive statistics further support the findings, where it is indicated that although up to 85% of the LGs had a training plan in place, this did not correspond with improved performance on the national standardized examination by primary schools in those jurisdictions. These findings augment the model that having a training plan in place alone is not a predictor of change in PLE pass rates for primary schools. For instance, districts including Lyantonde, Yumbe, Kitgum, and Kole, among others had well-prepared training plans, while performance under the PLE was not reflective of the availability of the training plan. It can be assumed that the lack of training opportunities for teachers may have

contributed to these findings. This aligns with the research of Mason and Galway (2022), who highlight that teachers in sub-Saharan Africa often struggle to access professional development due to limited government funding allocated for this purpose. Furthermore, even the scarce resources designated for continuous teacher development are often distributed based on personal connections.

In many local governments in Uganda and other developing economies, District Education Offices are often severely understaffed, which poses challenges in designing and implementing CPD programs. This issue was also noted by Tabe (2023) and Woolner and Duthilleul (2022). LGs typically operate on limited budgets, and training programs are often deprioritized in resource allocation. These factors may have contributed to the non-significant results, suggesting that the measure used in this study was not a robust predictor of educational outcomes. It would have been more appropriate for the data collection tool to include questions that directly measured the actual implementation of CPD.

While the logistic regression results for this model were not statistically significant, it is possible that using more precise measures for CPD would yield different outcomes. As Villavicencio et al. (2012) and McEwan (2015) have argued, CPD is one of the most effective ways for teachers to share experiences and improve their skills. However, the findings of this study may reflect the fact that having a training plan on paper does not necessarily equate to the actual execution of CPD initiatives. Some LGs may have well-drafted training plans that are never put into action.

While schools should continue to invest in CPD, these programs must be properly designed and executed to ensure that the benefits are addressing those areas amongst the teachers that improve education outcomes. Schools that invest more in effective CPD for their staff may experience improved academic outcomes. Education policymakers should consider revisiting the data collection tools used to assess CPD to ensure that the right

measures are included, ultimately leading to better educational outcomes. School administrators should integrate continuous professional development into their strategies to enhance academic performance. Expanding investment in professional development programs is essential to support students' academic achievement.

5.3 Financing, budgetary practices and change in education outcome

This parameter was measured by carrying out a logistic regression analysis on: (i) submission of warrants for the schools' capitation grants and (ii), invoicing and communication of capitation releases to schools. The results of the regression analysis indicated the predictor- timely invoicing and communication of release of UPE capitation grants to schools was statistically significant. From the regression analysis, the non-significant statistical results could be attributed to a number of scenarios. One such scenario is probably because the measure used (timely submission of warrants and timely invoicing and communication of UPE grant releases) does not measure the parameters of budgeting and financial practices. Perhaps, aspects like: adequate budget, and better salaries for teachers, among others, would directly impact the education outcomes, as opposed to when the release of funds is communicated to the respectful schools. Previous studies (Chudgar, 2015; Gore et al., 2016; Musah & Aawaar, 2022) on predictors of change in education outcomes have largely centred around the remuneration of teachers as well as infrastructure development. This is even though the timely submission of warrants and timely invoicing and communication of UPE releases an indicator of the theory of regulation as argued by Aglietta (1979). Perhaps, the theory of regulation and the predictor variables do not significantly impact the change in education outcomes in this context.

While the timely communication of the release of operational school capitation grants and related funding is essential for the effective functioning of schools and may contribute to improved educational outcomes, emerging evidence suggests that financial inputs alone are

insufficient to drive substantial gains in education outcomes. Instead, factors such as school leadership quality, teacher effectiveness, and community engagement may play a more decisive role in influencing student achievements (Glewwe & Muralidharan, 2016; World Bank, 2018). This model, therefore, emphasizes the need to consider a broader set of determinants beyond financial resource allocation when seeking to enhance learning outcomes. Schools and education authorities should therefore consider additional strategies and interventions to improve academic performance. Policymakers should consider other more impactful interventions or combine timely funding with other measures to enhance educational outcomes. Schools and education authorities should focus on a broader set of factors that are likely to have a more significant impact on academic achievement, such as teacher quality, school infrastructure, student engagement, and parental involvement.

That said, in many low- and middle-income countries, including Uganda, central governments serve as the primary financiers of education and largely determine how funds are allocated and utilized by local governments. From the perspective of Regulation Theory**,** which examines how governments exert control over social and economic systems through policies and financial mechanisms (Aglietta, 1979; Painter, 1991), this centralized funding structure reflects a regulatory approach in which the state maintains significant influence over education financing and resource distribution at the local level. While this ensures alignment with national priorities, it may also constrain local autonomy in addressing context-specific educational needs.

As Maractho (2017) has argued, the local government's ability to raise resources is grossly limited and hence there are barely any locally generated financial resources to support their priorities. The implication is central governments determine how and where to channel the resources within the education sector. This is consistent with Maractho (2017) whose study revealed that while many proponents of local governance systems have suggested that

districts have increased power as per the legal frameworks, these LGs largely depend on central government remittances, as well as external development partners to fund their budgets. It is the central government that determines when the financial resources will be available. Ultimately, the priorities of local governments may not sufficiently be addressed and this may have repercussions towards change in education outcomes of learners in that jurisdiction.

While it is important to have in place efficient financial management practices as an important contributor to change in education outcomes, this model has shown this is not significant in this context. As indicated earlier, policymakers and education administrators should devise other means that positively impact education outcomes, as opposed to the central government handing down directives to local governments that are about compliance, without necessarily considering whether they positively impact on academic achievements of learners. Similarly, while studies (Kalule & Bouchamma, 2014; Maractho, 2017; Namara, 2020) have consistently argued that ensuring schools receive the necessary financial resources on time, to meet and support teaching and learning activities promptly, the model used in this study has shown that this does not significant impact on academic achievements of learners. It would be expected that schools that receive timely warrants for UPE capitation grants may have better financial stability and predictability, enabling them to plan and execute educational programs more effectively. This could translate into better academic outcomes for students. However, the model used in this study did not find this practice statistically significant as a predictor of change in education outcomes.

In Uganda, the central government remits a considerable amount of financial resources to sub-national governments. It is estimated that the resources that are transferred to sub-national governments rank amongst the largest in Africa (Maractho, 2017). While large amounts of financial resources are transferred to lower governments from the central

government, and this has led to an enormous increase in the enrolment of pupils in primary schools, there are still persistent gaps in how those financial resources are managed (Maractho, 2017; Namara, 2020). Moreover, local governments have a limited say on how funds are spent in their jurisdictions. The local governments receive conditional and unconditional grants from the central government. While the districts may have broad responsibilities under the education docket in their respective jurisdictions, they have limited control over where the financial resources are to be spent. The grants to schools come from the central government when already appropriated on how it should be spent by the local government accounting officers (Khan, 2022; Maractho, 2017). Local governments have limited wiggle space on how to spend the resources remitted from the Central government. This is exacerbated by the fact that the majority of local governments do not collect meaningful local revenue, that would have supplemented the remittances.

Although the limited UPE (Universal Primary Education) grant allocated to schools is not the primary focus of this study, the timing of its disbursement remains critical, as it provides schools with adequate time to plan and implement activities effectively. Similarly, the central government provided an equivalent of $4.50 to each learner in primary schools per term (Uwezo, 2019). As a result, according to UNESCO (2016), schools are forced to operate on a shoestring budget, barely enough to address and promote learning by the students. The inadequate physical infrastructure both in terms of classrooms and teachers' housing, and with insufficient teaching and learning materials appear to be good predictors of change in education outcomes, as opposed to efficient budgetary practices. While some voices have argued that UPE Grants should be directly disbursed to school bank accounts by the Ministry of Finance and Economic Monitoring, this will defeat the whole essence of decentralization as the local governments are fully responsible for management of the Primary education in their respective jurisdictions (McEwan, 2015). Instead, there should be concerted efforts to

improve this, as well as introducing sanctions to officers delaying the disbursement of UPE funds from the district accounts.

Given that the model explains only a small portion of the variance in academic achievement, it is assumed that other factors, such as teacher quality, curriculum relevance, student engagement, adequacy of funds, and school infrastructure, are likely more critical to academic success. Education stakeholders should address these areas to achieve significant improvements in academic outcomes. While timely financial support is important, the weak relationship suggests that merely improving the warranting process may not be enough to substantially boost academic performance. Meanwhile, schools should ensure that once funds are received, they are utilized effectively to directly benefit students' learning experiences.

5.4 School inspection, support supervision, and reporting as predictors of change in PLE pass rate

This regression model did not produce statistically significant findings. While effective support supervision, inspection, and reporting have been documented as playing a key role in academic achievement in schools, the model used in this study indicates it is a weak predictor of change in education outcomes in this context. This could be attributed to some factors that were not put into play in this model. Even though inspection is widely used as a tool for improving the quality of education outcomes (Fissha & Brehamu, 2017; Hong & Thomas, 2022; Kalule & Bouchamma, 2014) this study appears to suggest otherwise. Perhaps, in many developing economies, including Uganda, inspection has been reported to be a ritual, as opposed to being used as a tool to improve the quality of education, hence promoting the academic achievements of learners. In contrast, supervision in western systems is usually based on a developmental supervision model (Hoy & Miskel, 2013; Gaines, 2019). While school inspection is a key feature in the Ugandan education system, the quality of education still lags, as pointed out by Namara (2020). It appears that school inspection in

Uganda, instead of addressing quality issues and aspects necessary to promote the academic achievements of learners, emphasizes compliance with the guidelines (Kalule & Bouchamma), as dictated by the regulation theory. Evidence suggests that schools, perhaps unintentionally, tend to place disproportionate emphasis on the elements targeted by inspections, potentially narrowing their educational focus. Several studies have indicated that while school inspections aim to improve quality, they may sometimes produce unintended negative consequences, such as teaching to the test or sidelining broader educational goals (Ehren & Visscher, 2006; Baxter, 2013).

According to the descriptive statistics and the Office of the Prime Minister (2023), while the overall school inspection rate for Local Governments (LGs) was 63%, the change in the Primary Leaving Examination (PLE) pass rate was only 29%. This indicates that, despite a relatively high rate of school inspections, there is not a corresponding increase in PLE pass rates. For example, LGs such as Luweero, Arua, Kasese, and Kazo had 100% school inspection rates, but their PLE pass rates remained low. This discrepancy suggests that school inspections alone may not lead to significant improvements in PLE performance.

These findings align with previous research by Zheng (2020) and Cilliers et al. (2021), who argue that school inspections by themselves are not sufficient to improve academic performance. This implies that other factors, beyond just the presence of inspections, play a role in determining student achievement.

Interestingly, the descriptive statistics suggest a positive association between most of the metrics (including school inspections) and the PLE pass rate. While these associations may appear to show a favourable trend, the study may have been underpowered to detect a significant result. A larger sample size or more comprehensive data might reveal stronger and more definitive relationships between the variables.

Likewise, other explanations given for the non-statistically significant results may be because of the way inspection is conducted and the spirit in which it occurs. Scholars (Ehren et al., 2013; Liebowitz & Porter, 2019) have consistently documented that inspection must be treated as a learning process as opposed to a fault-finding exercise. While inspection has been touted as one of the tools for school improvement, it appears to be used as an exercise for conformity and compliance with particular statutory requirements in the context of this study. This is consistent with the findings of Mgema (2022), whose study found that school inspection in Tanzania tends to concentrate on assessable areas on the inspection checklist while paying less attention to holistic learning. In such an environment, the schools tend to put more emphasis on ensuring they comply with the requirements of inspection, while at the same time putting less emphasis on the general academic aspects required to better promote education outcomes.

This could explain why inspection in this context appears to be inversely proportional to the performance of the standardized examination by the schools. Besides, the disagreements with previous studies could also be attributed to factors like the teacher-student ratio in schools. In Uganda, and particularly in many schools, the teacher-student ratios are lopsided. While the MoES guidelines dictate a teacher-student ratio of 1:55 students in a class (GPE, 2014), the recommended ratio in Uganda primary schools is 1:110. Accordingly, the chances for the teacher to engage all students in their class may be limited. Ultimately, this hurts the learning of students, hence academic achievement is compromised.

The practice of inspection, which is sometimes viewed as a fault-finding mission, as opposed to a learning endeavour has faced criticisms. This is consistent with the findings of Namara (2020) and Maractho (2017), whose studies found that such school inspections may focus more on the performance indicators limiting the potential value of professional judgment by inspectors, especially when they visit schools known for unsatisfactory

performance. According to Ehren and Shackleton (2016), focusing on performance indicators alone may distort the picture as schools may be tempted to find ways to perform well on such indicators while paying less attention to the general performance of the school. It will be interesting if this model of inspection produces the same arguments in the development world.

To put this in perspective, the education office in local governments recognizes the roles that inspection as well as support supervision play towards desired education outcomes. As pointed out by Namara (2020), education management plays a significant role in improving the quality of education and the efficiency of the system. In Uganda, this has included the establishment of the School Management Committees (SMCs). It is a requirement for every school to constitute SMCs with a legal mandate to represent the interests of the community and government as well as carry out oversight roles in the running the schools, including having oversight over the budget expenditure of the school (Ministry of Education and Sports, 1998). The SMC does supervise the headteachers and teaching activities as one way of ensuring quality standards. It must be pointed out that the SMCs also have some pitfalls, including being captured by the headteachers and elites in the community. This is consistent with the findings of Namara (2020) and McEwan (2015), who argued that SMCs tend to divert from their primary roles for which they were established and instead serve the interests of the elites in the communities they serve.

In many jurisdictions, inspection in private schools is particularly used as a quality assurance mechanism but still goes back to compliance and conformity by the schools. This is consistent with the findings of Jaafar et al. (2022), who argued that inspection is considered in perspective of accountability to the clients in private schools in Dubai. This is synonymous with private schools in Uganda, as parents will only take their kids to schools that they view as appropriate to provide the education to their kids they value. While private

schools must account to the government in terms of education policy guidance, they are also accountable to the public, if they are to have parents send their children to those schools. Parents' decision to choose a private school is based on the demands of the consumer, hence inspections promote competition amongst schools. This benefits the learners in terms of better academic achievements by the learners. While this model has watered down the significance school inspection plays in change in education outcomes, it remains to be seen if a similar study is conducted in a different context.

The findings of this study disagree with the literature (Cilliers et al., 2019; Ehren & Shackleton, 2016; Khan, 2022) as far as the role played by school inspection, where they have argued that school inspection benefits greatly outweigh the negative effects. Therefore, educational authorities should prioritize these activities to enhance school performance. Regular and thorough supervision and monitoring can help identify areas of weakness in schools and provide the necessary support to address these issues, ultimately leading to better academic outcomes.

To maximize the impact of supervision, inspection, and monitoring on academic achievement, it is important to build the capacity of the personnel involved in these activities. This includes training inspectors and supervisors on best practices, data-driven decision-making, and effective feedback mechanisms. Enhanced capacity in supervision can lead to more meaningful interventions, positively affecting student learning. Schools that are regularly supervised and monitored may be more accountable in their operations, leading to better management practices and improved educational outcomes. Implementing a robust system of support supervision and monitoring can create a culture of continuous improvement within schools, encouraging better teaching practices and resource utilization.

While it is well documented that regular supervision and monitoring can help identify and address issues in schools, contributing to better academic performance over time, the

findings from this study call for more scrutiny of the current inspection process. Improving the quality and effectiveness of support supervision, inspection, and monitoring requires training and capacity building for the personnel involved. This can lead to more impactful interventions and better academic results. Training supervisors and inspectors on modern educational practices and effective feedback mechanisms can enhance their ability to positively influence school performance.

In hindsight, supporting schools to develop school improvement plans does potentially serve as one way of improving school performance and consequently educational outcomes. This is consistent with the findings of Uwezo (2019), who found that schools that had developed school improvement plans had a corresponding better academic achievement for their learners than their counterparts without school improvement plans. As UNESCO (2016) reports, support supervision serves a very important role in helping schools realize their weakness and devise avenues to address such gaps, thereby promoting education outcomes in schools.

Chapter 6: Limitations, Conclusions and Recommendations

6.1 Limitations of the study

As with other studies, we acknowledge several limitations that may have influenced the findings of this research. These limitations are critical for contextualizing the results and identifying areas for future research.

Firstly, the outcome variable—change in education outcomes—may not be adequately captured by comparing data from only two academic years (2020 and 2021). Such a limited timeframe may not reflect longer-term trends or impacts, as changes in educational performance often require sustained efforts over multiple years to manifest, potentially spanning four or more years (Freer, 2010). Furthermore, the outcome variable as utilized in this study may not sufficiently capture local governments (LGs) that were already demonstrating high performance prior to the intervention, which could have affected the sensitivity of the analysis.

While some contextual factors, such as socio-economic differences across LGs, were included in the study model, other variables—including geographical constraints, the local political environment, and leadership styles—were not fully accounted for. These unmeasured variables could have introduced confounding effects, potentially obscuring the relationships between predictors and outcomes. Critical factors such as student-teacher ratios, curriculum quality, teacher attendance, and learner-specific attributes (e.g., health and nutrition) were not incorporated into the model, which may have further influenced the results.

Data collection processes also posed potential challenges. Data were gathered from various parts of the country by different teams, raising the possibility of assessor bias as well as competencies. Variability in assessor expertise and potential inconsistencies in data collection methods may have introduced errors, contributing to non-uniformity in the dataset.

Such limitations align with concerns raised by Freer (2010) about the impact of assessor variability on data accuracy.

The statistical model used in this study—binary logistic regression—accounted for 11.2% to 15% of the variance in the outcome variable, providing valuable insights while highlighting the potential for additional explanatory factors. The binary nature of the dependent variable constrained the choice of analytical methods. Had a continuous outcome variable been available, linear regression analysis might have provided greater sensitivity and explanatory power, potentially yielding significant results with the same predictors. This aligns with methodological challenges highlighted by Maractho (2017), who emphasized the importance of aligning statistical models with the distribution and nature of the data.

The reliance on secondary data from the LGMSD performance assessment presented inherent limitations. This dataset may not have captured all relevant variables influencing changes in education outcomes, such as classroom dynamics, teacher motivation, parental involvement, and the adequacy of budgetary support. While the study included predictors such as the preparation of training plans and the timely submission of UPE capitation grant releases, these measures may not comprehensively represent the constructs of human resource practices, finance and budgetary practices as well as oversight, support supervision and reporting practices, which were the constructs under study.

Another limitation lies in the aggregation of PLE results, which included both public and private schools. Segregating results from private and UPE schools could provide more nuanced insights. For example, Maractho (2017) observed significant performance differences between two LGs located in close proximity, which were attributed to a higher concentration of private schools in one jurisdiction. Disaggregating data in future studies could help isolate the impact of local government practices on public school performance, and indeed, this could return different results on the model.

The non-significant results for predictors such as school inspection warrant further investigation. A qualitative study could explore why school inspection, despite its documented benefits, did not emerge as a significant predictor of educational outcomes. Such a study could examine the perceptions of teachers and administrators regarding inspection practices, delving into factors such as teacher motivation, school culture, and learner-specific attributes. These qualitative insights could complement the quantitative findings, offering a more comprehensive understanding of the mechanisms underlying educational outcomes. Freer (2010) underscores the value of qualitative approaches in identifying areas for improvement in existing systems, which could inform strategies for enhancing school inspections in Uganda.

In summary, while this study provides valuable insights into educational practices and outcomes in resource-constrained settings, the noted limitations highlight the need for more robust data, comprehensive models, and mixed-method approaches in future research to address the complexities of educational change.

6.2 Conclusions

This study sought to investigate local government administrative efficiency and change in primary education outcome in Uganda. Education outcomes were measured using performance on the standardized national examinations—change in PLE pass rates for primary schools in local governments.

This study has shown that the indicators (administrative efficiency) appear not to be predictors of change in educational outcome, keeping constant the covariates of socio-economic (household income) and minimum infrastructure/facilities standards.

Particularly, this study did establish that compliance to reporting adequate number of teachers, substantively recruiting LG staff, appraisal of headteachers and LG staff, teacher profession development, financing practices as well as school inspection, support

supervision, and reporting are not associated with change in education outcome, holding the covariates of socio-economic status as well as minimum infrastructure standards constant. We can therefore conclude that other predictors, as opposed to the ones used in this model can bring about variations to the outcome variable.

Understanding those predictors may help to inform decisions by education policymakers to emphasize a holistic approach towards academic achievements of learners, as opposed to focusing on assessment areas that emphasize compliance, but play limited importance in improving education outcomes for learners at the local government level. As it turns out, the assessment tool emphasizes compliance with guidelines as handed out from the top which is explained under the regulation theory.

Similarly, the findings from this study appear to suggest the tool used to generate the data used in this study may pay less attention to issues of quality education, with more emphasis on administrative effectiveness and efficiency. The results from this study, perhaps will contribute to policymakers revising the Local Government Performance Assessment tool to address issues of quality education, as opposed to compliance with guidelines from higher levels of government. Similarly, strategies for improving the overall change in education outcome in schools may be devised based on the findings of this study.

It is encouraging to note that the Government of Uganda has revised the tool for the upcoming LGPA (November–December 2024) to place a specific focus on the quality of education. In doing so, it is assumed that education outcome for learners will significantly improve. Likewise, while teacher appraisals are an important component of education reform, they cannot stand alone as a predictor of academic achievement. The current study suggests that appraisals, as practiced in local government schools, do not significantly impact students' performance in national examinations. Policymakers and school administrators should,

therefore, consider reviewing and refining the appraisal process, ensuring it is part of a broader system of professional development and school improvement strategies.

As for the financial and budgetary practices, it should be noted that the UPE grant has led to significant and sustained enrolment increases and contributed to improved equity. Although many children remain out of school, there has been a significant increase in access to primary education, in particular for girls and poor or disabled children. There are still issues of high drop-out which must be addressed; this appears to be linked to issues of quality education.

Finally, the statistical results have clear policy relevance as far as Regulation Theory is concerned. Simply handing down guidelines from the higher levels of government to local governments, without addressing issues associated with implementing the guidelines and statutory requirements will not address issues of education outcomes. This, apparently will draw the attention of these policy implementers at the LG level to spend more effort complying than to emphasizing a holistic approach that leads to improvement in the quality of education. The central government expects the LGs to comply with policy and guidelines as handed down, even when they have their weaknesses and flaws that they ignore to address. The current system of assessment penalizes poor performance while rewarding good performers, but without necessarily putting in place avenues for poor performers to improve. For instance, since 2019, the best top two positions in terms of performance have consistently been between Ibanda and Isingiro LGs, both from one region of the country. The performance effects of these constraints have distorted the rankings in the LGPA. Some LGs operate in favourable circumstances, while others operate in constrained environments. The assessment tool should be able to address such challenges that bedevil the performance of LGs on the assessment tool.

6.3 Recommendations for future studies

Several recommendations can be made to build upon the findings of this study. First, this research was purely quantitative, relying on statistical analysis to examine relationships between variables. While this approach provided valuable insights, a qualitative study could offer a deeper understanding of the underlying mechanisms influencing change in education outcomes. Specifically, incorporating qualitative factors such as teacher motivation, school culture, and leadership effectiveness could enrich the findings by capturing perspectives from key stakeholders. These insights would help validate whether the identified study variables genuinely predict changes in education outcomes.

Future researchers could adopt a more qualitative approach, utilizing methods such as in-depth individual interviews and focus group discussions. This would allow for a more nuanced exploration of how the studied variables interact with the outcome variable and provide a clearer interpretation of unexpected findings, such as the negative effect observed when schools met minimum infrastructure standards. A mixed-methods approach might be particularly beneficial in bridging gaps between statistical correlations and real-world educational experiences.

Additionally, using an alternative statistical model beyond binary logistic regression could yield different relationships between predictors and the outcome variable, offering a more comprehensive perspective on the data. Furthermore, instead of analyzing a dataset covering only one year, extending the study period to at least five years would allow researchers to assess trends over time. A longitudinal study could offer a more reliable and dynamic understanding of how various factors influence education outcomes over an extended period, reducing the risk of short-term anomalies affecting the results.

From a policy perspective, education policymakers, both in Uganda and in similar contexts, should consider adopting a holistic approach to improving education quality.

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Appendices

Appendix 1: LGMSD Education performance assessment: Customized data collection tool

Education Minimum Conditions

Performance Area	No.	Minimum Condition	Scoring Guide	TotalScore	Actual Score	Remarks
Human Resource Management and Development *Maximum Score is 70*	1.	Evidence that the LG has substantively recruited or formally requested for secondment of staff for all critical positions in the District/Municipal Education Office namely:	**a)** District Education Officer Principal Education Officer, score 30 or else 0.	30		
			b) All District/Municipal Inspectors of Schools, score 40 or else 0. if the LG has substantively recruited or formally requested for secondment of:	40		
Sub Total Score				**70**		

Education Performance Measures

Performance Area	No.	Performance Measure	Scoring Guide	Total Score	Actual Score	Remarks
A. Local Government Service Delivery Results	1.	Learning outcomes: The LG has improved PLE pass rates.	**a)** The LG PLE pass rate has improved between the previous school year but one and the previous year - If improvement by more than 5% score 4	4		
			Between 1 and 5% score 2	2		

			No improvement score 0	0		
	2.	Achievement of standards: The LG has met prescribed school staffing and infrastructure standards	a) Evidence that the LG has recruited primary school teachers as per the prescribed MoES staffing guidelines If 100%, score 3	3		
			If 8O-99%: score 2	2		
			If 70 — 79% score: 1,	1		
			Below7O% score: 0	0		
Sub-total score				**07**		
B. Performance Reporting and Performance Improvement	3	School compliance and performance improvement:	**a)** The LG has ensured that all registered primary schools have complied with MoES annual budgeting and reporting guidelines and that they have submitted reports (signed by the head teacher and chairperson of the SMC) to the DEO by January 30. Reports should include among others. i) highlights of school performance, ii) a reconciled cash flow statement, iii) an annual budget and expenditure report, and iv) an asset register: If 100% school submission to LG, score: 4	4		
			Between 80 — 99% score: 2	2		
			Below 80% score 0	0		
			b) UPE schools supported to prepare and implement SIPs in line with	4		

			inspection recommendations: If 50% score: 4			
			Between 30— 49% score: 2	2		
			Below 30% score 0	0		
Sub-total score				**08**		
C. Human Resource Management and Development	4	Performance management: Appraisals have been conducted for all education management staff, head teachers in the registered primary and secondary schools, and training conducted to address identified capacity gaps.	**a)** If all primary school head teachers have been appraised with evidence of appraisal reports submitted to HR Office with copy to District Education Officer/Municipal Education Officer Score: 2 or else, score: 0	2		
			b) If all staff in the LG Education department have been appraised against their performance plans score: 2. Else, score: 0	2		
			c) The LG has prepared a training plan to address identified staff capacity gaps at the school and LG level, score: 2- Else, score: 0	2		
Sub Total Score				**06**		
D. Magt. Monitoring and Supervision of Services	5	Planning, Budgeting and Transfer of Funds for service delivery. The Local Government has	**a)** Evidence that LG submitted warrants for school's capitation within 5 days for the last 3 quarters. If 100% compliance, score: 2 else	2		

		allocated and spent funds for service delivery as prescribed in thesector in the Sector guidelines ***Q2, Q3, and Q4 of FY 2020/21 Should be considered for No. 9d***	score: 0 ***(Note: within 5 days after cash limits have been uploaded in the system)***			
			b) Evidence that the LG has invoiced and theDEO/ MEO has communicated! publicized capitation releases to schools within three working days of release from MoFPED. If 100% compliance, score: 2 else, score: 0	2		
	6	Routine oversight and monitoring ***(Assess period between October, 2020 to May 2021 when schools were open for some classes.) for No. 10a*** ***(The assessment should cover the period when primary schools were open for pupils (P.4, P.5, P.6 and P.7 candidates ie. from October 2020 to May, 2021) for No.10d.***	**a)** Evidence that the LG Education department has prepared an inspection plan and meetings conducted to plan for school inspections, If 100% compliance, score: 2, else score: 0	2		
			b) Percent of registered UPE			

			schools that havebeen inspected and monitored, and findings compiled in the DEO/MEO's monitoring report: If 100% score: 2	2		
			Between 80 — 99% score 1	1		
			Below 80%: score 0	0		
			c) Evidence that inspection reports have been discussed and used to recommend corrective actions, and that those actions have subsequently been followed-up, Score: 2 or else, score: 0	2		
			d) Evidence that the DIS and DEO have presented findings from inspection and monitoring results to respective schools and submitted these reports to the Directorate of Education Standards (DES) in the Ministry of Education and Sports (MoES): Score 2 or else score: 0	2		
Sub-total score				**12**		
Total						
Total percentage score						

Appendix II: LGMSD education performance assessment: Original data collection tool

Education Minimum Conditions

Performance Area	No.	Minimum Condition	Scoring Guide	Total Score	Actual Score	Assessment Procedure/information source	Remarks
A) Human Resource Management and Development Maximum score is 70	1.	Evidence that the LG has substantively recruited or formally requested for secondment of staff for all critical positions in the District/Municipal Education Office namely:	**a)** District Education Officer! Principal Education Officer, score 30 or else 0.	30			
			b) All District/Municipal Inspectors of Schools, score 40 or else 0. if the LG has substantively recruited or formally requested for secondment of:	40			
Sub Total Score				**70**			

Education Performance Measures

Performance Area	No.	Performance Measure	Scoring Guide	Total Score	Actual Score	Assessment Procedure/information source	Remarks
A. Local Government Service Delivery Results Maximum 24 score for this performance area	1	Learning outcomes: The LGhas improved PLE and USE pass rates. Maximum 7 points on thisperformance measure	**a)** The LG PLE pass rate has improved between the previous school year but oneand the previous year - If improvement by more than 5% score 4	4			
			Between 1 and 5% score 2	2			
			No improvement score 0	0			
			b. the UCE pass rate has improved between the previous school's year but one and the previous year if improvement by more 5% score 3	3			
			between 1 and 5% score 2	2			
			no improvement scores 0	0			
	2.	Service Delivery Performance: Increase in theaverage score in the education LLG Performance assessment. Maximum 2 paints	**a)** Average score in the education LLG performance has improved between the previous year but one and the previous year. If improvement by more than 5% score 2	2			
			Between 1 and 5% score 1	1			
			No improvement score o	0			
	3.	Investment Performance: The LG has managed education projects as	**a)** If the education development grant has been used on eligible activities as defined inthe sector guidelines: score 2 - Else score 0	2			

		per guidelines Maximum 8 points on this performance measure ***Note for No. 3d:*** • ***Score LGs without seed secondary schools.*** • ***All PIT members as listed in the Manual apply***.	**b)** If the DEO, Environment Officer and CDO certified works on Education construction projects implemented in the previous FY before the LG made payments to the contractors score 2 or else score 0 ***Sample 3 projects***	2			
			c) If the variations in the contract price are within +/-20% of the MoWT estimates score 2 or else score 0. ***(Sample 3 projects)***	2			
			d) Evidence that education projects were completed as per work plan in the previous FY - If 100% score 2 Between 80 — 99% score 1 - Below 80% score 0	2			
	4	Achievement of standards: The LG has met prescribed school staffing and infrastructure standards Maximum 6 points on this performance measure	**a)** Evidence that the LG has recruited primary school teachers as per the prescribed MoES staffing guidelines If 100%: scare 3	3			
			Lf 8O-99%: score2	2			
			If 70 — 79% scare: 1,	1			
			Below 7O% score o	0			
			b) Percent of schools in LG that meet basic requirements and minimum standards set out in the DES guidelines.	3			

			If above 70% score: 3				
			If between 60 69%, score: 2	2			
			If between 50 – 59%, score: 1	1			
			Below 50 score: 0	0			
Sub Total Score				**24**			
B. Performance Reporting and Performance Improvement Maximum 16 score for this performance area	5	*Accuracy of reported information*: The LG has accurately reported on teaching staff in place. school infrastructure and service performance. Maximum 4 points on this performance measure	**a)** Evidence that the LG has accurately reported on teachers and where they are deployed. - If accuracy of information is 100% score 2 - Else score: 0	2			
			b) Evidence that LG has a school asset register accurately reporting on the infrastructure in all registered primary schools. - If accuracy of information is 100% score 2 - Else score: 0	2			
	6	School compliance and performance improvement: Maximum 12 points on this performance measure	**a)** The LG has ensured that all registered primary schools have complied with MoES annual budgeting and reporting guidelines and that they have submitted reports (signed by the head teacher and chairperson of the SMC) to the DEO by January 30. Reports should include among others. i) highlights of school performance, ii) a reconciled cash flow statement, iii) an annual budget and expenditure report, and iv) an asset register: If 100% school submission to LG, score: 4	4			
			Between 80 — 99% score: 2	2			

			Below 80% score 0	0			
			b) UPE schools supported to prepare and implement SIPs in line with inspection recommendations: If 50% score: 4	4			
			Between 30— 49% score: 2	2			
			Below 30% score 0	0			
			c) If the LG has collected and compiled EMIS return forms for all registered schools from the previous FY year: If 100% score: 4:	4			
			Between 90 — 99% score 2	2			
			Below 90% score 0	0			
Sub Total Score				**16**			
C. Human Resource Management and Development Maximum 16 score for this performanc e area	7	Budgeting for and actual recruitment and deploymentof staff: LG has substantively recruited all primary school teachers where there is a wage bill provision Maximum 8 points on this performance measure	**a)** Evidence that the LG has budgeted for a head teacher and a minimum of 7 teachers per school or a minimum of one teacher perclass for schools with less than P.7 for the current FY: Score 4 or else, score: 0	4			
			b) Evidence that the LG has deployed teachers as per sector guidelines in the current FY, Score 3 else score: 0	3			
			c) If teacher deployment data has been disseminated or publicized on LG and orschool notice board, score: 1 else, score: 0	1			
	8	Performance management: Appraisals have been conducted for all education	**a)** If all primary school head teachers havebeen appraised with evidence of appraisalreports submitted to HRM with copy to DEO/MEO Score: 2 or else, score: 0	2			

		management staff, head teachers in the registered primary and secondary schools, and training conducted to address identified capacity gaps. Maximum 8 points on this performance measure	**b)** If all secondary school head teachers have been appraised with evidence of appraisal reports submitted by D/CAO (or Chair BoG) to HRM Score: 2 or else, score: 0	2			
			c) If all staff in the LG Education department have been appraised against their performance plans score: 2. Else, score: 0	2			
			d) The LG has prepared a training plan to address identified staff capacity gaps at the school and LG level, score: 2 - Else, score: 0	2			
Sub Total Score				**16**			
D. Management. Monitoring and Supervision of Services Maximum score 20 for this performance area	9	Planning, Budgeting and Transfer of Funds for service delivery. The Local Government has allocated and spent funds for service delivery as prescribed in the sector in the Sector guidelines Maximum 8 points on this performance measure	**a)** The LG has confirmed in writing the list of schools, their enrolment and budget Allocation in the Programme Budgeting System (PBS) by December 15th annually. If 100% compliance, score: 2 or else, score: 0	2			
			b) Evidence that the LG made allocations to inspection and monitoring functions in line with the sector guidelines. If 100% compliance, score:2 else, score: 0	2			
			c) Evidence that LG submitted warrants for school's capitation within 5 days for the last 3 quarters. If 100% compliance, score: 2 else score: 0 ***(Note: within 5 days after cash limits have been uploaded in the system)***	2			

		Q2, Q3, and Q4 of FY 2020/21 Should be considered for No. 9d	**d)** Evidence that the LG has invoiced and theDEO/ MEO has communicated! publicized capitation releases to schools within three working days of release from MoFPED. If 100% compliance, score: 2 else, score: 0	2			
	10	Routine oversight and monitoring Maximum 10 points on this performance measure ***(Assess period between October, 2020 to May 2021 when schools were open for some classes.) for No. 10a***	**a)** Evidence that the LG Education department has prepared an inspection plan and meetings conducted to plan for school inspections, If 100% compliance, score: 2, else score: 0	2			
			b) Percent of registered UPE schools that havebeen inspected and monitored, and findings compiled in the DEO/MEO's monitoring report: If 100% score: 2	2			
		(The assessment should cover the period when primary schools were open for pupils (P.4, P.5, P.6 and P.7 candidates ie. from October 2020 to May, 2021) for No.10d.	Between 80 — 99% score 1	1			
			Below 80%: score 0	0			
			c) Evidence that inspection reports have been discussed and used to recommend corrective actions, and that those actions have subsequently been followed-up, Score: 2 or else, score: 0	2			
			d) Evidence that the DIS and DEO have presented findings from inspection and monitoring results to respective schools and	2			

			submitted these reports to the Directorate of Education Standards (DES) in the Ministry of Education and Sports (MoES): Score 2 or else score: 0				
			e) Evidence that the council committee responsible for education met and discussed service delivery issues including inspection and monitoring findings, performance assessment results, LG PAC reports etc. during the previous FY: Score 2 or else score: 0	2			
	11	Mobilization of parents to attract learners Maximum 2 points on this performance measure	Evidence that the LG Education department has conducted activities to mobilize, attract and retain children at school, score: 2 or else score: 0	2			
Sub Total Score				**20**			

E. Investment Management Maximum score 12 for this performanc e area	12	Planning and budgeting for investments Maximum 4 points on this performance measure	**a)** Evidence that there is an up to-date LG asset's register which sets out school facilities and equipment relative to basic standards, score: 2, else score: 0	2			
			b) Evidence that the LG has conducted a desk appraisal for all sector projects in the budget to establish whether the prioritized investment is: (I) derived from the LGDP; (ii) eligible for expenditure under sector guidelines and funding source (e.g. sector development grant, DDEG). If appraisals were conducted for **all**	1			

			projects that were planned in the previous FY 2020/21, score: 1 or else, score: 0				
			c) Evidence that the LG has conducted field Appraisal for: (i) technical feasibility; ii) environmental and social acceptability; and (iii) customized designs aver the previous FY, score 1 else score: 0	1			
	13	Procurement, contract management/execution Maximum 9 points on this performance measure	**a)** If the LG Education department has budgeted for and ensured that planned sector infrastructure projects have been approved and incorporated into the procurement plan, score: 1. else score: 0	1			
			b) Evidence that the school infrastructure was approved by the Contracts Committee and cleared by the Solicitor General (where above the threshold) before the commencement of construction, scare: 1, else score: 0	1			
			c) Evidence that the LG established a Project Implementation Team (PIT) for school construction projects constructed within the last FY as per guidelines	1			

			score: 1, else score: 0				
			d) Evidence that the school infrastructure followed the standard technical designs provided by the Mo ES Scare: 1, else, score: 0	1			
			e) Evidence that monthly site meetings were				
			conducted for all sector infrastructure projects planned in the previous FY score: 1, else score: 0	1			
			f) If there's evidence that during critical stages of construction of planned sector infrastructure projects in the previous FY, at least 1 monthly joint technical supervision involving engineers, environment officers, CDOs etc., has been conducted score: 1, else score: 0	1			
			g) If sector infrastructure projects have been properly executed and payments to contractors made within specified timeframes within the contract, score: 1, else score: 0	1			
			h) If the LG Education department timely submitted a procurement plan in accordance with the PPDA requirements to the procurement unit by April 30,	1			

			score: 1, else, score: 0				
			I) Evidence that the LG has a complete procurement file for each school Infrastructure contract with all records as required by the PPDA Law 9 score 1 or else score 0	1			
Sub Total Score				**12**			
F. Environment and Social Safeguards Maximum score 12 for this performanc e area	14	Grievance redress: LG Education grievances have been recorded, investigated, and responded to in line with the LG grievance redress framework Maximum 3 points on this performance measure	**a)** Evidence that grievances have been recorded, investigated, responded to and recorded in line with the grievance redress framework score: 3,else score: 0	3			
	15	Safeguards for service delivery, Maximum 3 points on this performance measure	**a)** Evidence that LG has disseminated the Education guidelines to provide for access to land (without encumbrance), proper siting of schools, 'green schools and energy and water conservation Score: 3, or else score: 0	3			
	16	Safeguards in the delivery of investments Maximum 6 points on this performance	**a)** LG has in place a costed ESMP and this is incorporated within the BoQs and contractual documents, score: 2, else score: 0	2			

		measure	**b)** If there is proof of land ownership, access of school construction projects, score: 1. else score: 0	1			
			c) Evidence that the Environment Officer and CDO conducted support supervision and monitoring (with the technical team) to ascertain compliance with ESMPs including follow up on recommended corrective actions; and prepared monthly monitoring reports. score: 2, else score:0	2			
			d) If the E&S certifications were approved and signed by the environmental officer and CDO prior to executing the project contractor payments Score: 1, else score: 0	1			
Sub Total Score				**12**			