



An Observational Study On the Academic Performance of Learners in Rural Primary Schools in Kafue District of Zambia

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Abstract- This observational study investigated the academic performance of learners in rural primary schools in Kafue District, Zambia. The research aimed to examine the relationship between school resources, teacher quality, and learner academic performance, as well as identify the challenges faced by learners in these schools. The study employed a mixed-methods approach, combining both qualitative and quantitative research methods. A questionnaire was administered to a sample of 80 learners and 30 teachers, while interviews were conducted with 30 teachers. Classroom observations were also conducted to gather more in-depth information. The findings revealed that inadequate school infrastructure, teacher shortages, and limited access to educational resources were significant challenges faced by learners in rural primary schools. The study also found that learners who received support from their teachers and had access to adequate resources performed better academically. Additionally, the study highlighted the importance of community involvement in education and the need for targeted support to learners who are struggling academically. The study recommends that policy makers prioritize investment in school infrastructure, teacher training, and educational resources to improve the quality of education in rural primary schools. The study also recommends that schools foster partnerships with parents and the community to promote learner support and involvement. Furthermore, the study suggests that the government and other stakeholders should consider implementing policies and programs that address the specific needs of rural schools, such as providing incentives for teachers to work in rural areas and improving access to educational resources and promoting community involvement in education. The study's findings and recommendations have implications for policy and practice, highlighting the need for a comprehensive approach to improving education outcomes in rural areas. By addressing the challenges faced by learners in rural primary schools, stakeholders can work together to ensure that all learners have access to quality education and can reach their full potential.

Keywords- Academic Performance, Rural Primary Schools, Kafue District, Learner Achievement, Educational Challenges

I. Introduction

Education is widely recognized as a fundamental driver of socio-economic development, playing a pivotal role in empowering individuals and fostering national growth. In Zambia, the education sector has witnessed various reforms and interventions aimed at improving access, equity, and quality of learning, particularly in rural areas where challenges are most pronounced. Kafue District, situated in the Lusaka Province of Zambia, epitomizes the complexities of delivering quality



education in rural contexts. The district is dotted with primary schools that grapple with myriad challenges, including limited infrastructure, inadequate teaching resources, high teacher-pupil ratios, and the pervasive impact of poverty on learner readiness and attendance.

Despite these hurdles, understanding the dynamics of academic performance in these settings is critical to informing targeted strategies that can uplift learner outcomes. This observational study focuses on examining the academic performance of learners in rural primary schools in Kafue District, Zambia, seeking to unravel the interplay of factors influencing educational achievements and identifying actionable insights to guide policy and practice in enhancing the quality of education in these underserved areas. Therefore, this chapter presents the background to the study, the statement of the problem, the purpose of the study, objectives of the study, and the research questions. It also outlines the delimitation of the study, limitations of the study, significance of the study, theoretical framework, and definitions of operational terms used in the study.

Background

According to Hakainde Hichilema president of the republic of Zambia, “Education is indeed a great equalizer. It can make a boy from a village become president of Zambia, it can make a daughter of a maid become Chief Executive Officer of a Multi-National Company, it can make an orphan become a medical doctor.” Therefore education is the key to success and it is also a key to national development as wise people say. That is why the Republic of Zambia has made primary and secondary education free to every child so that primary and secondary education can be accessed by all school going children in Zambia.

Education is the right to each individual. It is also a means for enhancing the wellbeing and quality of life for the entire society (ECZ, 2013). That is why most parents in Zambia believe that education will make their children have an improved life as well as raise the standards of the family. A good number of nations recognize the importance of having citizens who able to read and write. They accept that poor primary education negatively affect national development. The fundamentals of information are acquired at the primary level of education. The primary level is the foundation for additional presentations and trainings. The performance of pupils at this stage will normally determine their future performance in the particular field of work or subject. The vital role that primary education plays in the Pupils’ life calls for continuous assessment and exploration to determine that access quality and relevance are acquired (Macharia, 1992).

Poor primary education may lead to low competent graduates who can become irresponsible citizens due to the fact that their rights to quality primary education has been denied. By considering the cardinal role of primary education, Zambia like most African countries has placed great significance on the increasing of access and quality of this type of education (MOE, 1996:22). Moreover, the need for quality and significant type of education has demanded changes in the curriculum from time to time.



The academic performance of learners in rural primary schools has been a persistent concern for educators and policymakers globally. For instance, a study in the United States found that rural schools face unique challenges, including limited access to resources, inadequate infrastructure, and difficulty attracting and retaining high-quality teachers (Barley & Beesley, 2007). Similarly, in Australia, research has shown that rural students tend to perform poorly in standardized tests compared to their urban counterparts, due to factors such as limited access to educational resources and socio-economic disadvantages (Alloway et al., 2004).

In the United Kingdom, a study by the National Foundation for Educational Research found that rural schools often struggle to provide a range of subjects and extracurricular activities due to limited resources and budget constraints (Wigelsworth et al., 2010). Furthermore, research in Canada has highlighted the impact of rurality on learner achievement, with factors such as geographic isolation and limited community resources contributing to the challenges faced by rural schools (Halseth & Ryser, 2006).

These challenges are not unique to developed countries. For example, a study in rural India found that learners in rural primary schools face significant barriers to education, including inadequate infrastructure, lack of qualified teachers, and socio-economic challenges (PROBE Team, 1999).

Research has shown that rural schools face unique difficulties, such as limited access to resources, inadequate infrastructure, and difficulty attracting and retaining qualified teachers, which can negatively impact learners' academic achievement (Mulkeen, 2010).

In African countries studies have also highlighted the importance of parental involvement and community support in shaping learners' academic performance. For instance, a study in Ghana found that community-based leadership and parental involvement were essential for improving learner outcomes (Adu-Agyem & Osei-Poku, 2014). Similarly, research in Namibia revealed that factors such as teacher-learner ratio, English proficiency, parental involvement, and school environment significantly influence learner performance in rural schools (Mashingaidze, 2013). In addition to the school environment, teacher quality and teaching methods also play a significant role in determining learner performance. Research has shown that effective teachers can make a significant difference in learners' academic achievement. Teachers who are well-trained, motivated, and supported are more likely to provide high-quality instruction and support to their learners (Njoroge, 2021).

Furthermore, access to learning resources is also an essential factor that can impact learners' academic performance. Learners who have access to textbooks, technology, and other learning resources are more likely to perform better academically. However, many rural primary schools face challenges in providing these resources to their learners (Provasnik et al., 2007).

Socioeconomic factors also play a significant role in determining learners' academic performance. Learners from disadvantaged backgrounds often face unique challenges, including poverty, hunger, and malnutrition, which can impact their health and



academic performance. Research has shown that learners from low-income backgrounds are more likely to struggle academically and have lower graduation rates (Showalter et al., 2019).

Similar findings were reported in studies on factors contributing to poor performance in mathematics among primary school learners, which identified overcrowded classrooms, inadequate teacher expertise, and insufficient learning resources as significant factors contributing to poor performance. Furthermore, research highlighted the importance of parental involvement in shaping learners' academic performance, particularly in subjects like mathematics. A study conducted in rural basic schools of Zambia found that sensitizing parents to support their children's homework can improve academic performance in Mathematics and Chitonga, Simweleba, N.H., & Serpell, R. (2020) .

In rural Zambia, pre-schooling has also been found to play a crucial role in learners' academic performance. A study in Zambezi District found a significant relationship between pre-schooling and academic performance in literacy and numeracy among lower primary school pupils. However, the study also noted that socio-economic status, pupil's sex, and parent-child interactive behavior did not significantly influence academic performance, Chishimba, J., & Mwanza, P. (2022).

The Ministry of General Education in Zambia has expressed concerns over the low academic performance of learners in rural primary schools. Studies have recommended increased funding, teacher motivation, and alternative funding strategies to improve the quality of education in these schools. Effective leadership and management of schools have also been identified as critical factors in enhancing learner performance [3].

In Kafue District, the academic performance of learners in rural primary schools is likely to be influenced by similar factors. The district's rural location and socio-economic challenges may exacerbate the existing problems of inadequate resources and poor teacher quality. Addressing these challenges will require a multifaceted approach that involves government support, teacher development, and community engagement.

The lack of library facilities, inadequate time for teacher-pupil consultation, and limited reference books contribute to poor performance. Furthermore, the poor family socio-economic status of most rural children significantly impacts their academic achievement. Studies have also identified overcrowded classrooms, inadequate teacher expertise, and insufficient learning resources as significant factors contributing to poor performance, Simweleba, N.H., & Serpell, R. (2020).

In addition to these challenges, parental involvement plays a crucial role in shaping learners' academic performance, particularly in subjects like mathematics. Research has shown that sensitizing parents to support their children's homework can improve academic performance in Mathematics and Chitonga, Chishimba, J., & Mwanza, P. (2022), Hapompwe, C.C., et al. (2020).

Pre-schooling has also been found to play a significant role in learners' academic performance. A study in Zambezi District found a significant relationship between pre-



schooling and academic performance in literacy and numeracy among lower primary school pupils, Mwaba, S.O.C., Kusanthan, T., & Chizawu, K. (n.d.).

Therefore, the academic performance of learners in rural primary schools in Kafue District, Zambia, is influenced by a complex array of factors, including inadequate resources, poor teacher quality, and socio-economic challenges. Addressing these challenges will require a multifaceted approach that involves government support, teacher development, and community engagement.

Statement of the Problem

The academic performance of learners in rural primary schools in Kafue District, Zambia, has been a persistent concern. Despite efforts to improve the quality of education in Zambia, learners in rural primary schools in Kafue District continue to face significant challenges that hinder their academic performance. These challenges include limited access to quality teaching, inadequate learning resources, and socio-economic constraints that affect learner motivation and engagement.

As a result, many learners in these schools struggle to achieve their full potential, leading to poor academic outcomes and limited opportunities for future success. This study seeks to investigate the specific factors contributing to poor academic performance among learners in rural primary schools in Kafue District, with the aim of informing policy and practice that can help address these challenges and improve learner outcomes. By understanding the root causes of these challenges, this study hopes to inform policy and practice aimed at improving the quality of education in rural primary schools in Kafue District.

Purpose of the Study

The purpose of this study was to conduct an observational investigation into the academic performance of learners in rural primary schools of Kafue District, with a focus on identifying factors influencing their achievement levels. This study sought to assess the current state of academic performance in core subjects, namely Mathematics, English, and local languages, among learners in grades 4-7. Additionally, it examined the relationship between learner performance and variables such as teacher qualifications, availability of learning resources, and socioeconomic backgrounds. The study also aimed to identify challenges faced by rural primary schools in enhancing learner academic performance, with the ultimate goal of providing insights for policymakers and educators to inform strategies for improving academic outcomes in rural settings.

Research Objectives

- To assess the current academic performance of learners in rural primary schools in Kafue District, Zambia.
- To identify the factors contributing to poor academic performance among learners in rural primary schools in Kafue District.
- To explore the relationship between school resources, teacher quality, and learner academic performance in rural primary schools in Kafue District.

Research Questions



1. What is the current level of academic performance among learners in rural primary schools in Kafue District?
2. What are the key factors contributing to poor academic performance among learners in rural primary schools in Kafue District?
3. Is there a significant relationship between school resources, teacher quality, and learner academic performance in rural primary schools in Kafue District?

Delimitation of the Study

This research was conducted in Lusaka Province, specifically Kafue District, in three selected Primary schools: Kafue Basic School, Chiawama Primary School, and Nampundu Primary School. The study focused on grades 4-7, targeting pupils aged 9-14 years old, and was carried out during the 2025 academic year (January to December). The selected schools are located in urban, peri-urban, and rural areas of Kafue District, providing a diverse sample of the district's primary school population. The research concentrated on assessing the impact of extracurricular activities on pupils' academic performance in Mathematics and English subjects. Data collection took place between March and May 2025.

Limitations of the Study

The researcher went through number of challenges during the period of research study. First of all, survey questionnaires were difficult to construct and secondly, the success of using questionnaires lied in getting respondents to answer questions thoughtfully and honestly.

Another was the time and effort of delivering and collecting the questionnaires and getting sufficient numbers of participants to respond. Failure to answer the questionnaires as well as unwillingness of the respondents in particular learners to give detailed information to some question that seem to be very sensitive to them were also another challenges that researcher went through during the study. However, the other challenge was the issue pertaining long distances between schools in which the research was conducted. Time to go around to selected schools was limited, hence, it was really a challenge for the researcher to gather information due to financial problems as well as lack of transport facilities.

Furthermore, limited time allocated for both teachers and the learners for interviews and the answering of questionnaires was another challenge the researcher faced. Teachers and learners had little time to attend to the interviews as well as responding to the researchers questionnaires.

Significance of the Study

This study on the academic performance of learners in rural primary schools in Kafue District, Zambia, holds significant importance for various stakeholders. By identifying the challenges and factors contributing to poor academic performance, the study's findings will inform policy makers, educators, and other stakeholders on how to develop targeted interventions to improve the quality of education in rural areas.

The study's results will also contribute to a better understanding of the complex relationships between school resources, teacher quality, and learner academic



performance, ultimately enhancing the effectiveness of educational programs and initiatives in rural primary schools. Furthermore, the study's recommendations will provide valuable insights for teachers, head teachers, and district education officials on how to improve teaching and learning processes, resource allocation, and overall school management.

The study's findings and recommendations have the potential to positively impact the academic performance and future prospects of learners in rural primary schools in Kafue District, thereby contributing to the socio-economic development of the region. Moreover, the study's focus on the relationship between school resources, teacher quality, and learner academic performance can inform strategies for improving teacher training and support, as well as resource allocation and management in rural primary schools. This, in turn, can lead to improved academic outcomes and increased opportunities for learners in these schools.

The study's findings can also have implications for community development and poverty reduction initiatives in Kafue District and beyond. By improving access to quality education, the study can contribute to breaking the cycle of poverty and promoting socio-economic development in rural areas. Ultimately, the study's significance lies in its potential to make a positive impact on the lives of learners, teachers, and communities in rural Zambia, and to contribute to the country's broader development goals.

Furthermore, the study can inform efforts to address the educational disparities that exist between rural and urban areas in Zambia. By identifying the specific challenges faced by rural primary schools, the study can help policymakers and educators develop targeted interventions to bridge the gap in educational outcomes between rural and urban areas.

Ultimately, the study's significance lies in its potential to make a positive impact on the lives of learners, teachers, and communities in rural Zambia, and to contribute to the country's broader development goals. By improving access to quality education, the study can help empower future generations of Zambians to contribute to the country's growth and development.

Theoretical framework

The theoretical framework guiding this study is the Systems Theory, which views the academic performance of learners in rural primary schools as an outcome of the interactions and interdependencies between various components of the education system (Bronfenbrenner, 1979). According to this framework, the education system is composed of multiple subsystems, including learners, teachers, school administrators, parents, and the broader community, all of which interact and influence one another.

In the context of this study, the Systems Theory provides a useful lens for understanding the complex relationships between school resources, teacher quality, learner characteristics, and academic performance in rural primary schools in Kafue District. By examining the interactions and interdependencies between these various components, the study can gain a deeper understanding of the factors that contribute to



poor academic performance among learners in these schools (Wang, Haertel, & Walberg, 1993).

The Systems Theory is particularly relevant to this study because it acknowledges that the academic performance of learners is influenced by a range of factors, including the quality of teaching, the availability of resources, and the support provided by parents and the broader community (Coleman, 1988). By taking a holistic view of the education system, the study can identify the specific points of leverage where interventions might be most effective in improving academic outcomes.

Therefore, the Systems Theory provides a useful framework for understanding the complex relationships between various components of the education system and how they impact academic performance in rural primary schools in Kafue District. By using this framework, the study can develop a nuanced understanding of the challenges faced by these schools and identify effective strategies for improving academic outcomes.

The Systems Theory framework is suitable for this research on the academic performance of learners in rural primary schools in Kafue District, Zambia, for several reasons:

- 1. Holistic Understanding:** The Systems Theory framework provides a comprehensive and nuanced understanding of the complex relationships between various components of the education system, including learners, teachers, school administrators, parents, and the broader community. This holistic view enables the study to identify the multiple factors that contribute to poor academic performance in rural primary schools.
- 2. Contextual Relevance:** The framework acknowledges the importance of context in shaping learners' academic performance. In the case of rural primary schools in Kafue District, the Systems Theory framework can help identify the specific challenges and opportunities faced by these schools, such as limited resources, inadequate infrastructure, and cultural factors that influence education.
- 3. Interconnectedness:** The Systems Theory framework recognizes the interconnectedness of various components of the education system. This enables the study to examine how different factors, such as teacher quality, learner characteristics, and school resources, interact and influence one another to impact academic performance.
- 4. Identifying Leverage Points:** By understanding the complex relationships between various components of the education system, the study can identify potential leverage points where interventions might be most effective in improving academic outcomes. This can inform the development of targeted strategies to address the specific challenges faced by rural primary schools in Kafue District.
- 5. Dynamic and Adaptive:** The Systems Theory framework acknowledges that the education system is dynamic and adaptive, with changes in one part of the system potentially having ripple effects throughout the entire system. This enables the study to consider the potential long-term consequences of interventions aimed at



improving academic performance and develop strategies that promote sustainable and equitable improvements.

Hence the Systems Theory framework provides a suitable theoretical lens for this research because it offers a comprehensive and nuanced understanding of the complex factors influencing academic performance in rural primary schools. By applying this framework, the study can develop a rich and detailed understanding of the challenges faced by these schools and identify effective strategies for improving academic outcomes.

Definition of Terms

Academic Performance - Refers to the level of achievement of learners in academic subjects, measured through assessments, tests, and examinations.

Rural Primary Schools - Schools located in rural areas, characterized by limited resources, infrastructure, and access to educational facilities.

Learners - Refers to students enrolled in primary schools in Kafue District, Zambia.
Kafue District - A district in Zambia, located in Lusaka Province, known for its rural and agricultural communities.

Observational Study - A research design that involves observing and recording the behavior, characteristics, or outcomes of learners in rural primary schools without manipulating any variables.

Academic Achievement - Refers to the level of knowledge, skills, and understanding acquired by learners in various subjects.

School Resources - Includes physical, human, and material resources available to support teaching and learning in schools, such as textbooks, classrooms, and qualified teachers.

Teacher Quality - Refers to the qualifications, experience, and effectiveness of teachers in delivering instruction and supporting learner achievement.

Chapter Summary

This chapter provides an in-depth examination of the academic performance of learners in rural primary schools in Kafue District. Through an observational study, the research investigates the factors contributing to poor academic outcomes, including limited access to quality teaching, inadequate learning resources, and socio-economic constraints. The study sheds light on the challenges faced by rural primary schools and their impact on learner achievement, highlighting the need for targeted interventions to address these issues and improve educational outcomes for learners in these settings.

II. Literature Review

Introduction



The academic performance of learners in rural primary schools in Zambia is a pressing concern, with studies indicating poor performance compared to their urban counterparts (Alloway et al., 2004; Wigelsworth et al., 2010). This literature review aims to synthesize existing research on the academic performance of learners in rural primary schools, focusing on the current state of academic performance, factors contributing to poor performance, and the relationship between school resources, teacher quality, and learner academic performance.

Teacher Quality and Academic Performance

Recently, the topic of teacher quality has drawn a lot of attention from the general public. Parents and other education stakeholders, as well as the broader public, are now calling for quality in the educational system, maybe as a result of the perceived low quality of the goods that are consistently produced by the institutions (Yasin, 2020). The substantial variance in the instructional effectiveness of teachers is well-documented, yet the specific teacher qualities that contribute to this variance remain less clear. Metzler and Woessmann (2022) leveraged a distinctive dataset from Peru, which included test results from both sixth-grade students and their teachers in mathematics and reading, to analyze the causal influence of a teacher's 'subject knowledge' on student learning.

By examining teachers who instructed both subjects within single-classroom schools, the researchers mitigated confounding variable biases and selection issues through the use of a correlated random effects model. This model drew on the disparities across the two subjects taught by the same teacher. Additionally, the influence varied based on the match of teacher and student abilities, as well as their gender. The concept of teacher quality has evolved significantly over the centuries, reflecting broader changes in educational theories, policies, and societal expectations. Historically, the notion of what constitutes a "quality teacher" has been influenced by various factors including educational philosophy, pedagogical methods, and political and economic conditions. In the early days of formal education, during the medieval period, teacher quality was often assessed based on one's mastery of religious and philosophical knowledge, with teaching often relegated to clergy and scholars (Cubberley, 2020).

As education systems expanded during the Renaissance, there was a shift towards the liberal arts, and teacher quality began to include a broader base of knowledge and the ability to cultivate critical thinking (Lucas, 2019). With the advent of compulsory education laws in the 19th century, particularly in the United States and Europe, there was a significant need for more teachers, which initially led to a diverse range of teaching competencies. During this period, normal schools—precursors to modern teacher colleges—were established to provide formal teacher training, emphasizing both subject matter knowledge and pedagogical skills, marking a foundational shift in the definition of teacher quality (Fraser, 2007).

The 20th century introduced more rigorous standards for teacher preparation, influenced by educational psychology and a growing understanding of child development. Scholars like John Dewey emphasized the role of teachers in fostering an environment conducive to learning through experience, thus broadening the attributes of teacher quality to include interpersonal skills and adaptability (Dewey, 1904). In



recent decades, the discourse around teacher quality has been dominated by the standards and accountability movement, which began in earnest in the 1980s. This movement has led to the development of standardized teacher certification exams and performance evaluations based on student outcomes, reflecting a shift towards empirical assessments of teacher effectiveness (Darling-Hammond, 2020). Teacher quality is often conceptualized as a combination of various competencies including subject matter expertise, pedagogical knowledge, technological proficiency, and the ability to adjust teaching methods to meet diverse student needs (Danielson, 2023).

The importance of ongoing professional development and reflective practice has also been emphasized as critical to maintaining and enhancing teacher quality over the course of a career (Schön, 2023). Moreover, Metzler and Woessmann (2012) noted that research on the determinants of 'student achievement' has approached the question of teacher impact from two angles. Today's policymakers, academic facilities, parents, and other education stakeholders frequently use standard examinations as metrics of educational outcomes instead of student's attitude, drop-out rates, and attendances. Parents probably want to enrol their kids in schools with high accomplishment scores, and colleges may also be open to accepting students with such scores. On the other hand, politicians typically use student academic performance as a purpose and lobbying tool to capture the attention and support of the people when vying for elections. They put great emphasis on evaluating the efficiency and effectiveness of the educational programs in the country.

Numerous studies are carried out to analyse the determining factor affecting this variable in an effort to increase student accomplishment. Instead of doing extensive and diverse studies, it can be categorized the variables influencing student accomplishment into a few categories, including family status, school facilities, and environment beyond the home and classroom. Numerous studies demonstrate that teachers' quality is crucial to students' achievement. The most often asked questions on teaching qualities centre on how teachers might improve the calibre of their students. Darling-Hammond (2000), Milanowski (2004), Rockoff (2004), and Dobbie (2021) all looked into this issue. Kane, Rockoff, and Staiger (2005), as well as Rivkin, Hanushek, and Kain (2008). The results of all of these studies are consistent: instructor characteristics have a big impact on how well students do. The factors that the researcher pays close attention to in regard to teacher quality are education foundation, expertise, certification status, leadership capabilities, persistence, performance appraisal score, and readiness for class work. Teachers with strong content knowledge have a deep understanding of the subjects they teach, enabling them to deliver accurate and meaningful instruction (Hiebert & Grouws, 2020).

The significance of teacher quality in enhancing students' academic achievement and educational experiences is highlighted by recent research, but Ingvarson and Rowe (2018) contend that systematic and constructive issues related to the conceptualization and evaluation of teacher quality remain unresolved. These flaws are particularly glaring in assertions for "results" obtained from econometric study, notably in studies that just use conceptualizations and proxy "measures" of quality in terms of instructors' training, expertise, and academic results. In addition, the available, largely aggregated data-fitted econometric models frequently fall short in conceptualizing and



"measuring" teacher quality in terms of what instructors should know (content knowledge) and be competent to do (pedagogical skill).

These approaches also lack to take into consideration the measuring, redistributive, and organizational characteristics of the data for the causal and response variables, flaws that far too often lead to incorrect interpretations of the results for both policymakers and practitioners. Dexter's (2021) research looked at various facets of the connection between student performance and teacher quality. These measures of teacher quality were based on factors such as total focuses on a particular, teaching experience, licenses, and education degrees. This study looked at three primary schools in the Metropolitan Nashville Public Schools to see if there was a connection between teacher quality and student performance.

This study used a quantitative correlational research design. In order to ascertain the relationship between student accomplishments for the countywide testing in 4th grade English Language Arts and the succeeding teacher quality elements: teacher performance rankings, classroom instruction, teacher credentials, and teacher higher degrees, a statistical analysis was carried out. Four Pearson productmoment correlation coefficient \otimes tests made up the study. 379 participants who administered the state's 4th Grade TNReady Assessment for the academic years 2017– 2018 and 2018–2019 were counted in the student statistics. In especially for instructors with a specialty degree, the findings demonstrated a statistically significant association between teacher degree levels and student accomplishment. The student mean scores for teachers with a specialized degree were higher than the student mean ratings for instructors with a bachelor's or post graduate diploma. Future studies on teacher effectiveness and student accomplishment in relation to teacher degree level may benefit from the findings of this study. If school districts and principals keep looking into the connection between assigning teachers with advanced degrees in other elementary disciplines like mathematics and science and student performance.

Ko and Chung (2024) conducted a study to determine how the academic achievement of hospitality students was impacted by the instructional effectiveness of culinary arts instructors and student learning satisfaction. This study polls students at Taiwanese colleges' hospitality programs. They received a total of 406 (81.2%) survey respondents. The findings of the research indicate that there is a significant positive relationship between the instructional quality teachers and students' education enjoyment, between the quality of teaching of educators and the educational achievement, and between students' learning satisfaction and their academic achievement.

In South-West Nigeria, Oni (2020) investigated the link between teacher quality and students' academic success in Basic Technology. Ex-post facto designs and quantitative surveys were employed. 558 administrators and 558 of Basic Technology instructors from 558 schools were chosen from 18 states in the federation in the six states of the southern west of Nigeria such as Oyo, Lagos, Ekiti, Ondo and Ogun. Data was gathered and analyzed using a selfmade survey and the results of the 2011/2012 Junior High School Certificate Examination. The Pearson Product Moment Correlation Coefficient was used to analyze the data that had been collected.



The results showed, among other things, that there was a strong correlation between academic performance of students and the caliber and experience of teachers. The findings' implications for the government, policy makers, and principals of educational institutions were stated. The compilation of literature examined the critical role of teacher quality in influencing 'student performance'. Spanning various contexts, the studies emphasize teachers' subject knowledge, pedagogical expertise, and ongoing professional development as key determinants of educational outcomes. Findings underscore the significant impact of skilled and experienced teachers in enhancing 'student achievement', highlighting the necessity for targeted teacher training and supportive policies to bolster educational standards globally. This body of research is instrumental in guiding efforts to improve teacher effectiveness and, by extension, student success.

Teacher quality plays a pivotal role in shaping students' academic experiences and outcomes in Zambia. Research has shown that effective teaching is a critical factor influencing student achievement, with qualified and motivated teachers making a significant difference in learning outcomes.

Studies conducted in Zambian schools highlight the importance of teacher subject knowledge, pedagogical skills, and classroom practices in promoting academic success. For instance, investigations into teacher-based factors influencing academic performance in open learning classes at Twin Palm Secondary School in Lusaka district reveal that teachers' ability to adapt teaching methods and engage students significantly impacts student achievement (Mulenga, 2021).

The Zambian government's efforts to improve education quality, including teacher training initiatives, are steps in the right direction. However, challenges persist, such as teacher shortages, inadequate professional development opportunities, and varying levels of teacher commitment. These factors can affect the overall quality of teaching and learning in Zambian classrooms.

Research focusing on specific subjects like physical science underscores the need for teachers to possess strong subject knowledge and effective teaching strategies to support student learning. At Serenje Technical High School, factors contributing to low performance in physical science among female pupils point to the importance of teacher support and classroom environment (Kasonde, 2018).

At the University of Zambia, studies on factors affecting students' academic performance emphasize the interplay of various factors, including teacher quality, in shaping student outcomes. This highlights the need for a comprehensive approach to addressing academic underperformance (Mashamba, 2014).

Enhancing teacher quality through targeted training, support, and motivation is crucial for improving academic performance in Zambian schools.

School Facilities and Academic Performance

In many OECD countries, improving the calibre of school facilities is a governmental concern. The "International Institute of Educational Planning at UNESCO" defines



school facilities as including land, structures, and furniture. It contains physical spaces for classrooms and support rooms (Beydan, 2017). Governments consider school facilities such as classrooms, library resources, spaces for physical education and the fine arts, toilet facilities, specialized labs, canteens, media centres, related exterior facilities, gardening, and pavements. School facilities also include buildings, lighting, and tools that are required for the efficient and effective operation of the public education (Nasra, 2021). According to Yasin (2018), school facilities enhance the learning environments at the institution, which raises the calibre of instruction. Educational researchers have been undertaking studies on the association between school facilities and academic performance.

According to a study conducted by Ramli, Zain, Campus, Chepa, and Bharu (2018), school facilities may have an impact on students' academic achievement. Often a new university can't offer enough facilities to learners, which could have an impact on their performance. The three components identified in this study—System Management Learning Environment (Classrooms, Teaching Aids, Library); and Infrastructure—can affect students' academic progress. Due to the campus's requirements for using shop lots as construction sites, it was held at the University Malaysia Kelantan City Campus. 500 students received data from the academic year 2016–17. An overall response rate of roughly 73% resulted in the receipt of 364 completed surveys that could be used. The study uses correlation and regression analysis to look at the data. The study's conclusions show that learning settings including libraries and educational materials, as well as accommodations, gyms, storage, and infrastructural transit, all had a significant effect on students' academic achievement. The sum of all the variables was around 51.5% of the pupils' success. Given that this is the UMK's first attempt to investigate the problem, the study offers insightful information on the aspects to which the UMK and other academic institutions should pay particular attention in order to raise students' school performance.

In Nigeria, Takwate (2018) looked into how high school students' academic achievement in Adamawa State was correlated with the distribution, accessibility, and maintenance of school infrastructure. For the study, a correlational design was used. Employing the proportionate sampling technique, a sample of 153 school administrators and 377 teachers were randomly selected from 248 senior secondary schools and 6,450 instructors, correspondingly. Data collecting tools included a proforma and checklists for tracking students' academic achievement as well as two questionnaires called "School Facilities Planning and Allocation Questionnaire (SFAQ) and Management of School Facilities Questionnaire (MSFQ)". Following validation, the reliability coefficients for the SFAQ and MSFQ were 0.82 and 0.76, respectively, according to Cronbach's alpha. For addressing the research hypotheses, mean scores, standard deviation (sd), and the Pearson Product Moment Correlation Coefficient were used. It was discovered that the maintenance and allocation efficiency of school facilities were, respectively, inefficient and effective. School facilities were evaluated as not being readily available, and pupils' academic achievement in the WAEC/SSCE May/June 2013–2015 was deemed to be subpar. The study found a strong correlation between students' academic achievement in Adamawa State, Nigeria, and the effectiveness, availability, and operational efficiency of school amenities.



The study suggested, among other things, that the state empower all senior secondary schools in the state with what they need using proper planning and allocating processes for facilities, and that school administrators regularly carry out thorough assessments of the amenities in their buildings to identify areas of need. According to Arshad, Qamar, and Gulzar (2018), the physical infrastructure of the school has an impact on students' academic performance. The study was quantitative and included survey methodology. The Sahiwal district of Punjab, Pakistan, served as the source of the sample for this study, which was chosen using a multi-stage random sampling procedure. Prior to gathering data, the researcher created and assessed a Check-List for Physical Facilities (CLPF). The current study uses multiple regression analysis to examine the data. Analysis is done on test results from the eighth grade that were administered by the Punjab Examination Commission in 2017. According to the study, factors such as airflow, plants, sports, first aid kits, and LCD/LED lights had a big impact on kids' academic performance. The whole physical infrastructure accounted for around 15.4% of the academic success of the students.

In Taiwan, there have been numerous research done to fully understand how school facilities affect students' academic achievement, but it seems that there have been few studies done with a focus on vocational education. A research by Thuan and Liu (2018) sought to explore the impact of school amenities on students' achievement' in vocational schools in order to add to the necessity of this issue. Interviews served as the data gathering tools in this qualitative approach. Studying at a university in Taiwan's Douliu county were the five PhD students and one postdoctoral student. Responses from each participant were recorded, followed by transcription.

According to respondent comments, classroom amenities, science labs, and playgrounds have a significant impact on how well learners know at vocational technical high schools. The collected data also emphasize the number, quality, and accessibility of equipment in lecture halls and workshop spaces. The statistics also made an intriguing point about how students' academic achievement in technical high schools is affected by their access to playgrounds. In order to improve student motivation and learning effectiveness in vocational secondary schools, the study raised concerns about parks. More so, researchers Lopes, Moreira, Ribeiro, Santos, and Costa (2019) looked at how the physical environment and resources of schools affect students' academic performance. The goal of this study is to identify and evaluate the concurrent and partial effects of surrounding and school facilities on learning outcomes. 180 students from the entire 10th grade population were used in a quantitative technique. 64 scientific and technology students from the 2018 scholastic year made the representative sample.

The reliability and validity of the data collecting tool were tested by exploratory and factor analyses, expert adjustments, and field experiments. KMO is 0.84, and the Alpha Cronbach's alpha is 0.65. The study's findings revealed that the multiple regression's value was $Y=10,528 + (-0,038 X1) + 0.689X2$. Environment and school facilities have a partial impact on how well students learn, with the value of the school environment's count being -0,324 and the value of the facilities' count being 5,790 and 1, 6702 respectively. Moreover, $F_{\text{ount}} = 17,968 > F_{\text{able}} = 2,76$ indicates a concurrent influence of the school environment and amenities on student educational performance. It



indicates that 68.9% of student learning achievement was significantly influenced by school infrastructure. The educational setting has a 37.1% impact on students' ability to learn.

Across the country, school districts are continually looking for ways to raise test results, lower absenteeism, and improve the interior environment. It is crucial to pinpoint the important construction investments that will help schools the most in terms of enhancing the aforementioned elements. In 2020, Hameen, Oporum, Priyadarshini, Lartigue, and Pispati looked into how school facilities affected students' academic achievement. This study used analysis of variance (ANOVA) tests to quantitatively assess the influence of mechanical and plumbing features of a school building on a student's academic achievements. Test results, suspensions, and absenteeism are the three measures used to gauge school achievement. The study looked at 125 schools in New York City to see if there were any possible relationships between 50 mechanical and plumbing factors and performance measures.

Important test results showed that, when compared to primary schools without pneumatic systems, the percentage of kids scoring at the minimal English Language Arts (ELA) competency level was 48.8% lower in the former. Additionally, relative to primary schools without "unit heating systems heaters" or those in poorer status, those with "unit heating systems heaters" in "fair to good" situation have attendances that are 1.1% higher. Additionally, elementary schools with air conditioners have school attendance that are 0.6% higher than schools without it, and those with interior floor drains in "excellent" condition have attendance rates that are 1.8% higher than those with interior drainage in subpar shape.

In Kenya, Wambua, Murungi, and Mutwiri (2018) investigated the potential impact of physical school amenities on student achievement. The main purpose of this study was to explore the impact of the teaching environment in classroom on the social studies test scores of lower elementary school students in the Kibwezi area at Makueni County of Kenya. This study sought to ascertain the impact of physical facility accessibility and utilization on the performance of students in social studies in primary schools in the Kibwezi area of Makueni County in Kenya, as to further ascertain the methods employed by teachers to enhance students' social studies achievement in the same study region. The Urie Brofenbrenner environmental model that primarily adheres to the contextual of interaction networks that divide the pupils setting in five strata served as the study's main conceptual framework. The research used descriptive design. In this study, the IV was classroom learning environment, the DV was the achievement of the students in social studies. The focus of this study was all the teachers and pupils in Kibwezi lower primary school. Employed by both stratified and simple random techniques to choose teachers and groups of primary schools as study participants, the researcher also used purposive sampling was employed to choose the study's site.

All students in the sampled schools' lower primary classes made up the sample. Utilizing questionnaires and schedules for observing, data was gathered. The tools' validity was ensured using content validity. The reliability of the instruments was assessed using the test-retest method. Utilizing descriptive statistics, data was examined. According to the findings, social studies instruction in primary schools in



the Kibwezi area was not effective due to the classroom environment. The accessibility and utilization of physical amenities in social studies classes were below average, and students fought over the little resources that were provided. Social studies student performance was still below average. Parents should be encouraged to engage in forums like CDF and county council that could assist elementary schools obtain funding for buildings and teaching/learning materials. In order to facilitate the construction of schools and the purchase of supplies and infrastructure, the study also suggested that MOEST/Government enhance the Free Primary Education Funds. Ojuok, Gogo, and Olel (2020) conducted their study to examine the impact of physical resources on 'academic achievement'. Over 50% of students registered in 'constituency development fund (CDF)-built secondary schools in Rachuonyo South sub-County' received test scores of E to D through 2013 and 2014.

These grades fell short of the required minimum quality grade of C+, which allows students to enroll in challenging courses at the higher education and college levels. In light of this, the main aim of the research was to determine how the school amenities and facilities in secondary schools in the Rachuonyo South sub-County built by CDF affect students' school achievement. The study's goals were to determine how the quality of the science lab, the classrooms, and the computer lab affected students' achievement on the KCSE. Depending on the input and output variables, the production function theory served as the study's guiding principle. Correlation and descriptive survey research approaches were employed. 42 secondary school administrators who had their schools built by CDF and one 'sub-County Quality Assurance and Standards Officer' made up the study's sample. 37 principals from the 37 secondary schools were included in the sample, along with 1.

Utilizing surveys, an interview guide, as well as a content analysis guide, data was gathered. Both the content and face validity of the tools were assessed. The tools' reliability was demonstrated by a test-retest correlation of $r=0.7$. In the data analysis, both descriptive statistics and linear multiple regressions were applied. The study's findings showed that the three variables—a science lab, a good classroom, and a computer lab—had a marginally significant but weak link with students' achievement on the KCSE. According to the report, the state should set up the necessary infrastructure to ensure high-quality instruction in CDF secondary schools. The administration will follow these conclusions when allocating resources to these schools.

Any nation's subsistence and prosperity depend on the progress and innovation towards technology and science. Utilization of physics education is necessary to achieve realistic technological and scientific advancement. The 'academic achievement' of senior school pupils in the subject is weak, which poses a serious threat to the country's scientific and technical advancement despite the vital role that physics plays in national development. Investigating factors that might have an impact on students' academic achievement in the topic is necessary to raise their proficiency in the subject. In order to better understand how teaching environments and the calibre of teachers affect senior high school students' "academic achievement" in Physics, Anwo (2021) conducted this study.



To achieve equitable representation, the study used a proportionate random sample procedure and a survey methodology. The study involved a sample of five schools drawn at random from each of the three local governments that made up the city. The grade of Physics students who took the “May/June West African Senior School Certificate Examinations” between 2017 and 2019 were gathered in the chosen schools using an assessment form and surveys given to the Physics professors. The study issues were addressed using frequency analysis, mean, and percent, and the assumptions were tested using the t-test statistics. The findings indicated that senior school physics students' academic achievement is affected by the instructional environment and the caliber of their instructors.

Innocent (2021) examined into how academic facilities affected students' academic performance in a few government-owned high schools in the Rive's State region of Port Harcourt. Because of time constraints, public schools make learning and teaching faster and require less instruction from the teacher. 2 research aims, two research questions, and two assumptions served as the study's guiding principles. This study employed a correlational research design as its methodology. In this study, 1,150 parents, teachers, and students made up the population A collection of well-structured surveys served as the data gathering tool. The research topics were addressed using analytical methods including simple percentage and mean rating, and Pearson Product Moment correlation coefficient was utilized to look at the relationship between educational facilities and students' academic achievement.

The Statistical Package for Social Sciences (SPSS) version 23.0 was used to analyze the data sets. The study's results stated that there is a substantial difference between those who were taught using educational content and those who weren't; additional findings also showed that there is a significant difference between students who studied with teaching materials and those who didn't. Depending on the research's results, the study came to the conclusion that the presence of educational facilities is crucial to the teaching and learning process and has many benefits for student loyalty and integration, which raises academic accomplishment. According to the study's conclusions, among other things, it was advised that schools should offer health services to improve students' academic performance.

In addition to the significance of educational institutions, work still has to be done in Indonesian educational institutions to raise the standard of instruction. Even Indonesian educational institutions strive to raise the quality of their instruction, but it is still necessary to determine why these institutions are not counted among the world's top universities. In order to better understand how school resources affect teaching effectiveness, Dawabsheh, Mustanir, and Jermisittiparsert (2020) conducted a study. The current study's goal was to investigate how teaching ability and professional growth in an Indonesian educational institution mediated the impact of school amenities on engineering education standards. The study was quantitative and descriptive in style. ‘Data collection was done through the use of questionnaires’. Teachers from Indonesian universities made up the study's respondents. information gathered from 384 university professors. Individuals ‘served as the study's unit of analysis’, and it was cross-sectional in nature with data from teachers only being gathered once. Furthermore, data was gathered using the straightforward random sampling method.



The impact of employing standardized and unplanned teaching materials on the academic performance of secondary school physics students in Oyo State, Nigeria, was explored by Oladejo, Olasunde, Ojabisi, and Isola (2011). The quasi controlled group pretest-posttest research design was chosen. Three co-educational secondary schools were chosen as the sample using purposeful sampling. One S.S. III class each school was made available for the research. The Physics Assessment Instrument and the Teachers Instructional Guides were the two tools utilized in the study to assess student performance and prepare the instructors in the experimental groups, respectively. To determine the instrument's dependability, a pilot test was conducted. The reliability coefficient was 0.76.

The significance level of 0.05 was used to examine three hypotheses. The data were examined with ANOVA and ANCOVA. The findings revealed a significant variation in the academic accomplishment of students who received teaching methods, improvisation guidance, and no training. As a consequence, the students who were taught using improvised teaching content had the highest posttest achievement score, following by those who were taught using regular instructional materials, and the lowest score for the comparison group. In furthermore, despite the female students outscored male students in physics, there was no obvious gender difference in students' achievement. It may be concluded that neither gender nor therapy had a substantial impact on students' achievement in Physics.

Therefore, physics teachers must exercise creativity in the selection, production, and use of instructional materials in order to reduce the expense of developing and maintaining learning materials. Physics instructors should be urged to use prefabricated educational materials in higher education programs since, according to studies, doing so increases the effectiveness of teaching and learning. Another study's focus is on how instructional materials affect senior secondary school students studying physics in Enugu State's Udi Local Government Area's academic performance (Okpe, 2018). The study's goal was to ascertain how instructional materials affected physics students' academic performance. The work involved a control and experimental group pre-test and post-test. It uses a quasi-experimental study design. Two research questions and two hypotheses were developed by the researcher to direct the investigation. The population of the study was 525, and the sample size was 80 at selected four public secondary schools in the Udi Local Government Area of Enugu State.

The researcher employed the Physics Achievement Test as a tool for data collection. In order to answer the study objectives, the data was analyzed using mean, standard deviation, and ANCOVA. Both the face and the contents authenticity are present. Karl Pearson's reliability test results are 1.0. Correlation The study found that the utilization of instructional materials and the teacher's approach to pique the student's interest are key factors in the academic success of physics students. The findings also indicated that there are notable differences in how instructional materials are received by male and female students because physics is seen as a challenging subject. The government should host workshops and seminars for teachers on how to employ instructional materials to pique students' attention, and educational planners should incorporate it into the curricula, were the following proposals offered. The association between



educational facilities and the school environment was investigated by Otchere, Afari, and Kudawe (2019) at Oda Senior Secondary School in the Birim Central Municipality of Ghana's Eastern Region.

The goal of this study was to ascertain how school amenities impact students' school achievement and the classroom climate. An overall sample of 20 students, 10 teachers, 1 main head teacher, and 3 assistant head teachers were chosen for the study using a descriptive research design. The investigator first employed surveys for the teachers and students, followed by interview guides for the teachers and principals and then an observation guideline. Descriptive statistics were utilized in this study to assess the data. The examination of the data revealed that student learning environments and academic achievement were strongly correlated with the quality and educational sufficiency of educational facilities. These conclusions led to the recommendation that the Ministry of Education support school infrastructure adequately. This would guarantee their ability to acquire facilities in a flexible manner and to react swiftly to requests from schools.

Additionally, to manage the impact of school facilities, the Kenyan government and other partners have worked to encourage academic outcomes for students, regardless of the variety of disabilities they may have. However, students with physical impairments (PI) in Kisumu County's public primary special schools continue to struggle academically. In public primary special schools for students with PI in Kisumu County, Kenya, Nyangoya, Wachianga, and Makori (2020) investigated the physical facilities as determinants of the academic performance of pupils with cognitive disability. The goal of the study was to ascertain the connection between physical amenities and academic success of students with PI. Maslow's motivational theory was applied in the study. Simultaneous triangulation was employed in the study's mixed research methods. 503 students with PI, 45 teachers, 2 school principals of public primary special schools for them, and a total of 550 participants made up the target group. For head teachers, the purposive sampling technique was utilized, but for teachers and students with PI, the saturation sampling technique was used. There were 168 respondents in the sample, which included 2 head teachers, 16 teachers, and 150 students with PI. A survey, interview guide, and observation checklist were used to gather the data. Cronbach's alpha, which recorded a correlation coefficient of .675 and was used to determine reliability, was used to determine content validity for validity.

Quantitative data was evaluated using descriptive and inferential statistics, including multiple regression analysis and Pearson's product moment correlation coefficient, and represented using frequency distribution tables, charts, and charts. Thematic analysis was employed to examine qualitative data. The study's findings showed that there was a significant statistically significant positive link between facilities provided and students with PI's academic progress ($r=.363$). Thus, it can be inferred from the present study that physical infrastructure in public primary special schools for learners with PI are major determinants of academic results of those students. In short, this literature highlights the critical role of school facilities in enhancing students' 'academic performance'. It's clear from studies across different countries and educational levels that infrastructure, from libraries and labs to classrooms and comfort facilities, significantly influences learning outcomes.



For instance, a Malaysian study linked 51.5% of student success to factors like library access and infrastructure. In Nigeria, the availability and maintenance of school facilities strongly correlated with academic results other studies, including from Pakistan, Taiwan, and Kenya, also note the importance of specific facilities like sports areas, science labs, and classroom environments on student performance. The cumulative evidence from various geographical contexts, such as Australia, Portugal, Spain, Turkey, Rwanda, and others, underscores the universal importance of well-equipped and maintained educational settings. Despite the variations in local educational challenges, the positive association between adequate school facilities and 'academic achievement' remains consistent. This poses the contextual question whether school facilities is a determinant in enhancing 'student performance' in Somaliland.

In Zambia, the state of school facilities plays a crucial role in influencing students' academic performance. Research has shown that factors such as teacher quality, availability of resources, and infrastructure significantly impact student outcomes. A study on teacher-based factors influencing academic performance in open learning classes at Twin Palm Secondary School in Lusaka district highlights the need for improved teaching methods and resources to boost student achievement (Mulenga, 2021).

The Zambian government, in collaboration with organizations like UNICEF, is working to understand which school context and resource factors influence school performance. This involves analyzing existing national education data to identify areas for improvement (UNICEF, 2016).

Studies focusing on specific subjects like physical science have also shed light on the challenges faced by students, particularly females, in achieving academic success. For instance, research at Serenje Technical High School Academic Production Unit points to various factors contributing to low performance in physical science among female pupils (Kasonde, 2018).

At the University of Zambia, investigations into factors affecting students' academic performance reveal that family, academic, and personal factors all play a role in shaping student outcomes. This underscores the complexity of addressing academic underperformance and the need for multifaceted interventions (Mashamba, 2014) [4]. Improving school facilities and addressing the various factors influencing academic performance are critical to enhancing education quality in Zambia.

Student Ability and Academic Performance

Factorial research studies have shown that academic performance of students is also affected by the ability of the student him/herself (Oso, 2016). According to Sara (2019), student ability refers to the amalgamation of students' cognitive and non-cognitive status, high school grades, results on competitive exams, and proven leadership talents. Student ability is characterized as both the cognitive and non-cognitive abilities (East College in Lebanon, 2019). This study has also taken the same path by operationalizing student ability into cognitive and non-cognitive abilities. Firstly, studies on the cognitive abilities have been reviewed followed by the non-cognitive abilities.



Researchers in the field of education claim that cognitive ability is one of the subjects that has been researched the most (Newman, 2020). Cognitive ability can be defined as a general mental skill that includes reasoning, problem-solving, planning, abstract thought, understanding complicated ideas, and experience-based learning (Rammstedt, Danner & Martin, 2016).

Cognitive abilities are brain-based capabilities required to complete any activity, no matter how basic or difficult. Instead of any real knowledge, they are more concerned with the processes by which we acquire, recall, fix issues, and pay more attention (Sharp Brains, 2022). Similarly, Murphy, Cronin and Tam (2003) delineates that cognitive abilities evaluate the skills involved in processing (e.g., reasoning, perception, memory, verbal and mathematical ability, and problem solving). Such exams ask candidates a series of questions intended to gauge their capacity for using their minds to resolve problems at work or learn new skills. Nevertheless, in the field of student performance, many educational researchers have thoroughly examined the link between academic performance and cognitive abilities. The researcher draws attention to some of these studies that delved into this topic.

Peng and Kievit (2020) assert that children's cognitive and academic growth is essential for their overall well-being. The proof for the reciprocal relationships between academic success and cognitive ability is reviewed in this article using data from recent studies. Our results indicate that (a) cognitive flexibility, rationale, and executive function, which include reading and math, anticipate one another in the growth of each skill; (b) specific academic guidance positively influences the progress in thinking (c) bidirectional relationships between intellectual capacity and school performance appear poor among children from disadvantaged backgrounds. These results are consistent with both the transactional model and the notion of mutualistic. They contend that consistent, quality schooling and education significantly promote children's intellectual and academic growth and may also have a positive impact on these areas through the induction of cognitive-academic direction.

It is well acknowledged that cognitive capacity predicts academic accomplishment and that parental influence and engagement play a role in the constellations of 'factors that influence academic performance' in children, especially in families of Chinese background. The mediation effects of parental expectations on their children's cognitive abilities in forecasting academic performance have not yet been demonstrated, despite the fact that a number of connections between these parental components have been hypothesized. In order to answer the research that parental affective variables, as demonstrated by parental home and school involvement, parental beliefs about their children's abilities, and parental assumptions regarding their children's academic total score, direct the effects of student Intelligence quotient in forecasting school performance in English, Chinese, and M. Phillipson (2012) reports using data from students from one primary school in Hong Kong and their parents. The findings are consistent with the theory that by outlining their expectations for students for their kids, parents might assist them in developing their cognitive potential.

Different neurobehavioral characteristics between people may have an impact on how we understand academic accomplishment. Students in engineering or psychology at the



university level were tested for neurocognitive characteristics, intellect, and present mental trauma (Pluck, Mancero, Encalada Alcivar, Gavilanes and Chacon, 2020). Grades and grade point average (GPA) information were compared. Significant differences existed between groups in the factors linked to higher GPA. For engineers, intelligence was a significant predictor of grades, but not neurobehavioral characteristics or psychological problems. According to psychologists, grades were connected with executive dysfunction, dissociation, indifference, and good schizotypy rather than intellect. This latter two, though, were related without consideration of psychological discomfort. Additionally, in the combined sample, a higher mixed handedness was linked to a higher GPA. Depending on the researched major, distinct neurological factors—such as neurobehavioral characteristics and intelligence—are differently connected with scores at the university.

Malykh, Tikhomirova, and Malykh (2020) conducted research. Analysis was done on the association between cognitive skills and academic performance from kindergarten through the eleventh grade. Scores in mathematics, languages, and biology were used to determine overall academic accomplishment. Data processing speed, visuo spatial memory, numerical skills, and fluid intelligence were deemed indicators of this performance. Students in grades through in general education schools, with ages ranging from through years, participated in this cross-sectional survey. The Choices Reaction Time, Corsi Block-Tapping, and Number Sense.

The study looked at how cognitive abilities affect school performance in 1 560 students from grades 1 to 11 (ages 6.8–19.1 years). The researchers used three computerized tests—Choices Reaction Time, Corsi Block-Tapping, and Number Sense—to measure data-processing speed, visuospatial memory, and numerical skills, plus the Standard Progressive Matrices to assess fluid intelligence. They applied structural equation modeling (SEM) and found that fluid intelligence, working memory, and number sense are the main drivers of academic success, with data-processing velocity being the biggest determinant.

The authors point out that relying only on cognitive-ability tests has limits because their therapeutic and treatment validity is restricted compared with other methods. They suggest that observing children's learning behaviors can improve the precision of treatment recommendations and cognitive-capacity predictions. A separate study by Yen, Konold, and McDermott (2004) with 1 304 students aged 6–17 used SEM to show that behavior and academic performance have a special relationship beyond just cognitive ability. The results were consistent across ethnic and gender groups.

Recent research also links learning habits to academic success, but it's still unclear how specific study habits and gender differences influence performance predictions beyond general cognitive capacity (Ruffing, Wach, Spinath, Brünken & Karbach, 2015). The study aimed to see if gender variations exist in how study skills predict performance over cognitive ability.

The impact of non-cognitive abilities on academic performance of senior secondary school pupils in Imo State was explored by Obilor and Onyeaghala (2020). This study employed four hypotheses and research questions. Resilience, self-control, persistence,



and self-perception were examined in the study questions as non-cognitive skills that affect academic accomplishment in Imo State's senior high schools. The study used a descriptive survey research approach, with a sample of 892 senior high school two students drawn from Imo State's three (3) Local Government Areas.

The data was collected using the test-retest approach utilizing a standardized survey tool named "Influence of Non-Cognitive Skills on Pupils' Students Performance" with a reliability value of 0.89. In order to suit the study's information needs, data was gathered from two main sources: secondary and primary references. The gathered data were analysed using descriptive statistics like mean and standard deviation as well as an inferential statistic called one-way analysis of variance.

Resilience, self-control, persistence, and self-perception were not significantly different at $p < 0.05$, according to the study. Thus, it was determined that pupils in Imo State's Senior Secondary School 2 had higher academic accomplishment as a result of their endurance, identity, persistence, and self-perception. The development of students' non-cognitive abilities, such as resilience, self-control, perseverance, and self-perception, was encouraged in order to improve not only their academic performance but also their accomplishment in all of their endeavors. This recommendation included parents, instructors, and all other interested parties creating appropriate educational experiences.

There is growing proof that a variety of factors, both intellectual and non-cognitive, have a big impact on how well students succeed in mathematics. It is unclear how cultural characteristics and the strength of the student-teacher relationship relate to arithmetic aptitude among teenagers entering primary school.

Researchers Semeraro, Giofrè, Coppola, Lucangeli, and Cassibba (2020) examined how general cognitive aptitude and non-cognitive traits like mathematics self-esteem and anxiety affect arithmetic performance. They also took into account how well the pupil-teacher interaction worked. A substantial sample of sixth-graders from Italy underwent evaluation after beginning middle school. The results showed that general cognitive function was the strongest indicator of mathematical success. Academic stress was discovered to be a true indicator of arithmetic performance.

"Academic stress was discovered to be a true indicator of mathematics achievement after accounting for other factors including self-esteem and the quality of the student-teacher relationship. They found that the degree of the student-teacher connection and mathematical achievement were both mediated by mathematics anxiousness. Our findings suggest that the efficacy of the student-teacher connection in lowering arithmetic fear may have an impact on math achievement. They hypothesized that therapies aimed at enhancing the development of children may be beneficial in reducing academic stress and promoting instructional practices, which may have important repercussions for experts and educators."

"Students that complete the clinical and didactic components of the project and qualify the licensing test are chosen for rehabilitative science programs based on cognitive and non-cognitive criteria. Academic achievement is known to be predicted by cognitive



elements like prior grade point averages and exam scores, but the connection between non-cognitive factors and achievement is less obvious. This comprehensive review's goal was to investigate how non-cognitive factors affected students' academic and clinical achievement in rehabilitative science courses. The very next inclusion criteria were applied to a seek of seven database systems physical therapy postgraduate programs, occupational therapists, and speech language pathologist; systems based in the United States; assessment of at least one non-cognitive factor; quantification of academic and/or clinical performance; and quantifiable results were reported.

Data were retrieved from the articles after they had been evaluated for title, synopsis, and full text. A total of 21 papers were considered for the review after the quality assurance. Studies were conducted by PT students in 76 percent of cases. The most often examined components included grit, self-efficacy, emotional intelligence, and anxiety. In clinical and academic settings, only self-efficacy, affective acuity, and character qualities were investigated at. For every non-cognitive aspect, the outcomes were inconsistent. Although stress was typically linked to worse results, higher levels of grit and self-efficacy appeared to be connected with higher results. In rehabilitative science students, neither academic nor clinical performance was consistently correlated with any one non-cognitive characteristic. Currently, there is not enough data to support the recommendation that admission choices consider a particular non-cognitive criterion."

Summary of Review of Related Literature

The reviewed studies provided a careful examination of related literature on the determinants of the academic performance of pupils. The study reviewed the effects of school leadership, teacher quality, home-related issues, school facilities, student ability on academic performance. The literature reviewed however brought about pertinent knowledge gaps that formed the focus of the present study. Foremost, the study reviewed the effect of school leadership on academic performance. Most of the studies revealed that school leadership had a significant indirect effect on student performance. Instructional, transactional and transformational leadership were also directly linked to have effect on academic performance.

Similarly, the remaining determinants reviewed by the researched revealed such as the teacher quality, home-related issues, school facilities and student ability to affect performance. Further, most of the literature revealed obtained its sample population from other parts of the world such as Nigeria, Kenya, Malaysia, Russia, India, China, Ghana, Rwanda, Pakistan, USA, Chile, Latin America, Eritrea, Indonesia, Thailand, Ethiopia, South Africa, Netherlands, Spain, Italy, Botswana, Tunisia, Egypt, Algeria, Brazil, Italy, Indonesia, Canada, Singapore, Taiwan, Vietnam, Britain and others which may not be reflective of the Zambian Education system context. In addition, most studies were conducted in secondary schools and had their focus on other conceptualized variables and hence may not have been reflective of the current status of the academic performance of pupils in public primary schools in Zambian Education.

III. Methodology

Introduction



This chapter provides a detailed description of the design, instruments and procedures that were used to gain insights into the observational study on the academic performance of learners in rural primary schools of Kafue District. The section is therefore organized under the following sub-headings; the research design, target population, sample size, sampling techniques, research instruments, data collection procedure, data analysis and ethical considerations.

Research Design

This research used a Qualitative research design. This type of research design allows the seeking of new insights, doesn't limit in asking questions and exploring the topic under study. This research adopts a phenomenological research design involving the use of interview, participant field observation and questionnaires as data collection tools. Another reason why this design was chosen to gain a better understanding about the observational study on the the academic performance of learners in rural primary schools of Kafue District. Non-verbal behaviors are easily measured by qualitative data. Therefore, a qualitative study allows the researcher to get an accurate conclusion on the data that is provided.

The study designed with the objective of establishing the worker's Knowledge, Attitude, and Practice towards the the observational study on the academic performance of learners in rural primary schools of Kafue District. The design provided answers to the research questions or for testing the research hypothesis and it spells out basic strategies that the researcher adapt to develop information that is accurate and interpretable. A qualitative design was used because the problem under study concerned with experiences and exploring the observational study on the academic performance of learners in rural primary schools of Kafue District.

Target Population

The target population or target groups were primary learners from grade five to grade seven from the four selected primary schools in which 20 learners were selected from each class to make the total of 80 also 30 primary teachers from the selected Primary Schools were targeted as well.

Sample Size

A sample size refers to the number of individual units or observations included in a study or survey, representing a subset of the larger population. It's a crucial aspect of research design, as it affects the accuracy, reliability, and generalizability of the findings.

In essence, a sample size is the number of respondents, participants, or observations selected from the target population to collect data. This subset should ideally mirror the characteristics of the larger population, allowing researchers to make inferences or generalizations about the population based on the sample's responses or behaviors.

A representative sample size of 110 was considered as respondents during the process of data collection, which were 30 primary school teachers and 90 primary school learners from grade five to grade seven. The sample was selected from rural primary



schools in Kafue District, aiming to capture a diverse range of perspectives on academic performance.

The learners were chosen from grades 5-7, likely because these grades are critical in laying the foundation for secondary education. The teachers, with varying years of experience, provided insights into teaching practices, resource availability, and challenges faced in rural schools. The learners' age range was approximately 10-14 years, and the sample included both boys and girls to ensure a balanced representation. Data collection methods likely included questionnaires, interviews, and possibly focus group discussions to gather both quantitative and qualitative data.

Sampling Techniques

Merriam (2002), defined sampling technique as the selection of the research site, time, people or events in the field of research. However, the number of participants in a sample depends on the questions that were asked, the data was gathered and the analysis was done by using resources available which supported the study.

Although there are many sampling techniques, purposeful sampling technique was used. Purposeful sampling technique is a technique that involves the selecting of subjects with the required characteristics being those that the researcher can get the most relevant information from.

Research Instruments

A research instrument is a tool or method used to collect data or information in a research study. It has been noted that open-ended questionnaires are useful to qualitative data (Best & Kahn, 2005; Fraenkel et al., 2012). Also, many people's opinions can be elicited through questionnaires and participants can respond in a place and time convenient to them (Gray, 2009).

The study used questionnaires, observation and interviews to collect data. However, the process of data collection focused a lot on interviews, focus group discussion and lesson observation to learners because some learners do not know how to write or read. Thus, questionnaires were not used to learners during the process of data collection. However, questionnaires and interviews were used to teachers. The items selected were modified to suit the purpose and context of this study. Particular attention was observed to ensure that the items constructed is unambiguous, unbiased, unloaded and relevant (Fraenkel et al., 2012; May, 2001; Sarantakos, 2005), and also appropriate for the culture and context of Kafue District.

The interviews are designed for the teachers from grade five to seven and grade five to seven learners. The interview is suitable for probing views and opinions and permits respondents to develop and expand on their own responses (Gray, 2009). The interview designed to gather data in the participants' own words (Fraenkel et al., 2012) so that greater insight could be gained about the teaching and learning of primary mathematics. The interviewee allows the interviewer to have more opportunities to probe beyond the answers. As May (2001) noted: "the interviewer can seek both clarification and elaboration on the answers given and thus enter into a dialogue with the interviewee". It also allows the researcher to raise issues of particular concern to the study (Fraenkel et al., 2012). Further questions, which are not expected at the commencement of the



interview, also asked as new issues arose (Gray, 2009). The teachers' questionnaire consisted of different scales, making it multidimensional in nature. The scales are initial teacher education, professional development, classroom practices, and factors constraining the quality mathematics teaching and learning. Each scale is made up of a different number of items which were respondents.

Data Collection Procedure

The process of research was conducted after seeking for permission from the head teacher of the selected Primary schools. Not only to the head teacher but also to the class teachers of the classes. This was done so that the researcher gathers information without going through the incidences of interviewing pupils with certain beliefs.

Additionally, informed consent was also obtained from the parents or guardians of the learner participants, as they are minors. The researcher ensured that the data collection process was transparent, and participants were assured of confidentiality and anonymity to encourage honest responses. The researcher also explained the purpose and potential benefits of the study to the school authorities, teachers, and learners, aiming to create a collaborative and supportive environment for the research. To further minimize disruptions, the researcher worked with teachers to schedule data collection activities, such as interviews and surveys, at convenient times. The researcher also took steps to establish rapport with the participants, particularly the learners, to help them feel comfortable and build trust, which is essential for gathering accurate and reliable data.

Data Analysis

Data analysis is a way that the researcher makes meaning of the data collected (zar 1984). In this research the data was collected through the use of qualitative types of research.

However, the qualitative data was collected through the means of interviews, participant field observation and questionnaires. The data was analyzed by the use of thematic analysis. The analysis of the qualitative data was done with the view to understand participant's experience. The researcher also transcribed the information that were collected from the above-mentioned means of collecting data (questionnaires, interviews, and observation). The transcripts were then read and important categories were identified and data was sorted and grouped into similar concepts. This was done so as to separate the scrutinized data to the workable units. The data was then scrutinized to find how one concept influenced another and explanations were searched for.

Ethical Considerations

The researcher took account into certain considerations so as to protect and promote the integrity of the respondents. These includes seeking informed consent to carry out any activity from all those who were involved in the study, that were the learners, and the teachers. This was done to ensure that those who were involved in the study are willing to participate with regardless of their culture. However, the other area of concern is the protection of respondents from physical, social, psychological and emotional harm. In addition to that, the researcher also explained the study prior to its commencement, to ensure that they understand and feel secured.



Chapter Summary

In this chapter the research methodology encompassing the research approach and the research design for this study has been described, as well as the justification for using the qualitative and quantitative research methodology. The advantages of using a survey design and a questionnaire has been explicated. The population for this study also has been described, including the sampling procedures. Strategies that will be employed when developing the questionnaire is succinctly explicated. The data collection processes and measures on how to maximize the return rate of the questionnaires by the respondents has been outlined. Piloting, its significance and how it will be undertaken, is explained. Finally, ethical considerations are discussed as well.

IV. Presentation of Findings

Introduction

In order to investigate an observational study on the academic performance of learners in rural primary schools of Kafue District, the study population frequencies were employed so as to find the number of study population and their percentages in each and every category of the variables. However, during the process of data collection the population that was targeted was the teachers and the grade three and grade four pupils in whom 80 were pupils and 20 were teachers. Therefore, the data was gathered pertaining to the causes and effects of poor reading habit among Primary School learners in Kafue District have been tabulated below.

Table 4.1: Gender of Respondents (Source – Field, 2025)

SEX	Frequency	Percentage (%)
Male	36	36%
Female	64	64%
Total	100	100%

Source: Field Data_2025

The table above indicates the total number of respondents and the response rate in terms of gender. Out of the total number of 100, 36 respondents were male representing the response rate of 36% and 64 were female representing the response rate of 64%.

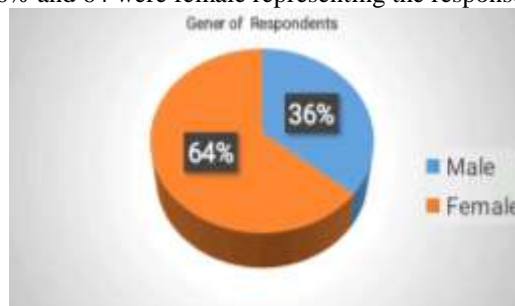


Figure 4.1 indicates the response rate according to gender. Males were represented with the response rate of 36%, while Females were represented with a response rate of 64%.



Figure 4.2 Represents the idea of academic performance by primary school learners

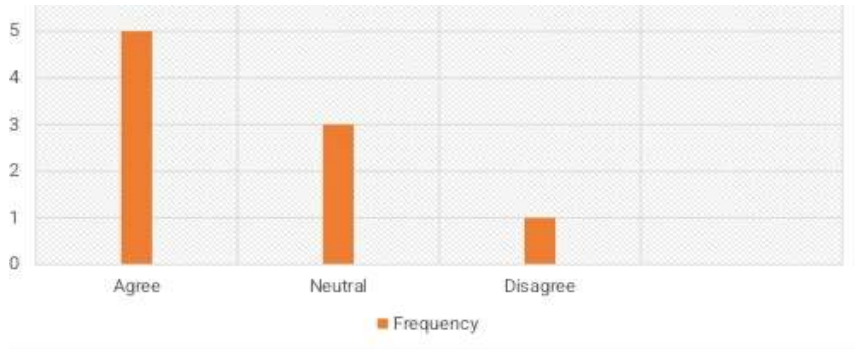


Figure 4.2 presents 5 teachers who agreed feel comfortable with the idea of academic performance by primary school learners, 3 teachers were not sure of their response while 1 teacher disagreed and feel uncomfortable with the idea of learners' academic performance.

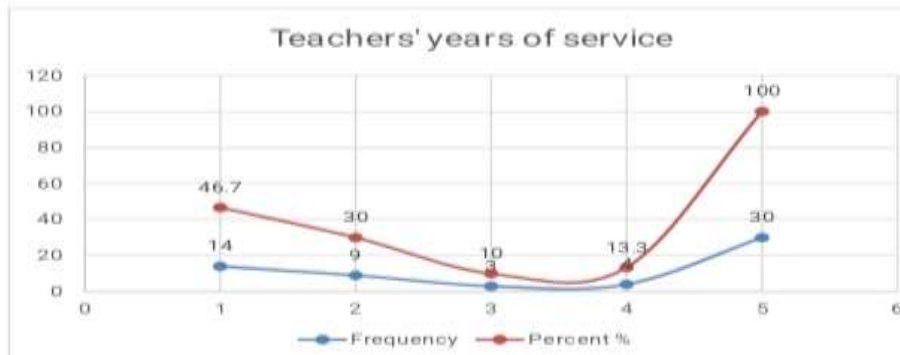
Figure 4.3 represents professional qualification of teachers

Figure 4.3 depicts the education levels of teachers and administrators who participated in the study and were asked to identify their greatest degree of formal education. The results showed that four teachers have certificates (13.3%), seven have diplomas (23.3%), 18 have bachelor's degrees (60%), and one has a PHD (3.3%). The study's findings suggest that the majority of teachers possessed degrees, followed by diploma holders, a few certificates, and one PHD.



Figure 4.4 Teachers' Years of Service

Figure 4.4 depicts the amount of years that teachers and administrators have been in service. 14 teachers have been in service for less than 5 years, representing 46.7%; 9 teachers have served between 6 and 10 years, representing 30%; 3 teachers have served between 11 and 16 years, representing 10%; and 4 teachers have worked for more than 16 years, indicating 13.3%.



4.2 Current level of academic performance among learners in rural primary schools in Kafue District.

Table 4.2 Shows data on the current level of academic performance among learners in rural primary schools in Kafue District.

Reasons given by the Learners	Number of Respondents	Percentage(%)
Low literacy levels among learners in rural primary schools in Kafue District are a significant concern, as they have a ripple effect on overall academic performance; inadequate educational supplies in rural primary schools in Kafue District significantly impact the current level of academic performance among learners, high pupil-to-book ratio, where one textbook is shared among multiple students.	35	45%
Lack of teaching aids and other educational resources, such as science equipment, computers, and educational software, deprives students of hands-on learning experiences and Poor Academic Achievement and absenteeism for both teachers and learners are often absent, disrupting the learning process and negatively impacting academic performance.	33	35%
Low staffing levels in rural primary schools in Kafue District is a significant challenge that affects the quality of education and, ultimately, the academic performance of learners, high pupil-to-teacher ratios can also impact the teacher's ability to assess student progress effectively.	22	20
Total	80	100%

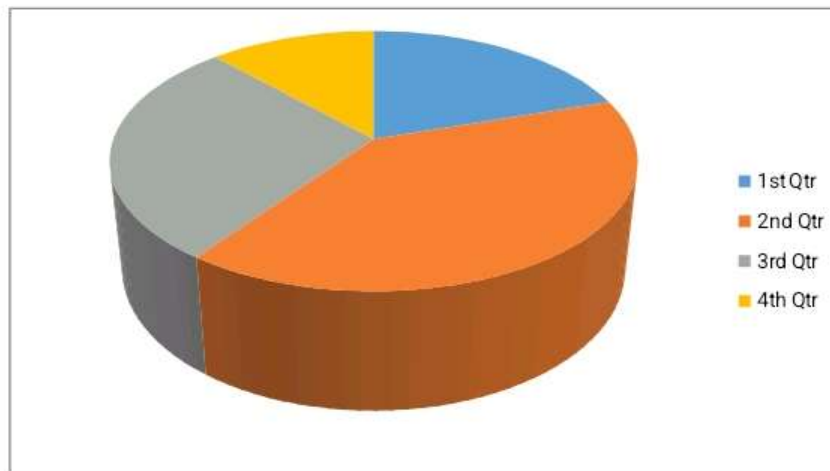
According to the data presented in table 4.2, research revealed that 45% of learners stated that, current level of academic performance among learners in rural primary



schools in Kafue District are low literacy levels among learners in rural primary schools in Kafue District are a significant concern, as they have a ripple effect on overall academic performance, inadequate educational supplies in rural primary schools in Kafue District significantly impact the current level of academic performance among learners, high pupil-to-book ratio, where one textbook is shared among multiple students while 35% of the Respondents talked about the issues of lack of teaching aids and other educational resources, such as science equipment, computers, and educational software, deprives students of hands-on learning experiences and Poor Academic

Achievement and absenteeism for both teachers and learners are often absent, disrupting the learning process and negatively impacting academic performance and 20% talked about the issues of Low staffing levels in rural primary schools in Kafue District is a significant challenge that affects the quality of education and, ultimately, the academic performance of learners, high pupil-to-teacher ratios can also impact the teacher's ability to assess student progress effectively. This came in the conclusion of the researcher that most learners needs help for them to improve the poor academic performance among Primary School learners.

Figure 4.5 Shows data on the current level of academic performance among learners in rural primary schools in Kafue District



Source: Field Data

According to the data presented in the figure above, research revealed that 20% represents first quarter of the respondents who talked about the current level of academic performance among learners in rural primary schools in Kafue District are low literacy levels among learners in rural primary schools in Kafue District are a significant concern, as they have a ripple effect on overall academic performance, inadequate educational supplies in rural primary schools in Kafue District significantly impact the current level of academic performance among learners, high pupil-to-book ratio, where one textbook is shared among multiple students. 45% represents second



quarter of the respondents who talked about lack of teaching aids and other educational resources, such as science equipment, computers, and educational software, deprives students of hands-on learning experiences and Poor Academic Achievement and absenteeism for both teachers and learners are often absent, disrupting the learning process and negatively impacting academic performance while 35% represents third quarter of respondents who talked about Low staffing levels in rural primary schools in Kafue District is a significant challenge that affects the quality of education and, ultimately, the academic performance of learners, high pupil-to-teacher ratios can also impact the teacher's ability to assess student progress effectively. This came in the conclusion of the researcher that most learners need help for them to improve the poor academic performance among Primary School learners.

4.3 Key factors contributing to poor academic performance among learners in rural primary schools in Kafue District.

Table 4.3 Shows data on the key factors contributing to poor academic performance among learners in rural primary schools in Kafue District.

Reasons given by the Teachers	Number of Respondents	Percentage (%)
Shortage of qualified teachers, lack of teaching and learning materials, Poverty is also a significant barrier to education in rural areas, Long distances that many learners have to travel to get to school.	15	50%
Parental involvement and community support can also contribute to poor academic performance, the quality of school leadership and management can also impact academic performance, One major issue is the inadequate number of teachers and lack of role models.	10	30%
Many parents in the district have limited educational backgrounds, infrastructure challenges and Lastly, absenteeism among students and possibly teachers.	5	20%
Total	30	100%

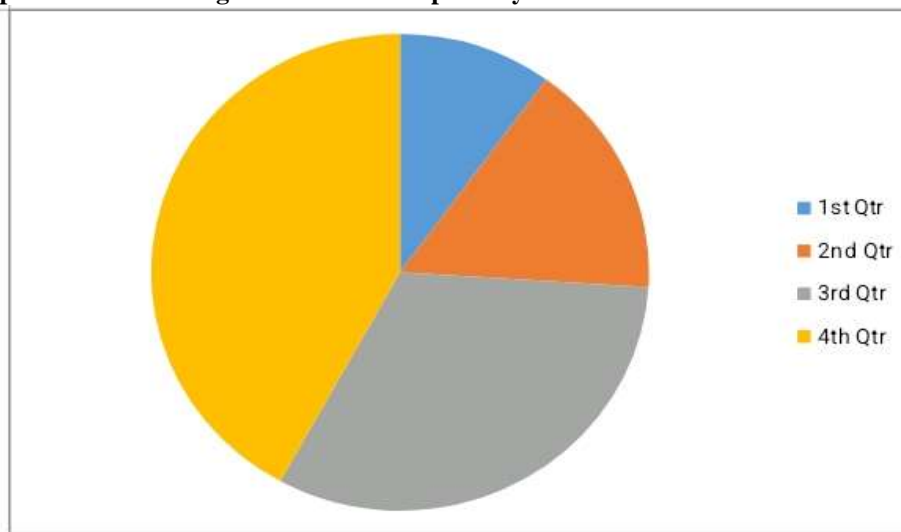
From the information given in the table above, research revealed that 50% of teachers who were interviewed stated that key factors contributing to poor academic performance among learners in rural primary schools in Kafue District are, Shortage of qualified teachers, lack of teaching and learning materials, Poverty is also a significant barrier to education in rural areas, Long distances that many learners have to travel to get to school.

It is interesting to note that 30% of the respondents stated that apart from the key factors contributing to poor academic performance among learners in rural primary schools in



Kafue District mentioned above the other key factors contributing to poor academic performance among learners in rural primary schools in Kafue District are parental involvement and community support can also contribute to poor academic performance, the quality of school leadership and management can also impact academic performance, One major issue is the inadequate number of teachers and lack of role models while 20% of the respondents stated that, the other key factors contributing to poor academic performance among learners in rural primary schools in Kafue District when teaching primary school learners are Many parents in the district have limited educational backgrounds, infrastructure challenges and Lastly, absenteeism among students and possibly teachers.

Figure 4.6 Shows data on the key factors contributing to poor academic performance among learners in rural primary schools in Kafue District.



Source: Field Data

The data given in the figure above shows the respondents' views about factors that contribute to students' low performance. 50% of the respondents believed that key factors contributing to poor academic performance among learners in rural primary schools in Kafue District are, Shortage of qualified teachers, lack of teaching and learning materials, Poverty is also a significant barrier to education in rural areas, Long distances that many learners have to travel to get to school.



30% of the respondents felt that parental involvement and community support can also contribute to poor academic performance, the quality of school leadership and management can also impact academic performance, One major issue is the inadequate number of teachers and lack of role models while 20% of the respondents mentioned that Many parents in the district have limited educational backgrounds, infrastructure challenges and Lastly, absenteeism among students and possibly teachers.

4.4 Significant relationship between school resources, teacher quality, and learner academic performance in rural primary schools in Kafue District.

Table 4.4 below shows data on the significant relationship between school resources, teacher quality, and learner academic performance in rural primary schools in Kafue District

Reasons given by the Teachers	Number of Respondents	Percentage (%)
Adequate school resources, including textbooks, educational materials, and infrastructure, teacher quality is also a critical factor in determining learner academic performance, inadequate resources, teacher quality, and learner academic performance are negatively impacted.	10	25%
Pupil-teacher ratio and pupil-book ratio are significant challenges in Kafue District's primary schools; quality of education in Kafue District is further compromised by teacher absenteeism, lack of motivation, and inadequate training and the level of community involvement and support.	6	20%
School's leadership and management, socio-economic context of the learners also affects their academic performance and Teacher morale and working conditions, teacher-learner interaction.	14	35%
Reasons		100%

The results in table reveal that 25% of the respondents stated that, some of the Significant relationship between school resources, teacher quality and learner academic performance in rural primary schools in Kafue District are adequate school resources, including textbooks, educational materials, and infrastructure, teacher quality is also a critical factor in determining learner academic performance, inadequate resources, teacher quality, and learner academic performance are negatively impacted and 20% of the respondents talked about the use the pupil-teacher ratio and pupil-book ratio are significant challenges in Kafue District's primary schools, quality of education in Kafue District is further compromised by teacher absenteeism, lack of motivation, and inadequate training and the level of community involvement and support while 35% of



teachers indicated that some of the significant relationship between school resources, teacher quality and learner academic performance in rural primary schools in Kafue District are School's leadership and management, socio-economic context of the learners also affects their academic performance and Teacher morale and working conditions, teacher-learner interaction.

V. Discussion of Findings

Introduction

This chapter presents the discussions of findings of the research study. However, the discussion of findings of the study was written pertaining to the responding knowledge of their application to real life. This goes a long way to indicate how important the concept of the observational study on the academic performance of learners in rural primary schools of Kafue District is to both the individual learner and society.

Current level of academic performance among learners in rural primary schools in Kafue District.

The current level of academic performance among learners in rural primary schools in Kafue District is reportedly poor or very poor. Several factors contribute to this trend, including inadequate teaching and learning materials, low staffing levels, and insufficient classrooms and desks.

The situation in rural primary schools in Kafue District is pretty tough. The lack of educational supplies is really holding back learners' academic performance. When teachers don't have the right materials, it's hard for them to teach effectively, and learners miss out on a quality education.

Imagine trying to learn complex concepts without the right textbooks or resources - it's like trying to build a house without bricks. Teachers are doing their best, but they're forced to improvise or use outdated materials, which can lead to gaps in knowledge and understanding.

It's not just about the learners; it's also tough on teachers. They're struggling to make ends meet with limited resources, and it's affecting their morale. If this continues, it might lead to lower academic achievement and retention rates, which would be a real shame.

The inadequate educational supplies in rural primary schools in Kafue District significantly impact the current level of academic performance among learners. The lack of sufficient teaching and learning materials hinders effective curriculum implementation, making it challenging for teachers to deliver quality education. Without adequate resources, teachers are forced to rely on outdated materials or improvise, which can lead to gaps in knowledge and understanding among students.

This scarcity of educational supplies affects various aspects of learning, including literacy and numeracy skills. For instance, insufficient textbooks mean that students often have limited access to learning materials, making it difficult for them to reinforce concepts taught in class. This, in turn, affects their ability to complete homework



assignments and engage fully with the curriculum, ultimately impacting their academic performance.

The situation is further exacerbated by the high pupil-to-book ratio, where one textbook is shared among multiple students. This not only limits students' opportunities to engage with the material but also restricts teachers' ability to assign homework and projects that require textbook-based research. As a result, students' learning outcomes suffer, contributing to the overall poor academic performance observed in these schools.

Moreover, the lack of teaching aids and other educational resources, such as science equipment, computers, and educational software, deprives students of hands-on learning experiences. This is particularly detrimental in subjects like science and mathematics, where practical applications are essential for deep understanding. Without these resources, students may struggle to grasp complex concepts, leading to disengagement and poor performance.

The issue of low staffing levels in rural primary schools in Kafue District is a significant challenge that affects the quality of education and, ultimately, the academic performance of learners. High pupil-to-teacher ratios are a common problem in these schools, where one teacher is often responsible for teaching a large number of students. This makes it difficult for teachers to attend to the individual needs of each student, as the government-recommended ratios of 35:1 or 40:1 are often exceeded.

When teachers are overwhelmed with large class sizes, they struggle to provide personalized attention to each student. This can lead to some students falling behind their peers, particularly those who require extra support or have different learning styles. As a result, these students may become disengaged and disconnected from the learning process, leading to poor academic performance.

Furthermore, high pupil-to-teacher ratios can also impact the teacher's ability to assess student progress effectively. With so many students to manage, teachers may find it challenging to grade assignments, provide constructive feedback, and identify areas where students need additional support. This can lead to a lack of accountability and a sense of anonymity among students, which can further exacerbate the problem of poor academic performance.

Low literacy levels among learners in rural primary schools in Kafue District are a significant concern, as they have a ripple effect on overall academic performance. When students struggle with reading and writing skills, it creates a barrier to learning across various subjects. Reading and writing are foundational skills that are essential for understanding and communicating complex ideas, and without a strong grasp of these skills, students are likely to fall behind their peers.

The struggles with literacy can be attributed to various factors, including inadequate teaching methods, lack of resources, and limited exposure to reading materials. In many cases, teachers may not have received adequate training in teaching reading and writing skills, or they may be overwhelmed by large class sizes, making it difficult to provide individualized attention. Additionally, the lack of access to books, educational



resources, and technology can limit students' opportunities to develop their literacy skills.

The impact of low literacy levels is far-reaching, affecting not only academic performance but also students' confidence and self-esteem. When students struggle to read and write, they may become frustrated, disengaged, and disconnected from the learning process. This can lead to poor academic performance, increased dropout rates, and limited opportunities for future success.

Furthermore, low literacy levels can have long-term consequences, affecting students' ability to participate fully in society and the economy. In today's information age, literacy skills are essential for accessing information, communicating effectively, and making informed decisions. By addressing the issue of low literacy levels, we can empower students with the skills they need to succeed in school and beyond.

The situation in these rural primary schools is dire. High dropout rates are a major concern - when learners aren't getting the support they need, they tend to fall behind and eventually give up. And it's no wonder, considering some of them are forced to sit on floors or bricks in overcrowded classrooms. It's hard to focus on learning when your basic needs aren't being met.

The low pass rates and poor performance in grade seven examinations are a symptom of a bigger problem. Learners are struggling to grasp concepts, and without proper support, they're set up for failure. Overcrowded classrooms make it tough for teachers to give individual attention, and inadequate desks? That's just adding insult to injury. It's a vicious cycle. Learners who struggle academically are more likely to drop out, which in turn affects the school's performance and reputation. And it's not just about the learners; it's a societal issue. When education is compromised, the whole community suffers.

To address the issue of low staffing levels, it is essential to prioritize education funding and invest in recruiting and retaining qualified teachers. This could involve providing incentives for teachers to work in rural areas, such as housing allowances or professional development opportunities. Additionally, the government and other stakeholders could explore innovative solutions, such as multi-grade teaching or technology-enabled learning, to help mitigate the impact of high pupil-to-teacher ratios.

To improve literacy levels, it's essential to provide targeted support to teachers, including training in evidence-based instructional methods and providing access to high-quality educational resources. Additionally, schools can create a culture of reading and writing, providing opportunities for students to engage with books, writing activities, and other literacy-rich experiences. By prioritizing literacy education, we can help students build a strong foundation for future academic success and lifelong learning.

Therefore, by addressing the issue of low staffing levels, we can create a more supportive and inclusive learning environment that allows all students to reach their full potential.



Key factors contributing to poor academic performance among learners in rural primary schools in Kafue District.

The key factors contributing to poor academic performance among learners in rural primary schools in Kafue District are multifaceted and interrelated.

One significant factor is the shortage of qualified teachers, which affects the quality of education. Many teachers in rural areas are under qualified or lack the necessary training, leading to inadequate instruction and guidance for learners. The shortage of qualified teachers in rural areas is a major setback for these schools. When teachers aren't adequately trained, it shows in the quality of education they provide. They're often struggling to keep up with the curriculum themselves, let alone provide individual support to learners who need it.

It's not just about the lack of qualifications; it's also about experience. Many young teachers might be fresh out of training and get posted to rural areas, where the challenges are already stacked against them. Without proper support or mentorship, they can get overwhelmed, leading to burnout or them leaving the profession altogether.

This affects learners in a big way. Inadequate instruction means they might not grasp concepts properly, leading to a snowball effect where they fall further and further behind. And with limited access to resources or alternative support, they're stuck in a tough spot.

Another critical factor is the lack of teaching and learning materials, including textbooks, educational resources, and infrastructure. Many rural primary schools lack basic facilities such as classrooms, desks, and sanitation facilities, creating an environment that is not conducive to learning.

Poverty is also a significant barrier to education in rural areas. Many families struggle to provide basic necessities, let alone educational materials, for their children. This can lead to learners being absent from school or dropping out altogether.

Additionally, the distance thing is a real challenge for learners in rural areas. Imagine having to walk miles and miles just to get to school, sometimes in harsh weather conditions. By the time they arrive, they're already exhausted, and it's tough to focus on lessons.

It's not just about the physical toll; it's also the mental strain. When learners are tired or constantly worried about getting to school on time, it affects their ability to engage with the material. And let's be real, some days they might not make it at all, leading to absenteeism. Miss enough days, and they're falling behind their peers, which can be demotivating.

This can create a cycle where learners struggle to keep up, lose interest, and eventually drop out. And it's not like they have many alternatives. In some areas, schools are few and far between, so they don't really have a choice.



The lack of parental involvement and community support can also contribute to poor academic performance. When parents are not engaged in their children's education, learners may not receive the support and encouragement they need to succeed.

Furthermore, the quality of school leadership and management can also impact academic performance. Schools with effective leadership and management tend to have better teacher morale, more efficient use of resources, and a more supportive learning environment.

One major issue is the inadequate number of teachers, largely due to transfers out of the district. This not only affects the quality of education but also disrupts the learning process for students.

The teacher shortage in Kafue is a big deal. When teachers transfer out, it leaves gaps in the system. Learners are stuck with substitute teachers or split classes, which disrupts their flow. It's like trying to build a house, but constantly switching builders – nothing gets finished.

This turnover affects the quality of education. New teachers mean new approaches, and sometimes, a bit of a learning curve. It's tough on learners who've just gotten used to one style, only to have it change again. And it's not just about teaching styles; relationships matter. Learners build trust with teachers over time, and when that gets broken, it can impact their motivation.

Schools in rural areas often struggle to attract and retain teachers, making it a bit of a revolving door. This instability can lead to gaps in coverage, especially in key subjects like math or science.

Compounding this problem is the lack of role models, which can significantly impact students' motivation and aspirations. The district's poor road network also plays a role in deterring teachers from staying, making it hard to attract and retain qualified educators.

Furthermore, many parents in the district have limited educational backgrounds, which can hinder their ability to support their children's learning effectively. This lack of parental support can have long-term consequences on students' academic performance and overall educational journey.

The district also faces infrastructure challenges, including inadequate learning facilities and materials. This can make it difficult for students to engage fully with the curriculum and can negatively impact their academic outcomes.

Lastly, absenteeism among students and possibly teachers is another factor affecting educational outcomes in the district. Addressing these interconnected issues will require a comprehensive approach that involves government support, community engagement, and strategic planning to improve the quality of education and create a more conducive learning environment.



To improve academic performance, it's essential to address these challenges through a multifaceted approach. Improving teacher welfare is crucial, which can be achieved by enhancing teacher salaries, providing professional development opportunities, and ensuring a safe working environment. Increasing access to quality educational resources, including textbooks, educational materials, and infrastructure, is also vital. Promoting parental involvement by encouraging parents to engage in their children's education and school activities can also have a positive impact. Addressing socio-economic challenges is also critical, which can be done by implementing initiatives to alleviate poverty and support vulnerable learners. By tackling these challenges, stakeholders can work together to improve the quality of education and academic outcomes for learners in rural primary schools in Kafue District.

Some potential strategies to improve teacher motivation and retention in rural primary schools include providing opportunities for professional growth and development, recognizing and rewarding outstanding performance, and fostering a sense of community and support among teachers. Additionally, offering incentives such as housing allowances or transportation support can help attract and retain qualified teachers in rural areas.

Ultimately, improving academic performance in rural primary schools in Kafue District requires a sustained effort from all stakeholders, including government, educators, parents, and the community. By working together, it's possible to create a supportive learning environment that enables learners to achieve their full potential.

The current state of academic performance in rural primary schools in Kafue District is a pressing concern. Reports indicate that learners are struggling, with poor academic performance attributed to various factors. Inadequate teaching and learning materials, insufficient classrooms, and low staffing levels are some of the key challenges. The surge in enrollments due to the Free Primary Education Policy has further strained resources, leading to overworked teachers and large class sizes.

To address these challenges, a multi-faceted approach is necessary. Improving teacher welfare and providing professional development opportunities can enhance teaching quality. Investing in school infrastructure, such as classrooms and sanitation facilities, can create a more conducive learning environment. Additionally, promoting community engagement and involvement in school activities can help foster a supportive environment for learners.

Some potential strategies to improve academic performance include providing targeted support to learners who are struggling, implementing programs to reduce absenteeism, and increasing access to educational resources. The construction of new classrooms, ablution blocks, and staff houses, as seen in the Mpande Primary School project, can also help alleviate overcrowding and improve the learning environment.

By tackling these challenges and implementing effective strategies, stakeholders can work together to improve academic performance and provide quality education for learners in rural primary schools in Kafue District.

Significant relationship between school resources, teacher quality, and learner academic performance in rural primary schools in Kafue District.



The relationship between school resources, teacher quality, and learner academic performance in rural primary schools in Kafue District is significant and interconnected. Adequate school resources, including textbooks, educational materials, and infrastructure, play a crucial role in supporting effective teaching and learning. When schools have sufficient resources, teachers can deliver high-quality instruction, and learners can engage with the curriculum in a meaningful way.

Inadequate infrastructure: Many rural schools in Kafue face challenges like a lack of enough classrooms, desks, and dilapidated infrastructure, which leads to overcrowding and an inability to meet the needs of a growing student population.

The state of infrastructure in these rural schools is a real concern. Imagine trying to learn in a classroom that's bursting at the seams, with learners squeezed in like sardines. That's the reality for many in Kafue. The lack of classrooms means overcrowding, and it's not just about space – it's about creating an environment where learners can focus.

Dilapidated infrastructure is another issue. We're talking about leaky roofs, broken windows, and floors that are a hazard. It's tough to teach and learn in conditions that aren't safe or conducive to learning. And with a growing student population, these challenges are only going to get bigger.

The impact is felt across the board. Teachers struggle to manage large classes, and learners are distracted by the environment. It's hard to concentrate when you're uncomfortable or worried about the structure around you. Plus, the lack of basic facilities like toilets or clean water.

A significant lack of teaching and learning materials, such as textbooks and teaching aids, is a major problem that directly affects curriculum implementation and learning. The lack of teaching and learning materials is a huge obstacle in these rural schools. Textbooks are often scarce, and when they are available, they're sometimes outdated or shared among multiple learners. This makes it tough for learners to follow along, complete homework, or even study at home.

Without proper teaching aids, lessons can become one-dimensional and less engaging. Teachers are forced to rely on chalk and talk, which doesn't exactly spark curiosity or creativity in learners. It's hard to make complex concepts come alive without visual aids, experiments, or interactive tools. This directly impacts curriculum implementation. Teachers struggle to cover the material effectively, and learners are left struggling to grasp key concepts. It's a real challenge when the resources aren't there to support the teaching and learning process.

Teacher quality is also a critical factor in determining learner academic performance. Well-trained, motivated, and experienced teachers can make a significant difference in learner outcomes. They can adapt to the needs of individual learners, create engaging lesson plans, and provide constructive feedback that fosters growth and development.

When school resources are inadequate, teacher quality can suffer, and learner academic performance can be negatively impacted. Conversely, when teachers are well-



supported and equipped with the necessary resources, they can provide high-quality instruction that enables learners to achieve their full potential.

The pupil-teacher ratio and pupil-book ratio are significant challenges in Kafue District's primary schools. With high pupil-teacher ratios, teachers struggle to attend to individual learners' needs, resulting in poor academic performance. Similarly, inadequate textbooks and educational materials hinder learners' ability to engage with the curriculum effectively.

The quality of education in Kafue District is further compromised by teacher absenteeism, lack of motivation, and inadequate training. When teachers are not motivated or equipped to teach effectively, learners suffer the consequences, resulting in poor academic performance.

Moreover, the relationship between school resources, teacher quality, and learner academic performance in rural primary schools in Kafue District is also influenced by the level of community involvement and support. When parents and the community are actively engaged in the education process, it can lead to improved academic performance and better outcomes for learners.

Additionally, the school's leadership and management play a critical role in determining the quality of education and learner academic performance. Effective school leaders can motivate teachers, manage resources efficiently, and create a positive learning environment that supports academic achievement. Effective leadership is crucial for resource management and teacher motivation, which can influence the overall academic attainment of learners.

Furthermore, the socio-economic context of the learners also affects their academic performance. Learners from disadvantaged backgrounds may face challenges such as hunger, poor health, and lack of support at home, which can negatively impact their ability to learn and perform academically.

Low teacher morale, often due to poor working conditions like inadequate accommodation, low salaries, and high workloads, can lead to demotivation and absenteeism. There is a cyclical relationship where poor resources lead to teacher burnout and demotivation, which in turn leads to lower teacher quality and performance. This negatively affects the learning environment and ultimately lowers learner academic performance.

The quality of the relationship between teachers and learners is vital. Poor teacher-learner relationships, sometimes due to negative attitudes, can have a negative effect on student learning. The teacher-learner relationship is like the foundation of a house - if it's shaky, the whole thing can crumble. When teachers and learners don't connect, it affects the learning environment. If teachers have negative attitudes or aren't approachable, learners might feel intimidated or discouraged from asking questions, leading to gaps in understanding.



It's not just about being friends; it's about creating a supportive space where learners feel valued and motivated to learn. When teachers show genuine interest and care, learners tend to thrive. But when the vibe is off, learners might disengage, and their performance suffers.

This relationship thing goes both ways. Teachers who feel supported and valued are more likely to create positive relationships with learners. It's a bit of a cycle, but when it clicks, it's magic. Learners pick up on the energy, and it can transform the whole classroom dynamic.

To address these challenges, investing in school infrastructure, teacher training, and community engagement is crucial. Providing teachers with professional development opportunities and support can enhance teaching quality and learner outcomes. Fostering partnerships between schools, parents, and the community can promote learner support and involvement.

Community-based initiatives can play a vital role in supporting learners in rural primary schools. By engaging with local communities, schools can tap into existing resources and expertise, such as volunteer teachers or mentors. Community-based initiatives can also help address specific challenges, such as providing educational materials or supporting learners who are struggling academically.

Some organizations are already working to address these challenges in Kafue District. For example, World Vision Zambia has initiated projects to improve educational infrastructure and provide resources to schools in the area. These efforts aim to create a supportive learning environment that enables learners to achieve their full potential. By working together, stakeholders can help improve the quality of education and academic outcomes for learners in rural primary schools in Kafue District.

VI. Conclusion and Recommendations

Introduction

The foregoing chapter presented the discussions on the major findings of this study. This chapter drew a conclusion for this study and provided some recommendations based on the findings of the objectives stated in chapter one. This chapter presents the conclusion, recommendations and suggestions for further research. Necessary recommendations for the study were made to provide for government policy, law makers, teachers, parents and other stake holders for action with the aim of combating the scourge of low retention levels of pupils in public primary schools.

Conclusion

This study aimed to investigate the academic performance of learners in rural primary schools in Kafue District, Zambia, with a focus on the relationship between school resources, teacher quality, and learner outcomes. The findings highlight the significant challenges faced by rural primary schools, including inadequate infrastructure, teacher shortages, and limited access to educational resources. The study reveals that these challenges have a profound impact on learner academic performance, with many learners struggling to achieve their full potential.



However, the research also identifies potential solutions, including investing in school infrastructure, teacher training, and community engagement. The study concludes that addressing these challenges will require a multifaceted approach that involves government, educators, parents, and the community. By working together, stakeholders can create a supportive learning environment that enables learners in rural primary schools to achieve their full potential and realize their academic goals. Ultimately, the study underscores the importance of prioritizing education in rural areas and providing targeted support to learners and educators. By doing so, we can help bridge the gap in academic performance between rural and urban areas and ensure that all learners have access to quality education.

Recommendations

1. Based on the research findings, it is recommended that policy makers prioritize investment in school infrastructure, including classrooms, desks, and sanitation facilities, to create a conducive learning environment. This investment will help to address the challenges posed by inadequate infrastructure, which can negatively impact learner academic performance. Additionally, policy makers should provide teachers with professional development opportunities and support to enhance teaching quality and learner outcomes.
2. The researcher recommends that policy makers allocate sufficient funds for infrastructure development.
3. Schools should also take proactive steps to foster partnerships with parents and the community to promote learner support and involvement. This can include engaging with local communities, encouraging parental involvement in school activities, and providing targeted support to learners who are struggling academically. Furthermore, schools should ensure effective use of available resources, including textbooks and educational materials, to maximize learning outcomes. The researcher recommends that schools establish parent-teacher associations to facilitate community engagement.
4. Moreover, the government and other stakeholders should consider implementing policies and programs that address the specific needs of rural schools, such as providing incentives for teachers to work in rural areas, improving access to educational resources, and promoting community involvement in education. By adopting a comprehensive and collaborative approach, it is possible to improve the quality of education and academic outcomes for learners in rural primary schools. The Ministry of Education should also prioritize the development of rural schools and provide them with the necessary resources and support to improve learner academic performance. The researcher recommends that the government establish a rural education task force to oversee the implementation of these initiatives.
5. In addition, it is essential to recognize the critical role that teachers play in shaping the academic performance of learners. Teachers who are motivated, well-trained, and supported can make a significant difference in the lives of their students. Therefore, the Ministry of Education and school administrators should prioritize teacher welfare and provide opportunities for professional growth and development. The researcher recommends that teachers receive regular training and support to enhance their teaching skills.



6. Community-based initiatives can also play a vital role in supporting learners in rural primary schools. Local communities can provide resources, expertise, and mentorship to learners, which can help to enhance their academic performance and overall well-being. Schools should therefore engage with local communities and encourage their involvement in education. The researcher recommends that schools establish partnerships with local businesses and organizations to provide resources and support to learners.
7. Addressing the socio-economic challenges faced by learners in rural areas is crucial to improving their academic performance. This can be achieved through initiatives such as providing school feeding programs, bursaries, and other forms of support to learners from disadvantaged backgrounds. The researcher recommends that the government implement programs to address poverty and inequality in rural areas.
8. By adopting a comprehensive approach that addresses the various challenges facing rural primary schools, it is possible to improve the quality of education and academic outcomes for learners in these areas. This will require a collaborative effort from all stakeholders, including policy makers, educators, parents, and the community. The researcher recommends that stakeholders work together to develop and implement effective strategies to improve education outcomes in rural areas.
9. Ultimately, every learner deserves access to quality education that enables them to reach their full potential. By working together, we can ensure that learners in rural primary schools in Kafue District have the support and resources they need to succeed academically and beyond. The researcher recommends that the government prioritize education funding to ensure that all learners have access to quality education.

Suggestions for further research

1. Examine their cumulative effect on student performance. For instance studies on teacher remuneration, gender, class size, and medium of instruction can be explored using different instruments rather than the one used in this research.
2. Analysis of technology use and its effect on students' academic performance, including the role of digital devices, the internet, and educational software.
3. Assessment of the impact of extracurricular activities, such as sports, music, and community service, on student academic performance.
4. Analysis of student behavior, such as attendance, behavior, and disciplinary issues, and their relationship to academic performance.

References

1. Akatukwasa, J., & Ngumanawe, M. (2024). School Environment And Learner's Academic Performance In Kyenjojo District: A Case Of Selected Primary Schools In Rugombe Town Council.
2. Adu-Agyem, J., & Osei-Poku, P. (2014). Community-Based Leadership and Parental Involvement in Ghanaian Schools.
3. Alloway, N., Gilbert, P., Gilbert, R., & Kenway, J. (2004). Factors Affecting Student Achievement in Regional and Rural Australia. *Journal of Educational Administration*, 42(4), 460-475.



4. AUBSP. (2025). Age-Wise Education System in Zambia (2025 Guide for Parents & Students).
5. Barley, Z. A., & Beesley, A. D. (2007). Rural Schools: Facing Unique Challenges. *Principal Leadership*, 7(6), 16-21.
6. Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design*. Harvard University Press.
7. Chishimba, J., & Mwanza, P. (2022). Effectiveness of Free Education Policy in Improving Pupils' Academic Performance in Selected Public Primary Schools of Lusaka Province, Zambia. *International Journal of Research and Scientific Innovation*, 9(11).
8. Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology*, 94, S95-S120.
9. Cross Catholic Outreach. (2022). *Educating Zambia: Addressing Disparities and Inequities to Improve Lives*.
10. Halseth, G., & Ryser, L. (2006). Trends in Service Delivery: Examples from Rural and Small Town Canada, 1998 to 2005. *Journal of Rural and Community Development*, 1(2), 114-133.
11. Hapompwe, C.C., et al. (2020). A Critical Analysis of Factors Accounting for Low Pupil Retention Rate in Public Primary Schools in Zambia. *International Journal of Scientific and Research Publications*, 10(6).
12. Kannapel, P. J., & DeYoung, A. J. (1999). The "One-Size-Fits-All" Approach to School Reform in Rural Areas: Reality or Myth? *Journal of Research in Rural Education*, 15(2), 67-78.
13. Kamutunguza, S. (2022). *Assessing the Effect of Counselling On Academic Performance of Primary Learners in Three Selected Primary Schools in Rubaare Sub-County, Ntungamo District*. Kabale University.
14. Mashingaidze, S. (2013). *Factors Influencing Learner Performance in Rural Namibian Schools*.
15. Ministry of Education. (2024). *Zambia 2024-2029 Partnership Compact*.
16. Monk, D. H. (2007). Recruiting and Retaining High-Quality Teachers in Rural Areas. *Future of Children*, 17(1), 155-174.
17. Mulkeen, A. (2010). *Teachers for Rural Schools – A Challenge for Africa*.
18. Mwansa, D. (2020). *An Assessment of the Effectiveness of Guidance and Counselling Services in Selected High Schools of Lusaka Province of Zambia*.
19. Mwaba, S.O.C., Kusanthan, T., & Chizawu, K. (n.d.). *Pre-Schooling and Academic Performance of Lower Primary School Pupils in Rural Zambia*.
20. Njoroge, N. R. (2021). School-based Factors which Influence Academic Performance in Public Primary Schools in Murang'a South Sub County, Kenya. *Journal of Education*, 4(6), 10-15.
21. Provasnik, S., et al. (2007). *Status of Education in Rural America*. National Center for Education Statistics.
22. PROBE Team. (1999). *Public Report on Basic Education in India*. Oxford University Press.
23. Showalter, D., et al. (2019). *Why Rural Matters: Understanding the Unique Challenges and Opportunities of Rural Education*. Rural School and Community Trust.



24. Simweleba, N.H., & Serpell, R. (2020). Parental involvement and learners' performance in rural basic schools of Zambia. *South African Journal of Childhood Education*, 10(1), a608.
25. Sirin, S. R. (2005). Socioeconomic Status and Academic Achievement: A Meta-Analytic Review of Research. *Review of Educational Research*, 75(3), 417-453.
26. UNESCO. (2016). Zambia: education policy review; paving the way for SDG 4-Education 2030.
27. Wang, M. C., Haertel, G. D., & Walberg, H. J. (1993). Toward a Knowledge Base for School Learning. *Review of Educational Research*, 63(3), 249-294.
28. Wigelsworth, M., Humphrey, N., & Lendrum, A. (2010). An Evaluation of the National Strategies' Primary Behaviour and Attendance Pilots. National Foundation for Educational Research.
29. Acharya, N and Joshi, S.(2009) Influence of parents' education on achievement motivation of adolescents, *Indian Journal Social Science Researches*, (6): 1, 72 – 79. Asikhia, O.A. (2010) Students and Teachers' Perception on the Causes of Poor performance in Ogun state secondary schools (Nigeria) Implication for Counseling for National Development. In the *European Journal of Social Sciences*, (13) : 2, 229 – 242.
30. Mulenga, C. (2021). Teacher-based factors influencing academic performance in open learning classes: A case of Twin Palm Secondary School in Lusaka district.
31. UNICEF. (2016). Understanding the factors influencing school performance.
32. Kasonde, M. (2018). Factors contributing to low performance in physical science among female pupils at Serenje Technical High School Academic Production Unit.
33. Mashamba, T. (2014). Factors affecting students' academic performance at the University of Zambia