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FOREWORD BY THE VICE CHANCELLOR

On behalf of Management of Kampala University, I wish to introduce to you our Scientific Research Journal (KUSRJ 2025). This publication is in pursuit of our university's mandate to conduct research and promote innovation.

Scientific research is critical to help us navigate our ever-changing world. Without it, we would have to rely on people's opinions, our intuitions and luck. Systematic scientific research offers us an objective understanding because scientific knowledge is grounded in objective and tangible science.

Further, publishing is the backbone of academic studies. It is the traditional means of disseminating research results, communicating new ideas and techniques. So we should not forget it in the academic arena. Journals provide a source of useful information and knowledge that can easily be located and read.

Therefore, I extend a vote of thanks to our students and staff who have highly contributed to this publication. On the same note, I highly commend our editorial team for their great efforts in reviewing the articles for publication.

I encourage all scholars to develop a culture of reading research papers in order to add to their existing knowledge and improve their overall understanding; to gain insight into the latest scientific techniques being used and the new development opportunities available; to create a rich repository of relevant reference; to develop critical thinking; and to build professional relationships and stronger networks among others.

Amb. Al Haj. Prof. Badru Dungu Kateregga.

FOUNDING VICE CHANCELLOR

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“Quality Assurance Re-imagined: Promoting Accessibility and Inclusivity in Uganda’s Higher Education.”

Authors: Amaal Kinene N. Nsereko (PhD)¹ and Wardah M. Rajab-Gyagenda (PhD)²

ABSTRACT

This paper re-imagined ways in which innovative, transformative quality assurance practices/strategies could enhance accessibility and inclusivity in Ugandan higher education. The quest for accessibility and inclusivity in higher education has gained significant momentum, emphasizing the need for equitable learning opportunities for all students. Many of today's global concerns, such as education for all, human rights, development for all, and the dilemma of rapid economic transformation with justice, cannot be effectively addressed without serious commitment to higher education. The paper takes the view that while mass higher education should contribute to global development goals, it should also give due regard to the welfare and growth of the individual student based on equity and justice by taking initiatives to remove critical exclusions and enhancing access and equity. This study, therefore, re-imagined how quality assurance (QA) practices play a pivotal role in promoting accessibility and inclusivity within higher education institutions. By examining contemporary QA frameworks and their application across diverse educational settings, the research identifies innovative strategies that enhance accessibility and inclusivity. Employing a survey research design and mixed-methods approach, the study combined qualitative interviews (of education administrators and policymakers) together with quantitative analysis of institutional data from 13 universities (Public and Private) that have successfully integrated accessibility and inclusivity QA practices. The findings highlight the importance of adaptive curricula, accessibility to innovative/creative learning resources, and inclusive teaching methodologies as essential components of effective QA frameworks. Additionally, the study underscores the necessity of continuous stakeholder engagement, particularly involving students with diverse needs, to maintain the relevance and effectiveness of QA practices. The research discusses i) the implementation of technology-enhanced learning tools, ii) flexible accreditation processes, iii) inclusive assessment methods, as well as iv) addressing challenges and barriers to innovative adaptations. Practical recommendations for overcoming these challenges are provided. The study concludes that innovative QA practices not only improve the quality of education but also significantly contribute to the broader goals of social equity and inclusion in higher education, ultimately fostering a more equitable and inclusive academic environment.

Keywords: Accessibility, Inclusivity, Quality Assurance Re-imagined, Higher Education

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1.0 INTRODUCTION

1.1 Background and Rationale

The quest for accessibility and inclusivity in higher education has gained significant momentum, particularly within the context of global development goals. Higher education institutions (HEIs) are increasingly recognized as pivotal in fostering equitable learning opportunities that contribute to broader social and economic development.

Ugandan higher education has made significant strides in expanding access over the past decades. However, many challenges remain, particularly in ensuring that educational opportunities are equitably accessible to all students. Quality Assurance (QA) practices in education are crucial for maintaining and enhancing the standards of higher education institutions. This paper re-imagines innovative and transformative quality assurance (QA) practices that can enhance accessibility and inclusivity in Ugandan Universities. The emphasis is on creating equitable learning environments that prioritize the welfare and growth of individual students while addressing global concerns such as education for all, human rights, as well as just economic transformation.

Uganda, as a developing nation, faces considerable challenges in providing equitable higher education opportunities. These challenges are often exacerbated by systemic barriers, including inadequate infrastructure, limited access to resources, and exclusionary practices. To address these challenges, it is imperative to rethink existing QA frameworks and develop strategies that promote inclusivity and accessibility.

1.2 Study Objectives

The primary objective of this study was to investigate how innovative Quality Assurance practices can enhance accessibility and inclusivity in Ugandan Universities.

Specific Objectives

The study aimed to:

1. Identify key strategies within QA frameworks that promote inclusivity.
2. Assess the impact of adaptive curricula and accessible learning resources on student outcomes.
3. Explore the role of stakeholder engagement in maintaining effective QA practices.
4. Provide practical recommendations for overcoming barriers to the implementation of inclusive QA practices.

1.3 Hypotheses

Hypothesis 1: Key strategies within QA frameworks that are specifically designed to promote inclusivity will have a significant positive impact on the accessibility of higher education for marginalized student groups in Ugandan Universities.

Hypothesis 2: Implementation of adaptive curricula and the provision of accessible learning resources are positively correlated with improved student outcomes, particularly among students with diverse learning needs in Ugandan Universities.

Hypothesis 3: Active stakeholder engagement, including input from students, faculty, and external bodies, is positively associated with the effectiveness and sustainability of QA practices in promoting inclusivity within Ugandan Universities.

Hypothesis 4: Addressing and overcoming barriers to the implementation of inclusive QA practices through targeted recommendations will lead to significant improvements in the accessibility and inclusivity of QA processes in Ugandan Universities.

1.4 Significance of Accessibility and Inclusivity in Higher Education

Accessibility and inclusivity are essential for ensuring that all students, regardless of their backgrounds or abilities, can benefit from higher education. Promoting these values within higher education not only fosters equity but also enhances the overall quality of education by creating diverse and enriching learning environments.

2.0 LITERATURE REVIEW

2.1 Current Trends in Higher Education Accessibility

Globally, the movement toward enhancing accessibility in higher education has gained significant momentum. Institutions around the world are increasingly recognizing the importance of providing equitable access to education for all students, regardless of their socio-economic status, physical abilities, or geographic location. In Uganda, these efforts are complemented by national policies aimed at promoting inclusive education. Several key trends have emerged as part of this global shift toward greater accessibility and inclusivity.

2.2 Expansion of Financial Aid

One of the most significant trends in promoting higher education accessibility is the expansion of financial aid programs. Governments and educational institutions are increasingly offering scholarships, grants, and student loans to ensure that financial barriers do not prevent students from accessing higher education. For instance, the United States has expanded its federal financial aid programs, including Pell Grants, which are designed to support low-income students (Dynarski, 2002). Similarly, the European Union has implemented the Erasmus+ program, which provides financial support to students from disadvantaged backgrounds to study abroad (European Commission, 2020).

In Uganda, efforts to expand financial aid have been evident through initiatives such as the Higher Education Students' Financing Board (HESFB), which provides loans and scholarships to students pursuing higher education in accredited institutions (Mayanja, 2019). However, despite these efforts, financial barriers remain a significant challenge for many students, particularly those from rural and low-income families (Nakajubi, 2018).

2.3 Development of Flexible Learning Options

Flexible learning options have emerged as another crucial trend in enhancing accessibility in higher education. These options include online learning, blended learning, and part-time study programs that allow students to balance their education with work, family, and other commitments. The COVID-19 pandemic accelerated the adoption of online learning, with many institutions worldwide transitioning to digital platforms to ensure continuity of education (Zawacki-Richter, et al., 2020).

In the context of Ugandan HEIs, the development of flexible learning options has been somewhat limited by challenges such as inadequate internet connectivity and digital literacy. Nonetheless, some universities have begun offering online courses and distance learning programs to reach students who may not have access to traditional campus-based education (Kajumbula, 2006). These initiatives are critical for increasing the participation of non-traditional students, including working adults and those living in remote areas.

2.4 Provision of Comprehensive Support Services for Students with Disabilities

Another key trend in promoting higher education accessibility is the provision of comprehensive support services for students with disabilities. Globally, universities are increasingly implementing measures to ensure that students with disabilities have equal access to educational opportunities. These measures include providing assistive technologies, adapting physical infrastructure, and offering tailored academic support services (Seale, 2013).

In Uganda, the promotion of inclusive education is supported by national policies such as the Persons with Disabilities Act, which mandates that educational institutions provide necessary accommodations for students with disabilities (Republic of Uganda, 2006). Despite these legal frameworks, the implementation of support services for students with disabilities remains inconsistent across Ugandan Universities, with many institutions lacking the resources and expertise needed to fully support these students (Nabukenya, 2011).

2.5 National Policies Promoting Inclusive Education

National policies play a crucial role in shaping the landscape of higher education accessibility. Many countries have enacted legislation and developed strategic frameworks aimed at promoting inclusive education. For example, the United Kingdom's Equality Act (2010) requires higher education institutions to eliminate discrimination and ensure equal opportunities for all students (Equality and Human Rights Commission, 2014).

In Uganda, the government has introduced several policies and initiatives aimed at enhancing accessibility and inclusivity in higher education. The National Policy on Disability in Uganda (2006) and the Education Sector Strategic Plan (ESSP) both emphasize the importance of inclusive education and outline strategies for achieving it (Ministry of Education and Sports, 2017). These policies are complemented by efforts to increase public awareness of the rights of students with disabilities and to promote their inclusion in all aspects of academic life.

2.6 Quality Assurance in Higher Education

Quality Assurance (QA) in higher education is a critical process aimed at maintaining and improving the quality of educational programs and ensuring that they meet predefined standards. QA encompasses a range of activities, including the evaluation of academic programs, faculty performance, institutional governance, and the overall effectiveness of educational processes. Traditional QA approaches have primarily focused on academic performance and institutional efficiency. However, in recent years, there has been a growing recognition of the need to integrate accessibility and inclusivity into QA frameworks to ensure that all students, regardless of their background or abilities, have access to high-quality education.

2.7 Traditional Quality Assurance Approaches

Historically, QA in higher education has been centered on ensuring that institutions meet certain academic standards. This has typically involved periodic reviews of academic programs, accreditation processes, and the assessment of faculty qualifications and student outcomes. These traditional QA mechanisms are designed to guarantee that institutions deliver educational programs that meet the expectations of stakeholders, including students, employers, and government bodies (Harvey & Green, 1993).

Accreditation, in particular, has played a pivotal role in traditional QA systems. Accreditation agencies evaluate higher education institutions based on a set of criteria that often include curriculum quality, faculty credentials, and student performance. Institutions that meet these criteria are granted accreditation, which serves as a mark of quality and credibility (Eaton, 2012). However, these traditional QA practices have been critiqued for their narrow focus on academic standards, often overlooking issues related to accessibility, inclusivity, and the broader social responsibilities of higher education institutions.

2.8 The Evolving Concept of Quality in Higher Education

The concept of quality in higher education has evolved over time, shifting from a purely academic focus to a more holistic view that encompasses various dimensions of educational experience. Quality is now understood to include not only academic excellence but also the relevance of education to the needs of society, the employability of graduates, and the overall student experience (Vlasceanu et al., 2007). This broader understanding of quality necessitates a rethinking of QA frameworks to address the diverse needs of all students, including those from marginalized or underrepresented groups.

2.9 Integration of Accessibility and Inclusivity into QA Frameworks

There is a growing recognition of the need to integrate accessibility and inclusivity into QA frameworks in higher education. This shift reflects the increasing awareness that quality education should be accessible to all students, regardless of their socio-economic status, geographic location, physical abilities, or other characteristics. QA systems that incorporate accessibility and inclusivity are better equipped to ensure that educational institutions provide equitable opportunities for all students and meet the diverse needs of their student populations (Woodhouse, 1999).

Incorporating accessibility into QA involves evaluating how well institutions provide physical and digital access to educational resources and services. This includes assessing the availability of assistive technologies, the accessibility of campus facilities, and the inclusivity of teaching and learning practices. Inclusivity, on the other hand, requires QA processes to examine how well institutions foster a welcoming and supportive environment for students from diverse backgrounds, including those with disabilities, international students, and students from minority groups (Morley, 2003).

2.10 Global Trends in Inclusive Quality Assurance

There is a growing trend towards the inclusion of accessibility and inclusivity in QA frameworks. For example, the European Standards and Guidelines for Quality Assurance (ESG) emphasize the importance of student-centered learning and the need for institutions to consider the diversity of their student populations in their QA processes (European Association for Quality Assurance in Higher Education, 2015). Similarly, the Quality Assurance Agency (QAA) in the United Kingdom has developed guidelines that encourage institutions to adopt inclusive practices in their QA processes, ensuring that all students have equal opportunities to succeed (QAA, 2018).

The African Union has also recognized the importance of inclusive QA practices. The African Quality Rating Mechanism (AQRM) was developed to promote the harmonization of QA standards across the continent and to encourage institutions to adopt inclusive practices that address the needs of diverse student populations (African Union, 2012).

In Uganda, the National Council for Higher Education (NCHE) has been working to integrate inclusivity into its QA processes, with a focus on ensuring that higher education institutions provide accessible and equitable education to all students (NCHE, 2014).

3.0 METHODOLOGY

3.1 Research Design

This study employed a survey research design and the mixed-methods approach, combining qualitative and quantitative research methods. The qualitative component involved questionnaires with open-ended questions with key stakeholders, while the quantitative component included analysis of institutional data from Ugandan universities that have implemented inclusive QA practices.

3.2 Data Collection Methods

Qualitative data were collected through semi-structured questionnaires with university administrators, faculty members, policymakers, and students. Quantitative data were obtained from institutional records, including student performance metrics, retention rates, and satisfaction surveys.

3.3 Data Analysis Techniques

Quantitative data were analyzed using statistical methods to assess the effectiveness of various QA practices in promoting accessibility and inclusivity. Thematic analysis was used to identify common themes and strategies from the qualitative data.

4.0 DISCUSSION OF THE FINDINGS

Section 1: Demographic Information

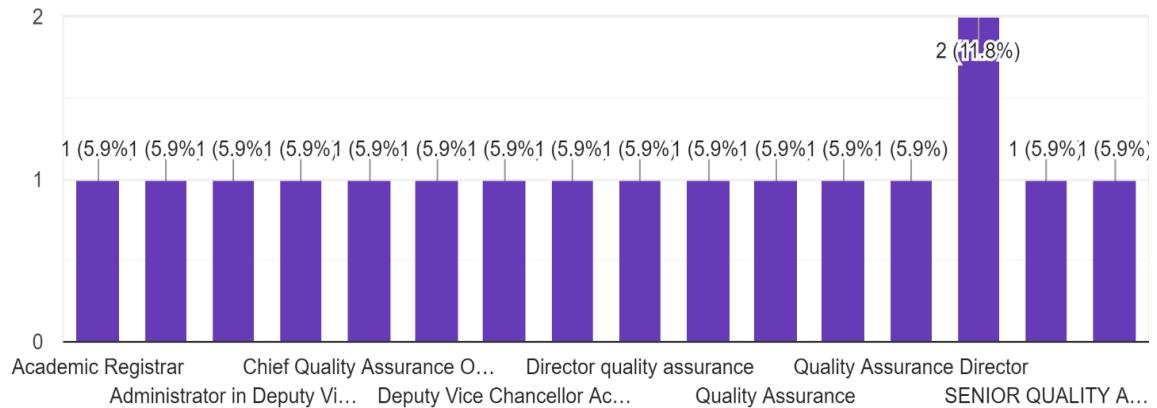
Table 1. Name of your University

S/N	Name of the University	Category (Public /Private)
1.	African Rural University	Private
2.	Clarke International University	Private
3.	Islamic University In Uganda	Private
4.	Kabale University	Public
5.	Kampala University	Private
6.	Kyambogo University	Public
7.	Makerere University Business School	Public
8.	Mbarara University of Science and Technology	Public
9.	Ndejje University	Private
10.	Nexus International University	Private
11.	Nkumba University	Private
12.	St. Ignatius University - Kabale	Private
13.	Victoria University	Private

Figure 1. Position at the University

2. Position held at the University

17 responses

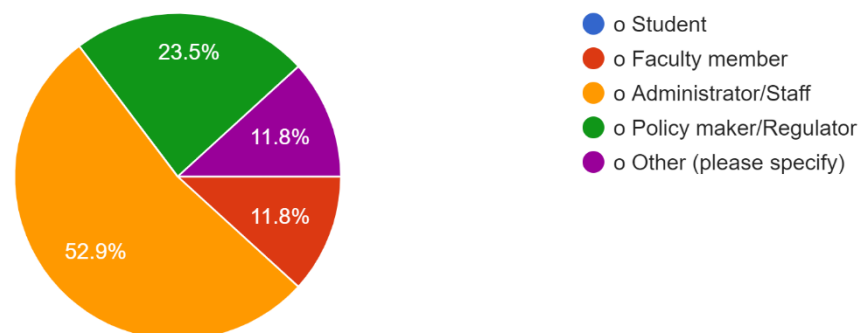


The findings revealed that, the key respondents included QAOs, SQAOs, DQAs, Academic Registrars and DVCs of which the majority were university officers directly involved with QA operations 14(82%). If given adequate training, they will be in position to promote the accessibility and inclusivity in Ugandan Universities.

Figure 2. Primary role at the University

3. What is your primary role within the University?

17 responses

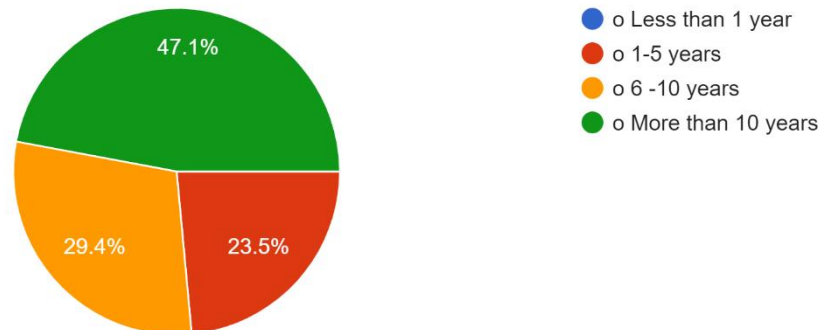


Data revealed that the majority of the respondents constituted 9(52.9%) represented administrators /staff. While 4(23.5 %) represented policy makers/regulators, 2(11.8%) represented faculty members and 2(11.8%) represented others. These administrators /staff, once given an opportunity could be in position to promote accessibility and inclusivity in Ugandan Universities.

Figure 3. Years involved in HE

4. How many years have you been involved in higher education?

17 responses

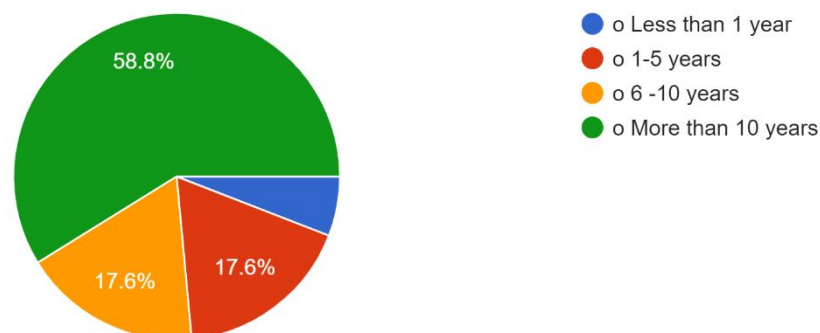


The findings revealed that most of the respondents had served some long enough in higher education. 8(47.1%) had more than 10 years, 5(29.4%) had 6-10 years, only 4(23.5%) had 1-5 years. Majority of the QA practitioners have had substantive expertise in higher education and will be in position to promote accessibility and inclusivity in Ugandan Universities.

Figure 4. Years involved in Ugandan HE

5. How many years have you been involved in higher education in Uganda?

17 responses

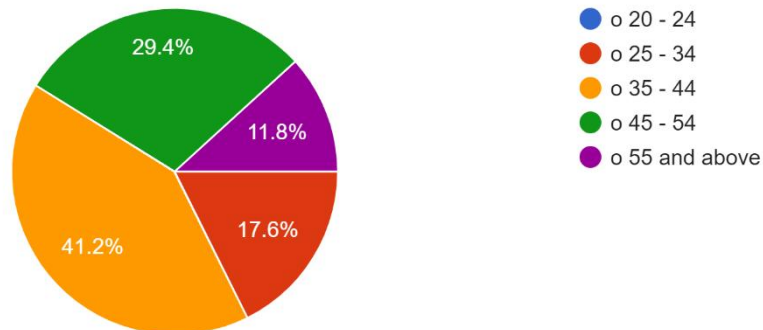


Data further indicated that majority of these respondents 16(94%) have even served longer in Ugandan Universities. 10(58.8%) respondents have served more than 10 years, 3(17.6%) served between 6-10 years, and 3(17.6%) served between 1-5 years. Only 1(5.8%) respondent stated to have served for less than 1 year. This indicates that majority of the QA practitioners who have been involved in Ugandan HEI will be in position to promote the accessibility and inclusivity agenda in Ugandan universities.

Figure 5. Age Group

6. What is your age group?

17 responses

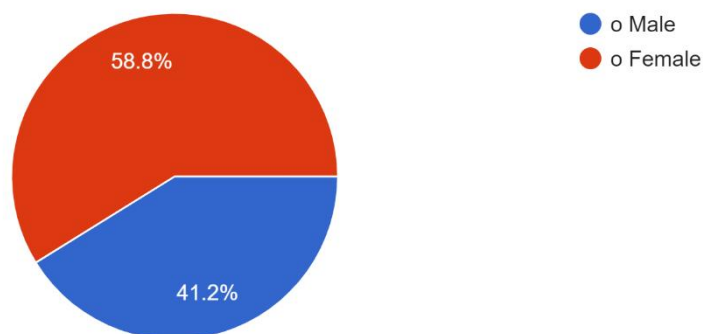


Majority of the respondents 15(88%) were below 54 years old. 3(17.6%) were between 25-34 years old respondents, 7(41.2%) were between 35-44 years old, and 5(29.4%) were between 45-54 years old. Only 2(11.8%) respondents were 55 years old and above. This shows that majority of the QA practitioners are young and energetic enough to promote the accessibility and inclusivity schema in Ugandan universities.

Figure 6. Sex Category

7. What is your Sex?

17 responses



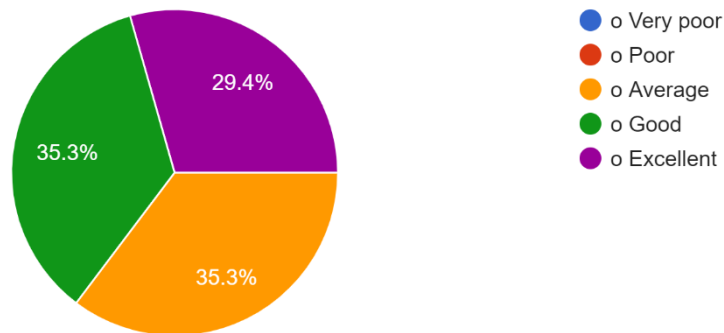
The findings revealed that 10(58.8%) respondents were females, and 7(41.2%) were males. A feminine tact could be critical in addressing this fundamental QA component of accessibility and inclusivity in Ugandan Universities.

Section 2: Accessibility in Higher Education (Access to Infrastructure & Education)

Figure 7. Accessibility to Physical Infrastructure

Section 2: Accessibility in Higher Education (Access to infrastructure & education) 8. How would you rate the accessibility to the physical infrastructure... (classrooms, offices, laboratories, libraries etc.)?

17 responses

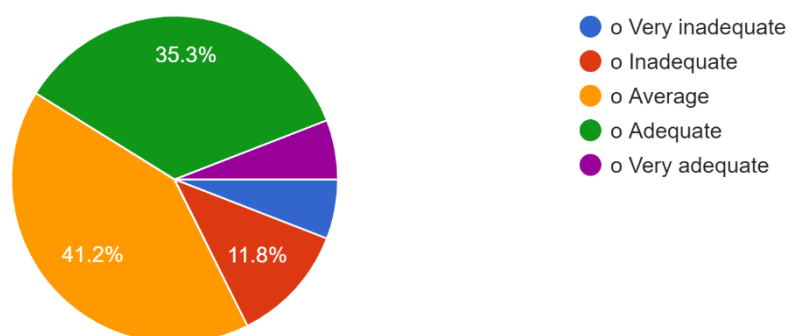


The findings revealed that overall, respondents considered access to physical infrastructure and education in Uganda's HE as either good 6(35.3%) or average 6(35.3%). Only 5(29.4%) considered it as excellent. This is an indication that there is an urgent need for an intervention of the QA Frameworks in Uganda's higher education.

Figure 8. Provisions for Students with Disability at the HEI

9. Are there adequate provisions for students with physical disabilities at your higher education institution?

17 responses



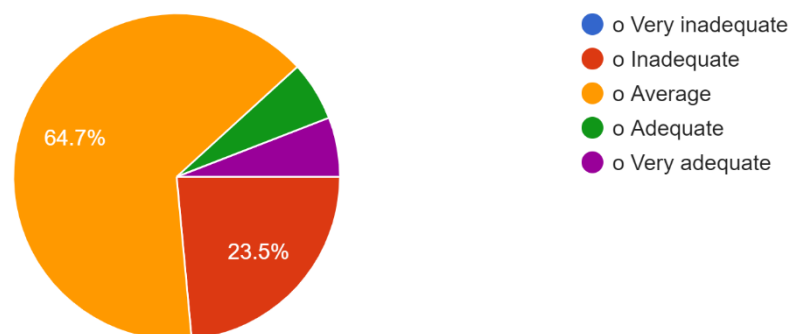
Data were very unsettling on whether there was adequate provision for students with physical disability at the respective HEIs. Majority of the respondents 10(58.8%) indicated that provisions were either average 7(41.2%), inadequate 2(11.8%), or very inadequate 1(5.9%). Only 6(35.3%) indicated that provisions

were adequate, and 1(5.9%%) indicated very inadequate. This response points to that fact that such provisions are either lacking or may not be within acceptable standards. An intervention is, therefore, needed within the HEI QA Frameworks to ensure adequate provisions for students with physical disabilities.

Figure 9. Provisions for Students with Disability in Uganda’s HEI

10. Do you think most higher education institutions in Uganda have adequate provisions for students with physical disabilities?

17 responses

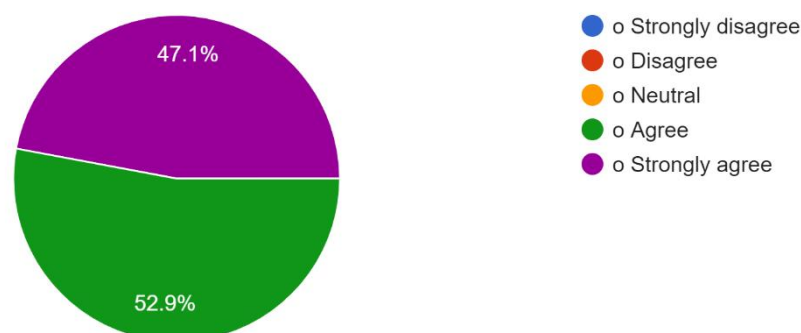


Responses on whether there was adequate provision for students with physical disability at Uganda’s HEIs were more revealing compared to those on *respective HEIs*, as expected. Most of the respondents 15(88.2%) indicated that provisions were either average 11(64.7%) or inadequate 4(23.5%). Only 2(11.8%) indicated adequate, and very adequate, respectively. Similarly, an intervention is needed within the HEI QA Frameworks to ensure adequate provisions for students with physical disabilities.

Figure 10. Effect of Financial Constraint on Uganda’s HEI

11. To what extent do you think financial constraints affect access to higher education in Uganda?

17 responses



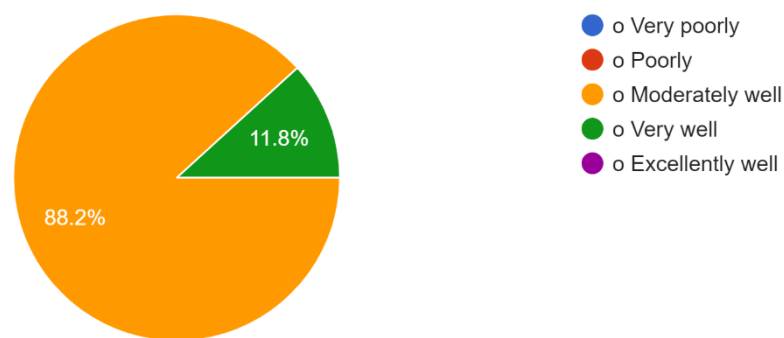
The findings revealed that, financial constraints significantly affect access to higher education in Uganda. 9(52.9%) respondents were in agreement and 8(47.1%) were strongly in agreement. This confirms that all the respondents were in total agreement. And this urgently calls for an intervention for adequate financial provisions, such as student loan scheme, to reach all needy students, not just limited to a few. This should be emphasized within the QA Frameworks for Ugandan higher education.

Section 3: Inclusivity in Higher Education (Focus on Diversity)

Figure 11. Uganda's HEI and Diversity

Section 3: Inclusivity in Higher Education (Focus on diversity) 12. In your opinion, how well do higher education institutions in Uganda cater to students from diverse cultural backgrounds?

17 responses

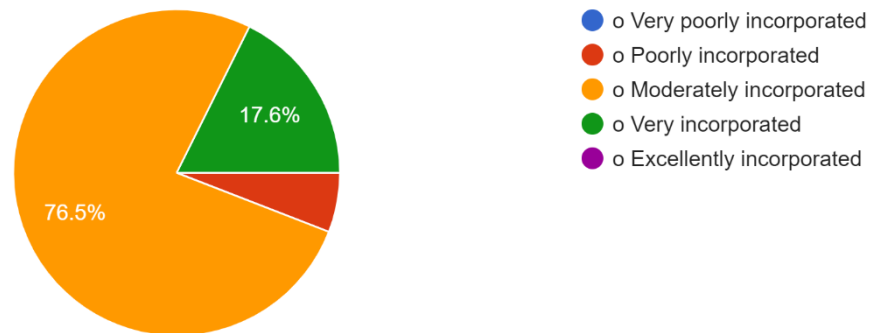


Uganda is a fairly diverse country; the researchers had expected majority of the responses to reflect “very well 2(11.8%)” and “excellently well (0%)”. Interestingly, majority of the respondents 15(88.2%) indicated that higher education institutions in Uganda only cater “moderately well” to students from diverse cultural backgrounds. This calls for an intervention for the HEIs to cater for students diverse and it should be emphasized within Uganda’s QA Frameworks. At the university level, possible intervention could comprise collaboration initiatives between faculty, administrators, and policymakers to promote continuous professional development and training for faculty members, as well as development of institutional policies that support inclusivity. This is crucial for the successful implementation of inclusive QA practices.

Figure 12. Incorporating Technology in HEI Curricula

13. In your opinion, how well do curricula of higher education institutions in Uganda incorporate technology-enhanced learning tools?

17 responses

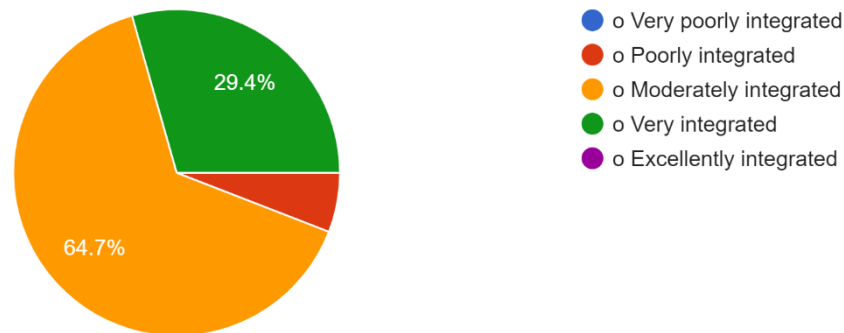


The findings revealed that, higher education institutions in Uganda feebly incorporate technology-enhanced learning tools in their curriculum. Majority of the respondents 13(76.5%) indicated that Uganda's HEIs moderately incorporatetechnology-enhanced learning toolsin their curriculum and 1(5.8%) indicated that they poorly incorporate these tools. Only 3(17.6%) indicated that Uganda's HEIscurriculum are very incorporated with technology-enhanced learning tools. This urgently calls for an intervention of the HEIs to incorporate technology-enhanced learning tools in their curriculum and it should be equally emphasized within the QA Frameworks in Ugandan higher education. The use of technology-enhanced learning tools, such as learning management systems and online collaboration platforms, has been instrumental in promoting accessibility. These tools enable staff and students to access course materials and participate in cross-border and inter-continental discussions which are healthy for individual exposure, capacity building and mindset change.

Figure 13. Integrating Inclusive Assessment Methods in HEI Curricula

14. In your opinion, how well do curricula of higher education institutions in Uganda integrate inclusive assessment methods?

17 responses

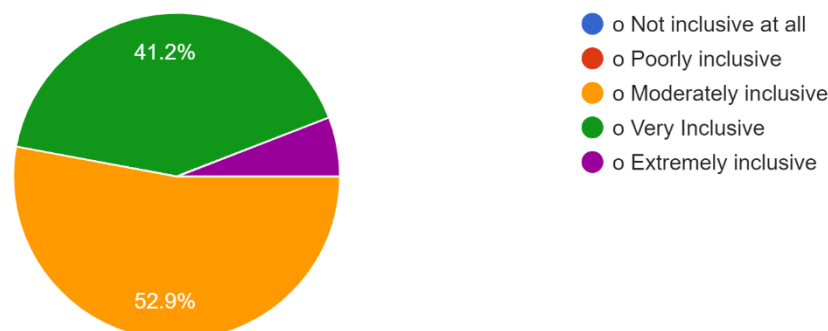


Data revealed that higher education institutions in Uganda is on the trajectory to integrating inclusive assessment methods in the curricula but they could do better. 11(64.7%) of the respondents indicated that inclusive assessment methods were moderately integrated in Uganda's HEI curricula whereas 1(5.9%) respondent indicated that it was poorly integrated. 5(29.4%) respondents indicated that inclusive assessment methods were very integrated in the curricula. There is need for HEIs to be encouraged and trained to integrated inclusive assessment methods in their curriculum and this should be emphasized within the QA Frameworks in Ugandan higher education.

Figure 14. Curriculum Inclusive

15. Overall, how inclusive do you consider the curriculum of HEIs in Uganda?

17 responses



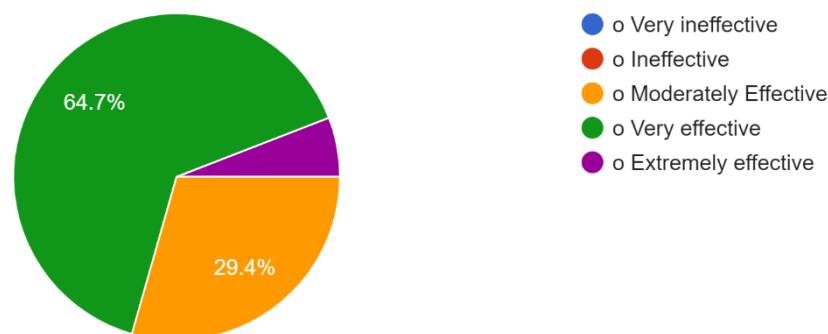
Overall, data confirmed 17(100%) that Uganda's higher education institutions consider inclusivity in their curriculum. 9(52.9%) respondents indicated that Uganda's HEI curricula are moderately inclusive, 7(41.2%) are very inclusive, and 1(5.8%) are extremely inclusive. This result is as expected and is an indicator that Uganda's HE QA Frameworks can certainly help Uganda's HEIs to be fully compliant with the inclusive agenda.

Section 4: Quality Assurance Practices

Table 15. Effectiveness of QA Mechanisms

Section 4: Quality Assurance Practices 16. How effective are the quality assurance mechanisms (e.g., accreditation processes) in ensuring high standards in Uganda's higher education institutions?

17 responses

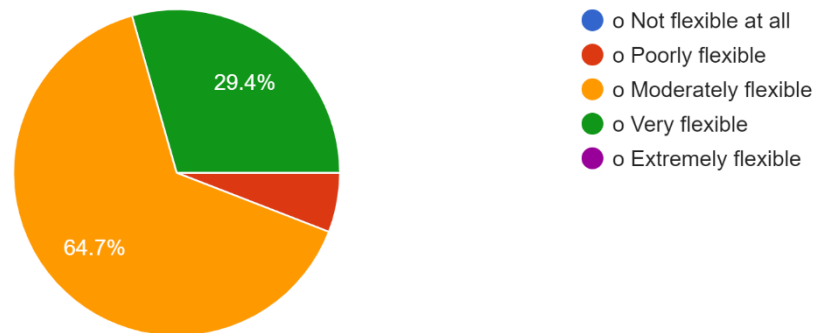


With respect to the effectiveness of the quality assurance mechanisms (e.g., accreditation processes) in ensuring high standards in Uganda's higher education institutions, 11(64.7%) indicated that the QA mechanisms are very effective, 5(29.4%) indicated moderately effective, and 1(5.8%) indicated that Uganda's QA mechanisms are extremely effective in ensuring high standards in the HEIs. Maybe the moderately effective responses might have to be explored further!

Figure 16. Flexibility of Accreditation Processes

17. To what extent would you perceive flexibility in accreditation processes of Uganda's higher education institutions

17 responses

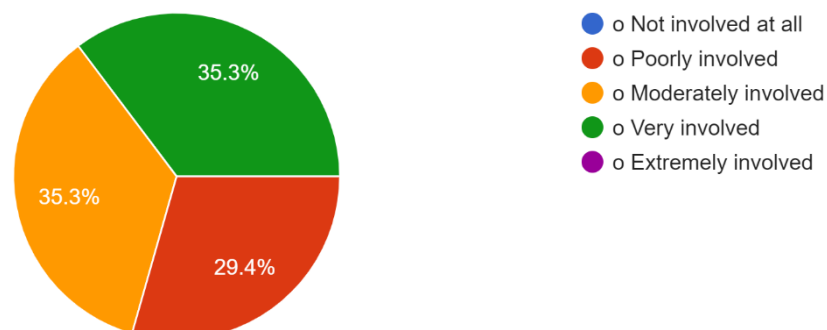


Uganda's HEIs perceive the accreditation processes to be 11(64.7%) were moderately flexible, 5(29.4%) very flexible, and 1(5.8%) poorly flexible. Flexible accreditation processes tend to i) motivate and/or yield innovative and creative curricula, ii) recognizes diverse educational pathways and prior learning experiences, and ii) contribute to greater inclusivity. These processes ensure that HEI are driven to support students who have the opportunity to pursue higher education, regardless of their background or previous educational experiences.

Figure 17. Student Involvement in QA Processes

18. To what extent are students involved in the quality assurance processes of higher education institutions in Uganda?

17 responses



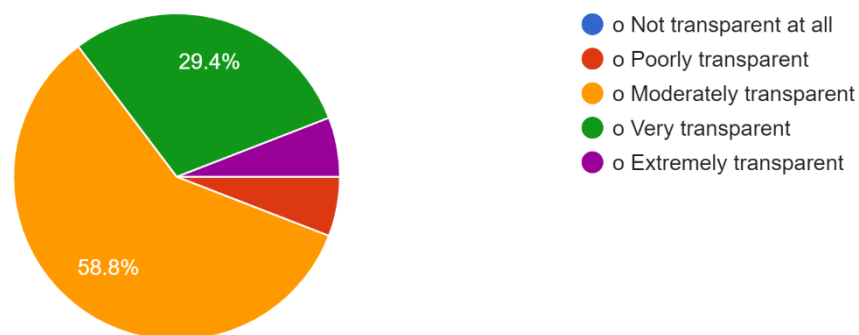
Data revealed that Ugandan students are generally involved 12(70.6%) in the HEI quality assurance processes. Respondents indicated that students were

very involved 6(35.3%), were moderately involved 6(35.3%), and poorly involved 5(29.4%). Engaging students in the QA process is essential for ensuring that their needs and perspectives are considered. This can be achieved through student surveys, focus groups, and representation on senate committees i.e., QA committees etc.

Table 18. Transparency of QA Processes

19. To what extent would you perceive transparency of quality assurance processes in Uganda's higher education institutions?

17 responses



Responses on transparency of QA processes in Uganda's HEIs was quite interesting. Most respondents 15(88.2%) indicated that quality assurance processes in Uganda's higher education institutions were either moderately transparent 10(58.8%) or very transparent 5(29.4%). 1(5.9%) indicated that extremely transparent and 1(5.9%) indicated poorly transparent. An intervention is needed within the HEI QA Frameworks to ensure transparency of quality assurance processes in Uganda's higher education institutions.

Table 2. Practical recommendations to address challenges in QA practices

20. Please suggest practical recommendations to address any challenges and barriers in <u>Uganda's</u> Quality Assurance Practices. These suggestions should highlight opportunities to promote innovative approaches in higher education institutions.	
S/N	Responses
1.	Sensitization of university management about QA roles and should be prioritized
2.	Integration of technology practices like use of AI in QA practices and processes
3.	Integrate technology in teaching and learning, include all key players in the processes.
4.	To involve all stakeholders in quality assurance practices like students, alumni and industry
5.	HEIs should encourage continuous capacity building, refresher QA trainings and awareness on the promotion of innovative approaches in their institutions and the emerging issues that come along the way.
6.	Empowering effectively the QA Directorates
7.	It was realized that with initiation of new universities QA units should be established and facilitated by their respective institutions.
8.	The cost internet to students should be negotiated and lowered.
9.	Provide financial support for QA implementation.
10.	University autonomy to self-regulate new and innovative curricula.
11.	Encourage student involvement in developing practical skills programs
12.	Examination assessments based on 70/30 as opposed to the current 30/70.
13.	Flexibility with credit transfers from universities across the globe with varying qualifications framework.
14.	Regulatory bodies should define a collegial other than policing environment.
15.	Establish a National higher education day where all aspects can be addressed with possible stakeholders
16.	Uniformity of practices of regulating, monitoring and responding to quality assurance within HEIs.

Section 5: Additional Feedback

Table3. Suggestions to Enhance Accessibility and Inclusivity

21. Kindly suggest how <u>Ugandan</u> higher education institutions can enhance accessibility and inclusivity while upholding the highest quality standards	
S/N	Responses
1.	By designing Quality Control tools for all departments (Teaching and Non- teaching)
2.	Keeping up with the changing trends within the education system such as use of online teaching methods to make education accessible to everyone at their convenience
3.	Consider blended learning approach to teaching and learning
4.	IUCEA, NCHE, UUQAF and UVCF they all need to work together
5.	Provision of financial services to facilitate the accessibility and inclusivity areas
6.	From the QA training perspective of the various departments in the university, it is necessary to enhance accessibility and inclusivity as well as benchmarking across the various HEIs.
7.	More awareness at both Institutional (Universities) and National Levels
8.	Institutional Infrastructural development
9.	Awareness creation and sensitization
10.	Facilitation of QA units in institution
11.	Through inclusion of all stake holders
12.	By making Education more accessible to pursue further learning
13.	1. Deliberate lecturer and staff re-tooling to embrace technology 2. Fully digitalize all university units and departments 3. Emphasis on staff and student mobilities 4. Extensive student-led community engagement programs 5. Encourage local and international collaborations
14.	By adhering to the national and international guidelines and also working with the people responsible
15.	Producing a recommended QA framework of methods and processes to improve institutional quality and assist in responding to accessibility and inclusivity issues that impact on delivery of a quality education.

5.0 RECOMMENDATIONS, POLICY IMPLICATIONS, AND CONCLUSION

5.1 Recommendations and Policy Implications

Implementing innovative QA practices can be challenging due to institutional and systemic barriers. These challenges include resistance to change, limited resources, and lack of awareness about the importance of inclusivity and accessibility. Several recommendations to overcome challenges and enhance inclusivity and accessible were provided (tables 20 and 21 above) to address challenges and barriers in Uganda's Quality Assurance Practices. These suggestions highlighted opportunities to promote innovative approaches in higher education institutions. The need for ongoing training and support for faculty and staff, as well as the development of infrastructure and resources that support accessibility were highlighted.

To overcome these challenges, institutions should adopt a phased approach to implementing QA practices, starting with pilot programs and gradually expanding them (needs based). Additionally, securing funding and resources for inclusivity initiatives, this is crucial for the success of such approach. This research identified key strategies for promoting inclusivity and accessibility in higher education:

1. **Adaptive Curricula:** Developing curricula that can be tailored to meet diverse learning needs of students. It aims to provide a personalized learning experience, optimize student outcome, increased student engagement, increased teacher effectiveness, and efficient data-driven instructions.
2. **Accessible Learning Resources:** Providing learning materials and tools in multiple formats to accommodate different abilities.
3. **Inclusive Teaching Methodologies:** Employing teaching methods that cater to a wide range of learning styles and abilities.

Adaptive Curricula and Accessible Learning Resources

Adaptative curricula i) promotes student assessment and feedback which calls for continuous evaluation to identify knowledge gaps and adjust the instruction methods accordingly, ii) supports learning pathways; learning routes are customized basing on student performance, interests and goals, iii) enables real-time adjustments of instructional content so as to adapt to student's pace,

progress and needs, iv) incorporates the use of digital tools and platforms to facilitate adaptive learning, and v) builds lecturer capacity through continuous guidance and resource readiness to implement the curricula. Institutions that have successfully integrated inclusive QA practices have developed adaptive curricula and accessible learning resources. These include digital text and e-books, online courses, and other materials that are designed to be accessible to students with diverse abilities and disabilities and can be used in various education settings.

Inclusive Teaching Methodologies

Inclusive teaching methodologies, such as Universal Design for Learning (UDL), have been shown to enhance accessibility. UDL involves designing courses that accommodate a wide range of learning styles and abilities, ensuring that all students can participate fully in the learning process. This approach is not exclusive to only HEIs. Culturally responsive teaching, technology integration, flex groups, tiered assignments, co-teaching etc., should be mainstreamed by the Ugandan QA Framework and adopted by HEIs if they are to remain relevant in the 21st century and compete in the 4th industrial revolution.

Ugandan QA Framework should incorporate this strategy and enhance adaptive curricula, accessible learning resources, and inclusive teaching methodologies so as to create a supportive and engaging learning environment to promote academic excellence and social inclusion for learners from all walks of life.

Institutions should develop policies that promote inclusive QA practices, such as mandatory training for faculty and staff on accessibility issues and the establishment of support services for students with disabilities.

5.2 Implications for Future Research

Future research should explore the long-term impact of inclusive QA practices on student outcomes, as well as the effectiveness of different strategies in various educational contexts. Additionally, studies should investigate the role of technology in enhancing accessibility and inclusivity.

5.3 Conclusion

Quality assurance in higher education is evolving to encompass a broader understanding of what constitutes quality. The integration of accessibility and

inclusivity into QA frameworks is essential to ensuring that learners have access to high-quality education that meets their diverse needs. While challenges remain in implementing these inclusive QA practices, the opportunities they present for enhancing educational outcomes and promoting social equity are significant. As higher education institutions continue to adapt to the changing demands of society, the emphasis on inclusive and accessible QA practices is likely to become increasingly important.

5.4 Future Directions for Research

Future research should continue to explore the impact of innovative QA practices on student outcomes and the effectiveness of different strategies in various educational contexts.

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**Determinants of Infant Mortality rate among Teenage Mothers in
Namwendwa, Kitayunjwa and Bugulumbya Subcounties Kamuli District,
Uganda**

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Abstract

The objective of the study was to assess the assess determinants of infant mortality rate among teenage mothers in Namwendwa, Kitayunjwa and Bugulumbya Sub-counties Kamuli District, Uganda. In the study, a cross-sectional study design was employed to examine the determinants of infant mortality rate among 384 teenage mothers selected by purposive sampling. A pre-tested structured questionnaire was used to collect data after seeking approval from the university and district Authority. Chi square tests were used to assess the association between infant mortality and its determinants. All statistical tests were two-tailed and P-value less than 0.05 were considered significant and odd ratio was used as a measure of association. The study results showed that Infant mortality was influenced by marital status, housing condition, birth weight, parity, ANC attendance, place delivery. The study therefore recommends that the Ministry of Health should strengthen maternal education programs and enhance support systems for unmarried mothers through counseling, social support networks, and economic empowerment initiatives.

Keywords: Infant Mortality; Teenage Mothers; Infant; Neonatal Mortality,

Neonates, Obstetric

1. INTRODUCTION

Infant mortality is defined as the death of an infant before reaching one year of age. It is a critical indicator used to assess the overall health and development of a society, as well as a measure of the effectiveness of public health strategies aimed at improving maternal and child health. The infant mortality rate (IMR) is typically expressed as the number of infant deaths per 1,000 live births in a given year (World Health Organization [WHO], 2021). IMR serves as a vital benchmark for evaluating the quality of healthcare systems, nutrition, and living conditions in different regions, highlighting socio-economic disparities and access to health services.

Globally, infant mortality remains a major concern, particularly in low-income and middle-income countries. According to the United Nations (UN) report on child mortality, more than 5 million children under the age of five die every year, and approximately 2.5 million of these deaths occur in the first month of life. Of these, 1 million infants die on the first day, and nearly 1 million more die within the next six days (United Nations, 2020). This high global burden of infant mortality is disproportionately borne by low-income nations, especially those in Sub-Saharan Africa and South Asia, where access to quality healthcare, education, and nutrition is often limited.

In contrast, developed nations, such as those in Europe and North America, have achieved significant reductions in infant mortality due to advanced healthcare systems, improved nutrition, sanitation, and prenatal care. The IMR in developed countries is substantially lower than in less developed regions, with some countries reporting rates as low as 3-5 infant deaths per 1,000 live births (OECD, 2020). In these countries, a key focus has been on providing universal access to healthcare, maternal education, and social support to reduce infant mortality and improve maternal health outcomes. Teenage pregnancy, while still a risk factor, generally results in lower infant mortality compared to developing countries due to the availability of better healthcare services and support systems.

Sub-Saharan Africa has the highest infant mortality rate globally, with the WHO reporting an average of 50-70 deaths per 1,000 live births, far exceeding the global average (World Health Organization, 2020). Several factors contribute to this high rate, including limited access to healthcare, poor sanitation, malnutrition, and socio-economic inequalities. Moreover, countries

in Sub-Saharan Africa face challenges such as inadequate maternal healthcare services, a high prevalence of infectious diseases, and poor infrastructure, all of which contribute to a higher risk of infant mortality. In Africa, infant mortality rates among teenage mothers are notably higher due to factors such as early pregnancies, inadequate prenatal care, and socio-cultural barriers that affect maternal health.

East Africa, home to countries such as Kenya, Tanzania, Uganda, and Rwanda, has made strides in reducing infant mortality but continues to face significant challenges, especially regarding teenage pregnancies. In the East African region, factors like cultural norms, poverty, limited access to reproductive healthcare, and low educational attainment contribute to higher rates of teenage pregnancy and, consequently, infant mortality. Teenage mothers are at a higher risk of experiencing adverse pregnancy outcomes such as preterm births, low birth weight, and higher rates of neonatal death (Bantebya et al., 2016). A study in Kenya found that teenage mothers are more likely to deliver low birth weight infants and face difficulties accessing proper prenatal and postnatal care, further exacerbating the risk of infant mortality (Wambui et al., 2018).

In Uganda, the situation remains dire, with the country struggling to address the high rates of teenage pregnancy and the resulting infant mortality. According to the Uganda Bureau of Statistics (UBOS), approximately 25% of teenage girls in Uganda have given birth by the age of 18 (UBOS, 2020). The national infant mortality rate stands at 43 deaths per 1,000 live births, but in regions such as the Busoga sub-region, this rate is significantly higher, at 53 per 1,000 live births (UBOS, 2020). Teenage pregnancy in Uganda is often associated with a lack of comprehensive sex education, early marriages, and cultural norms that encourage early childbearing. Additionally, many teenage mothers lack access to skilled birth attendants and proper prenatal and postnatal care, further increasing the risks of infant mortality (Malachi et al., 2022).

Teenage mothers in Uganda are particularly vulnerable due to factors such as limited healthcare access, socio-economic disadvantages, and cultural practices that hinder their ability to make informed decisions about their reproductive health. Studies have shown that teenage pregnancies are more likely to result in complications such as low birth weight, preterm birth, and neonatal deaths (Namyalo, 2024).

In Uganda's rural areas, including the Busoga sub-region, where Kamuli District is located, the rates of teenage pregnancy and infant mortality are disproportionately high. Between the years 2019-2021, Kamuli District alone recorded over 3,570 teenage pregnancies, with a teenage pregnancy prevalence of 35.8% in 2021, surpassing the national rural average of 27% (UNFPA, 2021; Kamuli District Health Statistics, 2021).

2. MATERIALS AND METGHODS

This study employed an analytical cross-sectional study design using a quantitative approach. This design enabled the researcher to gather data from respondents at a single point in time, allowing for an assessment of the determinants of infant mortality among teenage mothers. The study was conducted in Kamuli District, Uganda. Kamuli District is bordered by Buyende District to the north, Luuka District to the east, Jinja District to the south, and Kayunga District to the west. The district headquarters, Kamuli, is located approximately 74 kilometers (46 miles) north of Jinja, the largest city in the Busoga sub-region.

The study population comprised teenage mothers aged 15 to 19 years who had experienced their first pregnancy or childbirth between the ages of 13 and 19. The respondents were purposively selected from different parishes within Kamuli District with the assistance of local leaders. The following were the eligibility criteria:

Inclusion Criteria

- Teenage mothers aged 15-19 years who consented to participate in the study.
- Those who had experienced their first pregnancy between ages 13-19 years.

Exclusion Criteria

- Teenage mothers without pregnancy experience.
- Those younger than 15 years or older than 19 years.
- Those who declined to give consent.

The sample size was determined using the formula for prevalence studies by Leslie Kish (1965):

Where:

n= Sample size

$Z = 1.96$ (Standard normal deviate at 95% confidence interval)

$p = 0.50$ (Estimated prevalence of infant mortality among teenage mothers)

$= 1 - p = 0.50$

$e = 0.05$ (Degree of precision)

To account for non-response and incomplete questionnaires, an additional 10% was added, resulting in a final sample size of 385 respondents

Purposive sampling was used to identify eligible teenage mothers. Local leaders assisted the study team in identifying potential respondents who met the study criteria. A total of 385 teenage mothers were interviewed.

Infant mortality: Defined as the death of an infant before reaching one year of age. While the independent variables were maternal factors: Age, education level, place of residence, religion, nutrition practices, and housing conditions. Child-related factors: Sex of the infant, immunization status, birth order, APGAR score at birth, birth weight, mode of birth (C-section or normal delivery), gestational age, birth interval. Obstetric factors: Age at first birth, parity, history of abortion, contraceptive use, type of pregnancy, ANC attendance, and place of delivery.

Structured interviews were conducted using a questionnaire administered by trained research assistants. The questionnaire included sections on socio-demographic characteristics, maternal factors, child-related factors, obstetric factors, and infant mortality. A structured questionnaire was used to gather data through face-to-face interviews. The questionnaire was translated into Lusoga and then back-translated into English for accuracy. It contained both closed-ended and structured questions organized into four sections:

Data were entered and analyzed using Statistical Package for Social Sciences (SPSS) version 26.0. The analysis was performed as follows: Univariate Analysis: Descriptive statistics such as frequencies and percentages were used to summarize demographic characteristics. Bivariate Analysis: Chi-square tests were performed to examine associations between independent variables and infant mortality. A p-value of <0.05 was considered statistically significant. Multivariate Analysis: Binary logistic regression was used to assess the combined effect of statistically significant independent variables on infant mortality. Adjusted odds ratios (AOR) and their confidence intervals were calculated.

To ensure reliability and validity: A pre-test was conducted on 15 respondents from Luuka District to refine the questionnaire. Research assistants were trained in data collection techniques and ethical considerations. Data entry was performed twice to identify and rectify discrepancies. Incomplete or inaccurate questionnaires were discarded.

Approval was obtained from the university ethics review board. Permission was sought from local district authorities and health facilities. Informed consent was obtained from all participants before data collection. Confidentiality was maintained by anonymizing responses and securely storing data.

3. RESULTS AND DISCUSSIONS

3.1 Demographics

The study collected demographics of the respondents and the data is indicated in Table 3.1 below.

Table 3.1: Descriptive analysis of demographic characteristics of the respondent

Variables	Frequency n	Percentage %
Age of the respondents		
<18 years	105	27.3
18-19 years	279	72.7
Religion		
Christians	276	71.9
Muslim	108	28.1
Highest level of education		
Primary	205	53.4
Secondary	179	46.6
Place of residence		
Rural	355	92.4
Urban	29	7.6
Marital status		
Married	203	52.9
Not married	181	47.1
Age at married		
10-14 years	193	95.1
15-19 years	10	4.9
Average monthly income		
≤108,000 shillings	331	88.0
>108,000 shillings	53	12.0

Source: Primary Data 2024

Table 3.1 shows that majority of the respondents were aged 18-19 years (72.7%) and were Christians (71.9%). More than half had attained primary education (53.4%), and most resided in rural areas (92.4%). A slight majority were married (52.9%), with nearly all of them having married between the ages of 10-14 years (95.1%). lastly, the majority had an average monthly income of 108,000 shillings or less (88.0%).

3.2 Infant mortality

Figure 3.1 shows that 39(10.2%) of the children whose mothers were interviewed had died before their first birthday.

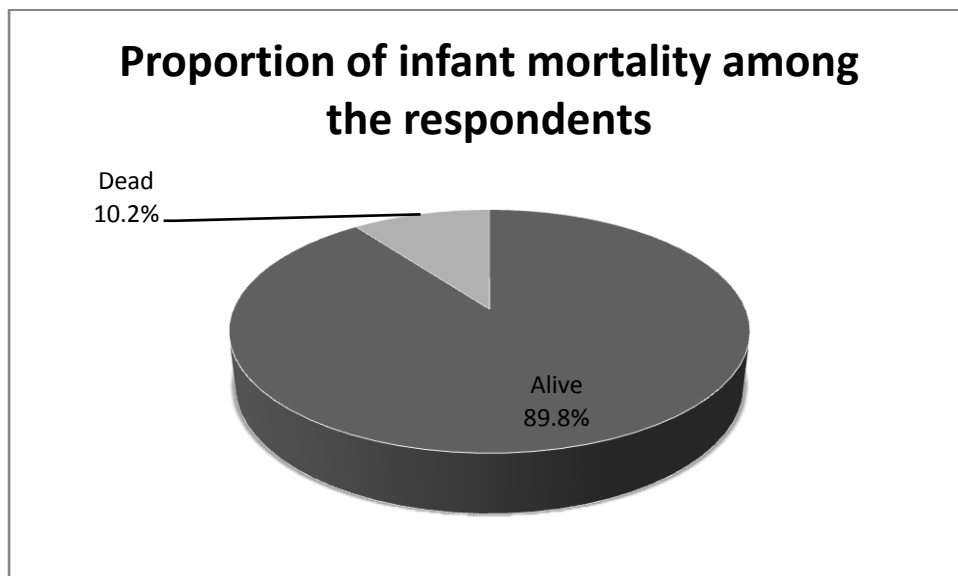


Figure 3.1: Infant mortality rate

Table 3.2: Maternal determinants of infant mortality rate among teenage mothers

Variables	Infant mortality		COR(95% CI)	p-value
	Yes (%)	No (%)		
Age of the respondents				
<18 years	10(9.5)	95(90.5)	1.0	
18-19 years	29(10.4)	250(89.6)	1.102(0.517-2.348)	0.801
Religion				
Christians	30(10.9)	246(89.1)	1.0	
Muslim	9(8.3)	99(91.7)	0.745(0.342-1.627)	0.461
Highest level of education				
Primary	15(7.3)	190(92.7)	1.0	
Secondary	24(13.4)	155(86.6)	1.961(0.995-3.868)	0.052
Malaria prophylaxis				
IPT1	24(12.4)	170(87.6)	1.0	
IPT	9(7.0)	119(93.0)	0.759(0.295-1.951)	0.567
Unknown	6(9.7)	56(90.3)	1.417(0.481-4.175)	0.528
Tetanus toxoid vaccination				
TT1	5(5.7)	83(94.3)	1.0	
TT2	11(9.7)	102(90.3)	2.371(0.714-7.879)	0.159
TT3	16(12.6)	111(87.4)	1.325(0.484-3.626)	0.584
Unknown	7(12.5)	49(87.5)	0.991(0.383-2.562)	0.985
Place of residence				
Rural	34(9.6)	321(90.4)	1.0	
Urban	5(17.2)	24(82.8)	1.967(0.705-5.489)	0.196
Marital status				
Married	34(16.7)	169(83.3)	1.0	
Not married	5(2.8)	176(97.2)	1.410(1.101-2.370)	<0.001*
Average monthly income				
≤108,000 shillings	34(10.3)	297(89.7)	1.0	
>108,000 shillings	5(9.4)	48(90.6)	0.910(0.339-2.442)	0.851
Source of drinking water				
Protected well	31(9.2)	307(90.8)	1.0	
Tap	8(17.4)	38(82.6)	2.085(0.894-4.864)	0.089
Type of roof of the house				
Grass thatched	5(25.0)	15(75.0)	1.0	
Iron sheets	34(9.3)	330(90.7)	0.032(0.106-0.903)	0.032
Type of floor of the house				
Cemented	29(10.8)	240(89.2)	1.0	
Mud	10(8.7)	105(91.3)	0.788(0.371-1.676)	0.536
Number of per day				
One	12(8.8)	125(91.2)	1.0	
Two	22(10.9)	180(89.1)	1.302(0.432-3.921)	0.639
Atleast three	5(11.1)	40(88.9)	1.023(0.365-2.864)	0.966

Source: Primary Data 2024

Maternal determinants play a critical role in infant mortality, with marital status significantly influencing child survival. Children born to unmarried mothers were 1.41 times more likely to experience infant mortality compared to those whose mothers were married (COR = 1.410, 95% CI: 1.101–2.370, $p < 0.001$). Additionally, housing conditions were also associated with infant mortality, as children living in grass-thatched houses were 0.032 times less likely to experience infant mortality than those in houses with iron sheet roofs (COR = 0.032, 95% CI: 0.106–0.903, $p = 0.032$).

3.3 Child-related factors

Table 3.3: Child related determinants of infant mortality rate among teenage mothers

Variables	Infant mortality		COR(95% CI)	p-value
	Yes (%)	No (%)		
Gestation age of the baby at birth				
≤38weeks	10(10.1)	89(89.9)	1.0	
>38 weeks	29(10.2)	256(89.8)	1.008(0.472-2.152)	0.983
Sex of the child				
Male	13(10.8)	107(89.2)	1.0	
Female	26(9.8)	238(90.2)	0.899(0.445-1.818)	0.767
Birth weight				
<2.5kg	14(41.2)	20(58.8)	1.0	
≥2.5kg	25(7.1)	325(92.9)	0.110(0.050-0.243)	<0.001*
Child completed all the immunization schedules				
Yes	14(11.5)	108(88.5)	1.0	
No	16(10.3)	139(89.7)	0.708(0.294-1.710)	0.443
Not applicable	9(8.4)	98(91.6)	0.798(0.339-1.879)	0.605
Birth order of the child				
First	18(10.3)	157(89.7)	1.0	
Second	11(8.3)	121(91.7)	1.302(0.571-2.768)	0.531
More than three	10(13.0)	67(87.0)	1.642(0.663-4.066)	0.284

Source: Primary Data 2024

A key child-related determinant associated with infant mortality is birth weight. Children born with a birth weight of 2.5 kg or more were significantly more likely to experience infant mortality compared to those with a birth weight of less than 2.5 kg (COR = 0.110, 95% CI: 0.050–0.243, $p < 0.001$).

3.4 Obstetric factors

Table 3.4: Obstetric determinants of infant mortality rate among teenage mothers

Variables	Infant mortality		COR(95% CI)	p-value
	Yes (%)	No (%)		
History of the abortion or still birth				
Yes	16(11.3)	125(88.7)	1.0	0.557
No	23(9.5)	220(90.5)	0.817(0.416-1.604)	
Number of live births				
One	22(12.4)	155(87.6)	1.0	0.668
Two	9(6.9)	122(93.1)	0.829(0.351-1.955)	0.359
At-least three	8(10.5)	68(89.5)	1.595(0.588-4.324)	
Birth interval				
<1 years	6(9.4)	58(90.6)	1.0	0.447
1-2 years	7(6.8)	96(93.2)	1.450(0.557-3.778)	0.114
More than 2 years	5(8.9)	51(91.1)	2.057(0.841-5.029)	0.417
Not applicable	21(13.0)	140(87.0)	1.530(0.548-4.271)	
Mode of delivery of the baby				
Normal delivery (SVD)	34(9.5)	324(90.5)	1.0	0.122
CS/others	5(19.2)	21(80.8)	2.269(0.804-6.402)	
Parity				
Prime-gravida	10(25.0)	30(75.0)	1.0	0.002*
Multi-parous	29(8.4)	315(91.6)	0.276(0.123-0.621)	
ANC attendance				
Yes	17(7.8)	201(92.2)	1.0	0.018*
No	14(17.5)	66(82.5)	2.508(1.173-5.363)	
Place of delivery				
Health facility	29(8.8)	300(91.2)	1.0	0.037*
Home	10(18.2)	45(81.8)	2.299(1.050-5.035)	
comorbidity suffered from during the pregnancy				
Yes	8(9.8)	74(90.2)	1.0	0.892
No	31(10.3)	271(89.7)	1.058(0.467-2.399)	
History of STI/UTI during pregnancy				
Yes	10(7.5)	123(92.5)	1.0	0.216
No	29(11.6)	222(88.4)	1.607(0.758-3.408)	
Type of pregnancy				
Singleton	31(8.9)	316(91.1)	1.0	0.019*
Multiple	8(21.6)	29(78.4)	2.812(1.184-6.680)	
Currently using any method of contraception				
Yes	32(9.6)	300(90.4)	1.0	0.398
No	7(13.5)	45(86.5)	1.458(0.607-3.501)	
Ever used contraception before the first pregnancy				
Yes	30(9.6)	281(90.4)	1.0	0.496
No	9(12.3)	64(87.7)	1.317(0.596-2.910)	

The obstetric determinants associated with infant mortality indicate that children of multi-parous mothers (having more than one live birth) were 78.5% less likely to experience infant mortality compared to those born to primigravida (first-time) mothers (COR = 0.276, 95% CI: 0.123-0.621, $p = 0.002$). Additionally, children of mothers who did not attend antenatal care (ANC) were significantly more likely to experience infant mortality than those whose mothers attended ANC (COR = 2.508, 95% CI: 1.173-5.363, $p = 0.018$). Place of delivery also played a crucial role, as children born in a health facility had a lower risk of infant mortality compared to those born at home (COR = 2.299, 95% CI: 1.050-5.035, $p = 0.037$). Furthermore, children born from singleton pregnancies had a lower likelihood of infant mortality compared to those from multiple pregnancies (COR = 2.812, 95% CI: 1.184-6.680, $p = 0.019$).

Table 3.5: Multivariate analysis of determinants of infant mortality rate among teenage mothers

Variables	COR(95% CI)	p-value	AOR(95% CI)	p-value
Marital status				
Married	1.0		1.0	
Not married	1.410(1.101-2.370)	<0.001*	1.820(1.124-2.267)	<0.001*
Type of roof of the house				
Grass thatched	1.0		1.0	
Iron sheets	0.032(0.106-0.903)	0.032*	0.040(0.019-0.172)	<0.001*
Birth weight				
<2.5kg	1.0		1.0	
≥2.5kg	0.110(0.050-0.243)	<0.001*	0.138(0.113-0.109)	<0.001*
Parity				
Prime-gravida	1.0		1.0	
Multi-parous	0.276(0.123-0.621)	0.002*	0.215(0.108-0.594)	0.003*
Number of ANC attendance				
Yes	1.0		1.0	
No	2.508(1.173-5.363)	0.018*	2.335(1.316-4.514)	0.023*
Place of delivery				
Health facility	1.0		1.0	
Home	2.299(1.050-5.035)	0.037*	2.174(1.863-5.477)	0.001*
Type of pregnancy				
Singleton	1.0		1.0	
Multiple	2.812(1.184-6.680)	0.019*	1.311(0.456-3.764)	0.615

Source: Primary Data 2024

After adjusting for confounding factors and interactions, several determinants were found to be significantly associated with infant mortality. Respondents

who were not married were 82% more likely to experience infant mortality than those who were married (AOR = 1.820, 95% CI: 1.124-2.267, $p < 0.001$). Housing conditions also played a crucial role, with respondents living in houses with iron sheet roofs being 96% less likely to experience infant mortality than those in grass-thatched houses (AOR = 0.040, 95% CI: 0.019–0.172, $p < 0.001$). Birth weight was another key factor, as infants weighing ≥ 2.5 kg were 86% less likely to experience mortality compared to those born with a birth weight of less than 2.4 kg (AOR = 0.138, 95% CI: 0.113–0.109, $p < 0.001$). Maternal parity also influenced infant survival, with multiparous mothers being 78.5% less likely to experience infant mortality than prime gravida mothers (AOR = 0.215, 95% CI: 0.108–0.594, $p = 0.003$).

Additionally, children of mothers who did not attend antenatal care (ANC) were significantly more likely to experience infant mortality than those whose mothers attended ANC (COR = 2.335, 95% CI: 1.316-4.514, $p = 0.023$). Place of delivery was another critical factor, as respondents who delivered at home were more than twice as likely to experience infant mortality compared to those who gave birth at a health facility (AOR = 2.174, 95% CI: 1.863–5.477, $p = 0.001$).

3.5 Discussions

The study found that marital status significantly influenced infant mortality, with children of unmarried teenage mothers facing higher risks. This is likely due to reduced social, emotional, and financial support, which impacts maternal healthcare-seeking behaviors. This finding aligns with previous research highlighting that stable marital relationships improve maternal and infant health outcomes (Smith et al., 2018; Brown & Johnson, 2020; Adepoju et al., 2021; Bimani et al., 2019; Thompson & Carter, 2022). Unmarried mothers often experience financial instability, stress, and limited healthcare access, exacerbating infant mortality risks (Green et al., 2023; Wong et al., 2020; Taylor et al., 2021; Lopez et al., 2023). Supporting unmarried mothers through social programs could enhance infant survival rates.

Housing conditions also played a crucial role in infant mortality. Infants born to mothers living in iron sheet-roofed houses had lower mortality rates than those in grass-thatched houses, likely due to better protection against environmental hazards and disease exposure. This finding supports previous studies linking

poor housing conditions to higher child mortality (Jones et al., 2017; Patel et al., 2021; Wang & Li, 2019; Garcia & Evans, 2020; Nahar et al., 2023). Improving housing policies and community interventions could reduce infant mortality.

The study found a strong association between birth weight and infant survival. Infants weighing over 2.5 kg were significantly less likely to die than those weighing under 2.4 kg, as low birth weight increases vulnerability to infections, hypothermia, and poor growth (Goldenberg et al., 2017; Blencowe et al., 2019; Lawn et al., 2021; Villar et al., 2020; Lee et al., 2018). Other studies confirm that birth weight is a key predictor of neonatal survival (Ahmed et al., 2022; Omer et al., 2023; Tran et al., 2021; Filby et al., 2022). Enhancing antenatal care, maternal nutrition, and prenatal monitoring could help prevent low birth weight and improve infant survival.

Multiparous teenage mothers had lower infant mortality rates than primigravida mothers. This is likely due to prior maternal experience, which enhances neonatal care and reduces pregnancy-related complications. Research supports that first-time mothers have higher risks of complications and lack awareness of proper newborn care (Kramer & Hogue, 2018; Madhi et al., 2020; Cheng et al., 2019; Sharma et al., 2022; Mukherjee et al., 2021). Experienced mothers adopt better childcare practices, leading to improved survival outcomes (Roberts et al., 2020; Moyer et al., 2022; Patel & Khan, 2023; Santos et al., 2021). Strengthening educational programs for first-time mothers could enhance neonatal survival.

Antenatal care (ANC) attendance was another crucial factor. Mothers who did not attend ANC had a significantly higher risk of infant mortality due to the lack of essential health checks, early detection of pregnancy complications, and preventive interventions such as supplements and vaccinations. These findings align with studies that highlight ANC's protective role (Friedman et al., 2016; Chandrasekhar et al., 2020; Nawal et al., 2017; Makokha et al., 2019; Lee et al., 2019). Improving ANC access through community outreach and transportation support could help reduce infant mortality rates.

The study also found that home deliveries were associated with a higher risk of infant mortality compared to health facility deliveries. This is due to the lack of skilled birth attendants, emergency care, and essential newborn interventions in home births. Previous studies confirm that health facility deliveries significantly

improve neonatal survival (Campbell & Graham, 2019; Tura et al., 2020; Gabrysch et al., 2018; Montagu et al., 2021; Filby et al., 2022). Promoting facility-based deliveries through maternal health education and reducing barriers to healthcare access could enhance infant survival rates.

4. CONCLUSION

The study found that 10.2% of the children born teenage mothers died within years.

The study findings also indicated that marital status significantly influences infant mortality, with unmarried respondents being more likely to experience infant loss compared to their married counterparts.

Housing conditions also play a crucial role, as living in houses with iron sheet roofs is associated with a lower likelihood of infant mortality compared to grass-thatched houses. Additionally, infants with a birth weight above 2.5 kg have a reduced risk of mortality compared to those born with lower birth weights.

Parity was another significant factor, with multiparous mothers being less likely to experience infant mortality than primigravida mothers. The study found that children of mothers who did not attend antenatal care (ANC) were more likely to experience infant mortality than those whose mothers attended ANC. Furthermore, place of delivery emerged as a key determinant, as home deliveries were associated with a higher risk of infant mortality compared to facility-based deliveries.

The study highlights the importance of improving healthcare access, maternal support systems, and living conditions to enhance infant survival rates. The findings emphasize the need for targeted interventions such as promoting antenatal care, facility-based deliveries, and better housing conditions to reduce infant mortality among teenage mothers. Future research should further investigate these factors to provide a more comprehensive understanding of infant mortality risks.

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Stakeholders' Perception on the Implementation of Competence Based Curriculum in Selected Schools in Mityana District, Uganda

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Abstract

The main purpose of this study was to assess the influence of stakeholder's perception on implementation of competence-based curriculum in selected secondary schools in Mityana district, Uganda. The research employed a descriptive survey design, in which 110 respondents were sampled from 20 secondary schools, using the stratified random sampling technique. Data was obtained using a questionnaire and an interview guide. Analysis was done using Statistical Package for Social Sciences (SPSS) computer package. The qualitative data was analyzed using the thematic approach. Results showed that stakeholder's motive towards CBC is for improving student's learning; influence of stakeholder's decision making becomes effective when done collaboratively and stakeholders consultation facilitates implementation process of CBC. Based on the findings, the study concluded that implementation of competence-based curriculum in the selected secondary schools is rendered effective due to a lot interactive strategies as required by the CBC. The study recommends enhanced stakeholder involvement in the CBC implementation process.

Key words: Stakeholders, Perceptions, Competency-Based, Curriculum

1. INTRODUCTION

1.1 Introduction

The history of competence-based curriculum can be traced back to the early 1970's when competence-based education emerged for the first time in the United States of America. It was a kind of an educational movement that defined educational goals in terms of precise measurable descriptions of knowledge, skills, and behaviours students had to possess at the end of the course of study. Thereafter, the movement spread into European countries such as the United Kingdom and Germany in the 1980's (Komba & Mwandangi, 2015). Australia adopted the competence-based curricula in the 1990's and since then, other countries worldwide have been motivated to implement the competence-based curriculum in schools due to the ever-changing technology and global market. In Africa, competence-based curriculum was adopted for the first time in South Africa in 1998, following the acute shortage of professionals like Engineers, Technicians (Chunga, 2020).

The Competency-Based Curriculum was implemented in Canada, Scotland and Finland with success because of rigorous training of teachers and good funding support (Chepkonga, 2023). In South Africa, it failed in the implementation stages because of attitudes, development, and incompetence of the teachers. In Rwanda, Competence-Based Curriculum became successful because it involved in-depth research and study of curricula in neighboring countries as well as positive attitude of the teachers (Chepkemoyi & Juma, 2019), factors have been found to influence the successful implementation of Competence-Based Curriculum in different countries. For instance, in Finland, Canada and Scotland it was found that rigorous training of teachers and good funding support were very critical in enhancing implementation (Chepkonga, 2023).

A study carried out in Rwanda by Ndiwokubwayo and Habiwaremye(2018), reported that the Competency-Based Curriculum was implemented in 2015. Teachers regarded the changes in curriculum as important. The study of curricula of neighboring countries built the Rwandan to be firm Competence-Based Curriculum. The Competence-Based Curriculum was more skill-based and more practical to the environment in daily life. Teachers were also equally comfortable with the intricacies of changes, especially in cases where they were actively involved and prepared as required by the curriculum change (Ndiwokubwayo & Habiwaremye, 2018). They were involved in preparations

through campaigns, improvement of the modalities and guidance of curriculum implementation, which led to the success of Competence-Based Curriculum implementation. Studies on the implementation of Competence-Based Curriculum in Kenya are scanty (Ngeno, Mwoma, & Mweru, 2021).

Competence-Based Curriculum was adopted in Tanzania's secondary and elementary schools, respectively, between 2005 and 2006 to address the issues that students face in training institutions and the quality of their education (Komba & Mwandangi, 2015). The Competence-Based Curriculum was expected to produce graduates with the necessary skills so that they can fit into modern society. Komba and Kira (2015), state that graduates educated in antiquated curricula, lack the necessary skills and abilities to compete in today's local, national, and worldwide labour markets. When Komba looked at how the Competency-Based Curriculum was being implemented in Tanzanian schools, they found that it was being done poorly. According to Komba and colleague (2015), greater attention should be paid to the creation of tutorials and principals' comprehension of the Competency-Based Curriculum approach.

Uganda's secondary school curriculum has undergone significant changes from a teacher-centered/knowledge-based approach to a learner-centered/competence-based approach (Chemutai, Namubiru, Jepkoech, & Chang'ach, 2024). Tumuheise and colleagues noted that this change was necessary to ensure that learners can easily understand the concepts being taught in this approach without undue stress though its implementation is not clearly understood (Tumuheise, Ssempala, Rwends, & Nachuha, 2023). A competency-based curriculum is one that focuses on what learners are expected to do rather than what they are expected to know (Makunja, 2015). In theory, such a curriculum is learner-centered and adaptable to changing student, teacher, and societal needs. Curriculum is generally regarded as the experiences that learners go through in the educational process in a logical manner that allows the learners to understand the concepts easily and without much stress (Tumuheise et al., 2023).

In the context of contemporary education systems, the successful implementation of competence-based curricula stands as a pivotal reform initiative aimed at fostering holistic student development and preparing learners for the complexities of the 21st century. A competence based curriculum is one of that focuses on what learners are expected to do rather than what they are

expected to know. However, despite the recognized potential benefits of this approach, the effective integration of competence-based frameworks into educational practice faces multifaceted challenges (Himmetoglu, Aydug, & Bayrak, 2020). One such challenge revolves around understanding and addressing stakeholders' perceptions, concerns, and attitudes towards the adoption and execution of competence-based curricula (Akala, 2021). Thus, the problem at hand pertains to the need for a comprehensive exploration and understanding of stakeholders' perceptions regarding the implementation of competence-based curricula, encompassing educators, students, parents, administrators, policymakers, and other relevant actors. The Purpose of this research will therefore focus on stakeholders' awareness, support and engagement in fostering successful implementation and sustained advancement of competence-driven educational paradigms.

1. The study sought to assess the influence of stakeholder's perception on the implementation of competence-based curriculum in the selected secondary schools in Mityana district, Uganda.

The study tested the following null hypotheses:

H1: There is no influence of stakeholders' motives on the implementation of competence-based curriculum in the selected secondary schools in Mityana district, Uganda.

H2: There is no influence of stakeholders' decision making have on the implementation of competence-based curriculum.

H3: There is no impact of stakeholders' consultation in the implementation of the competence-based curriculum in the selected secondary schools in Mityana district, Uganda.

2. MATERIALS AND METHODS

A design for research is a way of carrying on research with a high level of control over the variants that could influence the quality and validity of the findings of the research methodology (Asenahabi, 2019). This research was carried out using case study research design where both quantitative and qualitative approaches were used. As supported by Yin (2012), this study adopted case study research strategies as they are found to be appropriate for in-depth investigation. The quantitative approach was used to quantify findings on

the study variables using quantitative techniques while the qualitative approach was used to draw explanation of the study findings on the variables using qualitative techniques. The study population was 135 respondents and these included; administrators, head teacher, Teachers, parents and students. The study sample was 100 respondents and was computed using Taro Yamane Formula as follows:

$$n = \frac{N}{1+N(e)^2}$$

Where n is the sample size,

N is the target population size;

and e is the error rate which is 0.05 and;

1 is the constant figure.

$$n = \frac{135}{1+135(0.05)^2}$$

n = 100 respondents

The study used purposive sampling in the first stage to ensure that respondents are obtained from each type of stakeholder considered. Then, from each category of respondents, random sampling was applied to obtain the required number of representatives. Data was collected using a self-administered questionnaire to teachers, parents and learners. Then, an interview guide was used to collect information from the Board members, and head teachers. The questionnaire was scored on a 5-point Likert scale 5- Strongly Agree; 4- Agree; 3- Not Sure; 2- Disagree; 1- Strongly Disagree. The instrument was used because it encourages honest answers, provide for anonymity of the respondents and confidentiality of the responses.

Classroom observation was used in this study to collect data as a supplement to questionnaires and a way to indicate how Competence-Based Curriculum was implemented in secondary schools. The technique was used to get an insight on the actual classroom practices of both secondary school teachers. This technique enabled the researcher to be aware of the way secondary school teachers implemented Competence-Based Curriculum in the classroom. Also using observation, the researcher was able to observe not only actual classroom teacher-learners' interaction but also difficulties that face teachers in implementation of Competence-Based Curriculum to secondary school students. The researcher entered the classrooms for observation together with the teachers. In some of the classrooms the researcher was introduced before the beginning of the session while in some after the session. The researcher sat at

the back of the class to observed the participation of each learner in a class. The researcher kept on observing what was going on in these classrooms while writing everything relevant to the note book.

The validity of the instrument were tested using the Content Validity Index (CVI) using expert judgment taking only variable scoring above 0.70 accepted for Social Sciences (Amin, 2005).The study questionnaire was pilot tested on a sample of 9 staff in a similar organization and adjustments were made to enhance its reliability. The reliability of the instrument or internal consistency was established using Cronbach's alpha coefficient taking only variables with an alpha coefficient value more than 0.70 accepted for social research (Amin, 2005), generated from SPSS and taking only variable scoring above 0.70.

The researcher used both quantitative and qualitative approaches to analyze the data which enabled obtaining of relevant data for the study.The data collected was then edited, coded and later entered into the SPSS version 16 in preparation for analysis.Quantitative data was analyzed using descriptive statistics of frequency and percentages distributions, mean and standard deviation for independent and dependent variable. According to Amin (2005), he argued that analyzing data quantitatively calls for use of different statistical methods. In this study, the researcher opted to use means and percentages to represent central tendencies and dispersion. On the other hand, the researcher also employed inferential statistics which was called for use of correlations (Pearson Rank Correlations). In this case, a Pearson correlation was adopted to assess the relationship between two variables and in this case the three dimensions and their independent relationship with Customer loyalty.

The useful qualitative information to be gained through the interviews was arranged into major themes of compatibility, perceived usefulness, perceived ease of use and customer loyalty terms related categories. These were then presented using the verbatim (narratives) as presented by the interviewee. The analysis involved identifying the implications, conclusions and inferences of qualitative information. Effort were also directed to cross-examine the qualitative data with the quantitative findings on their level of agreement or disagreement. The study measured compatibility, Stakeholder's perception on Implementation of competence based curriculum. The variables were then channeled into observable and measureable elements to enable the development of an index of the concept using a five- Likert scale namely: 5-Strongly agree;

4- Agree; 3- Not sure; 2- Disagree; 1- Strongly disagrees were used to measure both the independent and dependent variables.

3. RESULTS AND DISCUSSIONS

3.1 Influence of stakeholders motives on the implementation of competence-based curriculum in the selected secondary schools in Mityana district, Uganda.

The results of the survey on the aspect of motives are indicated in Table 3.1 below using frequency, percentages, mean value (μ) and standard deviations (σ).

Table 3.1: Perspectives of respondents on the influence of stakeholders' motive on the implementation of competence-based curriculum

S/N o	Statement	Frequency				
		SA	A	NS	D	SD
1	Stakeholders are primarily motivated by improving student learning outcomes.	55 (55%)	24 (24%)	12 (12%)	9 (9%)	-
2	Stakeholders are primarily motivated by meeting government requirements and regulations	60 (60%)	9 (9%)	3 (3%)	-	28 (28%)
3	Stakeholders are primarily motivated by enhancing the school's reputation and competitiveness.	54 (54%)	30 (30%)	10 (10%)	3 (3%)	3 (3%)
4	Stakeholders are primarily motivated by personal or financial gain.	38 (38%)	38 (38%)	15 (15%)	10 (10%)	3 (3%)
5	Stakeholders are primarily motivated by community development and societal improvement	55 (55%)	27 (27%)	9 (9%)	-	9 (9%)
6	The competence-based curriculum aligns with the educational needs and aspirations of students in the selected schools	35 (35%)	25 (25%)	25 (25%)	10 (10%)	5 (5%)
7	The competence-based curriculum adequately prepares students for real-world	65 (65%)	20 (20%)	5 (5%)	10 (10%)	-

	challenges and employment opportunities					
8	The implementation of the competence-based curriculum has received sufficient support and commitment from school administrators.	15 (15%)	45 (45%)	5 (5%)	15 (15%)	20 (20%)
9	Teachers in the selected schools are adequately trained and prepared to deliver the competence-based curriculum effectively.	30 (30%)	40 (40%)	20 (20%)	5 (5%)	5(5%)
10	Parents/guardians in the community actively support the adoption and implementation of the competence-based curriculum	10 (10%)	10 (10%)	45 (45%)	20 (20%)	15 (15%)
11	Local government authorities in Mityana district are supportive of initiatives to implement competence-based education in schools.	25 (25%)	35 (35%)	30 (30%)	10 (10%)	-
12	The level of communication among stakeholders is sufficient	10 (10%)	40 (40%)	40 (40%)	5 (5%)	5 (5%)

Source: Primary data, 2024

Regarding stakeholder motivations for CBC implementation, Table 3.1 reveals that the respondents were asked whether the stakeholders are primarily motivated by improving student learning outcomes where responses showed that majority (79%) objected though 9% were in disagreement of the view and 12% were neutral responses. Stakeholders are primarily motivated by meeting government requirements and regulations where responses showed that 69 respondents agreed, 28 disagreed and 3% of the respondents were neutral in their responses. Stakeholders are primarily motivated by enhancing the school's reputation and competitiveness where 84 respondents (84%) agreed, 6% disagreed and 10 respondents (10%) were neutral. Stakeholders are primarily motivated by personal or financial gain where 72% respondents agreed, 13 respondents (13%) disagreed and 15% of the respondents neither disagreed nor agreed with the statement. Stakeholders are primarily motivated by community development and societal improvement where 77% were positive on the

statement, 9 respondents were disagreeing with the statement. Meanwhile, 9 respondents were neutral to the statement.

Analysis of the respondents' replies in Table 3.1 showed that 60% of respondents on competence-based curriculum aligns with the educational needs and aspirations of students in the selected schools. Further 15% of respondents disagreed that competence-based curriculum aligns with the educational needs and aspirations of students in the selected schools. A majority of respondents 85% agreed that competence-based curriculum adequately prepares students for real-world challenges and employment opportunities, 10% disagreed and 5% of the respondents were neutral to the statement. The findings suggest that the teachers should be adequately trained and prepared to deliver the competence-based curriculum effectively, which may limit the ability of learners to cultivate essential competencies, including communication and collaboration, learning to learn, and critical thinking and problem solving. The results presented are matching with the studies conducted on review of published articles by Herlinawati and colleagues (2024), wherein the implementation of learner-centred teaching methods by teachers was observed to enhance the learning outcomes of pupils they taught across multiple subjects.

Further analysis of the replies by respondents in Table 3.1 indicate that a minority of 20% of respondents agreed parents/guardians in the community actively support the adoption and implementation of the competence-based curriculum. Further 35% of respondents disagreed and 45% of the respondents were neutral in the statement that Local government authorities in Mityana district are supportive of initiatives to implement competence-based education in schools. Another 50% reported that they agreed that the level of communication among stakeholders is sufficient, 10% disagreed and 10% responses were neutral. This implies that to lesser extent a majority of respondents are well prepared to implement the CBC through the use of appropriate methods hence learners are developing skills such as self-efficacy and communication and collaboration. By addressing stakeholders' concerns, providing adequate support, and training, education authorities can foster a more positive reception and successful implementation of the CBC in secondary schools in Mityana district, Uganda. The emphasis should be on collaboration and communication to create a conducive environment for stakeholders to embrace and effectively implement the new curriculum. The study by Awuonda and colleagues (2023), emphasised the importance of providing professional

development, encouraging peer collaboration, and ensuring access to curriculum resources to foster a positive stakeholders' motive and enhance the effective implementation of the CompetenceBased Curriculum (CBC). The findings point to a positive correlation between rigorous professional development and positive stakeholder motives, echoing the perspective of (Getecha, 2023).

By ensuring that teachers are well-equipped with the necessary competencies and support systems, the education authorities can improve teacher motivations, thereby fostering a more positive environment for the successful implementation of the Competence-Based Curriculum in secondary schools. The findings revealed a notable variation in stakeholders' motives toward the CBC, with a mix of positive and predominantly low motives. One of the respondents illustrated this finding when he made the following narration:

“There is a poor motive of different stakeholders like the parents, and the community since they were not engaged right from its development” (RPD45, 2024). In addition one of the respondents asserted that: “CBC would be a good curriculum for all students in the district since it equips them with employable skills, but the government has failed to support it fully by obtaining only 30 respondents (30%) who strongly agreed with the government supports towards implementation of CBC. This is seen through limited learning resources and limited motivation of teachers and because of all the above, the CBC will not benefit all Ugandans as expected but rather to cripple the education system as a whole”. This disparity in motives aligns with a similar trend reported by Mokoro (2020), which is in the context of secondary schools in Tanzania, indicating that the issue may extend beyond regional boundaries. The prevalence of low attitudes among teachers raises concerns about the effective execution of the CBC, as teachers play a pivotal role in its implementation (Mohamed, 2023). With evidence from the interviews conducted, respondent 72 had this to say: “My thinking about the Competency-Based Curriculum is that it will only be to a lesser extent to be implemented and will not yield much due to the fact that the government did not equip teachers with adequate skills and knowledge to implement the curriculum nor did they avail the required resources most especially in schools in rural areas” (RPD72, 2024).

The study revealed a concerning low level of motivation towards stakeholder enthusiasm attributed to various inconsistencies in the curriculum implementation. This limited training could be a significant factor contributing

to the observed lack of enthusiasm among teachers(Deng, 2018), and motivation of teaching are interconnected notions that exist within the broader settings of community, schools, and instructional practices in schools.

The findings indicate the necessity for proactive steps to boost stakeholders engagement, thereby increasing enthusiasm for the Competence-Based Curriculum (CBC) in Mityanadistrict, Uganda.This could be achieved through targeted professional development, maintaining open communication channels, and adopting a collaborative approach that addresses the specific challenges and concerns raised by teachers(Wabule, 2021; Kidega, Song, & Khaing, 2022). The study recommends organizing deliberate workshops and seminars aimed at equipping teachers with the necessary competencies for effective implementation of the CBC. The successful implementation of the CBC hinges on the willingness and positive attitudes of teachers (Nyamai, 2021; Nsengimana, Mugabo, Ozawa, & Nkundabakura, 2023), making it imperative to address their concerns and foster a supportive environment for effective curriculum delivery. The research findings underscore the urgency of developing strategies to address the identified challenges and engage teachers more effectively in the implementation of the Competence-Based Curriculum.

3.2 The influence of stakeholder decision making in the implementation of competence-based curriculum, in the selected schools in Mityana district, Uganda

The results of the survey are indicated in Table 3.2 below.

Table 3.2 Perspectives of respondents on Influence of stakeholders' decision making in the implementation of competence-based curriculum

S/No	Statement	Frequency				
		SA	A	NS	D	SD
1	Stakeholders actively participate in decision-making processes related to the implementation of the competence-based curriculum.	50(50%)	5(5%)	25(25%)	-	20(20%)
2	Decisions regarding the competence-based curriculum are made collaboratively, involving input from various stakeholders	20(20%)	40(40%)	15(15%)	5(5%)	20(20%)
3	The decision-making process regarding the implementation of the competence-based curriculum is transparent and inclusive of all relevant stakeholders	35(35%)	15(15%)	25(25%)	20(20%)	5(5%)
4	Stakeholder decisions regarding the competence-based curriculum are aligned with the best interests and needs of students in the selected schools.	30(30%)	35(35%)	30(30%)	-	5(5%)
5	The influence of external factors on stakeholder decision-	25(25%)	20(20%)	25(25%)	10(10%)	20(20%)

	making in curriculum implementation is adequately considered and balanced.					
6	Do you believe stakeholders should be involved in decision-making regarding curriculum implementation	65(65%)	10(10%)	20(20%)	-	5(5%)
7	Stakeholder input in shaping the competence-based curriculum is important.	55(55%)	30(30%)	5(5%)	5(5%)	5(5%)

Source: Primary data, 2024

This section explores the perspectives of respondents from different stakeholder groups, including education policymakers, teachers, parents, students, community members, and school administrators, regarding their decision making influence on the CBC's design and execution. The data reflects varying levels of satisfaction and concern over the roles that each group plays, along with how well their contributions align with the objectives of a competence-based education.

Table 3.2 presents descriptive statistics on perspectives of respondents on stakeholder decision making on implementation of CBC programme. In this study the researcher was investigating the impacts of participation of stakeholders in decision-making processes related to the implementation of the CBC, majority of the stakeholders, 55(55%) of them strongly agreed while 20 (20%) disagreed that stakeholder decision making process can enhance the identification of appropriate programme. Decisions regarding the competence-based curriculum are made collaboratively, involving input from various stakeholders where 60%of the respondents agreed, 25% disagreed and 20% of the respondents were neutral to the statement.The decision-making process regarding the implementation of the competence-based curriculum is transparent and inclusive of all relevant stakeholders where 50% of the stakeholders agreed, 25% disagreed and 25% of the respondents were neutral.Stakeholder decisions regarding the competence-based curriculum are

aligned with the best interests and needs of students in the selected schools where 65% of the stakeholders agreed, 5% disagreed and 30 respondents (30%) were neutral. The influence of external factors on stakeholder decision-making in curriculum implementation is adequately considered and balanced where 55% of the respondents were positive, 30% disagreed and 25% of the respondents were neutral. Majority of the respondents 75% do believe that stakeholders should be involved in decision-making regarding curriculum implementation, meanwhile only 5% disagreed and 20% of the respondents were neutral. Most of the respondents 85% supported the statement that stakeholder input in shaping the competence-based curriculum is very important, 10% of the respondents disagreed and 5% were neutral to the statement.

Educational policymakers are pivotal stakeholders, responsible for defining educational standards, developing curriculum frameworks, and allocating funds. Their influence is viewed by respondents as both a driving force and, at times, a constraint in the successful implementation of CBC. Respondents from educational institutions noted that government decisions can positively impact CBC by prioritizing skills over rote learning, especially when policies align with global standards of competence-based education. Through increased funding, policy guidelines, and teacher training programs, policymakers can strengthen CBC frameworks and enhance teachers' ability to deliver effective education (Günther, Muster, Kaiser, & Rieckmann, 2024). Teachers and educational administrators are at the forefront of CBC implementation and thus have direct influence over its effectiveness in the classroom. Respondents from this group reported mixed perspectives, indicating both positive aspects of involvement and significant challenges. When teachers and administrators are actively involved in CBC decision-making, they tend to develop a sense of ownership and commitment to the curriculum's goals. Respondents indicated that teacher participation in curriculum design and feedback processes enhances their motivation and aligns teaching practices with the competence-based approach, allowing them to adapt lessons to suit students' needs (Paaske, Segura-Bonilla, & Hernandez-Milian, 2021). Teachers are the implementers of CBC.

Their perceptions were sought on what they thought about the CBC implementation over the year as shown in Table 4.2 (Amunga, Were, & Ashioya, 2020). Parents and guardians also play a critical role in the CBC

implementation process, as their support reinforces learning and skill development outside the classroom. Respondents from this group emphasized both their potential influence and the challenges they face due to lack of information and involvement. Parents who understand and support CBC's objectives can encourage skill-based learning at home, which complements classroom activities. Respondents from the parent group who had been informed about CBC initiatives showed enthusiasm for engaging with their children's practical learning and saw the curriculum as a positive shift toward real-world preparedness (Kidega et al., 2022). As the primary beneficiaries of CBC, students' perspectives provide essential insights into the curriculum's effectiveness in delivering relevant skills. Respondents among the student population reported a mix of enthusiasm and concern. Many students expressed appreciation for CBC's focus on practical skills, as it provides them with a sense of readiness for the workforce. Respondents noted that CBC helps them develop critical thinking, creativity, and problem-solving abilities, which they see as valuable for future career opportunities (Kimario & Otieno, 2022).

The perspectives of respondents from various stakeholder groups highlighted the complex interplay of decision-making influences on CBC implementation. Successful CBC implementation relies on meaningful collaboration and shared decision-making among all stakeholders, including policymakers, educators, parents, students and communities (Kimario & Otieno, 2022). The data suggests that involving each group in a more balanced manner could address the existing challenges, enhance alignment with educational goals, and contribute to a more effective competence-based education system.

3.3 The impact of stakeholder consultation in implementation of the competence-based curriculum in the selected schools in Mityana district, Uganda.

The results of the survey are indicated in Table 3.3 below.

Table 3.3 Perspectives of respondents on influence of stakeholders' consultation in the implementation of the competence-based curriculum

S/N o	Statement	Frequency				
		SA	A	NS	D	SD
1	Have you been involved in any discussions or consultations regarding the competence-based curriculum development?	55(55%)	20(20%)	10(10%)	5(5%)	10(10%)
2	Have you been provided with sufficient information about the competence-based curriculum	40(40%)	40(40%)	5(5%)	5(5%)	10(10%)
3	Stakeholder consultation enhances timely implementation of CBE programm	35(35%)	35(35%)	20(20%)	5(5%)	5(5%)
4	Stakeholder consultation enhances timely completion of CBE programme phases	30(30%)	30(30%)	25(25%)	15(15%)	-
5	Stakeholder consultation enhances Stakeholder satisfaction with CBE programme	25(25%)	30(30%)	25(25%)	5(5%)	15(15%)
6	Stakeholder consultation enhances cost effectiveness of CBE programme	55(55%)	30(30%)	10(10%)	-	10(10%)
7	Stakeholder consultation promotes quality of CBE programme	65(65%)	15(15%)	15(15%)	-	5(5%)

Source: Primary data, 2024

Table 3.3 presents descriptive statistics on perspectives of respondents on the impact of stakeholder consultation in the implementation of the competence-

based curriculum (CBC) in selected schools in Mityana District, Uganda. Effective implementation of CBC is contingent upon active stakeholder consultation, involving policy makers, teachers, parents, students, and local communities. The competence-based curriculum seeks to equip students with practical skills and competencies that are applicable in real-world settings, requiring significant changes to traditional teaching practices, assessment methods, and overall school operations. This study presents an analysis of how stakeholder consultation affects CBC implementation outcomes, including teacher preparedness, curriculum relevance, student support, and community engagement. Findings are compared with existing literature to underscore the benefits and challenges of stakeholder engagement in CBC reform. As shown in Table 4.3, a significant majority of the respondents, accounting for 75 individuals (75%), have been involved in any discussions or consultations regarding the competence-based curriculum development. Meanwhile, 15% and 10% respondents replied as disagreed and neutral, respectively. This aligns with the discoveries made by (Kidega et al., 2022). Similarly, there is a notable positive effect of consultations on the CBC as on quality and also enhances the cost effectiveness, with 80 respondents (80%) and 85 respondents (85%) attesting to these aspects.

Findings reveal that stakeholder consultation positively impacts teacher preparedness by fostering a deeper understanding of CBC's goals and instructional approaches. Teachers who participated in consultative meetings felt more equipped to shift from content-based teaching to a competence-based approach, reflecting an alignment between curriculum objectives and teaching methods. These results are consistent with studies by Muchira and colleagues (2023), which indicate that consultation promotes clarity among educators and helps them adapt effectively to curriculum changes, enhances timely implementation and completion of CBE programme phases which were observed at 70%, 60% and 55%, respectively.

Stakeholder consultation enables school administrators to address the specific needs of teachers, especially regarding training and resource allocation. Teachers involved in consultations reported increased access to professional development workshops and resources essential for CBC. However, limited consultation with teachers often led to resource gaps and reliance on traditional teaching methods. This echoes findings by Anyango and colleagues (2020),

who observed that teachers' engagement in curriculum discussions directly correlates with improved access to resources and pedagogical support.

Despite these positive outcomes, the study found that inconsistent consultation practices hinder effective teacher engagement. In some schools, administrative barriers and insufficient time for consultation impacted teachers' readiness to adopt CBC practices. These barriers align with findings by Early and colleagues (2014), which highlight the need for structured and regular consultation to foster teacher involvement in curriculum implementation.

Parental and community consultation positively impacts CBC implementation by increasing support for new teaching practices and student assessment methods. Parents who were consulted on CBC objectives and methods expressed greater willingness to support their children's learning, providing necessary resources and encouragement at home. This observation supports a study by Nsengimana and colleagues (2023), which shows that engaged parents are more likely to reinforce CBC principles outside the classroom.

The study found that community members, when consulted, contributed to CBC by offering expertise, vocational training opportunities, and real-world learning experiences for students. This involvement strengthens the practical aspects of CBC, bridging the gap between academic learning and community-based skills. This finding resonates with Mutisya (2019), who assert that community involvement in CBC enhances its relevance and prepares students for local workforce demands. Despite these positive impacts, the study identified challenges in engaging parents and community members effectively. Limited awareness of CBC principles and insufficient communication channels hindered consistent consultation. Some parents also expressed concerns about the unfamiliar methods of CBC, preferring traditional content-based learning. These barriers reflect findings from Amagove and colleagues (2024), who identified parental scepticism as a common obstacle in curriculum reform efforts.

Consultation with students during CBC implementation was found to enhance curriculum relevance by aligning instructional methods with students' learning needs and career aspirations. Students who were consulted showed increased motivation and engagement, as they felt their interests and strengths were acknowledged in the learning process. This supports studies by Abagi and Wanjala (2019), where their findings demonstrated that student consultation promotes personalized learning and improves educational outcomes. Students

reported feeling a greater sense of ownership over their education when consulted, which led to improved adaptability to the CBC framework. They were more proactive in seeking skills and competencies relevant to their aspirations, embodying the self-directed learning approach encouraged by CBC. This finding is consistent with Kemboi and Maina (2021), who found that student involvement in curriculum reform fosters a sense of autonomy and empowerment in their learning journey.

This study highlighted the significant impact of stakeholders' consultation on the implementation of CBC in Mityana District. Consultation with teachers, parents, students, local communities and policymakers contributes to a supportive environment for CBC by improving teacher preparedness, fostering parental and community support, and ensuring policy alignment. The challenges, however, point to a need for more structured and consistent consultation processes to address resource gaps and communication barriers. By integrating best practices in stakeholder engagement, CBC implementation can be more effective and sustainable, ultimately benefiting students' learning experiences and skill development.

3.4 Summary of Findings

This section provides a summary of the study's findings based on its objectives

3.4.1 Influence of stakeholders motives on the implementation of competence-based curriculum in the selected secondary schools in Mityana district, Uganda.

The first objective of the study was to find out the influence of formative assessment on the achievement of learning outcomes. The following conclusions were made:

- i. **Function of Formative Assessment:** The achievement of learning objectives is greatly impacted by formative assessment. It offers ongoing feedback that assists students in filling up knowledge gaps and enhancing their comprehension, bringing their development into line with the goals of the competency-based curriculum.
- ii. **Involvement of Stakeholders:** How formative assessments are incorporated into teaching and learning is influenced by the goals and degrees of involvement of different stakeholders, including parents,

teachers, students, and education officials. The execution of the curriculum is improved by stakeholders' dedication to consistent and helpful feedback systems.

- iii. Challenges in Implementation: Effective assessment procedures can occasionally be hampered by a lack of funding, inadequate training for teachers in formative assessment methods, and conflicting stakeholder priorities, which can impact the attainment of intended learning outcomes.

3.4.2 The influence of stakeholder decision making in the implementation of competence-based curriculum, in the selected schools in Mityana district, Uganda

The second objective of the study was to determine the influence of stakeholder decision making in the implementation of the CBC. The following conclusions were made:

- i. Stakeholder Roles in Decision-Making: The effective implementation of the CBC is greatly influenced by the participation of important stakeholders in decision-making processes, including educators, parents, school administrators, and legislators. Teaching and learning practices are directly impacted by decisions made about curriculum design, resource allocation, and instructional methodologies.
- ii. Collaborative Decision-Making: Schools reported more alignment with the CBC objectives when they adopted inclusive and participatory decision-making methods. Stakeholders were able to exchange ideas, pinpoint problems, and create solutions that successfully satisfied curricular requirements thanks to collaborative techniques.
- iii. Challenges in Decision-Making: The study emphasized problems such as disparities in power between stakeholders, competing priorities, and a lack of understanding of CBC principles. These elements occasionally resulted in poor choices that made it difficult to administer the curriculum.
- iv. Effect on Execution: Efforts to give students the abilities and competences the CBC seeks to foster were hampered by inconsistent decision-making procedures. However, the implementation of the

curriculum produced superior results when the decisions made by stakeholders were well-informed, well-coordinated, and student-centered.

3.4.3 The impact of stakeholder consultation in implementation of the competence-based curriculum in the selected schools in Mityana district, Uganda.

The third objective of the study was to find out the impact of stakeholder consultation in implementation of the competence-based curriculum. The following conclusions were made:

- i. **Relevance of Stakeholder Consultation:** Successful CBC implementation has been found to depend on effective stakeholder consultation. Shared awareness and dedication to curriculum goals are ensured by the regular and meaningful engagement of educators, school administrators, parents, students, and legislators.
- ii. **Improved Decision-Making:** By taking into account a variety of viewpoints, consultation procedures enabled more informed conclusions. By addressing the unique needs of schools and students, this inclusivity assisted in bringing solutions into compliance with CBC regulations.
- iii. **Challenges in Consultation Practices:** The study found problems such as insufficient platforms for consultation, a shortage of time, and a lack of knowledge among stakeholders regarding their responsibilities in CBC implementation. These problems made the consultation process less successful.
- iv. **Enhanced Curriculum Adaptation:** Schools that regularly consulted with stakeholders showed that they were more flexible in responding to CBC requirements, especially when it came to curriculum design, resource mobilization, and assessment techniques. All parties developed a sense of accountability and ownership as a result of consultations.

4. CONCLUSION

The study concludes that, the perceptions of stakeholders are crucial to the competence-based curriculum's (CBC) successful implementation in the selected secondary schools in Mityana District. Stakeholders' motives, decision-making, and consultation on the CBC have a big impact on how curriculum-

related activities are handled. By encouraging active engagement, resource mobilization, and alignment with curriculum objectives, positive impressions among stakeholders including educators, parents, school administrators, and legislators produce increased support for the CBC. On the other hand, the complete implementation and efficacy of the curriculum are impeded by misunderstandings, resistance to change, or ignorance. This study emphasizes how crucial it is to raise awareness, offer training, and cultivate a positive mind-set among stakeholders in order to close knowledge and support gaps. Stakeholders are more likely to support the successful implementation of the CBC when they believe it is a useful strategy for enhancing student capabilities and future readiness. In the end, the effectiveness and sustainability of the competence-based curriculum in Mityana District secondary schools depend on stakeholders' perspectives being in line with its objectives.

Based on the conclusions above, the researcher recommends the government should facilitate more action research, particularly on the teaching/learning process, assessment (formative and summative), and textbooks, as the study's findings did not fully explore stakeholders' perceptions of content and competence-based curricula and the difficulties they face in schools. This would provide new knowledge and improved performance about competence-based curriculum by reducing the current significant problem of secondary school instructors regarding competence-based.

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Supply Chain Risk Management and Project Performance: A Case Study of Kariakoo Project in Zanzibar Social Security Fund

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Abstract

The study is about the Supply chain risk management and Project Performance in Kyriako Project at Zanzibar Social Security Fund. The study sought to examine the different waste in supply chain management; assess effect of economic change in supply chain management; and assess effect of climate change in supply chain management. The study used the descriptive survey research design in mixed methods were used to obtain data from a sample of 74 respondents. Data was collected using a questionnaire and interview guide. The SPSS software version 22 was used to do correlation and linear regression analyses. The study results showed that 91.9% of the respondents perceived that different waste was being effectively managed within the supply chain; 94.6% considered written agreements with the suppliers a necessity, before transporting Kyriako equipment. The study concludes that there was a very significant relationship between waste risk, economic changes and climate changes and supply chain risk management and Project Performance in Kyriako Project. It therefore recommends consideration of those factors in effecting the supply chain management strategies.

Key words: Supply Chain; Risk Management; Project Performance; Social Security Fund; Risk Management.

1. INTRODUCTION

1.1 Introduction

Global production practices have changed due to globalization and nations' economic engagements with partner countries. These have increased complexities and various forms of risks in supply chains. Organizations have created warehouse facilities, production plants, and fulfillment centers across countries to achieve cost benefits, access to cheaper raw material sources, or specialist skills and capabilities (Choi et al. 2012). The distribution centers in the modern era of global supply chains are also known as fulfillment centers. A fulfillment center is where customer demands are fulfilled. Therefore, these centers must be efficient because these centers' efficiency affects the entire SCM value.

Supply chain management is a network of supply goods and services from the source up to purchaser there are some events interrupted this network. Public sector manages all challenges which face supply chain but still day to day the supply chain risk growth. Many time public sectors in order to avoid this should apply outsource. This will be very hard to manage suppliers those factors lead supply chain network to be very disturbing (Kim et al, 2015). Public sector manages supply chain risk in order to get good result as well. They considered how can manage supply chain risk, but still in the network risk are occurs, public sector should make strategy in order to avoid it also should have enough capability of manage the supply chain risk.

Supply chain management encompasses the planning and management of all activities. involved in sourcing and procurement, conversion, and all logistics management activities.” (Felea et al, 2013). “Supply chain management is the integration of trading partners’ key business processes from initial raw material extraction to the final or end customer, including all intermediate processing, transportation and storage activities and final sale to the end product customer.” (Wisner et al, 2012). With the risk such as financial loss, performance loss, physical loss, Physiological loss, social loss and time loss on other hand the source of the risk also provides a means of classifying the risk, providing sachems for typifying the risk. The identification of sources of risk plays a variable which cannot be predicted with certainty and from which disruptions can emerge. Supply chain can face with different risk. Public sector cases have shown difference outcome after risk event due to diverse actions taken in facing

supply chain disturbances and disruption. Example is Ericson's crisis in 2000 since using the single source policy, fire accidents in its chips, supplier immediately disrupted the material supply, loss was estimated to reach USD 400 million for its T28 model (Norrman et al, 2004).

Supply chain risk management (SCRM) is a systematic and phased approach for recognizing, evaluating, ranking, mitigating, and monitoring potential disruptions in supply chains (Aqlan et al, 2016). SCRM is an important area due to an incident's cascading effects on logistics networks (Cigolini et al, 2010). Some examples of such events include September 11, the Gulf War, the outbreak of a pandemic (e.g., bovine spongiform encephalopathy, and coronavirus disease 2019, COVID-19), the millennium bug. These disruptive events have compelled practitioners to explore the vulnerabilities in supply chains and evaluate risks. Vulnerabilities in a supply chain depend on the supply chain (Rice et al, 2003; Chapman et al. 2002). Moreover, the COVID-19 pandemic has resulted in disruption to the mechanics of most economies, irrespective of their size and phase of development.

Supply Chain Management (SCM) still facing with different risk in their network which can cause loss and damage among of those risks are shortage of raw materials, change of important tariff, climate changes, everymen police, economic change, cargo caught up in industrial unrest, hazardous transport container ship fires, battles at the borders to increase wait time, drones strike below to variations safety. The main purpose of this study to insure there is better management of Supply Chain Risk, this can be reached by using Free Carrier. When study this Public sector can reduce risk of supply chain, it can archive by using the Free Carrier (FCA) incoterm. Public sector can apply this when use more than one transports mode which is very simple to get risk in the network or chain. Buyer can avoid this risk because seller should be responsible for the cargo until deliver to the name area where required by buyers.

Also, this can be reduced by provide environment awareness. This is way of increasing public awareness of environmental degradation especially in the low-cost sourcing as a China. Water scarcity, earthquake, and thunderstorm have resulted in lost in production capacity and halted supply chain operations for months (Economy et al, 2007). SRM allows the supply chain partners to achieve transparency by fostering trust and the sharing of vital information on time. When SRM is effectively managed in the supply chain, the firm and its suppliers can coordinate better. Moreover, through efficient SRM, a company

can monitor and track supplier interactions. These are crucial in supply chain management (Sodhi et al, 2019). Recently, the use of block chains in managing SRM has gained much attention as suppliers and focal companies can interact on time and a company can easily track down defective raw materials supplied by suppliers. This reduces the supply chain risks such as producing defective products (Pournader et al., 2019).

Lead time is measured from when the goods are produced up until they reach the final consumer. Through SRM, companies can speed up production by procuring raw materials on time and speeding up the entire production, which minimizes the lead times (Annamalah et al, 2019). The inefficient management of SSR leads to various supply chain-related issues such as a delay in customer demands. This affects the SCM of the company as they are not able to meet the customer demands and fail to add value for the customers. This further leads to customer retention problems.

Firm supply chain risk management performance varies due to differences in recognition of the need for and ability to cultivate supply chain risk management capabilities. A meta-analysis of empirical supply chain risk management studies reveals the confounding state of the field and points toward future work which can provide consensus and progress. A multiple case study describes organizational learning from supply chain disruption and identifies a new construct of bracketing necessary to deviate from firm risk dominant logic and respond to changes in the environment (Manhart, 2017). Therefore, this study tends to look at a single case study so as to fill the gap with responds of effectiveness of environmental changes. Hence, the study is to assess supply chain risk management capability in public sector such as Kyriako project at Zanzibar Social Security Fund (ZSSF).

This study will serve as a guideline to all stakeholders in the procurement profession and manufacturing industry in Zanzibar to establish supply chain management practices used by Zanzibar Social Security Fund, the effectiveness of supply chain management at the organization risks that hinder implementation of supply chain management at the organization. The findings of the study will also serve as a stepping stone to the society and businesses managers to observe good incoterm when making purchase in order to avoid liability of risk when occurred in supply chain risk management like Free Carrier (FCA) for future researchers on the same or similar topics by suggesting areas that need further studies to be conducted. Last but not least, successful

completion of the study will enable the researcher to partially fulfill the requirements for the award of a Master's degree of Business Administration in Procurement and Logistics Management (MBA - P) offered by the Kampala University.

2. MATERIALS AND METHODS

The study used descriptive research design using cross sectional survey data. Due to the fact that, case study is a comprehensive description and analysis of a single situation or a number of specific situations i.e. cases. Also, the use of case study research design enabled the researcher to conduct an extensive investigation of the Supply Chain Risk Management Capability used by ZSSF, its effectiveness and factors that affect its effectiveness. Both qualitative and quantitative approach was used by researcher because the combination of qualitative and quantitative data can improve an evaluation by ensuring that the limitations of one type of data are balanced by the strengths of another. This ensured that understanding is improved by integrating different ways of knowing. Most evaluations were collect both quantitative data (numbers) and qualitative data (text, images), however it is important to plan in advance how these was combined (Johnson et al, 2017).

The study used a sample size of 80 respondents determined using the Krejcie and Morgan (1970) sample size determination table. The study adopted purposive sampling to ensure that Directors, Managers, ZSSF workers, Technical staff and other key stakeholders are included. The study used a questionnaire and interview guide to collect primary data. Then, secondary data was obtained by reviewing relevant literature. The study used the SPSS version 22 to analyze the data.

3. RESULTS AND DISCUSSIONS

3.1 Examining the different waste in supply chain management

The study first examined the different waste in supply chain management by ZSSF. Accordingly, respondents were given questionnaire with three instruments to look at supply chain risk management capability in an organization and told to rate how they perceived application of the given

constraints in the management of supply chain in ZSSF. In which respondent were told to rate their opinions on the Likert scale ranging from strongly disagree (1) to strongly agree (5). The constraints are shown below in Table 3.1 which indicates the respondents in frequencies and percentages.

Table 3.1: Capacity of reducing the waste of over production, workforce and others, controlling waste of movement and Reduce over handling

Constraint	Strongly Disagree		Disagree		Undecided		Agree		Strongly Agree		Total	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Capacity of reducing the waste of over production, workforce and others	0	0.0%	4	5.4%	3	4.1%	36	48.6%	31	41.9%	74	100%
Controlling waste of movement	0	0.0%	6	8.1%	16	21.6%	31	41.9%	21	28.4%	74	100%
Reduce over handling	0	0.0%	2	2.7%	19	25.7%	29	39.2%	24	32.4%	74	100%

Source: Field Data, 2024

About 94.6% of the respondents has agree that the capacity in reducing the waste of over production workforce and others in time has play important role on examining different waste in supply chain management, 70 respondents has agree and 5.4% of only 4 respondents disagree, this implies that ZSSF does have ways of capacity in reducing the waste of over production workforce and others in time when it comes to transport Kariakoo equipment on examining different waste in supply chain management at ZSSF. To examine the different waste in supply chain management at ZSSF helps in controlling waste of movement of equipments at Kariakoo Project due to the study, 68(91.9%) respondent has agree, while 6(8.1%) respondent disagree, this result shows that different waste in supply chain management at ZSSF have high possibility of ways to control waste of movement of equipments at Kariakoo Project.

About 38 respondents equals to the 97.3% has agree and only 2 respondents has disagree, this implies that ZSSF have the availability of ways in reducing over

handling of Kariakoo equipments on examining different waste in supply chain management at ZSSF. The result indicates that 70.3% of the respondents on Transportation usage to manage waste material of late delivery in supply chain risk management of Kariakoo Project while 17.6% of the respondents on Inventory and only 12.2% said All of the above, therefore the target sample size is effective on the answer the question of which ways of these below do ZSSF use to manage waste material of late delivery in supply chain risk management of Kariakoo Project. Table 3.2 which indicates the respondents in frequencies and percentages.

Table 3.2: Ways of managing waste material of late delivery in SCRM

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Inventory	13	17.6	17.6	17.6
	Transportation	52	70.3	70.3	87.8
	All of the Above	9	12.2	12.2	100.0
	Total	74	100.0	100.0	

Source: Field Data, 2024

To examine the different waste in supply chain management at ZSSF, the majority of the respondents have skills and knowledge about the effect of over-handling equipment's before transportation is done for the Kariakoo Project due to the study, 72(97.3%) respondent's yes, while 2(2.7%) respondent's no, this result shows ZSSF staffs have skills and knowledge about the effect of over-handling equipment's before transportation is done for the Kariakoo Project. Table 3.3 which indicates the respondents in frequencies and percentages.

Table 3.3: Skills and knowledge about the effect of over-handling equipments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	72	97.3	97.3	97.3
	No	2	2.7	2.7	100.0
	Total	74	100.0	100.0	

Source: Field Data, 2024

3.2 Assessing the effect of economic change in supply chain management

The second objective of the present study called for assessing the effectiveness of economic change in supply chain management at ZSSF. Accordingly, respondents were given questionnaire with three instruments to look at supply chain risk management capability in an organization and told to rate how they perceived application of the given constraints in the management of supply chain in ZSSF. In which respondent were told to rate their opinions on the Likert scale ranging from strongly disagree (1) to strongly agree (5). The constraints are shown below in Table 3.4 which indicates the respondents in frequencies and percentages.

Table 3.4: Written agreement with suppliers before transporting, Manage economic change when occur and Transportation process

Constraint	Strongly Disagree		Disagree		Undecided		Agree		Strongly Agree		Total	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Written agreement with suppliers before transporting	0	0.0%	4	5.4%	14	18.9%	32	43.2%	24	32.4%	74	100%
Manage economic change when occur	0	0.0%	5	6.8%	17	23.0%	24	32.4%	28	37.8%	74	100%
Transportation process	1	1.4%	4	5.4%	14	18.9%	30	40.5%	25	33.8%	74	100%

Source: Field Data, 2024

About 94.6% of the respondents has agree that written agreements with the supplier(s) before transporting Kariakoo equipments should be considered effectively in case of any economic change in supplying the equipments, 70 respondents has agree and 5.4% of only 4 respondents disagree, this implies that ZSSF do have written agreements with the supplier(s) before transporting Kariakoo equipments should be considered effectively in case of any economic change in supplying the equipments. To assess effect of economic change in supply chain management at ZSSF have the availability of ways in managing when economic changes occurs in supply chain risk due to the study, 69(93.2%) respondent has agree, while 5(6.8%) respondent disagree, this result shows that effect of economic change in supply chain management at ZSSF have high possibility of ways to manage when economic changes occurs in supply chain risk.

About 69 respondents equals to the 93.2% has agree and only 5 respondents has disagree, this implies that ZSSF have the availability of getting effects of economic change in case of transportation process of equipments of Kariakoo Project. To assess effect of economic change in supply chain management at ZSSF, the majority of the respondents have knowledge about the effects of economic change in supply chain management due to the study, 73(98.6%) respondent's yes, while only 1(1.4%) respondent's no, this result shows ZSSF staffs have knowledge about the effects of economic change in supply chain management. Table 3.5 which indicates the respondents in frequencies and percentages.

Table 3.5: Effects of economic change in supply chain management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	73	98.6	98.6	98.6
	No	1	1.4	1.4	100.0
	Total	74	100.0	100.0	

Source: Field Data, 2024

In order to control effect of economic change in supply chain risk when transportation of Kariakoo equipment at ZSSF it is important to know the ways of economic effects such as Identifying potential risk, Assessing and assigning priority to risk, Preventing and solving risk and others. The result indicates that

59.5% of the respondents on Identifying potential risk while 20.3% answered All of the above, 10.8% of the respondents on Preventing and solving risk and only 9.5% of the respondents on Assessing and assigning priority to risk, therefore the target sample size is effective on the answer the question of in what ways can ZSSF control effect of economic change in supply chain risk when transportation of Kariakoo equipment. Table 3.6 which indicates the respondents in frequencies and percentages.

Table 3.6: Effects of economic change in supply chain management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Identifying potential risk	44	59.5	59.5	59.5
	Assessing and assigning priority to risk	7	9.5	9.5	68.9
	Preventing and solving risk	8	10.8	10.8	79.7
	All of the Above	15	20.3	20.3	100.0
	Total	74	100.0	100.0	

Source: Field Data, 2024

The third objective of the present study called for assessing the effectiveness of climate change in supply chain management at ZSSF. Accordingly, respondents were given questionnaire with three instruments to look at supply chain risk management capability in an organization and told to rate how they perceived application of the given constraints in the management of supply chain in ZSSF. In which respondent were told to rate their opinions on the Likert scale ranging from strongly disagree (1) to strongly agree (5). The constraints are shown below in Table 3.7 which indicates the respondents in frequencies and percentages.

Table 3.7: Written agreement with suppliers before transporting, Affect critical issues like cost, speed and others and Affect in number or quality of supplies equipment

Constraint	Strongly Disagree		Disagree		Undecided		Agree		Strongly Agree		Total	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Written agreement with suppliers before transporting	1	1.4%	2	2.7%	13	17.6%	27	36.5%	31	41.9%	74	100%
Affect critical issues like cost, speed and others	1	1.4%	3	4.1%	12	16.2%	36	48.6%	22	29.7%	74	100%
Affect in number or quality of supplies equipment	1	1.4%	3	4.1%	22	29.7%	24	32.4%	24	32.4%	74	100%

Source: Field Data, 2024

About 95.9% of the respondents has agree that written agreements with the supplier(s) before transporting Kariakoo equipments should be considered effectively in case of any climate change in supplying the equipments, 70 respondents has agree and 5.4% of only 4 respondents disagree, this implies that ZSSF do have written agreements with the supplier(s) before transporting Kariakoo equipments should be considered effectively in case of any climate change in supplying the equipments. To assess effect of climate change in supply chain management at ZSSF have critical supply chain issues when it comes to transportation of Kariakoo equipments between ZSSF and suppliers in case of climate changes occurs in supply chain risk due to the study, 70(94.6%) respondent has agree, while 4(5.4%) respondent disagree, this result shows that effect of climate change in supply chain management at ZSSF have high possibility of ways to manage the critical supply chain issues like cost, speed and others when climate changes occurs in supply chain risk.

About 70 respondents equals to the 94.6% has agree and only 4 respondents has disagree, this implies that ZSSF have the ability of managing and controlling

reduction of number or quantity of supplies existing equipment and create a change as manufacturer in case of climate change in supply chain risk management. To assess effect of climate change in supply chain management at ZSSF, all the respondents have knowledge about the effect of climate change in supply chain risk management when it comes to transportation of the Kariakoo equipment project due to the study, 74(100.0%) respondent's yes, this result shows all ZSSF staffs have knowledge about the effect of climate change in supply chain risk management when it comes to transportation of the Kariakoo equipment project. Table 3.8 which indicates the respondents in frequencies and percentages.

Table 3.8: Effect of climate change in supply chain risk

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	74	100.0	100.0	100.0

Source: Field Data, 2024

In order to manage the supply chain risk due to climate change at ZSSF it is important to know the ways of climate effects such as Leverage the PPRR the risk management model, Manage environmental risk in your supply chain, Looks for ways to improve supply chain visibility, Track the right freight carrier metrics, Implement a logistic contingency plan and others. The result indicates that 59.5% of the respondents on Track the right freight carrier metrics while 16.2% of the respondents on Manage environmental risk in your supply chain, 10.8% of the respondents on Leverage the PPRR the risk management model and 5.4% of the respondents on Looks for ways to improve supply chain visibility and All of the above answered the same, only 2.7% of the respondents on Implement a logistic contingency plan, therefore the target sample size is effective on the answer the question of in which way ZSSF can manage the supply chain risk due to climate change. Table 3.9 which indicates the respondents in frequencies and percentages.

Table 3.9: Effects of economic change in supply chain management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Leverage the PPRR the risk management model	8	10.8	10.8	10.8
	Manage environmental risk in your supply chain	12	16.2	16.2	27.0
	Looks for ways to improve supply chain visibility	4	5.4	5.4	32.4
	Track the right freight carrier metrics	44	59.5	59.5	91.9
	Implement a logistic contingency plan	2	2.7	2.7	94.6
	All of the Above	4	5.4	5.4	100.0
	Total	74	100.0	100.0	

Source: Field Data, 2024

3.2 Correlation analysis

The information presented in table 4.15 show the findings of the correlation analysis of the studied variables, the value of the correlation used to provide the evidence of the existence of the relationship among the variables is based on the Pearson Correlation. As described in chapter three that supply chain risk management capability was a dependent variable and the other variables used are independent. However, it is very important to describe the relationship existing between independent variables themselves but in this study only the relationship between supply chain risk management capability and independent variables are described. Based on correlation analysis (Table 3.10) there is positive relationship and statistical significance at 1% level between supply chain risk management capability and the independent variables: waste risk, economic change risk and climate change risk. The findings indicate that supply chain risk management is positively correlated with waste risk ($r = 0.590$, $P >$

0.01); economic change risk ($r = 0.553$, $P > 0.01$); and climate change risk ($r = 0.693$, $P > 0.01$).

Table 3.10: Correlation Analysis

		Supply Chain risk management capability
Waste risk	Pearson Correlation	.590 ^{**}
	Sig. (2-tailed)	0.000
Economic change risk	Pearson Correlation	.553 ^{**}
	Sig. (2-tailed)	0.000
Climate change risk	Pearson Correlation	.693 ^{**}
	Sig. (2-tailed)	0.000

^{**}. Correlation is significant at the 0.01 level (2-tailed).

3.3 Regression analysis

Linear Regression model was used to regress the equation from all the specific objectives that determine and examine the relationship among the variables towards Supply Chain risk management capability for Transportation of Playing Equipment in Kariakoo Project at ZSSF. Public Supply Chain risk management capability for Transportation of Playing Equipment in Kariakoo Project at ZSSF is the dependent variable, while Waste risk, Economic change risk and Climate change risk are the independent variable of interest.

3.4 Regression model

The results for regression analysis are represented Table 3.11, 3.12 and 3.13 comprising of summary of the model, analysis of variation (ANOVA) and regression coefficients for each of the variables. Generally, the model indicates there was an overall strong and positive relationship between the variables ($R = 0.879$, $P > 0.01$). The adjusted R-squared (Table 4.16) which is used to indicate the strength of the independent variables on explaining the dependent variable found to be 0.763 or 76.3% which indicates that 23.7% explained by other variables outside the model. Additionally, the model indicate significant constant variables are significant predictors of Supply Chain risk management

capability for Transportation of Playing Equipment in Kariakoo Project at ZSSF ($R^2 = 0.773$, adjusted $R^2 = 0.763$; $P > 0.01$).

Table 3.11: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.879	0.773	0.763	0.20897	1.812
a. Predictors: (Constant), Climate change risk, Waste risk, Economic change risk					
b. Dependent Variable: Supply Chain risk management capability					

According to our result in Table 3.12, the analysis of variations (ANOVA) it shows that predictors of Supply Chain risk management capability for Transportation with the F-Statistics at 95% confidence level, a significant value (p value) of 0.000 was registered and shows that the regression model has a probability of less than 0.000 of giving a wrong prediction. Hence, the regression model used above is a suitable prediction model for explaining how predictors influence supply chain risk management capability of Transportation.

Table 3.12: Analysis of variations (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.418	3	3.473	79.528	.000
	Residual	3.057	70	0.044		
	Total	13.475	73			
a. Dependent Variable: Supply Chain risk management capability						
b. Predictors: (Constant), Climate change risk, Waste risk, Economic change risk						

3.5 Regression coefficients

Furthermore, linear regression results provide the individual variables' extent of variations that each variable may result to the dependent variable. It can be noted that the results obtained in Table 4.18 showed that the coefficient for variable 'Constant' it has lower negative relation and statistically insignificant

than all other variables (such as, Waste risk, Economic change risk and Climate change risk) and its corresponding p value is 0.870 or 87.0% which is higher than the probability level of 5%, this result implies that when a unit change made to the “Constant” cause to decline for the Supply Chain risk management capability for Transportation taking also other variables as being used in the model remain unchanged. According to our result in Table 4.18 it shows that three variables (such as Waste risk, Economic change risk and Climate change risk) were found to be statistically significant as their p-values were less than above 0.05. Climate change risk was found to have the greatest impact as indicated by the beta value of 0.05. All the predictor variables were found to have a positive effect on Supply Chain risk management capability.

Table 3.13: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.045	0.273		-0.164	0.870
	Waste risk	0.500	0.068	0.431	7.352	0.000
	Economic change risk	0.344	0.063	0.332	5.484	0.000
	Climate change risk	0.431	0.055	0.484	7.859	0.000
a. Dependent Variable: Supply Chain risk management capability						

3.6 Key findings of the study

From the results and analysis presented in Chapter four, the study has found that there is higher supply chain risk management capability when transportation of equipment of Kariakoo project at ZSSF significant. Indeed, the finding shows that Supply Chain risk can be manage in ZSSF. Moreover, the study revealed that climate change risk; economic change risk and waste risk management have positive-significant which show that supply chain risk management capability for ZSSF. On the other hand, waste risk indicated positive but not significant capacity of ZSSF. Based on the findings, the study qualitative this study confirmed that climate change risk, and economic change Risk management, have positive-significant on supply chain risk management in ZSSF. The findings confirmed negative-significant of Waste risk management capability in supply chain risk management on ZSSF supplier should reduce waste in transportation.

4. CONCLUSION

The study was about Supply chain risk management capability for transportation of Kariakoo equipment on ZSSF. In addition, the study focused on supply chain risk management capability and climate change risk, economic change risk and waste risk on ZSSF. Through questionnaire and interview data was collected. The respondents were conducted to 74 staffs and officers in ZSSF. The finding of the study supply chain risk management capability in ZSSF significant relationship between climate changes Risk, economic change risk, and waste risk on ZSSF. This study recommends the following measures to ensure continued improvement in supply chain management: The management of the ZSSF should keep on doing regular risk assessments in their supply chains as a way of averting adverse effects of uncertainty. Organizations can also benchmark themselves against the best players in the world as a way of improving their supply chain risk management practices. The study was concerned with establishing the relationship between waste risk, economic changes and climate changes practices and supply chain risk management capabilities for transportation. Around 76.3 % of the supply chain risk management capabilities for transportation can be explained by ZSSF staffs. However, the remaining 23.7% can only be explained other factors, not under consideration in this study. Therefore, there is need to establish the other factors. Based on the finding, the study recommends that the ZSSF should select best method of incoterm when transporting their equipment which is FCA in order to avoid all risk which may occur in transportation of equipment because FCA supplier is responsible for any risk and lose until the product deliver to required area by purchaser. Besides, the ZSSF should ensure that risk management personnel have proper professionalism including academic qualifications. In addition, proper internal unit of risk management should make mechanism for control risk in ZSSF in order to archive efficiency and effectiveness in their activities.

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Influence of Artificial Intelligence on Students' Academic Performance in Selected Secondary Schools in Kira Wakiso District, Uganda

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Abstract

This study investigates the influence of Artificial Intelligence (AI) on students' academic performance in selected secondary schools in Wakiso District, Uganda. The research assesses the level of AI adoption and integration, explores its relationship with academic outcomes, and examines teacher and student perceptions. Employing a mixed-methods approach, data were collected from 133 respondents using questionnaires and analyzed using SPSS. Findings reveal a significant positive correlation between AI adoption and academic outcomes. AI-based tools improve personalized learning and administrative efficiency but face challenges such as inadequate teacher training and infrastructure gaps. The study recommends continuous professional development for teachers, infrastructure investments, and policy frameworks to enhance equitable AI integration.

Keywords: Artificial Intelligence; Academic Performance; Secondary Schools; Education Technology

1. INTRODUCTION

1.1 Introduction

The term artificial intelligence was introduced to the world by a computer scientist known as John McCarthy in the Dartmouth conference of 1956 where researchers from different fields had gathered to explore the possibility of inventing machines that could simulate any aspect of learning or intelligence, from that time, evolutions of various intelligent machines with improving technology has been witnessed coming to reality. The adoption of AI in education is rapidly growing Worldwide, with developed countries leading the way in integrating AI into their educational systems. According to Luckin et al. (2016), AI technologies have been deployed to provide personalized learning experiences, where students receive tailored instruction that adapts to their individual needs. This has been particularly effective in improving students' engagement and performance in subjects like mathematics and science (Luckin et al., 2016).

In the United States, AI-powered tools such as Carnegie Learning's Cognitive Tutor and Dream Box Learning have been implemented to support personalized learning, leading to significant improvements in students' academic achievements (Pane et al., 2017). Similarly, in China, AI-driven platforms like Squirrel AI Learning have been adopted to provide personalized tutoring, resulting in enhanced student performance and reduced dropout rates (Zhao & Lu, 2020). However, while AI holds promise for transforming education, challenges such as data privacy, ethical concerns, and the digital divide must be addressed to ensure equitable access to AI-powered educational tools globally (Holmes et al., 2019).

In Africa, the adoption of AI in education is still in its early stages, with varying levels of implementation across the continent. Countries such as South Africa, Kenya, and Nigeria have begun integrating AI technologies into their education systems, albeit at a slower pace compared to developed nations (Waweru & Wainaina, 2021). For instance, South Africa has seen the deployment of AI-driven platforms like Siyavula, an adaptive learning tool that has improved students' understanding and performance in mathematics and science (Mbatha & Naidoo, 2022). Despite these advancements, the adoption of AI in education across Africa is hindered by factors such as inadequate infrastructure, lack of technical expertise, and limited access to digital devices (UNESCO, 2022).

Furthermore, there is a need for more localized research to understand the specific challenges and opportunities AI presents in different African educational contexts.

Uganda is gradually embracing AI technologies in its education sector, with a focus on improving teaching and learning outcomes in secondary schools. The Ugandan government, in collaboration with international partners, has launched several initiatives aimed at integrating AI into the education system. For example, the Ministry of Education and Sports has introduced AI-powered platforms like Kolibri, an open-source learning platform that provides personalized learning resources to students (Ministry of Education and Sports, 2023). In Wakiso District, secondary schools have started adopting AI-driven tools to enhance student learning and academic performance. However, the extent of AI integration and its impact on students' academic outcomes remain under-researched. Existing studies suggest that AI has the potential to improve student engagement, facilitate personalized learning, and provide teachers with valuable insights into student progress (Nalubega & Busuulwa, 2022). Nevertheless, challenges such as inadequate infrastructure, limited digital literacy among teachers, and the high cost of AI technologies pose significant barriers to widespread adoption in the district (Kibuuka & Nambi, 2023).

The use of AI in secondary schools in Wakiso District is increasingly being recognized as a potential driver of improved academic performance. AI-powered tools such as intelligent tutoring systems and adaptive learning platforms have been shown to enhance students' understanding of complex concepts, leading to better academic outcomes (Kizza & Kyeyune, 2023). For instance, schools that have implemented AI-driven learning platforms report higher student performance in national examinations compared to those that rely solely on traditional teaching methods (Mukasa & Nalwanga, 2023). Moreover, AI technologies offer teachers in Wakiso District valuable insights into student progress, enabling them to tailor instruction to meet individual student needs. This has been particularly beneficial in addressing the diverse learning needs of students, thereby improving overall academic performance (Namubiru & Ssemwogerere, 2023).

The integration of Artificial Intelligence (AI) in secondary education in Uganda, particularly in Wakiso District has greatly been embraced; however it is limited due to challenges such as inadequate access to digital infrastructure, limited

teacher training, as well as differences in the multiple AI tools. With exception of the fact that these schools have embraced the integration of AI in their learning experiences, it has been observed that some schools which have integrated AI in their learning have reported improved academic achievements whereas others have remained stagnated or even declined. These educational inequalities have raised uncertainties among Educationists with questions of how exactly AI influences students' performance. This study aimed to investigate the influence of AI on students' academic performance in selected secondary schools in Wakiso District, identifying challenges and opportunities associated with AI adoption.

The study pursued the following objectives.

1. To assess the level of adoption and integration of Artificial Intelligence (AI) technologies in selected secondary schools of Kira Wakiso District, Uganda.
2. To determine the relationship between the use of AI technologies and the academic outcomes of students.
3. To explore teachers' and students' perceptions of the use of AI in enhancing academic performance in selected secondary schools of Kira Wakiso District.

The findings of this study provided valuable insights for policymakers and educational planners at both the district and national levels. By understanding the impact of AI on academic performance, policymakers can make informed decisions about the allocation of resources, development of training programs, and creation of policies that promote the equitable integration of AI technologies in education. This can lead to more effective and inclusive educational strategies that enhance learning outcomes for all students. The study highlighted the disparities in AI adoption and utilization among secondary schools in Wakiso District. By identifying the factors that contribute to these disparities, the study offered recommendations to bridge the gap between schools with advanced AI tools and those without. This was crucial for ensuring that all students, regardless of their socio-economic background or the resources available at their schools, have equal opportunities to benefit from AI-enhanced learning.

For educators, the study provided evidence-based insights into how AI-driven tools can be effectively integrated into the classroom to improve teaching

practices and student engagement. Understanding the specific challenges and benefits associated with AI in education will enable teachers to adopt more personalized and data-driven approaches to instruction, ultimately leading to better academic outcomes. This study contributed to the growing body of literature on AI in education, particularly in the context of developing countries like Uganda. The findings can serve as a foundation for future research, prompting further studies on AI's role in various educational settings and its long-term impact on academic performance. It was also identified areas where additional research is needed, such as the sustainability of AI integration in resource-limited environments. As AI becomes increasingly important in the global economy, this study underscore the importance of preparing students for a future where AI skills are in high demand. By improving academic performance through AI-enhanced education, the study contributes to building a more competitive and skilled workforce in Uganda. This, in turn, can have positive social and economic implications for the district and the country as a whole, as better-educated individuals are more likely to contribute to economic growth and social progress.

2. MATERIALS AND METHODS

The study used the mixed research design in which both quantitative and qualitative data was collected from the participants. This design was chosen because it allows the study to obtain all the types of required data and use of a combination of methods. The study considered a population of 200 people comprising of the District Education Officer (DEO), Inspectors, Head teachers, Teachers, Students, Community members and local leaders. The study used a sample of 133 respondents. The sample size was obtained using Taro Yamane Formula as follows.

$$n = \frac{N}{1+N(e)^2}$$

Where n is the sample size,

N is the target population size;

e is the error rate which is 0.05 and;

1 is the constant figure.

$$n = \frac{N}{1+N(e)^2}$$

$$n = \frac{200}{1+200(0.05)^2}$$

$$n = 133 \text{ respondents}$$

The study used purposive sampling (non-probabilistic) for the Teachers and administrators who have knowledge on use of AI in education. Simple random sampling (probabilistic) was used to select students since it enables selection of the different samples as suggested by (Amin, 2005). A uniform self-administered close-ended questionnaire encompassing background information on usage of AI on STEM education was developed. The questionnaire was scored on a 5-point Likert scale 5- Strongly Agree; 4- Agree; 3- Not Sure; 2- Disagree; 1- Strongly Disagree. The instrument was used because it encourages honest answers, provide for anonymity of the respondents and confidentiality of the responses. A semi structured interview schedule comprising of a set of issues on AI usage on STEM education on which the researcher wishes to draw data was posed to the respondent using a guide to conduct the interview. The instrument allowed the interviewer to clarify questions, observe verbal and non-verbal behaviors of the respondents and it was the means of obtaining personal information, attitudes, perception, and it reduces anxiety so that potentially threatening topics can be studied.

The validity of the instrument was tested using the Content Validity Index (CVI) using expert judgment taking only variable scoring above 0.70 accepted for Social Sciences (Amin, 2005). The study questionnaire was pilot tested on a sample of 10 students in one school and an adjustment was made to enhance its reliability. The reliability of the instrument or internal consistency can also be established using Cronbach's alpha coefficient taking only variables with an alpha coefficient value more than 0.70 accepted for social research (Amin, 2005) generated from SPSS and taking only variable scoring above 0.70. Data was analyzed using the SPSS version 16 to produce descriptive statistics for quantitative data and thematic analysis for the qualitative data.

3. RESULTS AND DISCUSSIONS

This section presents the results of the study, including descriptive and inferential analyses, which explore the relationship between the adoption and use of Artificial Intelligence (AI) technologies and their impact on academic performance in selected secondary schools in Wakiso District. Key findings are supported by tables for clarity and emphasis.

3.1 Correlation Analysis between Level of Adoption and Integration of AI Technologies

The study examined the relationship between the level of adoption and the integration of AI technologies in secondary schools using Pearson correlation analysis at a significance level of 0.05.

Table 3.1: Pearson Correlation between Level of Adoption and Integration of AI Technologies

	Level of Adoption	Integration of AI Technologies
Level of Adoption	1	0.231
Sig. (2-tailed)		0.019
N	133	133
Integration of AI Technologies	0.231	1
Sig. (2-tailed)	0.019	
N	133	133

Source: Primary Data 2024

The results reveal a positive and significant correlation ($r = 0.231$, $p = 0.019$), suggesting that as the level of adoption of AI technologies increases, their effective integration into school operations also improves. These findings reject the null hypothesis and confirm a meaningful relationship between the two variables.

3.2 Correlation Analysis between AI Use and Academic Outcomes

The relationship between the use of AI technologies and students' academic outcomes was explored using Pearson correlation analysis at a significance level of 0.05.

Table 3.2: Pearson Correlation between AI Use and Academic Outcomes

	Use of AI Technologies	Academic Outcomes
Use of AI Technologies	1	0.291
Sig. (2-tailed)		0.038
N	133	133
Academic Outcomes	0.291	1
Sig. (2-tailed)	0.038	
N	133	133

Source: Primary Data 2024

The findings indicate a positive and significant correlation ($r = 0.291$, $p = 0.038$), showing that increased use of AI technologies corresponds to improved academic outcomes. These results further reinforce the rejection of the null hypothesis, confirming that AI technologies enhance academic performance.

3.3 Regression Analysis on the Effect of AI Use on Academic Performance

To quantify the effect of AI use on academic performance, regression analysis was conducted. The results are summarized in Table 3.3

Table 3.3: Effect of AI Use on Academic Performance

Model	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	t	Sig.
(Constant)	15234.512		5.675	0.000
AI Use	0.562	0.328	3.212	0.037

The coefficient ($B = 0.562$) indicates that a one-unit increase in AI use leads to an average 0.562-unit increase in academic performance, holding other factors

constant. The p-value ($p = 0.037$) is less than 0.05, confirming the significant role of AI use in enhancing academic performance. This result supports the conclusion that AI technologies positively influence learning outcomes.

3.4 Summary of Findings

The findings collectively highlight the following:

1. A significant positive correlation exists between the level of adoption and integration of AI technologies ($r = 0.231$, $p = 0.019$).
2. Increased use of AI technologies is significantly associated with improved academic outcomes ($r = 0.291$, $p = 0.038$).
3. Regression analysis confirms that AI use significantly enhances academic performance ($B = 0.562$, $p = 0.037$), validating its pivotal role in educational processes.

3.4.1 Demographic Characteristics

The study included 133 participants, with 54% female and 46% male respondents. These findings align with Volkwein (2019), emphasizing gender differences in educational engagement with AI tools. Younger students below 18 years (48%) were the majority, reflecting the study's focus on early academic years, where AI tools have a pronounced impact. Educational qualifications showed a majority (46%) held a Bachelor's Degree in Education, indicating a strong professional background. Teachers with 11-20 years of experience formed the largest group (34%), highlighting significant professional expertise.

3.4.2 Level of Adoption and Integration of AI Technologies

The study found a significant positive correlation between the level of adoption and integration of AI technologies ($r = 0.231$, $p = 0.019$). As adoption increased, integration into school operations improved, consistent with Tondeur, (2019), who emphasized that familiarity with AI tools enhances integration. Despite moderate adoption levels, the potential for AI technologies to transform education is evident, with a need for targeted policies and support to bridge gaps in infrastructure and training.

3.4.3 Relationship between AI Use and Academic Outcomes

A significant positive correlation was identified between AI use and academic outcomes ($r = 0.291$, $p = 0.038$). Personalized learning supported by AI technologies showed a marked improvement in student engagement and academic performance. These findings corroborate Zawacki-Richter et al. (2020), who highlighted the role of Intelligent Tutoring Systems (ITS) in providing tailored instruction and real-time feedback, fostering deeper learning.

3.4.4 Teachers' and Students' Perceptions of AI

Regression analysis revealed that a one-unit increase in AI use leads to a 0.562-unit improvement in academic performance ($p = 0.037$). Both teachers and students perceived AI technologies as effective in enhancing academic outcomes. Teachers emphasized the role of AI in improving instructional efficiency, while students appreciated its interactive and adaptive learning features. Challenges included technical barriers and the need for increased training and support.

3.5 Discussions

This gender distribution of 54% female and 46% male among the 133 study participants aligns with findings of Volkwein, (2019) who indicates varying perceptions and outcomes based on gender in educational contexts. Gender-based differences may impact how students interact with AI tools. For instance, females may exhibit stronger engagement or higher perceived benefits from AI-based learning platforms, potentially leading to improved academic performance. Conversely, males may approach AI usage differently, which could influence their academic outcomes. Understanding these gender dynamics is essential for tailoring AI applications to enhance learning experiences equitably and effectively (Zhang, 2020).

The age distribution shows that the majority of respondents are below 18 years, followed by those aged 18-24. This suggests that the study mainly reflects the views of students in their early academic years, where AI tools are likely to have a significant impact on learning and performance. The smaller number of respondents aged 25 and above indicates limited representation of older individuals, such as teachers or school administrators, who could offer valuable insights on how AI affects academic environments. These findings are in line

with previous research by Selwyn (2019), who emphasized that younger students are more engaged with AI-based educational technologies compared to older groups. Understanding how AI impacts younger students' academic experiences is critical as they are more likely to adopt and benefit from AI tools in their learning journey. In addition to the above, the majority of respondents had a Bachelor's Degree in Education, followed by those with a Diploma in Education. Fewer respondents hold a Master's Degree in Education, even fewer have a Postgraduate Diploma in Education, and the smallest proportion have a Doctorate. These findings align with previous research by Tondeur, (2019), who observed that educators tend to have varied levels of formal education, with a majority holding bachelors and diploma qualifications. This distribution reflects the typical educational background of teachers in secondary schools, where formal qualifications in education are crucial for understanding and integrating modern tools like AI into teaching practices.

More to the above, the findings revealed that the majority of respondents have between 11-20 years of experience, followed by those with 6-10 years of experience. This suggests that the workforce is primarily made up of individuals with significant professional expertise. A smaller group has between 1-5 years of experience, indicating a mix of relatively newer entrants alongside more experienced professionals. Few respondents have less than 1 year of experience, while an even smaller proportion have over 21 years of experience, reflecting limited representation of both newcomers and long-tenured staff. These findings align with Tuckman's (2017) observations, which highlight that professional expertise tends to grow with years of experience, leading to a distribution where both experienced and newer professionals coexist but in varying proportions depending on the context.

The results indicated a positive and significant correlation between the level of adoption and integration of AI technologies in secondary schools ($r = 0.431$, $p\text{-value} = 0.019$). This suggests that as the level of AI adoption increases, the integration of AI technologies into school operations also improves. The findings support the rejection of the null hypothesis and the acceptance of the alternative hypothesis, confirming a meaningful relationship between AI adoption and integration. These results align with the previous research by Olugbara & Ndhlovu, (2022) who revealed that the impact of AI on students' academic performance can be both positive and negative. On the positive side, AI can increase student engagement and motivation by providing interactive

and personalized learning experiences. Studies have shown that students using AI-driven learning platforms often demonstrate improved academic outcomes, particularly in subjects like mathematics and science.

In addition to the above, the findings of the study were in line with Zhong, (2022) who asserted that the adoption of AI in education has been uneven, with developed countries leading in the integration of AI technologies into their educational systems. In countries such as the United States, China, and the United Kingdom, AI has been widely adopted to enhance both teaching and administrative functions in schools and these technologies have been used to analyze student performance data, predict academic outcomes, and tailor educational content to meet individual student needs.

In addition to the above, the findings are as well in line with the research by Tondeur et al. (2019), who emphasized that the successful integration of AI in educational settings depends on the level of adoption and how effectively teachers and administrators implement these technologies in their instructional practices. He also highlighted that increased familiarity with AI tools and platforms leads to enhanced adoption, which subsequently supports more robust integration into school operations, enhancing overall academic performance. The results indicated a positive and significant correlation between the use of AI technologies and academic outcomes ($r = 0.492$, $p\text{-value} = 0.038$). This suggests that as the use of AI technologies in secondary schools increases, there is a corresponding improvement in students' academic outcomes. These findings are in agreement with Mhlanga & Moloi, (2023) who revealed that AI's applications in secondary education are diverse and impactful. Personalized learning, driven by AI algorithms, tailors educational content to individual student needs, allowing for more effective learning experiences.

In addition to the above, the findings align with Zawacki-Richter et al. (2020), who emphasized that Intelligent Tutoring Systems (ITS) utilize AI to offer real-time feedback and personalized guidance, promoting self-paced learning. AI is also integrated into assessment and evaluation processes, improving the accuracy and timeliness of grading. By addressing individual learning gaps and providing targeted support, AI helps students progress more effectively. Zawacki-Richter et al. noted that these AI-driven systems enhance student engagement and foster a deeper understanding of subject material. Lastly, the findings were also in line with Unwin, (2019) who argued that the effective use of AI technologies in education fosters improved learning outcomes by

providing personalized learning experiences, increasing student engagement, and facilitating access to educational resources. He also highlighted that AI tools can enhance instructional practices, leading to better academic outcomes, particularly in environments where students are encouraged to leverage technology to complement traditional learning methods.

The findings revealed that the coefficient of 0.562 indicates that a one-unit increase in AI use would, on average, lead to a 0.562-unit increase in academic performance. The p-value of 0.037, which is less than 0.05, confirms that AI use has a significant impact on academic performance, holding other factors constant. This finding was in agreement with Shastri, (2021) who emphasized the potential of AI technologies to improve learning outcomes by providing personalized learning experiences and interactive platforms that cater to individual student needs. He also argued that AI tools facilitate adaptive learning environments, which help students achieve better academic performance by addressing their unique learning preferences and challenges. The findings align with Mwesige and Nakabugo (2023), who observed that students utilizing AI-based tutoring systems in mathematics demonstrated significant improvements in their test scores compared to those in traditional classrooms. These results highlight the potential of AI technologies to enhance academic outcomes, particularly in subjects that benefit from personalized instruction. AI tools, such as adaptive learning systems, offer students tailored content and feedback, addressing individual learning needs, which can lead to improved academic performance. Furthermore, AI-driven platforms provide real-time data on student progress, enabling teachers to make informed decisions to support struggling students. This enhances engagement and motivation, leading to better learning outcomes.

Previous research by Nakimuli & Ssenkusu (2023) supports the current findings, emphasizing that AI-driven educational technologies enhance student engagement and promote self-directed learning. They highlight that AI tools provide personalized learning experiences, helping students better understand and retain information. The integration of AI in educational settings leads to more efficient and effective teaching practices, allowing for the customization of learning materials to meet individual student needs. As a result, students become more motivated and engaged, leading to improved academic performance. They also argued that AI enhances the learning environment by reducing barriers to access and promoting interactive, data-driven instruction.

Lastly, the findings align with Nouri (2018), who emphasized the positive relationship between AI integration and academic performance, particularly in secondary education. Nouri argued that AI tools enhance teaching by providing timely, personalized feedback, helping students identify and address their learning gaps. These tools also foster interactive learning environments, encouraging active participation and collaboration among students. By leveraging data-driven insights, teachers can make informed decisions to tailor instruction to individual needs, leading to improved academic outcomes. Nouri further highlighted that AI-driven platforms facilitate personalized learning experiences, thereby boosting student engagement and performance.

4. CONCLUSION

The study concludes that the level of adoption and integration of AI technologies in secondary schools in Wakiso District is moderate, with schools primarily utilizing AI tools for administrative purposes and basic learning support. The slow progression towards full integration of advanced AI technologies, such as Intelligent Tutoring Systems, highlights the need for targeted efforts to enhance AI adoption in educational settings. Additionally, the findings reveal a positive and significant correlation between the level of AI adoption and integration ($r = 0.431$, $p\text{-value} = 0.019$), suggesting that increased adoption of AI technologies is associated with improved integration into school operations, ultimately contributing to enhanced academic outcomes. These results underscore the importance of sustained investment and support to foster greater AI adoption and fully leverage its potential to transform teaching and learning practices in secondary schools.

The study concludes that there is a significant positive relationship between the use of AI technologies and students' academic outcomes in secondary schools in Wakiso District. The integration of AI tools, particularly those that support personalized learning and provide real-time feedback, has been shown to enhance student engagement and academic performance in key subject areas and these findings highlight the potential of AI to improve learning outcomes by addressing individual student needs and facilitating data-driven decision-making. Consequently, promoting greater adoption and effective utilization of AI technologies in educational settings can play a critical role in enhancing academic performance and transforming teaching practices in secondary schools.

The study concludes that both teachers and students perceive AI technologies as valuable tools for enhancing academic performance. Teachers acknowledge AI's role in providing personalized support and improving instructional efficiency, while students appreciate the interactive and self-paced learning opportunities AI offers. However, concerns about technical challenges and the need for greater support remain a hindrance to full utilization of AI's potential. The findings demonstrate a significant positive impact of AI use on academic performance, with a coefficient of 0.562 indicating that a one-unit increase in AI use results in a 0.562-unit improvement in academic outcomes. The p-value of 0.037 further confirms that AI use has a substantial and statistically significant effect, emphasizing the importance of targeted efforts to address technical barriers and enhance the integration of AI in secondary education to foster improved student performance.

Based on the discussion, the study made the following recommendations below

- ❖ The study recommends the establishment of continuous professional development (CPD) programs tailored specifically for teachers, focusing on the effective integration of AI tools into their pedagogical practices. Such initiatives should aim to build both the competence and confidence of educators in leveraging AI technologies to enhance teaching and learning outcomes. By providing specialized training in AI tools, educators will gain the necessary skills to apply these technologies effectively, fostering an environment where innovative teaching practices can flourish.
- ❖ In addition to the above, the study recommends that schools should allocate substantial investment in upgrading their technological infrastructure to ensure the availability and accessibility of AI tools. This includes the provision of reliable high-speed internet, along with necessary hardware such as computers, tablets, and smart devices. Ensuring equitable access to these resources will enhance the effective implementation of AI technologies in teaching and learning environments.
- ❖ The study recommends that education authorities should develop and enforce clear, forward-thinking policies that outline the guidelines and standards for the adoption and integration of AI technologies in schools. These policies should ensure equitable access to AI tools and resources

for all schools, regardless of their geographic location or socio-economic status. To facilitate this, adequate funding should be allocated to support the procurement of necessary infrastructure, such as high-speed internet, computers, smart devices, and other essential hardware.

- ❖ Furthermore to the above, the study recommends that schools should prioritize the adoption of AI tools such as Intelligent Tutoring Systems (ITS) that provide personalized learning experiences tailored to the diverse needs of individual students. These systems use adaptive learning algorithms to deliver content that matches the student's pace, strengths, and weaknesses, enhancing engagement and improving academic outcomes. By integrating ITS into the curriculum, schools can promote a more inclusive learning environment that addresses the varying needs of students, particularly those who may struggle with traditional teaching methods.
- ❖ More to the above, the study recommends that schools should invest in AI-driven platforms that offer real-time feedback to students, enabling them to track their progress and identify learning gaps promptly. These platforms use data analytics and adaptive learning technologies to provide personalized insights, helping both students and teachers make informed decisions about targeted interventions. By delivering immediate feedback, AI-driven tools empower students to monitor their own performance, strengthen their understanding, and address knowledge gaps more efficiently.
- ❖ The study also recommends that schools should actively engage teachers and students in meaningful discussions about AI technologies, ensuring that their concerns, questions, and suggestions are acknowledged and addressed. Creating an inclusive dialogue allows both educators and learners to develop a deeper understanding of AI's potential and its role in enhancing educational practices and by fostering transparency, schools can dispel misconceptions, build trust, and promote a positive perception of AI technologies.
- ❖ Lastly the study recommends that schools should establish partnerships with AI experts and educational technologists to collaboratively develop AI solutions that are tailored to the specific instructional needs of teachers and the learning preferences of students. These collaborations

can ensure that AI tools are designed to support effective teaching practices while addressing individual student needs, leading to personalized learning experiences and by aligning AI solutions with pedagogical goals and learning objectives, schools can enhance the relevance and effectiveness of AI-driven tools, fostering improved engagement and academic performance.

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School Management and Performance of Learners among Selected Schools in South-Unguja, Zanzibar Tanzania

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Abstract

The research is about Effects of class Management on Students' Academic Performance in Community Secondary Schools in South District Unguja. It was done using a sample of 160 respondents consisting of the head of schools, teachers and secondary students chosen from five Community Secondary Schools (CSS) in South Unguja. Primary data was collected through questionnaire and interview to assess the capability of heads of schools in managing schools; the strategies they use to improve students' academic performance, and the efficacy of those strategies. The study found out that out of 1 head of schools none had undergone management training. The popular strategies that head of schools use to improve students' academic performance, ranged from motivating teachers to sanctions. Although most of the heads of schools did not have the formal management training, their management strategies were efficient given the situation of the community secondary schools in South district. Summary of the conclusion: The study recommends that the Government should consider training of the school heads so as to ensure quality management of the schools. It is also imploring the school managers to make efforts in developing themselves academically. The study further recommends that management skills to be added in teachers training programme to expose teachers to management issues.

Key words: Academic Performance, teaching and learning, motivation to the teacher, school management

1. INTRODUCTION

1.1 Introduction

Education remains the sole true investment and asset to the future life of a child to be inherited from the parents and guardians. As is a determinant to socio-economic development in any community; our education system seems to fail in fulfilling the desired objectives to most of the communities in Tanzania. Referring to the matter Antoria (2019), comments that education is critical for promoting sustainable development and improving the capacity of the people to address environment and development issues. It is critical for archiving environmental, ethical awareness, attitudes, values, skills and behaviours consistent with sustainable development and the effective public participation in decision making (Antoria, 2019).

The fact that a school as social institution is obviously depends on the number of individuals or the learners regardless their understanding capacity. The matter seems to be famous and normal problem at urban area but mainly also affect it at rural area at large. It is commonly experienced for the educators to outline and critically analyse the factors such as poor school infrastructures, shortage of learning and teaching materials, acute shortage of teachers, poor English foundation of students and nature of curricula, to underperformance of rural secondary schools (MoEVT,2017 and Qorro,2019). These discourage the learning progress of the students and teaching moral of respective teachers in most schools and school communities. Either, it has been noted that the school management and the number of learners are the crucial factor to drop down the student performance.

It is noted that, most communities, it's difficult to manage the large class per teacher at a time in such that even the understanding capacity was vary between them. However, the government is always claimed of its negligence to rural in favour of towns in social services supply; education included. A government play a role to solve the demand of teaching aids to the students so as to overcome a major problem. In such circumstance a student's sometimes fail to revise their books and event an equivalent assessment to the learner was not yet archived. Management of secondary school had been criticized as an ineffective in managing teachers to prepare competent individuals, who can demonstrate competencies in work and life (Benson, 2018). Heads of schools have been accused of devoting less attention in empowering teachers to dis empowering

them with their condescending attitude, which demoralize and lower their work performance (Wedgwood, 2017). Because of lack of management skills, many teachers in secondary schools in Tanzania teach and supervise students' learning poorly, with the results in poor performance (MOEVT, 2018).

The truth is that, the mass failure of our students in secondary schools in Tanzania is the direct reflection of incompetent school leaders; teacher low morale and performance is an index of a combined failure of head of school, who has failed to manage teaching (Ndimbo, 2018). In my search for the title of this research I was come across the word Management. My aim was to talk about leadership in schools but I preferred to use this word, which is having many different connotations. Management, definition if not analyzed properly can be wrongly interpreted as an act of observing others as they work and the boss sitting by seeing to it that workers complete their piece work. However, managers cannot just exist they need to be prepared for the work that they wasdone. My search for the literature on this subject made me realize how wrongly managerial position is considered in Tanzania especially Zanzibar.

The ways it has been perceived, wrongly has led to a perception that 'everybody can be a manager. Education is the lifelong process giving man information and wisdom to enable him/her to fit in the society. Ordinary level secondary education defined as post primary formal education offered to person who had successfully completed seven years of primary education and have met the requisite entry requirements [URT, 2017]. The secondary education is therefore regarded as an important stage in the development of a person socially, economically, politically, emotionally and physically. South district had initiated in 1st July 2022 with three divisions and 2 wards. The main economic activity is agriculture and tourisms. Subsistence smallholder farming for local consumption and domestic market dominates the economy in the district. Cassava, seaweeds, Banana and Maize are the main cash crops. Education wise South district is providing education as the lifelong process giving man information and wisdom to enable him/her to fit in the society as it is being stipulated in Secondary Education Development Programme II (SEDP II) and Primary Education Development Programme II (PEDP II). Ordinary level secondary education defined as post primary formal education offered to person who had successfully completed seven years of primary education and have met the requisite entry requirements [URT, 2017].

Soon after independence South district, had many secondary schools, as government effort to provide education to citizens. Since 2018 there had been a rapid increase of schools both government and private secondary schools. The increase was further detected in 2019 due to the introduction community based schools leading to an increase in access of students to secondary schools. The increase in access to secondary education didn't go at par with the rate of academic performance at the end of four years of secondary education. The secondary education is regarded as an important stage in the development of a person socially, economically, politically, emotionally and physically. For this reason proper management of community secondary schools is very crucial in developing human capital so as to boost economic growth and eliminate poverty. The Community Secondary schools then are responsible in provision of secondary education to these students but the performance in form four national examinations is not satisfactory as majority score division IV which is regarded as a pass but a grade that do not enable them to join advanced level secondary education. The form four National results 2018, show that 51% got zero grade (MoE, 2019) and those of 2017 show 63% with zero grade (MoE, 2019).

To improve academic performance particularly in Community Secondary schools, Big Result Now (BRN) was introduced in 2017 and was implemented. The academic performance from 2018-2019 was expected to rise at 60%, 70%, and 80% and above respectively. Still the performances in Community schools were not pleasing. As to why there is low academic performance in these schools, the causes were somehow explained by some researchers, ranging from irresponsive parents, teachers, poor setting of examination, inconsistency syllabus, poor quality of text books, poor teacher training to poor supervisions; so this paper is investigating the effect of school management on academic performance in community secondary schools in South district. Community schools face a number of challenges but all in all there were an increasing demand for these schools to provide better quality education. The Government Secondary schools in Tanzania are graded depending on the pass mark that a student obtains from the Primary School leaving Certificate Examination (PSLE). They are categorized into three classes namely; Special Schools for talented students who had passed well country wide, 'Ordinary schools' these are normal boarding schools for moderately passed students and the third are Community secondary schools which receive students scoring the cut - off points (Hoppers, 20019)

Among the three types of schools in Tanzania, Community Secondary Schools are the most challenged and the big challenge is on the deteriorating of academic performance. The government has approved reasonable budget to the education sector, but reciprocal quality development is that the number of schools and enrolments increased while students achievement deteriorated, (MOEVT, 2019) Komba and Nkomb, 2018). Much efforts had been made to increase number of graduates, yet what is persistently been happening possess the need of research to investigate the causes of deteriorating performance. Teaching in secondary school had been criticized as an ineffective in preparing competent individuals. They failed to demonstrate competencies in work and life (Benson, 2018). Teachers had been accused of devoting less attention in conceptual teaching to procedural knowledge, which further lead to memorization of facts rather than concept formation (Wedgwood, 2017).

This led to poor achievement in examinations where by majority of the students couldn't manage to join high level education (MOEVT, 2019). The truth is that, candidate's performance is the 6 reflection of many parameters of the learning process; low performance is an index of a combined failure of school system, which is management Ndimbo, (2020).

Classroom management as a key variable should have a positive impact on student academic performance in many schools across the continent (Marzona, 2018). There is a great relationship between classroom management and academic performance whereby the classrooms which were poorly managed were highly associated with poor academic performance compared to classrooms which were managed well (George et al., 2017). Therefore, teachers had to manage their classrooms by employing various planned activities for the sake of creating a conducive learning environment (Doyle, 2018). The employed planned activities should focus on the effectiveness and improvement of classroom management through might differ from one teacher to another due to several reasons including teachers' personality, teaching style, preparedness, number of students in the classroom, adequacy of teaching and learning material, physical facilities, and students' discipline (Hakielimu, 2017).

The planned activities had to engage learners and provide them with more opportunities to learn in order to meet the learning objectives. Therefore, pedagogical skills like classroom order could be employed in creating active learning towards the subject content using the available resources (Doyle, 2018). On the other hand, ineffective classroom management activities lead to

disruptive behaviours shown by students, such as sleeping, late coming, noise-making, miscopying of notes, eating, and verbal or physical threats to fellow students or the teacher. One of the strategies used by the majority of teachers in managing students' disruptive behaviour is the use of verbal instructions, whereby teachers provide clear instruction that would give students concrete and clear direction on what or how the classroom activities would be performed and managed (Good, 2018). The verbal instructions were sometimes ended with the delegation of authority whereby students can be assigned duties to prepare and present the lesson while a teacher controls the whole process (Nima, 2018). The delegation strategy needs ample time, opportunity, accessibility, and encouragement. The other approach is the reinforcement approach, which involves engaging learners in all academic activities (Kinyanjui et al., 2017). Although classroom management and students' academic performance have been a global concern for the past two decades, the relationship between the two is still high in the current school context. Hence, the emphasis was made on teachers being provided with managerial skills through in-job training as among the ways of improving their current classroom management activities (Umoren, 2019), which ended up in poor student performance in recent years.

School Management has a very wide scope than that of Education itself (Kabunga & Iramba, 2018). This is because school management is working towards the achievement of Educational goals of which mainly is Academic Performance of students. The release of examination results have been sending shock waves to the community and educational stakeholders to the extent of becoming fatal, Ndimbo (2019). School management has been urged to take up ownership of the agenda by finding ways to transforming their schools to assume their initial valued role, Olomi et al (2017). Uko Esther S., (2017) reflected on the role of school heads and came up with the following idea: it is related to how proficient and creative a school head is which contributes to the overall academic performance. According to Uko, effective school management is very important in up keeping making use and sustenance of facilities as they enhance effective productivity by the teachers and overall performance by the students. Influence of time management on students' academic performance was a study carried out by F. Aduke (2018) who suggested that, there is a considerable association between time management and academic performance. Even Principals need to have proper usage of time so as to be effective on the job. Aduke also found out that there is a relationship between delaying activities and academic performance, with lack of preparation of daily goals, which affect

academic performance. It is true that students need to be self-disciplined in managing their time so as to improve their academic performance. That Management and students should prioritize their time by not spending much time on social activities.

Activities that need to be attended at a particular time should be done immediately instead of dillydallying with time thinking that there is enough time in the future. Honigh and Hooye, (2017) researched on the management strategy of teacher collaboration. The Dutch heads of schools and teachers were interviewed on the research question, which was titled. “To what extent do teachers collaborate?” The findings were that teachers in Primary schools collaborate more than those in Secondary schools, but they both agree on receiving support from their heads of schools. All these studies show that school management is striving very hard into making sure that academic performance is raised as number one activity in their job descriptions. However, there has been a stable deterioration of academic performance in secondary schools worldwide. The deterioration of academic performance means poor performing of students in academic activities including national examinations. In Tanzania, community secondary schools perform worse in the national examination results.

Mass failure in secondary schools cannot be confined to Tanzania alone. Many countries in the world were also faced with the same phenomenon however in different degrees and this is occurring in all countries despite the differences in economic status. A research in Botswana about implementation of the performance management system in senior secondary schools in Botswana by Bulawa (2018) for example revealed that the country is struggling to raise the academic performance of students. This implied, that there was an academic deterioration .The research was about the education reform known as Performance Management System (PMS) which did not go well in Botswana, and the researcher was looking for reasons and way forward so as to manage and raise the academic performance. Olorutandare’s, (2019) paper on academic deterioration in Nigeria suggests poor academic performance in science subjects in Nigeria.

According to him, the general academic performance was deteriorating,” the monster of failure has taken over unleashing its fury on students year after year ”(Olorutandare, 2018). Academic performance deterioration is also evident in developed countries as well due to the following findings. In USA for example,

Lumpkin, (2017) observed that students' academic performance deteriorated due to poor management of teaching and learning environments. The research by International Journal of Facility management revealed differences in performance in Florida Comprehensive Assessment Test FCAT where two subjects, Mathematics and Reading were tested. Those students using old buildings for learning performed poorly compared to students using new buildings, and according to him, the difference in performance was the result of the improved management in the school building. This was further commented by Global Green USA by arguing that the condition of school building has a direct effect or impact on students' performance.

The adequate learning environments achieved by renovating or updating US public school building have been linked to increased students' achievement. The link between the school building and students performance was supported by Lumpkin," we do not do enough to protect our children: unhealthy schools impose grave injustice. State compels children to attend school: 98% of all school age children attend schools- irrespective of conditions. Yet the environmental conditions of decayed facilities close to hazards can damage children's health and ability to learn. At the same time, it is well documented that healthy school facilities can help children learn, grow, and stay healthy." (Healthy School network, 2013, p.5).

Australia is equally facing a decline on mathematics and science subjects and too few in early learning. PISA (programme for International Student Association) had conducted a survey on 15-year-old students, revealed that Australian students were falling behind other countries such as USA and England. Deterioration on the number of qualified teachers was also found to be among the causes of academic deterioration. They suggested that teacher training must be strengthened and changed on how they value education and invested on it. That included developing the measure to ensure high quality candidates enter teacher education courses. The declined participation in mathematics and science is an indication of academic deterioration. (the conversation.com, 2017). Kamariah, et al (2018) had researched on the Achievement Motivation Attitude and Academic Performance in Malaysia and findings were that attitude to study correlates with academic performance as well as achievement motivation was also found to be strongly related to academic performance. All this is true but also the role of school management

in students' academic performance had to be considered, on how motivation to teachers can improve academic goals.

Mphale, (2017) from Botswana had researched on the effectiveness of teaching and learning in improving students' performance, what factors contribute to students' low performance and the strategies that will be used to improve the performance. Although the type of respondents used seems correct for the research question on hand, the method that was used in this research, involved use of questionnaires that were posted after communicating with respondents via telephone. In researchers opinion the method used could not be reliable enough to give the needed answers. Nyandwi, (2017), carried a research in Sumbawanga, Tanzania on how academic performance is affected on students and teachers through lack of learning and teaching materials, parents' economic constraints as well as long distances from schools, incompetence of using English as the medium of instruction properly leading to lack of understanding and thus poor performance in examinations. All other factors considered, the language reason seems not to hold any water since these very same students fail to acquire good marks even in Swahili subject, which is their day-to-day language.

Management of the school had to see to it that these barriers are not affecting students' academic performance. Another researcher suggested in having government committees to monitor school facilities while the school management had to deal with inculcating culture of maintenance of school facilities in improving academic performance, (Uko, 2018) the researcher considers this as an important factor in creating a conducive academic environment for improving students' academic performance in teaching and learning process. Yet this can't be the main factor for students to excel academically. In South Unguja, according to National Examination Council of Tanzania [NECTA], currently the academic performance of government secondary schools are poor [URT, 2020/2021].

2. MATERIALS AND METHODS

The study used the descriptive research design in which mixed methods were used to collect primary data from a sample of 210 respondents. Simple random sampling techniques were used to select 5 Community Secondary based schools for study: the first approach was to make reference to the performance of these schools in the results of NECTA and ZEC for form Four and form Two results

respectively. In each school selection of teachers was done using subject matter that badly performs through their examination. As for students simple random sampling was used by making use of their attendance registers. The head of schools were picked purposively. This is due to the fact that they are in position to give the required information on the strategies that the heads of school use to raise academic standards and position of school regarding academic performance.

Data was collected using a questionnaire and interview guide. Secondary data was collected from reviewing relevant literature. The data was then analysed using the SPSS version 22 to obtained results upon which tailored inferences were made. The research instruments were validated using face and content validity. The face validity was determined by the layout and the structure of questionnaire and the interview. The content validity was provided by the experts in school management. This helped in realizing whether the instrument measure what was supposed to. The questionnaire and interview instruments were constructed in such a way that they related to research questions. Validity encompasses all experimental concepts and established the correctness of the results obtained and fulfilled the needs of the research method.

3. RESULTS AND DISCUSSIONS

Table 3.1: Participant Profile

Participants	Gender		Age	Working experience
	Male	Female		
Heads of School	03	02	45 to 58	7 to 16 years
Teachers	13	17	25 to 40	3 to 15 years
Form four students	29	33	16 to 22	
Form two students	30	33	12 to 14	

Source Field Data (2024)

3.1 Capabilities of Head of Schools in Managing Secondary Schools

Objective 1 was set to assess the capability of head of schools in managing community secondary schools. Questionnaire and interview were used to solicit information from five heads of schools and 30 teachers. Two aspects of

capability were targeted: level of education and experience in teaching. Table 3.2 presents the findings.

Table 3.2: Capability of Heads of Schools

Head of school	Level of Education	Trained HOS	% Of Trained HOS	Work experience	% Of work Experience
02	Degree	02	40%	8 to 16 yrs.	40%
02	Diploma	02	40%	5 to 10 yrs.	40%
01	Certificate	01	20%	2 to 3 yrs	20%

Source: field data (2024)

Out of 05 who were interviewed, 2 of them (40%) were degree holders, 2 (40%) Heads were diploma holders and 1 of them are certificate holder (20%).

Work Experience of school Teacher

4 respondents (equivalent to 13.3%) had worked below five years, whereas 14 respondents (46.6%) had been working at the given schools for five to nine years; and 12 respondents (40%) had work experience of nine years and above. The findings indicate that most of teachers involved in this study (86.6%) are more experienced (more than five years). This justifies that the information given by teachers about the capabilities of Heads of schools in managing community secondary schools is reliable. Heads of schools were also asked the same question in order to know about their work experience. 04 out of 05 respondents (80%) had five and more years work experience. 2 of 05 (40%) said that they had been working as heads of schools for nine years and above. Analysis shows that most Heads of Schools had good work experience with their position and therefore had enough information about their schools.

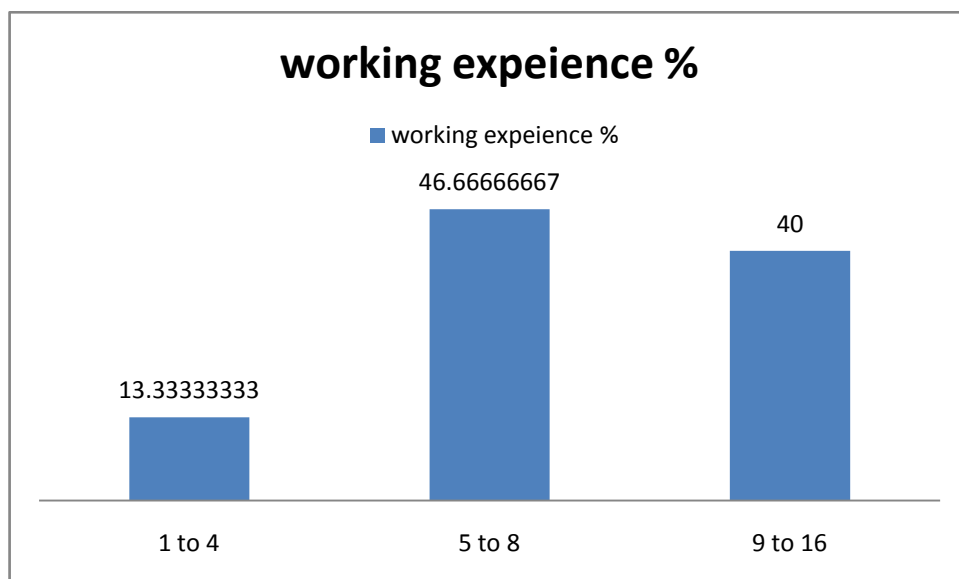


Figure 3.1: % Working experience of school Teacher

Source field data 2024

According to literature review in chapter two, most heads of schools manage their schools by using their academic qualifications and experience in teaching profession, this is in agreement with Auko and Nzoka (2017) who had commented on the lack of management training for most heads of schools, who for most of these community schools had to deal with a number of responsibilities so as to run the school. Heads of schools are academicians, secretaries, lawyers, treasurers and even police. It is obvious therefore for one to play this multirole post needs well-trained personnel. Majority of these heads of school when asked about training they claimed to have three days at the management training centre in their teaching centre.

The factor of experience in teaching is crucial if one is to become a reliable and a competent head of school. The finding that most of the heads of schools are diploma holders, most were picked up from schools in which they had been working for some time in classrooms and were recommended as suitable to run community schools due to their experience. It is known that experience is a good teacher since long time in a job helps one to know pros and cons of the business. Memon et al (2017) insisted on development of leadership and school improvement to go hand in hand. Therefore lack of training and academic improvement could be one of the reasons for community schools to perform poorly.

Strategies to improve Students' Academic Performance

Objective 2 was set to solicit information on the strategies that the heads of schools used to improve students' academic performance. From the literature review it was revealed that, heads of schools conduct internal quality assurance on teaching and learning activities; heads of schools who spend most of their time in school dealing with academic issues helped a lot in raising students' academic performance; many of the schools have established school management teams in assisting management of school and reinforcement of school rules; school management use guidance and counselling, rewards, discipline and school identity; and that heads of schools delegate responsibilities and promote collegiality. From the heads of school in South District Unguja these were some of their responses.

Head of school 1: As a leader I ensure that all the teachers come to school and leave on agreed time to allow spending enough time with the students, and I do work very closely with the school management team.

Head of school 2: Spending more time with teachers and students has made teachers to be more responsible in teaching. Whenever, I can, I make sure I spend most of my time in school.

Head of School 3: The key issue on raising academic in schools I believe that with good disciplined students as well as teachers so reinforcing school rules and regulations as well as regular guidance and counselling always helps in improving students academically.

Head of School 4: If teachers are monitored in their teaching and learning activities, students will gain more, of course the provision of facilities needed for the job is crucial. It is also good to award teachers and those students who had done a commendable job.

Head of School 5: Decision making concerning most of the school activities are done using management team, staff meetings school Baraza and the school Board. At the same time teachers are given different duties to manage or monitor in the whole process of helping management activities of the school.

Teachers also responded to the same question and here were their responses:

Teacher 1: The strategies that my school head use to ensure students' performance include. The use of remedial classes, weekly and monthly tests

Teacher 2 Students are encouraged to have group discussions but also guidance and counselling that is provided to students concerning their studies help very much.

Teacher 3: A strategy which is very commonly used is to reward those students who perform well and to punish those who are lagging behind.

Teacher 4: Head of school is unable to motivate us monetarily, but he encourages us to of us are overloaded work hard using good words. Despite the fact that some with periods, heads of school demand that every lesson must have a lesson plan including teaching aids.

Teacher 5: Parents are not giving us the necessary support of making sure that students perform their homework's as well as making the necessary follow up on their children school progress e.g. truancy and coming to school late.

Likewise, students were involved in this question and here are their responses:

Student 1: We are taught well, teachers try their level best in providing us with necessary materials and they help us with difficult topics or questions.

Student 2: Attending remedial classes, doing lots of homework's given by our teachers is just part of a strategy in helping us so that we can perform well in our final examinations

Student 3: Regular attendance to school and completing assignments given by our teachers, help us to have to studies and thus promote our memory on what we learn at school every day.

Student 4: Carrying out character assessment to ensure that we understand school rules and regulations but also in counselling us about general behaviour and our aspirations. Truancy and late coming to school are strictly discouraged.

Student 5: Heads of school is making everything possible so that we speak English at school that can help us understand our lessons and at the same time help us in answering questions in examinations.

Student 6: Head of school is educating our parents to get involved in our education, by making sure that parents receive our progress reports and parents are required to provide feedback and opinions or suggestions.

From the above, the responses from the heads of school seem to lean more on ensuring that teachers work. This view is in line with the study by Raj (2009) school improvement on issues such as laboratory equipment and apparatus, teacher offices and housing, general conditions of infrastructure, raised students' performance. Responses from 80% of parents were as follows:

- (i) Making sure that they (students) are being taught and that the curriculum is adhered to
- (ii) Provision of school facilities, to enable school activities to be conducted as normal as they should From the parents responses it seems that there is appositve feedback on the strategies that heads of schools use to ensure students' academic performance.

Table 3.4: Considering the use of Teaching Aids in Teaching.

Category	Frequency	Percentage
Strong disagree	05	3.125
Disagree	10	6.25
Agree	70	43.75
Strong agree	75	46.875
Total	160	100.0

Source: Study Survey 2024

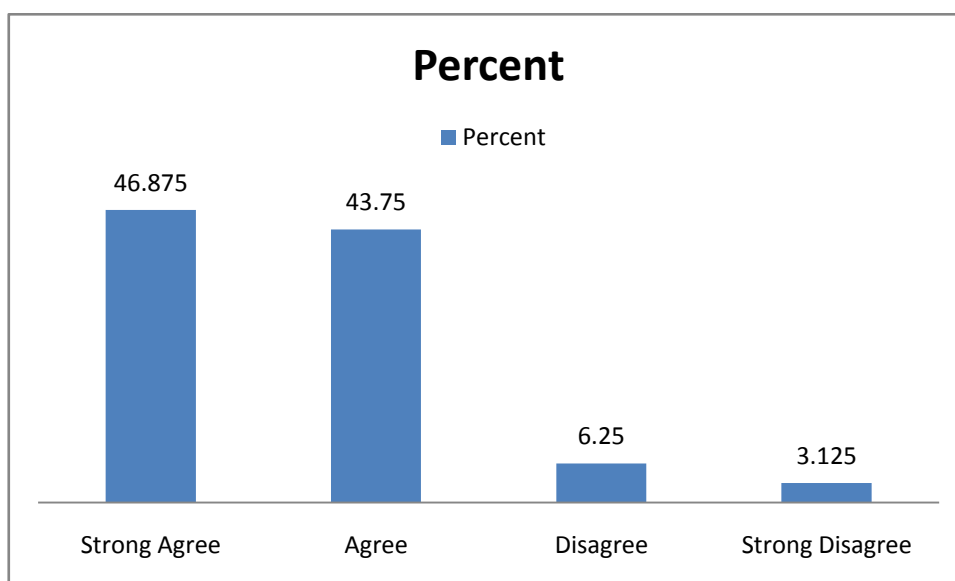


Figure 3.2: Use of teaching aids in teaching

The responses indicated that although most of the respondents felt that the strategies that head of schools use were efficient, still they contradicted themselves in the outcome of these strategies in terms of teachers using teaching aids in facilitating learning. The majority of teachers use teaching aids insufficiently the majority of the teachers rarely make use of artificial ones since is not available but instead half of them are improvising using available resources in their surroundings. Also through interview with heads of school on preparation of lesson plan, 3 out of 5 heads of school (60.0%) to the visited school said some of their teachers are not able to prepare lesson plan to each lesson due to overloaded of periods. Some of the subjects have one teacher teaching in the whole school; therefore to follow teaching procedure like preparation of lesson, teaching aids, sometimes even lesson notes is difficult. The rest that is 2 equal to (40.0%) said it is possible to prepare lesson plan to each lesson taught.

These prevailing conditions would contribute to late coverage of syllabus which lead to poor academic performance of secondary school students and a key contributor to mass failure in secondary schools however many teachers have a concern on rampant truancy in schools as the following responses indicate; Teacher 1: Some students do not come to school regularly, some will skip some days in a week while others are habitual absentees, who might not attend school for one or two months to only come back to school after school efforts in searching for his or her whereabouts.

Teacher 2: Students who misbehave or the ones who are involved in promiscuous behaviours or in drug abuse will never attend school very well leading to poor performance.

Teacher 3: For parents who do not make proper follow up on their students' school progress, there is a tendency for those students to not studying some of the subjects properly.

This condition is termed as subject truancy, which normally affects student's performance.

This is supported by Mathias (2018) in who researched on truancy and its impact on academic performance among secondary school students.

The study revealed that poor academic performance among students is due to truancy, since students who are not attending classes at the end of the day will have nothing to answer if it comes to examinations. Also parents do not visit school to check for the progress of their children except in response to disciplinary problems and sometimes when summoned they do not respond immediately at all. Furthermore, Ruth (2018) establishes the relationship between student's school attendance and academic performance in Kenya whereby observation shows that absence influence poor academic performance. The evidence was that students who attend school regularly were performing better academically than the absentees. From the parents responses it seems that there is appositive feedback on the strategies that heads of schools use to ensure students' academic performance. The third and final objective was to determine the efficacy of the strategies that heads of schools use to improve the academic performance of the students. The efficacy of the strategies that heads of schools use in managing schools are:

Musungu et al found out those motivation strategies such as rewards, discipline, guidance and counselling are used by the head of schools but with a different emphasis in each school. If properly used can bring good results. Communication strategies Duke (2019), such as oral, written, verbal and non-verbal and notice boards are used but the most common is oral. If these used can bring some impacts to teachers and students as well. Reinforcement of school rules, provision of facilities, delegation of responsibilities, internal quality assurance, promotion of collegiality also can contribute in improving school performance if they are used together with motivation to teachers but also

parental involvements in students’ academic performance is important as shown below

Table 3.5: Participation of Parents /Guardians in Students Academic Performance

Category	Frequency	Percentage
High	15	30
Moderate	25	50
Low	10	20
Total	50	100

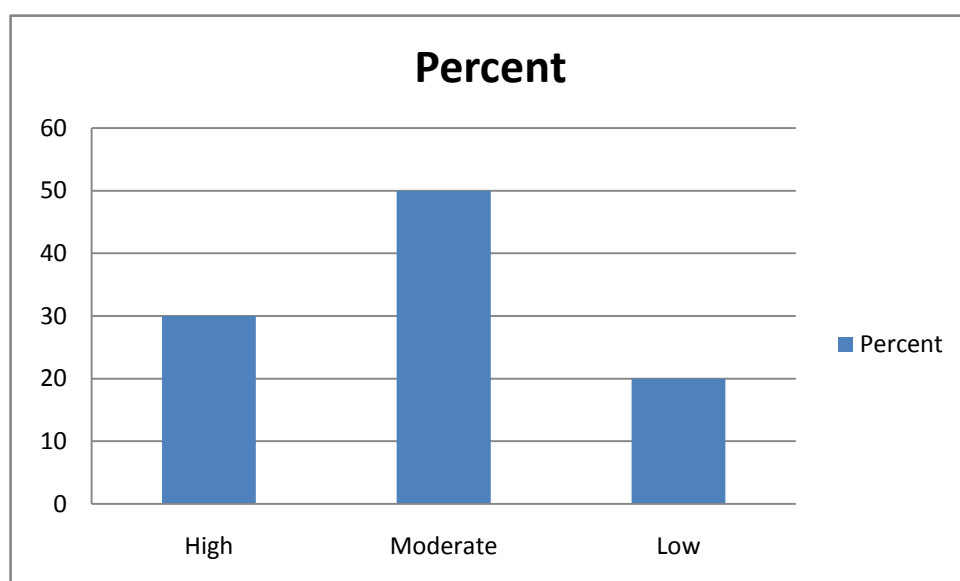


Figure 3.3: Participation of Parents /Guardians in Students Academic Performance

4. CONCLUSION

It was noted that majority of the head of schools had no formal management training to help them manage teachers, students and school effectively. This implies that the majority of heads of schools lead by position rather than the

knowledge. This type of leadership makes it hard to see the transformation in secondary schools. Because of the lack of formal leadership skills, the study found that many heads of schools used top-down direction and school hierarchies to lead instead of using **democratic** and **empowering** strategies to teachers for effective teaching in the school. This implies that they try to use their power to try to impose things on the teachers and students. The study revealed that, heads of schools and their teams are striving hard in providing a conducive environment in which students can receive their education well, but these efforts are met by resistance from students and sometimes by the government due to lack of enough funds to buy teaching and learning materials. Failure to motivate teachers as well as students in due time contributed to the poor academic performance. The usefulness of strategies that school managers use according to the study discovered, are having different impacts in schools since similar strategies are used differently by managers of different schools. Based on the study the classroom activities affect but not much on academic performance, there are unlike source instead the management of school was major.

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I thanks Allah the God of everything in the Universe – *Alhamdulillah Rabbil Alaamin.*

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Impact of Sugarcane Farming on Pupils' Enrolment in selected Primary Schools in Buikwe Distict Uganda

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Abstract

This study sought to identify the effects of sugarcane farming on pupils' enrolment in primary schools, analyze the factors that have led pupils to engage in sugarcane farming and recommend workable measures that would promote enrolment in schools. The study adopted a mixed research design in which qualitative and quantitative data were collected from a sample of 80 respondents. The study findings showed that child labour, pupils and teachers' absenteeism, school dropout among others are the major effects of sugarcane farming on pupils' enrolment. The study recommends that school administrators in conjunction with other stakeholders should promote and implement hands on skills in primary schools; government to reduce taxes on scholastic materials and also promote free and compulsory education for all. Future researchers could conduct studies to determine the effect of sugarcane farming on attendance, academic performance, and teachers' performance.

Key words: Sugarcane farming, Pupil's enrolment, Child labor, Primary Schools

1. INTRODUCTION

1.1 Introduction

Brazil is the largest producer of sugarcane accounting for 25% global production; children aged 14 – 17 cultivate sugar cane and Brazil (2016) National Survey indicated and estimated number of 5,503 children work in sugarcane plantations. India is the second largest producer of sugarcane with 19% production and has the largest population of child laborers with approximately 30% globally and the largest population of illiterates which represents $\frac{1}{3}$ of the global total population of primary school children and about $\frac{1}{2}$ children aged 5 – 14 not in school.

Uganda has many sugarcane farming areas including Najjembe division, Buikwe with approximately $\frac{1}{2}$ of its land used for sugarcane cultivation. In Uganda the promotion of mass education becomes a major objective of the NRM regime a major objective of the NRM regime and was implemented through the introduction (UPE) Universal Primary Education in 1997.

Although there is UPE, approximately 14% boys and 13% girls are out of school. The government has done its best to construct classrooms, provision of textbooks, refresher courses and training for teachers but still enrollment in Najjembe division schools is very low.

2. MATERIALS AND METHODS

The study used both qualitative and quantitative research design, the researcher collected information without repetitively visiting respondents when collecting data. Qualitative data approach was purposive where data was collected basing on different categories of subjects.

Population and Sample size. The population was selected from the greatest population whose opinions was to represent the opinions of the target group. (Wilson 2010). The target population was 100 respondents but a sample size of 80 respondents was used. These included parents, pupils from primary five – seven from five primary schools, education officials, labour officer, officials in the agriculture sector and community leaders.

Simple random sample respondents were also selected purposively based on their unique qualities that made to provide desired opinions and experiences about sugarcane farming and enrolment in primary schools. These were mainly head teachers, MEO, MIS, Labour officer, Human resource officer.

Data was collected mainly using three data collection methods which include Focus group discussions, Key informative interviews (KIIs), Non- participant observation through interviews, questionnaires and on spot observation which served as an effective source to complement and triangulate data obtained using KIIs and FGDs.

Quality control. The validity of the instruments was established by use of two raters which evaluated the context of instruments and determined whether all items were under investigation. Reliability of instruments was ensured through the use of computer package Statistical Package for Social Scientists (SPSS).

Data analysis. Filled questionnaires were edited at each end of day for consistency and accuracy of data collected. Data was presented using tables, graphs, pie charts, sub-sections of questionnaires were analyzed as separate entity after which correlation was done with pupils' enrolment. Qualitative data was analyzed in relation to sugarcane farming using ideas and opinions of the respondents.

3. RESULTS AND DISCUSSIONS

3.1 Respondents Demographics

Table 3.1: Showing age bracket of respondents.

Age	Frequency	Percentage
11-15	24	30%
21-35	20	25%
35 and above	36	45%
Total	80	100%

Source: Primary data, Study findings 2024.

The table 3.1 shows that the majority of the respondents 45% (36) were 35 years and above, 25% (20) were aged between 21-35 where the minority of the respondents 30% (24) were aged 11 – 15. The researcher therefore found out that the majority of the respondents interviewed aged between 35 and above and the minority of respondents interviewed were 21-35 years while respondents between 11-15 were moderate. The respondents aged 35 and above were the majority because they were more knowledgeable about the study under investigation and they were more likely to provide desired opinions and experiences. These included Municipal officers, head teachers, parents, teachers and community leaders.

Respondents in the age bracket 11-15 were moderate because they were mainly pupils who expected not to completely provide detailed information about the study under Investigation of Respondents aged 21-35 were minority because they were not freely and easily accessed.

3.2 Sugarcane farming and pupil's enrollment

Table 3.2: The interrelationship between sugarcane farming and pupil's enrollment in the five selected primary schools in the study area.

A-Buwoola primary school.

B-Kikube primary school

C-Kasoga primary school

D-Buvunya primary school

E- Kinoni primary school

YEAR	2019					2020					2022					2023				
SCHOOL	A	B	C	E	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
CLASS																				
P.1	69	72	73	45	53	30	64	80	46	58	35	75	67	76	58	72	82	67	59	42
P.2	39	35	68	26	50	26	50	73	36	62	42	61	50	54	49	61	51	43	65	39
P.3	21	28	41	32	37	35	51	61	35	60	43	82	46	81	43	60	31	42	42	21
P.4	19	10	35	43	21	25	37	47	31	33	38	37	27	79	40	44	37	23	38	37
P.5	09	15	27	35	32	15	32	35	28	30	33	32	23	39	32	31	20	32	16	11
P.6	10	13	19	17	23	11	24	20	18	23	25	24	36	35	33	20	25	21	19	15
P.7	16	16	25	21	22	15	29	22	19	33	11	29	30	40	23	17	29	35	26	20
TOTAL	183	189	288	219	238	147	287	338	213	299	227	340	279	432	278	305	275	263	239	174

Source: Schools records in the study area.

The overall general and common trend observed and also established that the number of children is high during enrolment in the lower section from primary 1 to primary 4.

The numbers progressively reduce in the upper primary section of primary section of primary five (5) to primary seven (7). This is the stage when many children in the age group of 10-15 years dropout of school and enter into child labor in different sectors for example Agricultural sector especially in sugar plantations. But in Najjembe, majority of the children engage in sugarcane farming activities of weeding, cutting, bundling, loading and many others.

Study findings revealed that before the COVID 19 pandemic 2019, 2020 enrolment was very low and the post Covid 19 pandemic 2022 there was an increase in enrolment in schools of the study as a result of stake holders' involvement to campaign taking back the children to school after a full education dead year 2021 when schools were closed.

3.3 Sugarcane farming and pupils' performance

Table 3.3: Performance reflected in the Primary Leaving Examination year 2023 for 5 primary schools of study.

School	Grade 1	Grade II	Grade III	Grade IV	Grade X	Grade U	TOTAL
A	0	02	07	02	03	03	17
B	0	12	06	11	00	00	29
C	1	21	20	09	01	12	64
D	0	33	14	22	06	11	86
E	0	08	05	05	00	2	20

Source: Lugazi Municipal Council Department of education and Sports.

The data tabulated in table 3.3 and bar graph shows that in all 5 selected primary schools in the study area, there was only one first grade score out of 216 candidates who sat for PLE in 2023. The total number of children who passed in grade 3, 4 and the non- graded (U) is 129 and is higher than those 77

in grade one and grade two. This implies that most of these children do not continue to secondary level and are a potential source of child labor in the sugarcane growing communities.

The study therefore revealed that most of these children do not continue to the next level of education due to poor performance so they are potential members of child labor in the sugarcane farms. The study findings revealed that at primary seven, some pupils register pupils from other schools which make the enrolment high for results i.e., school C had 35 pupils in P.7 2023 but the results appear for 86 pupils.

4. CONCLUSION

Although some studies on sugarcane farming have been carried out, there is a lot to find out on the effect of sugarcane farming on pupils' enrolment. Respondents have a mixed understanding about what exactly constitutes child labor in sugarcane farming which results to absenteeism, dropout and low enrolment in schools in Najee division Lugazi municipality.

Child labour exists in the production and supply chain of sugarcane. Children fail to enroll for school and either involve in planting, weeding, cutting, bundling, loading sugarcane or work to support those in the production and supply chain which involve vending food items and other necessities on market to sugarcane workers in farms or factories.

The study showed that some of the factors which have led children to engage in sugarcane farming include household poverty, demand for cheap labor, Uganda's education system, peer pressure, gender-based violence. This therefore for all the education stakeholders to join hands and strengthen the child labor law to make all the school going age children enrolment and retention at school.

The study recommended that; School administrators in conjunction with some NGOs like ANPP should promote and implement hands on skills like weaving, carpentry, painting and other small-scale industries to primary schools to make the school interesting place to stay.

Competence based Curriculum (CBC) to be lowered down to primary schools, co-curricular activities to be followed up by government to support the best performing children to stay in school as they will be sponsored.

Government should enforce child labour and prosecute the perpetrators of child labour and also give formal short term school level support packages to children whose families cannot afford school basics like books, pens, and school uniform to keep in school thus increasing enrolment.

Lastly, Education should be made free and compulsory for all by the government.

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Influence of Bilingualism on Students' Competence in English Language in Selected Secondary Schools in Buvuma District, Uganda.

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Abstract

The study sought to establish the influence of bilingualism on students' competence in the English language in secondary schools in Buvuma District. A cross-sectional design was used to conduct a study about socio-cultural factors and students' competence in the English language. This was because the researcher wanted to examine the relationship between socio-cultural factors and competence in the English language in a specific time frame. Data was collected basically using a questionnaire and interview guide. Data presentation was done in summary tables to show descriptive statistics mainly using mean and standard deviation. The influence of bilingualism and students' competence in the English language was established using regression analysis. Significant results were measured at a 95% confidence level or p-value at a threshold of 0.05. The results of the regression analysis show that bilingualism has a significant positive effect on students' competences in English, with a standardized coefficient of .408. The t-value of 6.971 is statistically significant at the .000 level, indicating that the relationship between bilingualism and students' competences in English is unlikely to be due to chance. Conclusively, the study found out that bilingualism has a significant influence on students' competence in the English language. It is therefore recommended that school administrators and policymakers consider incorporating bilingual education initiatives into the curriculum to support students in developing competence in the English language and their native language.

Key Words: Bilingualism; Students' Competence; English Language

1. INTRODUCTION

1.1 Introduction

Socio-cultural factors refer to aspects of society and culture such as family dynamics, social norms, religious beliefs, and educational opportunities that can influence individuals' beliefs, behaviors, and attitudes (Izydorczyk et al., 2020). Another critical aspect of language education involves addressing diverse learner backgrounds. Teachers must recognize and value the linguistic and cultural diversity of learners, adapt their teaching strategies, and promote inclusivity. By actively incorporating inclusive practices into teaching, teachers not only acknowledge diversity but also ensure that every student feels their background is integral to the learning process (Rice & Liamputtong, 2023).

In the 1970s, renowned linguist James Cummins introduced the notion of linguistic interdependence, marking the beginning of the influence of socio-cultural factors on students' English language competences (Zajda, 2024). Cummins argued that a student's proficiency in their first language can significantly impact their ability to acquire and develop skills in a second language. This theory shifted the focus in language education toward acknowledging and valuing students' cultural backgrounds and experiences as essential components of language learning (Shoebottom, n.d.).

James Cummins talked about four main sociocultural issues: (1) how important it is to be bilingual; (2) how cultural identity affects language learning; (3) how community support affects language development; and (4) how important it is to recognize and celebrate diversity in the classroom (Shoebottom, n.d.). These factors highlight the interconnectedness between language, culture, and education, emphasizing the need for a holistic approach to language learning that considers the socio-cultural context of students. By addressing these issues, teachers can create a more inclusive and effective learning environment that fosters the linguistic competencies of all students (Zajda, 2024).

Diverse cultural, linguistic, and technological factors profoundly influence language learning in today's globalized world (Kim, 2020). In American secondary schools, socio-cultural factors such as socioeconomic status, cultural background, and family support can impact a student's motivation and ability to learn English (Adigun, 2023). Additionally, a student's competence in the

English language can also influence their academic success and overall educational outcomes;

Thus, teachers ought to consider these factors when designing curriculum and providing support to ensure all students have an equal opportunity to excel in their English language studies (Ahmed, 2016). Students' competence in English, influenced by prior language exposure, proficiency levels, and access to resources, can greatly affect their ability to effectively communicate and succeed academically in an English-speaking environment (Dahlberg & Gross, 2024).

In secondary schools in Africa, students from more privileged backgrounds or those who have access to resources like English language tutors tend to perform better in English compared to their peers from disadvantaged backgrounds (Kukulska-Hulme et al., 2023). The cultural attitudes toward English and the importance placed on language learning in the community can also influence students' motivation and proficiency in the language (Kiramba et al., 2021). Socio-cultural factors such as family background, exposure to English outside of school, and societal attitudes toward the language all play a significant role in determining students' competence in English (Kiramba et al., 2021; Dahlberg & Gross, 2024; Adigun, 2023).

Socio-cultural factors significantly influence students' ability to communicate proficiently and excel academically in Uganda, where English serves as the official language and the medium of instruction in schools (Ntabwoba & Sikubwabo, 2024). Understanding and addressing socio-cultural influences promotes equitable access to quality education and ensures that all students have the opportunity to succeed in school and beyond (Makonye & Mudhumu, 2023). This study aims at determining the influence of bilingualism on students' competences in English language in secondary schools in Buvuma District.

1.2. Literature review

.According to Bialystok (2017), bilingual individuals have the ability to switch between two languages and adapt to different linguistic contexts, which enhances their cognitive flexibility. This cognitive flexibility allows students to think more creatively and problem solve more effectively, leading to improved language learning outcomes in English.

In secondary schools, bilingual students may advantage in their English classes as they are able to approach language learning with a more adaptable and open mindset. As a result, Haft et al. (2019) points out that bilingualism can greatly benefit students' English language competences by enhancing their cognitive abilities and allowing them to excel in language learning.

Becker et al. (2016)'s study points out that bilingual students often have stronger executive functioning skills, such as cognitive flexibility and working memory, which are essential for problem-solving. By regularly switching between languages, students are constantly exercising these cognitive functions, leading to improved problem-solving abilities. This, in turn, can positively impact their English language competence by allowing them to approach language tasks with a more strategic and adaptable mindset.

Research by Greve et al. (2021) demonstrates that bilingualism enhances problem-solving abilities, critical thinking, and cognitive flexibility, all of which are essential for successful communication. Students can adapt their communication style to different audiences and contexts by switching between languages. This flexibility not only improves their overall communication abilities, but also allows them to navigate the complexities of the English language more easily, leading to a deeper understanding and mastery of it.

Furthermore, Barbu et al. (2018) indicates that students gain a deeper understanding of language functions by comparing and contrasting different grammatical structures through exposure to multiple languages. This allows them to transfer knowledge and skills from one language to another, ultimately improving their proficiency in English.

Furthermore, Bialystok and Craik (2022) identify that bilingualism still allows students to understand and appreciate different cultures, as they are able to communicate with people from diverse backgrounds. This exposure to different ways of thinking and expressing ideas helps students develop a more nuanced understanding of language and syntax. As a result, students are able to transfer these skills to their English language studies, leading to improved language competences in secondary schools. In the end, bilingualism fosters a deeper cultural awareness and linguistic proficiency in students, enhancing their overall educational experience.

Studies by Timmer et al. (2018) have also demonstrated that bilingualism improves cognitive functions like working memory, which is essential for acquiring and retaining new knowledge. This improved memory retention can benefit students in their English language studies by helping them remember vocabulary, grammar rules, and complex concepts more easily. Additionally, Barbu et al. (2018) studies have shown that bilingualism improves cognitive flexibility and problem-solving abilities, two crucial aspects of creativity. When students are able to think in two languages, they are more likely to come up with unique and innovative solutions to challenges. This creativity can then spill over into their English language skills, allowing them to approach language learning with a more open mindset and creative approach.

According to Hossain (2024), bilingual individuals have improved cognitive control and task-switching abilities, allowing them to more effectively manage multiple tasks at once. This enhanced multitasking skill can benefit students in secondary schools by improving their ability to focus, prioritize, and complete assignments efficiently. Additionally, studies have linked bilingualism to stronger language skills, such as a better understanding of English grammar, vocabulary, and language structure, which ultimately leads to higher academic achievement in language-related subjects. Research by Abdullah et al. (2022) demonstrates that bilingualism improves cognitive skills like problem-solving and critical thinking, which are essential for learning a language.

To Izydorczyk et al. (2020), bilingualism opens up a world of possibilities for individuals in the workforce, as it allows them to communicate with a wider range of people and access more job opportunities. In secondary schools, students who are bilingual have a competitive edge when applying for jobs or pursuing higher education. In today's globalized economy, employers highly value their proficiency in English and another language, which demonstrates adaptability, cultural awareness, and strong communication skills.

2. MATERIALS AND METHODS

A cross-sectional design was used to conduct a study. This was because the researcher wanted to examine the relationship between bilingualism and competence in English language in a specific time frame. By collecting data from participants of different categories at a single point in time, the researcher

was able to compare bilingualism and English language competences accurately.

The study population included; students, teachers, head teachers and chairpersons board of governors, In this research, a random subset of each category was used based on inclusion and exclusion criteria related to the variables being investigated (Alex & Caren, 2019). The respective categories are in the Table 2.1 below;

Table 2.1: Population, sample size and procedure

Category	Number (N)	Sample size	Procedure
Head teachers	4	4	Census inquiry
Chairpersons board of governors	4	4	Census inquiry
Teachers	77	68	Simple random
Students	351	270	Convenience sampling
Total	436	346	

Source: Author generated

The researcher developed a set of structured questions for secondary school teachers. The composition of the questionnaire was in such a way that each of the questions about the main study variables were rated on a Linkert scale running from 1-Strongly Disagree, 2-Disagree, 3-Not sure, 4-Agree and 5-Strongly Agree.

Interviews were conducted with head teachers. The researcher's interviews with each head teacher and the chairpersons board of governors were guided by the interview guide. Each head teacher was interviewed once, for not more than one hour per interviewee.

Validity refers to how a test measures what it is purported to measure. A pilot study was conducted and findings subjected to tests. Specifically, face validity was applied using a panel of five experts each of the qualitative data analysis tools-the questionnaire, interview guide and focus group discussion guide. The

face validity assessment for each of the unstructured questions followed the following guiding question; (a) Are the components of the measure (e.g., questions) relevant to what's being measured? (b) Does the measurement method seem useful for measuring the variable? And (C) Is the measure seemingly appropriate for capturing the variable? Out of the five experts, Table 2.2 shows the results of the validity of the study.

Table 2.2: Validity of Research instruments

No.	Validity Measure	Interview		Questionnaire		Focus Group discussion	
		Yes	No	Yes	No	Yes	No
1.	Are the components of the measure (e.g., questions) relevant to what's being measured?	4	1	5	0	4	1
2.	Does the measurement method seem useful for measuring the variable?	5	0	4	1	5	0
3.	Is the measure seemingly appropriate for capturing the variable?	5	0	4	1	5	0

On the other hand, reliability is the degree of consistency of a measure to the effect that a test can give the same repeated result under the same conditions (Martyn & Wilson, 2019). Questionnaires were piloted to 30 respondents in schools in Buvuma district to test respondents' understanding of questions in the questionnaire. Tested questionnaires were rated.

The researcher used Cronbach Alpha (α) coefficients to determine the reliability of the instrument. According to Cronbach, for an instrument to be reliable, its Alpha value must be at least from .70 and above. Cronbach Alpha's scale of measuring reliability indicates that any scores less than .60 is an unacceptably low reliability, 0.60-0.69 defines marginally reliable results, 0.70-0.79 describes reliable results, 0.80-0.90 scale describes highly reliable results and >0.90 is a scale for very highly reliable. Table 2.3 shows the reliability results.

Table 2.3: Reliability of questionnaire items

Variable	No. of items	Cronbach Alpha score	Cronbach Alpha on standardized Items	Interpretation
1. Students' competences	10	0.769	0.777	Reliable
2. Bilingualism	10	0.812	0.823	Highly reliable

Source: Primary Data 2024

Overall, the questionnaire items assessing students' competences, and bilingualism demonstrated good reliability. The Cronbach Alpha scores for each variable ranged from 0.769 to 0.812, indicating that the items consistently measured the constructs they were intended to assess. The standardized Cronbach Alpha scores were also high, further confirming the reliability of the questionnaire items. This suggests that the questionnaire is a valid tool for evaluating these aspects of language education.

The researcher entered and analysed the data using SPSS version 22, performed a descriptive analysis for all variables, and then conducted bivariate analysis to examine the relationships between each independent variable and the outcome. At this stage, the researcher reported the findings with a statistically significant coefficient of agreement at a 95 percent confidence level or a 5 percent probability level. Mean and standard deviation were used to analyze and interpret the results for students' competences in English Language, bilingualism, cultural diversity and community support in language development.

On the other hand, the researcher performed a regression analysis to; establish the influence of bilingualism on students' competence in English language in secondary schools in Buvuma District. The Beta values indicated the relationship between variables while the B-value was used to determine the statistical influence. The significant results for correlation were determined at P-value of 0.01 and less. Findings from interviews with head teachers and the chairperson BoGs as well as findings from the students were reported using verbatim and interpretation based on how the researcher understood based on themes and subthemes in the tool.

3. RESULTS AND DISCUSSION

This study used ten items to measure the Influence of bilingualism on students' competences in English language in secondary schools in Buvuma District. This section is subdivided into two-the descriptive statistics for bilingualism and the regression analysis to explain the implications of bilingualism on students' competences in English. Table 3.1, illustrates the findings of the study. The interpretation of results was based on Amal (2026) scale: 1.00-1.80 = *strongly disagree*, 1.81-2.60 = *Disagree*, 2.61-3.40 = *Neutral*, 3.41- 4.20 = *Agree*, and 4.21-5.00 = *Strongly Agree*.

3.1 Descriptive results for Bilingualism

Table 3.1: Descriptive Results for Bilingualism

Key: 1-2 = Strongly Disagree + Disagree; 3 = Neutral; 4-5 = Strongly Agree + Agree

No.	Statement of Bilingualism	1-2	3	4-5	N	M	SD
1.	Switch between languages and learning from mother language	12 (18%)	6(9%)	50 (73%)	68 (100%)	3.69	1.09
2.	Dev. problem solving skills	17 (25%)	9 (13%)	42 (62%)	68 (100%)	3.27	1.26
3.	Promotes critical thinking skills and cognitive flexibility	16(23 %)	5(7%)	47 (69%)	68 (100%)	3.60	1.38
4.	Functions of language and contrast grammar structures	27 (40%)	5(7%)	36 (53%)	68 (100%)	3.23	1.35
5.	Appreciation for culture differences	30 (44%)	5(7%)	33(49%)	68 (100%)	3.22	1.27
6.	Improvement in memory	25 (37%)	9(13%)	34(50%)	68 (100%)	3.42	1.26
7.	Innovation and creativity	28 (41%)	6(9%)	34(50%)	68 (100%)	3.51	1.29
8.	Task switching abilities	12 (18%)	11(16%)	45(66%)	68 (100%)	3.70	0.82
9.	Skills between languages	26 (38%)	5(7%)	37(55%)	68(100%)	4.01	0.93
10.	Adaptability and cultural awareness	16 (24%)	15(22%)	37(54%)	68(100%)	3.55	1.15

Source: Author generated

The study's findings, which support the notion that bilingualism enhances students' ability to switch between languages, received a mean rating of 3.69 and a standard deviation of 1.09. The results are categorized as agreeable. This

means that the majority of participants in the study agreed with the idea that being bilingual can improve on the skill of moving between languages. Even according to Bialystok (2017), bilingual individuals have the ability to switch between two languages and adapt to different linguistic contexts, which enhances their cognitive flexibility. This cognitive flexibility allows students to think more creatively and problem solve more effectively, leading to improved language learning outcomes in English.

Furthermore, the study yielded a mean rating of 3.27 and a standard deviation of 1.26 for the idea that bilingualism prepares students to develop problem-solving skills. The results are categorized as neutral. By implication, this suggests that there is no strong consensus among participants on whether bilingualism directly impacts problem-solving abilities. Relative to this study, Becker et al. (2016)'s study points out that bilingual students often have stronger executive functioning skills, such as cognitive flexibility and working memory, which are essential for problem-solving. By regularly switching between languages, students are constantly exercising these cognitive functions, leading to improved problem-solving abilities.

Furthermore, the study's results, which support the idea that bilingualism enables students to develop critical thinking skills and cognitive flexibility, received a mean rating of 3.60 and a standard deviation of 1.38. The results are categorized as agreeable. This means that the majority of participants in the study agreed with the notion that bilingualism has a positive impact on cognitive abilities.

The findings suggest that being proficient in more than one language can enhance problem-solving skills and adaptability in various situations. Research by Greve et al. (2021) demonstrates that bilingualism enhances problem-solving abilities, critical thinking, and cognitive flexibility, all of which are essential for successful communication. Students can adapt their communication style to different audiences and contexts by switching between languages.

Furthermore, the study's results, which support the idea that bilingualism enables students to understand language functions and contrast different grammatical structures, received a mean rating of 3.23 and a standard deviation of 1.35. The results are categorized as neutral. This means that the overall perception of the benefits of bilingualism in language understanding is neither strongly positive nor negative among the participants. Barbu et al. (2018)

indicates that students gain a deeper understanding of language functions by comparing and contrasting different grammatical structures through exposure to multiple languages. This allows them to transfer knowledge and skills from one language to another, ultimately improving their proficiency in English.

The findings indicate that bilingualism fosters an appreciation of cultural differences through communication with individuals from diverse backgrounds, with a mean rating of 3.22 and a standard deviation of 1.27. The results are categorized as neutral. This means that the participants neither strongly agree nor disagree with the statement that bilingualism promotes an understanding of different cultures. Exploring how language proficiency and exposure to different cultures play a role in this relationship could provide valuable insights for teachers and policymakers.

Bialystok and Craik (2022) also identify that bilingualism still allows students to understand and appreciate different cultures, as they are able to communicate with people from diverse backgrounds. This exposure to different ways of thinking and expressing ideas helps students develop a more nuanced understanding of language and syntax.

Additionally, the idea that bilingualism improves memory received a mean rating of 3.42 and a standard deviation of 1.26. The results are categorized as agreeable. By implication, these findings suggest that students who are bilingual may have a cognitive advantage when it comes to memory retention.

This could have significant implications for education and cognitive development, as it may encourage more emphasis on learning multiple languages at a young age. Research by Abdullah et al. (2022) demonstrates that bilingualism improves cognitive skills like problem-solving and critical thinking, which are essential for learning a language. When students are proficient in two languages, they are able to transfer skills and knowledge between languages, making it easier for them to grasp new concepts in English.

Furthermore, the idea that bilingualism fosters innovation and creativity received a rating of mean = 3.51 and standard deviation of 1.29. The results are categorized as agreeable. This implies that there is a strong consensus among respondents that being bilingual can indeed lead to increased innovation and creativity. With a mean score above 3, it is clear that the majority of participants support this notion.

The low standard deviation indicates minimal variation in opinions, thereby reinforcing the notion that bilingualism fosters innovation. To Izydorczyk et al. (2020), bilingualism opens up a world of possibilities for individuals in the workforce, as it allows them to communicate with a wider range of people and access more job opportunities. In secondary schools, students who are bilingual have a competitive edge when applying for jobs or pursuing higher education.

3.2 Regression Analysis for Bilingualism and Students' Competences in English

The influence of bilingualism on students' competences in English was determined using regression analysis. Significant results were determined at 95% confidence interval or at $p < 0.05$.

Table 3.2: Model Summary for Bilingualism and Students Competences in English

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.651 ^a	.424	.415	.34848

a. Predictors: (Constant), Bilingualism

Table 3.3: ANOVA for Bilingualism and Students Competences in English

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.900	1	5.900	48.589	.000 ^b
	Residual	8.015	66	.121		
	Total	13.915	67			

a. Dependent Variable: Students Competences
b. Predictors: (Constant), Bilingualism

Source: Author generated

The model summary for bilingualism and students' competences in English shows a moderately strong relationship, with an R square value of .424. This indicates that students' level of bilingualism accounts for 42.4% of the variance in their English competences. The standard error of the estimate is 0.34848, indicating the average distance between the observed values and the predicted

values in the model. Bilingualism appears to be a significant predictor of students' competences in English.

The ANOVA results indicate that there is a significant relationship between bilingualism and students' competences in English. The regression model accounts for 5.900 units of variation in students' competences, with a high F-value of 48.589. This suggests that bilingualism is a strong predictor of students' English competences. The p-value of .000 indicates that this relationship is statistically significant.

Table 3.4: Coefficients for Bilingualism and Students Competences in English

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.196	.211		10.418	.000
	Bilingualism	.408	.059	.651	6.971	.000

a. Dependent Variable: Students Competences

The results of the regression analysis show that bilingualism has a significant positive effect on students' competences in English, with a standardized coefficient of .408. This means that for every one-unit increase in bilingualism, students' competences in English are expected to increase by 0.408 units. The t-value of 6.971 is statistically significant at the .000 level, indicating that the relationship between bilingualism and students' competences in English is unlikely to be due to chance.

From the qualitative side, the question asked was: What is the importance of speaking English language while mixing expressions from the mother language? The views of headteachers and students were represented by the following quotations;

..... some of the importances of speaking the English language while mixing expressions from the mother language are that it allows for a deeper connection to one's cultural roots, it promotes a sense of inclusivity and acceptance of diversity among students, and it enhances communication skills by providing a more nuanced and expressive way of expressing thoughts and emotions (Headteacher, school E, September, 2024).

.....because we come from different language backgrounds as students, the different languages help us improve our English accent because we are always hearing new ways to pronounce and tone words. It helps us change and improve the way we talk as we learn to imitate the sounds of other languages. Having a diverse group of friends also lets us practice speaking and listening to English with different accents, which improves our language skills even more. A Munyankole, a Mugishu, or a Munyore will not talk like an Iteso. People we talk to every day who speak different languages and accents can help us learn languages better and make us more well-rounded people... (FGD, School B, September, 2024)

4. CONCLUSION

The study found that bilingualism improves students' ability to switch between languages, develops critical thinking skills, and enhances cognitive flexibility. It also suggests that bilingualism improves memory results, indicating a cognitive advantage in learning multiple languages at a young age. Bilingualism fosters innovation and creativity, enables efficient task-switching, and promotes the transfer of skills between languages. It also enhances cognitive flexibility and mental agility, as individuals can easily switch between languages and thought processes.

Furthermore, bilingualism promotes adaptability and cultural awareness, making students more open-minded and able to navigate diverse cultural settings. Overall, bilingualism not only enhances communication skills but also fosters a deeper understanding and appreciation of different cultures. A standardized coefficient of .408 was established which means that for every one unit increase in bilingualism, students' competences in English are expected to increase by 0.408 units.

Based on the finds, the study makes the following recommendations:

To promote the influence of bilingualism on students' competence in English language:

School administrators and policymakers should consider incorporating bilingual education initiatives into the curriculum to support students in developing competence in English language and their native language.

Providing students with opportunities to learn and practice both languages, schools can create a more inclusive and supportive learning environment that caters to the diverse linguistic needs of students in Buvuma District.

Additionally, investing in teacher training and resources for bilingual education programs can help ensure the success and sustainability of these initiatives in improving students' language skills and academic outcomes.

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Effectiveness of Drama Activities to improve the Performance of Learners in English in Selected Public Primary Schools in Gasaka Sector, Rwanda.

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Abstract

The paper investigates the effectiveness of drama activities as a classroom technique to improve English proficiency in order to improve academic performance of elementary pupils. The main goal of any language learning is the acquisition of all language skills, to this end, linguists developed different techniques and methods through which any language can be taught. This study highlighted the effectiveness of using drama activities in teaching English as a FL in Rwandan elementary schools. The present study examines effectiveness of using drama activities in teaching-learning of English in Gasaka Sector elementary schools and the impact they have on learners. The questionnaire was distributed to 120 public Primary school teachers and Pupils in E.P SUMBA, GASAKA sector, NYAMAGABE district, Rwanda. This study investigates the impact of effective approach on interaction in EFL Classroom for input and output enhancement; the participants in this research are Primary students and its Educators. The results showed that there is a significant improvement on the learners' performance in English. The learners were significantly perform well to the sake of using drama technique.

Keywords: Effectiveness; Drama activities; Performance; Learners; Public Primary Schools

1. INTRODUCTION

1.1 Introduction

National learning assessment results have revealed critical learning gaps, and such gaps justify the renewed focus on *improved foundational literacy and numeracy*. The Learning Assessment in Rwanda (NESA, 2022, LARS conducted in 2021) indicated reading fluency and comprehension for P3 students was 10% in English. Children with low numeracy and literacy at primary level, serve as a predictor for poor performance at higher levels and subsequent poor human capital development. (MINEDUC, Pursuing an Inclusive and transformative Reform Agenda for Improved Inclusive quality teaching and learning in Rwanda, march 2023)

For the improvement of English language skills, dramatized lessons are used from earlier periods of one's life up an adult period when the youth is capable. Drama activities are powerful instruments in teaching. They can be of great relevance since they engage the students in the teaching-learning process by giving them enough opportunities to practice English.

In this era of globalization, knowledge of foreign languages in this case English as a FL and L2 is vital for easy exchange of information. This means that to make a full use of information and communication-technology, such knowledge is necessary.

If it can be claimed that the academic performance is still low, this may be due to lack of English language practice as almost pupils come from monolingual community and thereby speaking Kinyarwanda all the time. Thus, the classroom should be a place where, guided by the teacher, students can get an opportunity to speak English and do a lot of English practice through the drama activities.

This work aims at revealing the importance of engaging learners or pupils in the process of teaching and learning of English through dramatized lessons and related strategies in order to improve English language mastery in elementary schools.

In this paper, I intend to evaluate the effectiveness of using drama activities in teaching and learning English language to improve academic performance of elementary learners. If learners are clear that English is a potent element leading

to career prospect and advancement, they have no objection to learning and improving English.

The main objective of the present study is to evaluate the contribution of drama activities on the academic performance of elementary pupils in English language. It has been found that in the schools where drama activities are more practiced, pupils' competence is higher than where they are practiced rarely. The purpose of the study is therefore to evaluate the academic performance in terms of the frequency of the use of drama activities in public primary schools, and there by show the overall importance of the use of drama activities in classes.

Several researchers revealed that the drama method has positive contributions to both personal development and the cognitive, affective and psychomotor skills of the individual. It is an important issue that how often the drama method, which is an educational and instructive approach, is applied in researches. It is seen that there are many studies about the effect of drama method on academic achievement (Adiguzel, 2019); (Tosun, 2020), attitude towards the lesson (Baland, 2017)(Makas, 2017), education of values emotional intelligence skills (Baland, 2017)

In Rwanda, English is of high interest as it is an official language and a medium of instruction. To make full use of this language, a good mastery of all language skills namely reading, writing, listening and speaking, should be acquired. However, a large number of techniques and methods have been developed through which the teaching-learning of language can be carried out for the improvement of language skills. To this end, drama activities can eventually be productive and a learner-centered approach is recommended to be used here.

Before Rwanda adopts English as both an official language and a language of instruction in Rwandan schools; Rwandans could not effectively communicate and transact or seize the many business and other opportunities present in East Africa, the Commonwealth and rest of the English-speaking world. It is with the introduction of English in Rwanda that these problems can be solved.

2. MATERIALS AND METHODS

This study investigates the impact of effective approach on interaction in English language Classroom for input and output enhancement; the participants in this research are Primary students and its Educators.

This chapter describes the adopted methodological approach. In the view of Kumar research methodology is a way to systematically solve the research problems. It is understood as a science of studying how research is done systematically, and focuses on various steps that are generally adopted by researchers. Research methods include techniques used for various operations. (Pierre, 2022)

The population in this study is made up of a single elementary school located in Gasaka sector, Nyamagabe District, Southern province.

Table 2.1: Target Population

The distribution of the sample of students and English teachers according to the school

School	Low primary	Upper primary	English teachers	Total
EP Sumba	415	376	7	798

Source: Nyamagabe district 2023

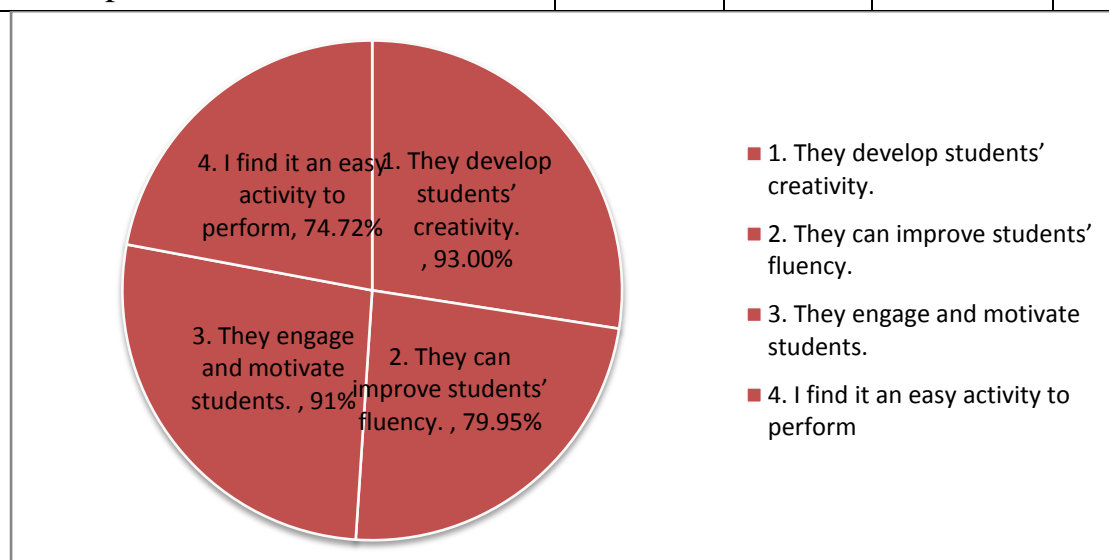
In visiting this school, the objective is to find out whether drama or drama activities are being used in primary school for improvement of English proficiency in order to improve academic performance.

In fact, this primary school has been taken at random to serve as the basis from which the sample would be selected. The information gathered from this school can be generalized to the all primary schools in Gasaka Sector. This Sector has 10 primary schools in total which comprise 3 private primary schools and 7 public primary schools.

3. RESULTS AND DISCUSSIONS

Researcher analyzed the impact of drama activities in English language classroom. Results were presented in the table below.

The importance of using drama activities	Strongly agree	Agree	Disagree	Strongly disagree
1. They develop students' creativity.	58.3%	34.7%	4%	3%
2. They can improve students' fluency.	31.25%	48.7%	14.05%	6%
3. They engage and motivate students.	37%	54.1%	5.3%	3.6%
4. I find it an easy activity to perform	35.8%	38.95%	19%	6.25%



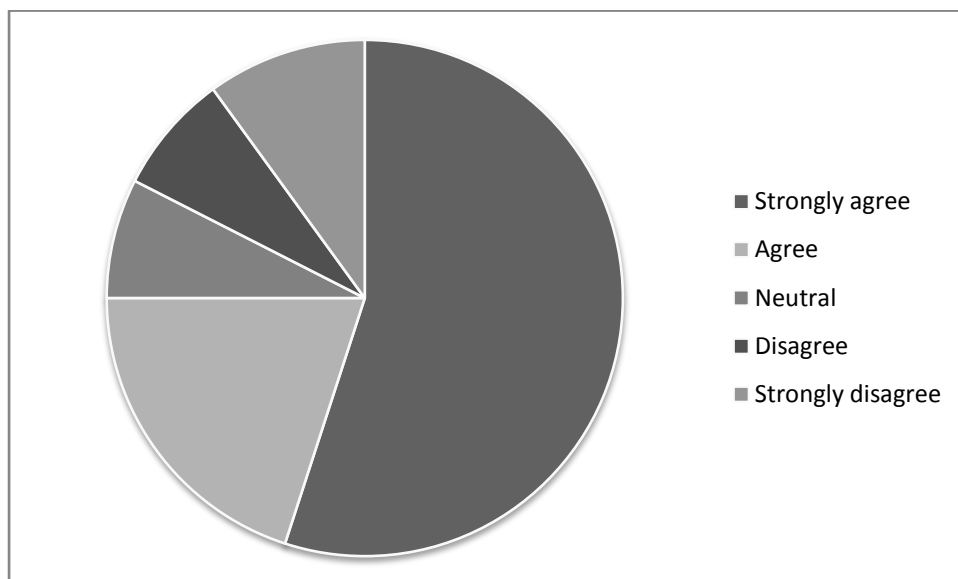
While investigating the importance of using drama activities provide opportunity to improve students' creativity and fluency; more than 89.5% of respondents confirmed that.

The study finds that drama activities decreases hesitation and silence in classroom because there some students who hate expressing themselves in public. It is clear that the majority teachers find it is a useful tool to make the class more participative and dynamic.

Table 3.1 Drama helps teachers to develop the Primary schools pupils' language proficiency through establishing a harmony and rapport classroom atmosphere.

Response	Frequency	Percent
Strongly agree	66	55.0
Agree	24	20.0
Neutral	9	7.5
Disagree	9	7.5
Strongly disagree	12	10.0
Total	120	100.0

Source: Primary Data 2024

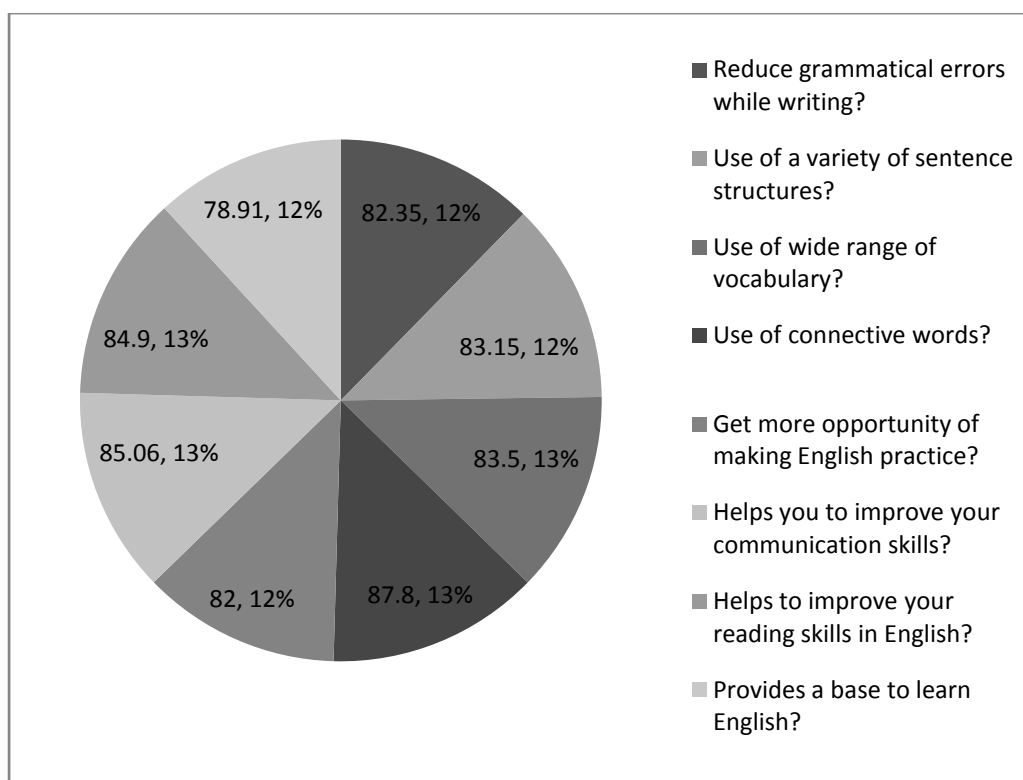


According to the table, it is obvious, that 75% of participants agree that, Drama helps teachers to develop the Primary School pupils' language proficiency through establishing a harmony and rapport classroom atmosphere.

Table 3.2: Usefulness of drama activities to enhance the use of English language

Does drama activities help you to	Strongly agree	Agree	Disagree	Strongly disagree
1. Reduce grammatical errors while writing?	47.75%	34.6%	12.3%	5.35%
2. Use of a variety of sentence structures?	41.9%	41.25%	11.3%	5.55%
3. Use of wide range of vocabulary?	48.5%	35.0%	12.7%	3.8%
4. Use of connective words?	45.0%	42.8%	10.0%	2.2%
5. Get more opportunity of making English practice?	57.5%	24.5%	12.5%	5.5%
6. Helps you to improve your communication skills?	44.16%	40.9%	11.7%	3.24%
7. Helps to improve your reading skills in English?	44.0%	40.9%	10.6%	4.5%
8. Provides a base to learn English?	38.41%	40.5%	20.1%	1.09%

Source: Primary Data 2024



The first purpose of second language learners is the reduction of grammatical errors while writing. In this study the researcher investigates whether drama facilitates the reduction of grammatical errors. About 47.75% strongly agreed and 34.6% agreed. Therefore, 82.35% finds drama useful for grammatical errors reduction while writing. On the other hand, 17.65% disagreed with the statement.

The use of a variety of a sentences structure enables the learners of second language to get familiar with the target language communication. However, time limitations prevented them from using a variety of them as they only speak English in classroom environment where pupils use a variety of sentence structure freely. About 41.9% strongly agreed and 41.25% agreed. Therefore, 83.15% accepted that drama provides for them an interactive environment where they freely use a variety of sentence structure. On the other hand 16.85% disagreed with the fact.

The use of wide range of vocabulary helps learners of the second language to communicate easily in the target language. In this study, learners were asked whether interactions in drama facilitate the use of wide range of vocabulary. About 48.5% strongly agreed and 35.0% agreed. Therefore, 83.5% pupils stated that drama enables them to use a wide range of vocabulary. However, 16.5% do not find it helpful.

It is required to use connective words in order to communicate in the second language effectively. Students need practice through which they can express themselves in the target language and use connective words freely. This study attempts to find out whether drama is considered as a platform of practice where students use a wide range of vocabulary. About 45.0% strongly agreed and 42.8% agreed. Therefore, 87.8% pupils find drama as a useful activity where student use connective words in sentences and accepted that they use it accordingly. On the other hand, 12.2% view it differently.

This study seeks to find out whether drama provides more opportunity of making English practice to the learners of EFL classroom. About 57.5 % strongly agreed and 24.5% agreed. Therefore, 82% pupils approved that drama provides for them more opportunity of making English practice. However, 18% disagreed.

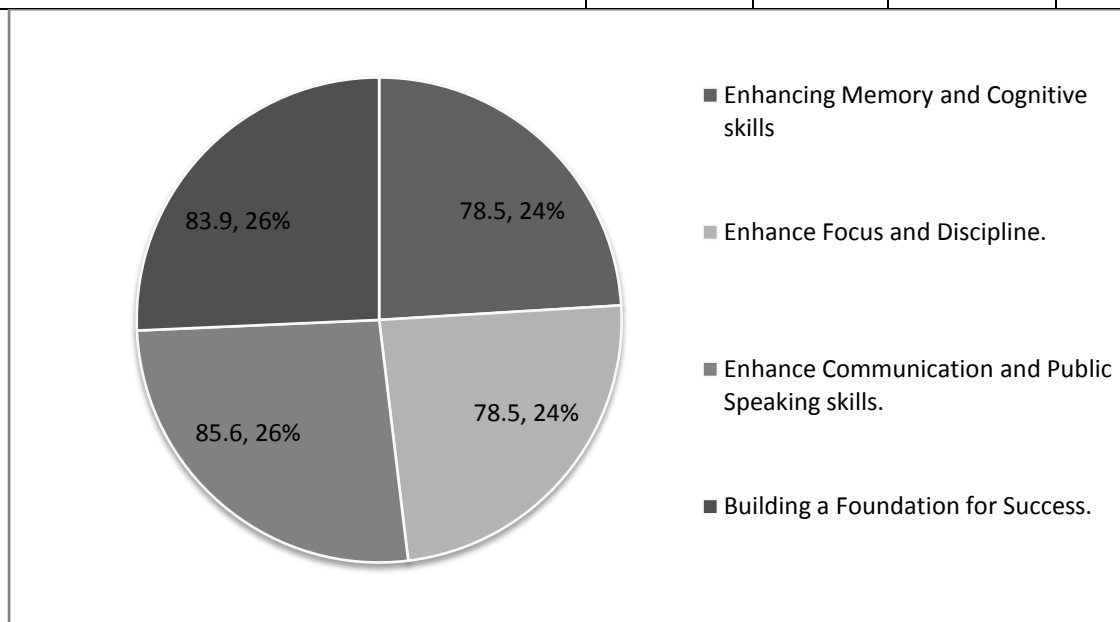
The main purpose of learning a language is to be able to communicate with language speakers effectively. The researcher asked students under treatment whether drama improves their communication skills through interacting with classmates and the language teacher. About 85.06% accepted that drama improved their communication skills through interaction with the language teacher and classmates. On the other hands, 14.94% denied the statement.

The objective of each language learner is to acquire reading skills. In this study, the researcher asked students whether drama enables them to make practice of reading in the target language which improves reading skills. About 84.9% students approved that drama offers them opportunity to constantly make reading practice which improves reading skills. But 15.1% denied the fact.

Base to learn a second language is needed by each student. This research investigates whether drama helps primary and secondary students getting base to learn English as a second language. About 78.91% confirmed that drama provides them with some base to learn English. 21.09% on the other hand refused the fact.

This study attempts to find out the use of drama activities to improve academic performance in English language. The impact of drama activities on academic performance is profound and far-reaching. For teachers seeking to enhance their pupils' education, the performing arts offer a unique and effective avenue for growth. The following table illustrates results from data collected.

Enhancing Academic Performance	Strongly agree	Agree	Disagree	Strongly disagree
1. Enhancing Memory and Cognitive skills	37.5%	41%	14.2%	7.1%
2. Enhance Focus and Discipline.	30.3%	48.2%	10.7%	8.9%
3. Enhance Communication and Public Speaking skills.	39.2%	46.4%	10.7%	3.5%
4. Building a Foundation for Success.	35.7%	48.2%	14.2%	1.7%



Being able to succeed well in academic requires strong memory and cognitive skills. In this study, the researcher intends to find out whether drama supports memory and cognitive skills. About 37.5% strongly agreed and 41% agreed. It means 77% of respondent approved that pupils who engage in drama are better at memorization and problem-solving, skills that directly translate to academic success.

Drama enhances pupils' focus and discipline, 30.3% strongly agreed and 48.2% agreed. About 78% of respondents confirmed the fact that pupils who commit to their roles and responsibilities in drama activities also show increased dedication to their schoolwork.

Communication requires self-confidence and some pupils fail to communicate effectively due to the lack of confidence. The first purpose of learning English language is communication; however there are pupils who complain that they do not communicate in target language because environment outside classroom do not expose them to the language. In this study, about 39.2% strongly agreed and 46.4% agreed. Generally, 85.6% approved that drama is inherently a collaborative art form that requires effective communication. Through acting and public speaking exercises, pupils learn to express themselves clearly and confidently. These skills are invaluable in academic settings, particularly in a language subject that requires presentations, debates, and group discussions. Pupils who are comfortable speaking in front of an audience are more likely to participate actively in class and excel in oral assessments.

Building a Foundation for Success, drama activities foster creativity and critical thinking. In this study, about 35.7% strongly agreed and 48.2% agreed. Generally, 83.9% approved that utilizing drama in the classroom can prove to be an invaluable asset in fostering child development. Drama cultivates emotional intelligence and enhances motivation, active participation, and overall pupil engagement in the classroom.

Analysis of the findings collected from English teachers and some pupils from primary school, has demonstrated that a large numbers of teachers do rarely use drama and related activities in their English classrooms. They have claimed that drama activities are time-consuming and difficult to control, especially big classes, and the shortage of teaching materials. But for some who are aware of the effectiveness of drama use, their students master English more than those who use drama activities less or do not them at all.

After analyzing the data, the major and serious difficulties pupils face in learning drama in English according to its nature were noticed. The very significant fact was that reading the drama was considered more common than watching it.

Another significant conclusion drawn from the points of view of the respondents and data analysis is that acting out various parts of drama is the most effective strategy in teaching English. This is in line with the very first conclusion that reading drama is more common than watching it. In other words, the need to apply drama into real life can be considered a contributive aspect dealing with the difficulties in learning and teaching of English.

It is clear that, drama develops creativity and helps pupils to understand the world around them through enhancing their imagination. Drama also makes the process of teaching and learning attractively funny and enjoyable, and motivates the pupils to interestingly continue studying.

Moreover, Participation in drama is believed to enable pupils communicate effectively. This study sought to establish if drama has influence on the development of a language among primary pupils in Gasaka.

The language of pupils who had experienced drama was compared to that of similar classes of pupils whose teachers do not utilize drama in teaching. Furthermore, this study showed that drama students had better proficiency in using English language compared to non-drama pupils. Besides, it is found that, drama builds teachers' and pupils' self-confidence and concentration by reducing and minimizing the degree of anxiety during the process of teaching and learning. Drama also helps teachers to develop the primary schools' pupils' language proficiency through establishing a harmony and rapport classroom atmosphere. Drama develops creativity and helps students to understand the world around them through enhancing their imagination.

All in all, as has been proved that techniques are important and necessary but the monotony is bad. Therefore, drama activities seem to be more productive than other techniques, they bring life in language-teaching and they remove drabness from language activities.

In EFL classroom, students acquire different language skills (Rambe & Chipunza, 2013). In this study, drama motivates students to learn new language skills and it makes the class more active as it enables everyone to participate. When drama is involved in their learning activities it becomes more interesting to learn compared to when it is not involved.

Interaction in EFL is of utmost importance for language enhancement (Moore, 1989). In this study drama supports student-student interaction by enabling students to exchange ideas. The students take it as a channel through which they acquire information in the target language.

By using drama techniques to teach English, the monotony of a conventional English class can be broken and the syllabus can be transformed into one which prepares learners to face their immediate world better as competent users of the English language because they get an opportunity to use the language in

operation. Using drama techniques also fulfills socio-affective requirements of the learners. Moreover, this learner centered approach makes the syllabus personally fulfilling.

Role-playing can boost self-esteem, increase classroom morale, encourage participation and create confidence. Children who engage in creative learning learn faster, retain more of what they learn, and are more prone to apply their learning outside the classroom. The techniques of role playing afford another approach to involving students in their own learning process toward the clarification of self-concepts, evaluation of behavior, and aligning of that behavior with reality. In fact, it is found that, teachers have positive attitudes towards the impact of using drama in developing the language proficiency of Primary schools learners.

Observation as a tool is needed in this study as it gives the researcher a chance to observe directly what is being done inside the classroom. The researcher chooses primary school at Gasaka sector, in Nyamagabe District. Sumba primary school was chosen as sample of the observation. The observation is designed as a checklist observation. Based on the observation analysis, it is observed that, drama as a co-curricular activity is encouraged in schools since it is considered a valuable tool in encouraging development of communicative competence. Moreover, participation in drama is believed to enable learners' communication effectively.

Furthermore, it is observed that, the language of learners who had experienced drama was compared to that of similar classes of learners whose teachers do not utilize drama in teaching. Furthermore, this study showed that drama learners had better proficiency in using English language compared to non-drama learners. Besides, it is found that, drama builds teachers' and learners self-confidence and concentration by reducing and minimizing the degree of anxiety during the process of teaching and learning. Drama also helps teachers to develop the Primary schools pupils' language proficiency through establishing a harmony and rapport classroom atmosphere. Drama develops creativity and helps students to understand the world around them through enhancing their imagination. Finally, drama makes the process of teaching and learning attractively funny and enjoyable, and motivates the learners to interestingly continue studying.

4. CONCLUSION

This chapter involves an overall summary, draws conclusion and ends with recommendations.

This study explored students' perspectives toward the involvement of drama in teaching and learning activity, identified the contribution of drama on pupil-pupil interaction, teacher-pupil interaction and pupil-content interaction. And it also analyzed the usefulness of drama on academic performance enhancement.

This study involved 103 pupils and 7 English teachers from Sumba primary school in Gasaka sector. They are from different classes and they all attend English language classroom with intention of improving their English performance. The sampled population is primary pupils and teachers.

The most significant implication of the study benefits the English language of the students in Gasaka schools who learn through drama. By having an inclusive overview of the importance of drama and the role it plays as an “art of communication” (Morgan, 1987: 7), students and teachers can benefit from the learning and teaching drama for better communication as well as to improve academic performance.

Secondly, curriculum developers and syllabus designers can benefit in recognizing the difficulties and try to include materials based on the findings proposed in the present study. Thirdly, the conclusion that acting out drama, rather than reading it, is an effective way in learning and teaching drama, should be taken into consideration in exposing the pupils to the theater. One way is to take the English pupils to the theatrical stage rather than remain inside the classrooms.

Based on the findings, the study recommends as follows:

This present study recommends the establishment of a theater for the English subject to have a venue, where it could stage some relevant plays to involve the students. Instructors can use more visual aids such as LCDs, videos, TV, and films in teaching English. Using visual materials creates an atmosphere for pupils to become more engaged in the process of learning and appreciating English lesson.

Primary school teachers should take up drama seriously as a main method of teaching, because it provides an opportunity for pupils to practice language for better competence.

Teachers should receive training courses on implementing drama in teaching.

Syllabus designers should involve activities that lead pupils to apply drama and acting when exposing to the activities such as role-play situations, dialogue and stories.

The primary schools Administration should encourage teachers to apply drama-based teaching method to enhancing the learners' language.

Teachers should make the process of teaching and learning attractively funny and enjoyable by involving the students dramatizing activities.

Process of teaching and learning attractively funny and enjoyable, and motivates the pupils to interestingly continue studying.

Teachers should to their best to establish a harmony and rapport classroom atmosphere.

Teachers should use drama to build pupils' self-confidence and concentration, and to reduce the degree of anxiety during the process of teaching and learning.

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Internal audit quality and financial performance of banking institutions in uganda. A case study of Equity Bank (U) Ltd Uganda

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Abstract

The major aim was to investigate the impact of internal audit on the financial performance of Equity Bank Uganda in Uganda; a case study of Equity Bank Uganda. The study used a descriptive survey design in which mixed methods were used to collect data from a sample of 75 respondents selected by stratified, purposive and random sampling techniques. The sample size was determined using the Slovene's formula of computing samples for finite populations. Primary Data was collected using a questionnaire and secondary data by reviewing various reports of the banking institutions. The data was analyzed using the SPSS version 20. The study results indicated that there is a strong positive correlation at (0.310) between the control activities and financial performance of Equity Bank (U) Ltd; majority of the respondents (54%) agreed that by applying a process of monitoring and evaluation, organizations or governments are able to determine how successful a project or programme actually is and there is a weak positive correlation between risk assessment and financial performance of Equity Bank (U) Ltd. Basing on findings, the study demands that the district should adopt, link and incorporate Internal Controls to modern information systems that will extinguish general operations, finance and regulatory information requirements, disseminated reports and otherwise to satisfy running and coordinating the district's sphere. There are sufficient desires for Internal Controls implementation and monitoring for considerate examinations of the minimally acceptable standards, completeness of the control spines' performance overtime.

Keywords: Internal Audit Quality; Financial Performance; Banking Institutions; Equity Bank

1. INTRODUCTION

1.1 Introduction

Globally, for the vast majority of its history internal audit has filled in as a basic managerial method involved essentially of checking records, tallying resources, and answering to Top managerial staff, the executives or Outer Examiners (Giorgis, 2019). As of late, be that as it may, a blend of various powers has prompted a tranquil upheaval of the calling. Associations need to show responsibility in the utilization of investor's cash and effectiveness in the conveyance of administrations. Associations currently request incredible competency and polished skill from internal audit, and rare assets must be conveyed all the more productively to limit and oversee dangers (Giorgis, 2019). Innovative progression makes it conceivable to follow and break down information with persistently expanding pace in this way making it fundamental for associations to be very much exhorted by the inner review office. Inner review fluctuates starting with one association then onto the next, and influencing change to present day internal audit to can be a significant endeavor (Giorgis, 2019). The progress from simply guaranteeing consistence with standards and controls to genuinely conveying included esteem requires something other than authoritative changes. In many bank establishments staff is inadequately paid and unmotivated, moral benchmarks are powerless, and administration rehearses are ineffectual prompting resource fumble (Ramamoorti, 2023).

In Uganda, internal audit was first introduced in the 1990s as part of the public sector reforms aimed at improving accountability, transparency, and efficiency in government institutions (Nabukeera & Turyakira, 2018). The introduction of internal audit in the healthcare sector was mainly driven by the need to improve financial management practices, reduce fraud and corruption, and enhance the quality of healthcare services. Over the years, the internal audit function in Uganda's healthcare sector has faced various challenges, including inadequate funding, limited capacity, and inadequate legal and regulatory frameworks (Turyahebwa, 2021). Further, the accounting scandals which occurred in last periods in commercial banks in Uganda, hit the public confidence against the management of the listed companies and the quality of the financial statements and the credibility of the financial information become under question. As a result of this, setting the qualified auditing standards becomes apparent in order

to ensure the efficiency and the integrity of the independent auditing which is internationally improved (Chandler, 2017).

In Ugandan commercial banks according to Gelderman (2021), the issues of financial misappropriation, fraud and public procurement non-compliance have triggered a lot of debate in recent years that earmarked the strengthening of internal auditing. Despite these challenges, the internal audit function has played a critical role in enhancing financial performance of commercial banks such as Equity Bank Uganda (Kiyaga-Nsubuga et al., 2019). Thus, this study aims to explore the historical perspective of internal audit and its impact on the financial performance of commercial banks such as Equity Bank Uganda (Nabukeera & Turyakira, 2018), with the objective of providing insights for commercial banks and policymakers in Uganda. The study will draw on previous research on the impact of internal audit on financial performance of commercial banks in Uganda.

Internal auditing is recognized as an essential tool for ensuring transparency, accountability, and value for money within organizations, including commercial banks. By systematically evaluating risk management and control processes, internal auditing provides independent and objective assurance to improve organizational operations. Despite its significance, cases of financial mismanagement, fraud, and inadequate regulatory compliance persist in commercial banks such as Equity Bank Uganda. Reports from the Public Procurement and Disposal of Public Assets Authority (PPDA) in 2016 highlighted ongoing issues of financial diversion and lapses in compliance within procurement departments. Given the substantial public funds managed by these departments, the absence of effective internal auditing undermines financial control and jeopardizes the bank's operational integrity. Although internal auditing is increasingly emphasized, existing literature provides limited insights into the direct relationship between internal audit quality and financial performance, particularly in the context of commercial banks in Uganda.

This study aims to bridge the knowledge gap by examining the quality of internal auditing and its impact on the financial performance of Equity Bank Uganda. By addressing the shortcomings of current internal audit practices, the research seeks to contribute to the enhancement of financial control mechanisms within the bank. The findings are expected to inform policymakers, financial managers, and auditors on strategies to improve transparency and

accountability, ultimately benefiting stakeholders and fostering trust in financial institutions. The study's focus on Equity Bank Uganda provides a case for understanding broader implications for financial performance in the banking sector, particularly in similar socio-economic contexts. The major aim was to investigate the impact of internal audit on the financial performance of Equity Bank Uganda in Uganda; a case study of Equity Bank Uganda.

From the reviewed literature, majority of the available studies were conducted from the developed worlds. For instance; Thuku (2011) did a study on the relationship between risk management practices and organizational performance of Universities in Norway, the study adopted a descriptive research design. The data was collected using a semi-structured questionnaire from the staff members of various universities working in the departments of finance, administration and security. Further, Korir (2019) conducted a study on the effects of credit risk management practices on financial Performance of deposit taking microfinance institutions in Belgium. The study used a descriptive survey approach in collecting data from the respondents. While, even the little done from Africa on the effect of internal controls on financial performance were mostly done in North Africa. And hardly any studies on the study problem was conducted in Uganda; showing a geographical gap. Further, the studies conducted were majorly descriptive in nature, an indication that their results cannot entirely be trusted since they lacked qualitative findings to compare and supplement on the descriptive findings. Hence necessitating the study to bridge all the gaps in the context of Equity Bank Uganda.

2. MATERIALS AND METHODS

The research design for this study was a mixed-methods approach, combining both qualitative and quantitative methods. The research design allows for the collection of both numerical and non-numerical data, which will be analyzed using both statistical and thematic analysis. The study was conducted over a period of six months, during which data was collected through interviews, questionnaires, and financial reports. The population of this study comprised of all the employees of Equity Bank Uganda, particularly those involved in the financial management of the bank. This included the finance department staff, internal audit staff, and other employees who handle financial transactions and

record-keeping. The total population size of Equity Bank Uganda employees was approximately 93.

Table 2.1: Study population composition

Population Category	Population size	Sampling Techniques
Top Management Staffs	10	Purposive Sampling
Finance Department Staffs	25	Simple Random sampling
Internal Audit Staff	21	Purposive Sampling
Operations Management Staffs	11	Simple Random sampling
Support Staffs	13	Simple Random sampling
Total	93	

Source: Author generated

The sample size for this study was determined by using the Slovene's formula, 1932 for calculating sample size in a finite population:

$$n = N / (1 + N (e^2))$$

Where:

n = sample size

N = population size

e = margin of error

$$N = 93 / (1 + 93 (0.0025))$$

n= 75 Respondents

Table 2.2: showing the sample size and the sampling techniques used

Population Category	Population size	Population Size	Sampling Techniques
Top Management Staffs	13	13	Purposive Sampling
Finance Department Staffs	25	15	Simple Random sampling
Internal Audit Staff	21	21	Purposive Sampling
Operations Management Staffs	11	11	Purposive Sampling
Support Staffs	23	15	Simple Random sampling
Total	93	75	

Source: HR Report, (2023)

Data collection is a crucial process in any research. The data collected helped in achieving the research objectives and answering the research questions. In this study, both primary and secondary data were used to achieve the objectives. Primary data was collected using a structured questionnaire. The questionnaire was designed to collect information on the role of internal audit in enhancing the financial performance of Equity Bank Uganda. The questionnaire was distributed to the respondents through face-to-face interviews and online surveys. The face-to-face interviews were conducted with the internal audit department staff, the management, and the finance department staff of Equity Bank Uganda. The online survey was conducted with the patients and other stakeholders of the hospital. The questionnaire was pretested to ensure its validity and reliability. Secondary data was collected from internal audit reports, financial reports, and other relevant documents from Equity Bank Uganda. The secondary data was used to supplement the primary data and provide a better understanding of the research problem. The collected data was analyzed using descriptive and inferential statistics using Statistical Package for Social Sciences (SPSS) software. The analysis included frequency distributions, percentages, means, standard deviations, correlation analysis, and regression analysis.

In the study, a questionnaire was used as the main data collection instrument. The questionnaire was designed to collect data on the perceptions and experiences of the respondents regarding the internal audit function and its impact on the financial performance of Equity Bank Uganda. The questionnaire was divided into three main sections: Section a collected information on the demographics of the respondents, Section B collected information on the internal audit function and its practices, while Section C collected information on financial performance indicators. In addition to the questionnaire, the study also used document analysis to collect data on the financial performance of Equity Bank Uganda. Financial reports and statements, internal audit reports, and other relevant documents were analyzed to determine the financial performance of the hospital and the impact of the internal audit function.

3. RESULTS AND DISCUSSIONS

3.1 Responses showing the understanding of the relationship between control activities and financial performance of Equity Bank (U) Ltd.

The responses were graded on a 5 Likert scale with representing SD-Strongly, D-Disagree, N- Neither Agree nor Disagree, A- Agree, SA- Strongly Agree.

Mean: In the study shows the average of response.

Standard Deviation: In the study shows how spread the responses are to or from the mean value.

Table 3.1: the relationship between control activities and financial performance of Equity Bank (U) Ltd.

	SD	D	N	A	SA	Mean	Standard Deviation
There is proper segregation of duties	0%	2%	9%	36%	53%	4.40	0.73
There is proper, separation of approval and authorization of transactions	2%	5%	7%	45%	41%	4.19	0.90
The employees in the local government have the knowledge and skills, tools to support the achievement of local government objectives.	2%	3%	10%	49%	37%	4.16	0.85
The value for money are effectively adhered to and controls are put in place to avoid over spending	2%	3%	6%	39%	51%	4.35	0.65
There is transparency in all the activities of the local government	2%	4%	13%	42%	39%	4.14	0.91
The management follows the local government rules and regulations and procedures in recruitment of employees	0%	0%	9%	37%	54%	4.45	0.66
Un authorize transactions are not processed	2%	3%	6%	39%	51%	4.35	0.85
There is respect for each other's role in service	2%	5%	7%	45%	41%	4.19	0.90
Total						4.45	0.66

Source: Primary Data, (2024)

From the results in Table 3.1 shows the relationship between control activities and financial performance of Equity Bank (U) Ltd, and shows that the majority of the respondents strongly agreed that there exists a relationship between control activities and financial performance; and that any slight changes in control activities at Equity Bank (U) Ltd would automatically cause a change on

the financial performance of Equity Bank (U) Ltd showed by an overall mean value of (4.45), and a widely spread standard deviation at (0.66). Majority of the respondents (53%) also strongly agree that there is proper segregation of duties, this is confirmed by mean of (4.40) and a standard deviation spread from the mean value at (0.73). Although (13%) of the respondents, neither agreed nor disagreed when asked whether there is proper separation of approval and authorization of transactions. The results also indicate a mean of (4.14), with very widely spread standard deviation of (0.91), which shows that majority of the respondents agreed to the question that the employees in the local government have the knowledge and skills, tools to support the achievement of local government objectives with a mean of (4.16) & STD (0.85). Thus, authorization and approval are control activities that mitigate the risk of inappropriate transactions. They serve as fraud deterrents and enforce segregation of duties. Thus, the authorizer and the approver should generally be two separate people. Authorization is the power granted to an employee to perform a task.

While, majority respondents noted that the value for money are effectively adhered to and controls are put in place to avoid over spending with mean of (4.35) & STD (0.65), on the statement that there is transparency in all the activities of the local government with mean of (4.14) & STD (0.91), The management follows the local government rules and regulations and procedures in recruitment of employees with mean of (4.45) & STD (0.66), and finally majority respondents agreed to the statement that unauthorized transactions are not processed, and that there is respect for each other's role in service delivery with a mean value of (4.35) and STD value of (0.90). This means that nevertheless, Control activities as the district policies and procedures help to ensure the management directives are carried out. They include a range of activities as diverse as approvals, authorizations, verifications, reconciliations, reviews of operating performance, security of assets and segregation of duties. This helps ensure that management's response to reduce risks identified during the risk assessment process is carried out. In other words, control activities are actions taken to minimize risk. Hence, internal controls ensure that management has accurate, timely and complete information, including accounting records, in order to plan, monitor and report business operations.

3.2 Testing Relationship/Hypothesis between the control activities and financial performance of Equity Bank (U) Ltd.

To testing the relationship that exists between the two variables, Pearson's correlation method was used to establish the findings below.

Table 3.2: Relationship between the control activities and financial performance of Equity Bank (U) Ltd.

Correlations			
		Control Activities	Financial Performance
Control Activities	Pearson Correlation	1	.310
	Sig. (2-tailed)		.005
	N	77	77
Financial Performance	Pearson Correlation	.310	1
	Sig. (2-tailed)	.005	
	N	77	77

Source: Primary data (2024)

Table 3.2 shows that there is a strong positive correlation at (0.310) between the control activities and financial performance of Equity Bank (U) Ltd. The significance level is at (0.005), which means that the correlation is statistically significant because it is equal to the P-Value of (0.05). The hypothesis of the study under investigation is, there is a significant positive relationship between control activities and financial performance of Equity Bank (U) Ltd. Thus the hypothesis was accepted. This means that control activities has a positive relationship with financial performance of Equity Bank (U) Ltd. And thus, practically, any positive changes on control activities positively influences the financial performance of Equity Bank (U) Ltd. According to (Ndwiga& Ngugi, 2012), methods used in identifying risks are tools used to optimize opportunities of knowing hazards inherent in certain systems, facilities or products and the tools are categorized in broad headings of inductive, deductive or intuitive methods. Once a framework for identifying risks has been put in place, methods are now used in different products, organizations, systems or situations.

However, in order to determine the magnitude of the influence of control activities and financial performance of Equity Bank (U) Ltd, regression analysis was conducted. The results are summarized in Table 3.3 below.

Table 3.3: Regression Analysis showing the influence of control activities and financial performance of Equity Bank (U) Ltd.

R Square= 0.096, P=0.005		
	Standardized Coefficients	Sig.
Beta	Beta	
Control Activities	0.310	0.005

Source: Primary Data, (2024)

According to the results in the summarized Table 3.3 above, findings show that control activities significantly affect on financial performance of Equity Bank (U) Ltd by ($r = .310$). This means that control activities are a significant determinant of financial performance of Equity Bank (U) Ltd. Since the correlation does imply causal-effect as stated in the second objective, the coefficient of determination, which is a square of the correlation coefficient ($r^2 = .096$), was computed and expressed as a percentage to determine the variance in financial performance of Equity Bank (U) Ltd due to effective application of control activities in its internal control measures. This means that 9.6% of the variation in financial performance of Equity Bank (U) Ltd is explained by the application of control activities. These findings were also subjected to a test of significance (p) and it is shown that the significance of the correlation ($p = .005$) is more than the recommended critical significance at 0.01. This means that control activities has a positive a significantly affects on financial performance of Equity Bank (U) Ltd.

3.3 Responses showing the relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd.

Responses were graded on a 5 Likert scale with representing SD-Strongly, D-Disagree, N- Neither Agree nor Disagree, A- Agree, SA- Strongly Agree.

Mean: In the study shows the average of response. Standard Deviation: In the study shows how spread the responses are to or from the mean value.

Table 3.4: The relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd.

Statements	SD	D	N	A	SA	Mean	Standard Deviation
The management closely monitors the implementation of internal controls input during operations through policies, rules and regulations	0%	1%	4%	41%	54%	4.49	0.62
Monitoring like control-self assessment, confirmation by personnel to compliance with policies is adhered to.	0%	6%	5%	40%	50%	4.34	0.81
There are effective follow up that procedures to ensure that appropriate actions or changes against defaulters	0%	1%	1%	44%	53%	4.48	0.66
The monitoring personnel report any significant failure or weakness on a timely basis	0%	3%	5%	51%	41%	4.31	0.69
There is routine monitoring even when there is no allowance	1%	8%	6%	41%	43%	4.17	0.94
Executives always monitor and evaluate government activities	0%	2%	8%	37%	53%	4.41	0.72

Source: Primary Data, (2024)

Table 3.4. Results show that that majority of the respondents (54%) agreed that by applying a process of monitoring and evaluation, organizations or governments are able to determine how successful a project or programme actually is. Failure to implement a monitoring and evaluation plan can result in a massive waste of money, time and effort. This is confirmed by average mean of (4.49), and standard deviation which is widely spread away from the mean value at (0.62). The result from the qualitative however gave a different picture in regards to the relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd. This therefore means that Monitoring and evaluation are essential for good governance as they provide feedback on the effectiveness of policies, programs, and services. They allow governments to

identify successes and areas for improvement, enabling them to adjust their strategies and ensure that resources are used in the most effective way.

From the findings, majority of the respondents agreed to the statement; the management closely monitors the implementation of internal controls input during operations through policies, rules and regulations (M=4.49 & SD= 0.62). It was also indicated that monitoring like control-self assessment, confirmation by personnel to compliance with policies is adhered to (M=4.48 & SD= 0.81). This indicated that monitoring the financial performance therefore creates more certainty and confidence in making both short and long term decisions. This in turn leads to a healthier business and faster growth rate. It also allows outperforming and outmaneuvering competitors who fail in this regard. There are effective follow up that procedures to ensure that appropriate actions or changes against defaulters (M=4.41 & SD= 0.24). The monitoring personnel report any significant failure or weakness on a timely basis (M=4.25 & SD= 0.48). There is routine monitoring even when there is no allowance (M=4.17 & SD= 0.94). Executives always monitor and evaluate government activities (M=4.37 & SD= 0.25). Monitoring and evaluation are essential for good governance as they provide feedback on the effectiveness of policies, programs, and services. They allow governments to identify successes and areas for improvement, enabling them to adjust their strategies and ensure that resources are used in the most effective way.

3.4 Testing the relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd.

Table 3.5: Shows the relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd.

Correlations			
		Monitoring and evaluation	Financial performance
Monitoring and evaluation	Pearson Correlation	1	.048
	Sig. (2-tailed)		.667
	N	77	77
Financial Performance	Pearson Correlation	.048	1
	Sig. (2-tailed)	.667	
	N	77	77

Source: Researcher Computation, 2023

According to the Table 3.5 results shows that Monitoring and evaluation and Financial performance have no significant relationship ($r = 0.048$, $p < 0.05$). Thus, the hypothesis that stated that there is a significant positive relationship between Monitoring and evaluation and financial performance. This means that Monitoring and evaluation has no effect on financial performance. However, in order to determine the magnitude of the Monitoring and evaluation and financial performance regression analysis was conducted. The results are summarized in Table 4.12 below.

Table 3.6: Regression Analysis showing the relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd.

R Square=0.002, P=0.667		
	Standardized Coefficients	Sig.
Beta	Beta	
Monitoring and evaluation	0.002	0.667

Source: Researcher Computation, 2023

According to the results in the summarized Table 3.6 above, the coefficient of determination/ r^2 for Monitoring and evaluation is 0.002. This means that 0.23% of the variation in financial performance of Equity Bank (U) Ltd is explained by for Monitoring and evaluation. The standardized beta coefficient of ($\beta=0.002$, $p < 0.05$) means that for Monitoring and evaluation is insignificantly related with financial performance in Equity Bank (U) Ltd.

3.5 Response showing the relationship between risk assessments on financial performance of Equity Bank (U) Ltd.

The responses were graded on a 5 Linkert scale with representing SD-Strongly, D-Disagree, N- Neither Agree nor Disagree, A- Agree, SA- Strongly Agree.

Mean: In the study shows the average of response.

Standard Deviation: In the study shows how spread the responses are to or from the mean value.

Table 3.7: The relationship between risk assessments on financial performance of Equity Bank (U) Ltd.

Statements	SD	D	N	A	SA	Mean	Standard Deviation
The board has clear strategies for dealing with significant risks fraud occurring	0%	5%	9%	44%	42%	4.24	0.80
There are policies employed to manage risks	2%	10%	10%	41%	37%	4.01	1.02
Risks of fraud are identified and assessed based on an ongoing basis	2%	2%	12%	38%	47%	4.26	0.88
Risk assessment has helped the district to identify the risk level specific to the business, prioritize those risks, and develop ways to avoid them.	1%	6%	6%	42%	44%	4.22	0.90
Risk assessment has helps us to deep dive into the district's financial preparedness and it includes pieces of other areas as they relate to financial stability	2%	4%	9%	47%	39%	4.17	0.88
The results of a financial risk assessment feeds into the strategic planning process and budgeting of the district.	0%	1%	6%	42%	50%	4.42	0.66
Total						4.15	0.52

Source: Primary Data, (2024).

Results in table 3.7 above indicated that risk assessments differs on different perspectives; though in relation to financial performance, the respondents rated

this objective as satisfactory (Overall mean= 4.15 & SD= 0.52), The board has clear strategies for dealing with significant risks fraud occurring (M=4.24 &SD= 0.80). There are policies employed to manage risks(M=4.01 & SD= 1.02) which indicated that majority of the respondents agreed to the statement. Risks of fraud are identified and assessed based on an ongoing basis (M=4.26 &SD= 0.88). Risk assessment has helped the district to identify the risk level specific to the business, prioritize those risks, and develop ways to avoid them.(M=4.22 &SD= 0.90). Risk assessment has helps us to deep dive into the district's financial preparedness and it includes pieces of other areas as they relate to financial stability (M=4.17 & SD= 0.88).The results of a financial risk assessment feeds into the strategic planning process and budgeting of the district. (M=4.42 &SD= 0.66).

3.6 Testing Relationship/Hypothesis between risk assessments on financial performance of Equity Bank (U) Ltd.

Table 3.8: Relationship between risk assessments on financial performance of Equity Bank (U) Ltd.

Correlations			
		Risk Assessments	Financial Performance
Risk Assessments	Pearson Correlation	1	.082
	Sig. (2-tailed)		.396
	N	77	77
Financial performance	Pearson Correlation	.082	1
	Sig. (2-tailed)	.396	
	N	77	77

Source: Researcher Computation, 2023

Table 3.8 shows that there is a small positive correlation of (0.082) between risk assessments on financial performance in Equity Bank (U) Ltd. The significance value of (0.396), which means the correlation, is not statistically significant because it is above the P-Value of (0.05). The hypothesis of the study under investigation is, there is a significant positive relationship between risk assessments on financial performance. The study therefore accepts the null hypotheses that there is a small positive correlation between risk assessments on financial performance. The study rejects the alternative hypotheses that state

that there is no positive relationship between risk assessments on financial performance.

3.7 Discussion of findings

3.7.1 Objective one: the relationship between control activities and financial performance of Equity Bank (U) Ltd.

The study findings indicated that a strong positive correlation at (0.310) between the control activities and financial performance of Equity Bank (U) Ltd. The significance level is at (0.005), which means that the correlation is statistically significant because it is equal to the P-Value of (0.05). This meant that nevertheless, control activities as the district policies and procedures help to ensure the management directives are carried out. They include a range of activities as diverse as approvals, authorizations, verifications, reconciliations, reviews of operating performance, security of assets and segregation of duties. This help ensure that management's response to reduce risks identified during the risk assessment process is carried out. In other words, control activities are actions taken to minimize risk. Hence, internal controls ensure that management has accurate, timely and complete information, including accounting records, in order to plan, monitor and report business operations.

3.7.2 Objective Two: The relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd.

The study results indicates that majority of the respondents (54%) agreed that by applying a process of monitoring and evaluation, organizations or governments are able to determine how successful a project or programme actually is. Failure to implement a monitoring and evaluation plan can result in a massive waste of money, time and effort. This is confirmed by average mean of (4.49), and standard deviation which is widely spread away from the mean value at (0.62). The result from the qualitative however gave a different picture in regards to the relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd. This therefore means that Monitoring and evaluation are essential for good governance as they provide feedback on the effectiveness of policies, programs, and services. They allow governments to identify successes and areas for improvement, enabling them to adjust their strategies and ensure that resources are used in the most effective way.

3.7.3 Objective Three: the relationship between risk assessment and financial performance of Equity Bank (U) Ltd.

The study results indicated that risk assessment differs on different perspectives; though in relation to financial performance of Equity Bank (U) Ltd, the respondents rated this objective as satisfactory (Overall mean= 4.15 & SD= 0.52), implying that majority number of the respondents agreed that risk assessment influences financial performance of Equity Bank (U) Ltd. Hence, risk identification is the first step in the process of risk assessment as one would want to know source of risk once it has occurred. According to (Ndwiga & Ngugi, 2012), methods used in identifying risks are tools used to optimize opportunities of knowing hazards inherent in certain systems, facilities or products and the tools are categorized in broad headings of inductive, deductive or intuitive methods. Once a framework for identifying risks has been put in place, methods are now used in different products, organizations, systems or situations.

4. CONCLUSION

The study concluded that there is a statistically strong positive correlation between the control activities and financial performance of Equity Bank (U) Ltd. This meant that nevertheless, monitoring and evaluation are essential for good governance as they provide feedback on the effectiveness of policies, programs, and services. They allow governments to identify successes and areas for improvement, enabling them to adjust their strategies and ensure that resources are used in the most effective way. The study concluded that there is a strong and significant correlation coefficient of Pearson, 0.048. This means that, the hypothesis that stated that there is a significant positive relationship between monitoring and evaluation on financial performance of Equity Bank (U) Ltd was not accepted. Hence, monitoring and evaluation has no effect on financial performance of Equity Bank (U) Ltd. The study concluded that there is a weak positive correlation between risk assessment and financial performance of Equity Bank (U) Ltd. The significance value of (0.396), which means the correlation, is not statistically significant because it is above the P-Value of (0.05). Hence, the study therefore accepts the null hypotheses that there is a

small positive correlation between risk assessment and financial performance of Equity Bank (U) Ltd.

Basing on findings, the study demands that the district should adopt, link and incorporate Internal Controls to modern information systems that will extinguish general operations, finance and regulatory information requirements, disseminated reports and otherwise to satisfy running and coordinating the district's sphere. Management must also be serious with organizing awareness campaigns for staff to alert them on the understanding of their roles in the control system (departments other than accounts and finance).

There are sufficient desires for Internal Controls implementation and monitoring for considerate examinations of the minimally acceptable standards, completeness of the control spines' performance overtime. Monitoring of trade debtors (accounts receivables) feedback, accounts payables (creditors) and surprise management audits should be conducted periodically by internal auditors. Capacity of staff mainly in IT, planning, monitoring and evaluation, and internal audit need to be enhanced through training periodically in implementing and strengthening their work towards higher Institutions of Learning. Management should place emphasis on segregation of duties, regular job rotations, and should conduct regular system checks to ensure that ICS are not infiltrated by unauthorized individuals who may cause potential financial losses to the Institution.

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Effect of non- verbal communication on teaching english in selected secondary schools in Nyamasheke District, Rwanda

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Abstract

The purpose of the study was to determine the effect of non-verbal communication on teaching English in selected Rwandan secondary schools in Kanjongo Sector Nyamasheke District, Rwanda. The research aimed at identifying nonverbal language cues used by teachers of English in the selected schools and assessing the impact of nonverbal communication on teaching English. The study used a descriptive research design in which mixed methods were used to collect data from a sample of 49 respondents that included English teachers and students. Hard copies of questionnaires were distributed among selected teachers of English and their students for them to answer. The study showed that teachers used different nonverbal clues such as foot tapping to signal the start or end of the given task, head nodding to tell students whether they are right or wrong about a specific point in grammar, purposive gaze for specific message, moving around in class while teaching stories, grammar phonetics and phonology, varying the sound pitch when teaching texts. Moreover, the study revealed that, students with impairments, especially visual and hearing found it difficult to learn English effectively through nonverbal communication. Teachers who effectively used nonverbal communicate got more attention from their students than teachers who did not try any. The study recommends that teachers should adopt a communication strategy based on the student's disability status.

Keywords: Non-verbal communication; Teaching English; Language cues; Teachers of English

1. INTRODUCTION

1.1 Introduction

Communication is recognized as one of the God's gift to a human being. God not only created a human with speaking abilities of multiple dialects, but also taught him/her how to use it through inspiration, his internal instinct, or external guidance for communication. (Shokrpour, 2017). In this study, we were more concerned with how sign language impacts on teaching English in the selected Rwandan secondary schools. The introductory chapter of our research consists of the background of the study, statement of the problems, purpose of the study, objectives of the study, research questions, and hypothesis of the study and operational definition of the terms. In general, communication acts like oxygen, it helps people to survive in society by enabling them to learn about the world they live in and convey their thoughts and ideas. Can we imagine the world without communication? It not only isolates people from each other but also with themselves. The individual acquires the ability to communicate her/his needs and emotions from childhood. Initially, he/ she expresses his or her needs through crying, pointing things, or gazing and eventually learns a language to speak out their needs and emotions. Therefore, tone of voice provides meaningful information to the audience. We see that a human being uses nonverbal communication before using verbal communication (Nandi, 2021). So having both verbal and nonverbal communication skills will promote diplomatic and social relations with the entire world population.

The differences in nonverbal communication are highlighted vividly across cultures as well. In certain cultures, people cover their faces with a veil. This makes it difficult for lip reading, eye contact, and understanding the voice tone. Further, Mediterranean and Arabian men tend to exaggerate grief and sorrow whereas in American culture men hide their grief and sorrow. In such cases, it becomes difficult to understand the cues and emotions people tend to portray. Naomi Boitel , 2024) Nodding of the head has been studied for centuries. In many cultures, nodding the head up and down signals "yes." even went as far as to suggest that when babies are hungry, they search for milk by nodding their heads. But nodding the head doesn't signal "yes" everywhere in the world. According to psychologists who wrote about the social effects of emotions, facial expressions are one of the most important forms of non-verbal communication, indicating one's emotional expressiveness. (Naomi Boitel, 2024).

Kleef and Côté stated that in many Asian cultures, people are taught to practice facial self-control, remaining “emotionless.” Another example is that smiling in the East has been said to not always be a sign of happiness, but could signify “I don’t understand,” which is used as a way to cover up embarrassment. (Naomi Boitel, 2024). Communication among Africans themselves can open a number of opportunities in case it is understandably made. For Africans to involve themselves in different cultures, make a meaningful impact, and experience significant professional growth, they need to understand the value of nonverbal messages. (Mateusz, 2024). With over a billion inhabitants and more than 2000 languages, African continent presents a unique landscape where English serves as a crucial bridge, though not all Africans are fluent in speaking English, facilitating communication and opening doors to numerous possibilities for its learners. (Anth, 2024). Then, African residents need to understand the value of nonverbal communication for them to interact effectively not only for education purposes but for bilateral reasons.

Africa is a home to a wide range of cultural traditions, and are all different from each other. Every single person has given the African people a way to express their feelings and emotions. African traditions are so diverse and so rich in terms of their symbolic expressions. Symbols are used to express and understand the world around them. This connection between symbols and expression is evident in daily today human interactions. (Brodwicz, 2024). Drums have been used for communicating messages for centuries throughout the African continent. From Ghana to the Congo, drums and the art of drumming have been used not only to communicate and send messages but music and stories. Drum messages were often used to relay news and information about war, an attack, or any crucial information the tribe needed to respond to. According to the region, tone, and rhythm of the drum, the messages would often be encrypted and misunderstood by enemies or those listening in. Symbolism in Africa is a very complex and diverse art form. (Brodwicz, 2024).

Moreover, East Africa citizens are trying their best to build good relations among themselves for economic integration. To achieve that, they need to have effective communication among them. So far, verbal communication calls for fluency in English language which is the first official language for East African Community. English is used in most official affairs regarding EAC. The EAC and other African RECs need to establish robust and creative communication Strategies as benchmarks for achieving development results. The EAC and

other RECs must ensure that the communication strategy incorporates a consultative dialogue framework. And institutions coordinating capacity building on the continent like the African Capacity Building Foundation and partners, need to support the RECs in developing adequate communication systems and policies for effective communication with member states and staff. (Howse J. Kathy, 2019)

East African companies use a very indirect way of communication .in addition social distance between individuals on different hierarchical levels must be maintained. Communication between managers and employees is therefore usually very formal and adheres strictly to the hierarchical structure. If for instance, an employee need to be rebuked, this is usually done indirectly via close associates because a manager must not under any circumstances expose an employee through criticism. (Epstein,2021). However, not all East African citizens are able to communicate in English that is why in many cases East Africans pretend to use sign language once they fail to interact in this official language which is English. Therefore, N.V.C. skills bridge the gap between East African nations and offer everyone the possibility of attaining wide exposure. N.V.C has increased regional relationships in education, business as we can select items from a shop by pointing or touching. N.V.C also help to remove regional boundaries and support people to get regional integration. (BYJUS, 2022)

Back to my root, it is not easy to determine when Rwandans, like other communities started using nonverbal communication as long as it is mostly associated with a human behavior. ‘Rwandans, like to communicate indirectly through nonverbal language. For instance, when you see a Rwandan holding their hands against one or two of their cheeks, you know that they are disappointed or that they are in a deep sorrow. Holding the two arms against the head is also a sign of disappointment or despair.) (Keith Warburton, 2021). People who need to move from one place to another have to be aware with target place communication. No matter who is the person, it is mandatory. In Rwanda, people who live there need to be aware with several aspects of communications in order to communicate with Rwandans. Among those aspects they include Rwandan national language (Kinyarwanda), dressing code, non-verbal cues, and other cultures.(Abert Abasenga,2023).. Non-verbal cues hold immense significance in Rwandan communication. Gestures, facial expressions, and silence all convey messages. Maintaining eye contact with superiors

demonstrates respect, while looking away might be seen as dismissive. A raised eyebrow or pursed lips could indicate disagreement without verbal confrontation. Rwandans often use nonverbal cues to show active listening. Nodding, leaning in, and clearing the throat indicate attentiveness. Understanding these gestures fosters smoother communication and builds trust. (Mineduc, 2017)

Interpreting Rwandans nonverbal communication is sometimes not easy, you also need to match it with context and situation. For example, laughing for Rwandans does not always mean that someone is happy or interested in you, sometimes the reverse can be true. (Keith Warburton, 2021). “Nonverbal communication operates on the following principles: nonverbal communication typically conveys more meaning than verbal communication, nonverbal communication is more involuntary than verbal communication, and non-verbal communication is often more ambiguous than verbal communication and nonverbal communication is often more credible than verbal communication” (Pamela. J. Gerber ,2020). The findings cited above are even more significant in light of evidence that when students have difficulty with meaning or when words are unclear, students usually search for what is communicated nonverbally. This is why teachers of English should try to communicate their verbal the same with their nonverbal. This means that when a teacher smiles at a student (as nonverbal) he or she should say very good (as verbal) to the student. It will be very confusing for a teacher to smile at a student and say, “That is very bad” because it mismatches with what is nonverbally communicate

Rwandan teachers translate and explain English concepts in Kinyarwanda (mother tongue) while they are teaching their classes thinking that translation helps students to understand better. (Elizaveta, 2020). In the context of English language teaching, nonverbal communication was believed by Rwandan education policy designers to play a supporting role in facilitating student’s engagement, understanding and retention of language concepts. Despite its importance and the efforts made to support nonverbal communication in teaching and learning process, there is limited scientific research focusing on how various nonverbal clues such as body movements, eye contact, and distance improved learning outcomes of English language learners in Rwanda. This study aimed at investigating how different types of nonverbal communication used by teachers influence student motivation, classroom interaction and language acquisition. This study sought to provide insights into

the significance of nonverbal communication in language learning process in that different education stakeholder in Rwanda should combine their efforts to strengthen nonverbal technology in teaching English language in Rwandan schools.

The study aimed at helping our readers, among others teachers and education stakeholders to have a vivid image and a recognition of how non-verbal communication effects on teaching and learning of English in Rwandan secondary schools so that they can team to develop authentic strategies to strengthen the use of non-verbal communication in teaching and learning of English in Rwandan secondary schools.

2. MATERIALS AND METHODS

The study used a descriptive research design in which both quantitative and qualitative methods were used in collecting and management of data. The study considered a population of 105 consisting of English teachers and the students who were learning the English language. From this population a sample of 49 respondents was selected by purposive sampling technique in the first stage and randomizing within each category of respondents. The sample size was determined using the Yamane formula which is $n = \frac{N}{1 + Ne^2}$ where n is the sample size.

The simplified formula assumes a 90% confidence level and the maximum variance ($p=0.1$). The simplified formula is $n = \frac{N}{1 + Ne^2}$ where n is the sample size. (Charlee Iddon and Natalie Boyd, 2023)

Therefore, our sample size was $= \frac{105}{1 + 105 * (0.1)^2} = 48.78 = 49$

The variables in this formula are:

n= the sample size

N=the population of the study

e= marginal error in the calculation

Primary data was collected by using a questionnaire for quantitative data and an interview guides for the qualitative data. The study used a set of questionnaires which were distributed among students and teachers of English in the selected schools. The focus was to find out used nonverbal clues while teaching English,

effect of non-verbal cues on teaching English and challenges of N.V.C encountered while teaching and learning of English in the secondary schools in Kanjongo sector in Nyamasheke District, Rwanda. Questions focused on some of the nonverbal communication such as eye contact, body movements, sound projection and distance. Along with quantitative research, the researcher also used qualitative methods whereby checklists consisting of ten items intending binary answers (Yes/No) were used during live English classes' observations to draw conclusions on nonverbal behavior in English classes.

The collected data was analyzed using the SPSS version 22 to produce descriptive statistics in the case of quantitative data, and the content form method was used to analyze the qualitative data. Validity and reliability of the instruments were ensured through pilot testing. Furthermore, respondents provided their personal telephone numbers and e-mails for the issue of certainty and for later contact for confirmation. Photos with respondents were taken for further justification if need be.

3. RESULTS AND DISCUSSIONS

3.1 Non-verbal cues used by teachers of English

The first four tables were designed to illustrate different nonverbal clues used by teachers in secondary schools selected from Kanjongo sector in Nyamasheke District, Rwanda. Nine 9 teachers of 20 English teachers in the selected schools were chosen to answer questions and we came up with results in tables. The first four tables vividly show the commonest nonverbal elements used by teachers while they are teaching English in their classes.

Table 3.1. Used N.V.C related to body movements

Degree / Frequency	S.A	%	A	%	NI	%	D	%	SD	%	TOT	%
I tap my feet to communicate a specific message to my students	3	33.3	6	66.7	0	0	0	0	0	0	9	100%
I nod my head as a way of agreeing or disagreeing with my students.	4	44.4	5	55.6	0	0	0	0	0	0	9	100%
I use my hands to tell my students to sit down or stand up.	7	77.8	2	22.2	0		0		0		9	100%

Source: Primary Data 2024

In Table 3.1 intended to figure out nonverbal clues related to body movements used by teachers of English, the results revealed that 3 teachers of 9 equivalent to 33,3% strongly agreed with the statement that “I tap my feet to communicate a specific message to my students” while 6/9 equivalent to 66,7% agreed with the same item. Moreover, under the same dynamics, 4 teachers out of 9 corresponding to 44.4% strongly agreed with the second statement that “I nod my head as a way of agreeing or disagreeing with my students” and 5/9 equivalent to 55,6% agreed to the same prompt. At the last point from the same table 7 teachers of 9 matching with 77.8% strongly agreed with the statement that “I use my hands to tell my students to sit down or stand up” while 2/9 which is equal to 22,2% agreed with the same statement. Briefly, the number of respondents who agreed and strongly agreed with the first statement in the table is 9/9 which is equal to 100%. The number of respondents who agreed and strongly agreed with the second sentence is also 9/9 equivalent to 100%. Last, the number of respondents who agreed and strongly agree with the third prompt is also 9/9 which is equal to 100%.

Table 3.2 Used nonverbal cues related to eye contact.

Degree /Frequency	S.A	%	A	%	N.I	%	D	%	S.D	%	TOT	%
I can Blink my eyes to a student for a specific message	2	22.2	6	66.7	0		1	11.2	0	0	9	100
I can gaze my students in a communicative manner	4	44.5	3	33.3	2	22.2	0	0	0	0	9	100
I can use gazing as smart tool of teaching English	0	0	2	22.2	1	11.1	3	33.3	3	33.3	9	100

Source: Primary Data 2024

The Table 3.2 explored used nonverbal clues related to eye contact, in this regard, the findings showed that 2 teachers of nine equivalent to 22.2% strongly agreed with the prompt that “I can blink my eyes to a student for a specific message’. Henceforth 6/9 corresponding to 66.7% agreed to the same statement while 1/9 teacher matching corresponding to 11.1% had no idea about this statement. In addition, 4/9 teachers equivalent to 44.5 % strongly agreed with the second statement saying that “I can gaze my students in a communicative manner” when 3/9 corresponding to 33.3% agreed with the same point. However, 2/9 teachers corresponding to 22.2% had no idea about this point.

Therefore, the average teachers who can use gaze in a communicative way with the students is equal to 78%. With the third point, the findings showed that 2/9 teachers corresponding to 22.2% agreed with the statement that “I can use gazing as smart tool of teaching English”. 1/9 teacher equivalent to 11.2% had no idea about this point. Meanwhile, 3/9 =33.3% teachers disagreed and 3/9 = 33.3% strongly disagreed with the prompt. Therefore, the average teachers who can use gaze as a smart tool of teaching English is 2/9= 22.2% while the remaining percentage of 77.8% cannot.

Table 3.3: Used nonverbal communication related to distance

Degree/ Frequency	S.A	%	A	%	NI	%	D	%	S.D	%	TOT	%
I like to sit in my front chair while delivering my English lessons	0	0	2	22.2	0	0	3	33.3	4	44.5	9	100
I move around in class while teaching stories in English	6	66.7	3	33.3	0	0	0	0	0	0	9	100

Source: Primary Data 2024

Table 3.3, clearly described used nonverbal cues related to distance hereby the number of teachers who agreed with the statement that “I like to sit in my front chair while delivering my English lessons” is 2/9 which is equal to 22.2% while 3/9 teachers equivalent to 33.3% disagreed with the statement. At the same point 4/9 teachers corresponding to 44.5% rejected the idea through strongly disagreed. Shortly, 22.2% of teachers like to teach English sitting in their chairs while 77.8% of teachers don’t like it. With the second point in this table 6/9 teachers corresponding to 66.7% strongly agreed with the statement that “I move around in class while teaching stories in English” and 3/9 teachers corresponding to 33.3% agreed with the same statement.

Table 3.4. Used cues about sound projection

Degree/Frequency	S.A	%	A	%	N.I	%	D	%	S.D	%	Tot	%
I minimize my sound pitch when my students are shouting in class	3	33.4	2	22.2	0	0	2	22.2	2	22.2	9	100
I use a variety of sounds when I am teaching stories in English.	5	55.6	4	44.4	0	0	0	0	0	0	9	100

Source: Primary Data 2024

Table 3.4 showed that out of 9 respondents, 3 teachers corresponding to 33.3% strongly agreed with the prompt that “I minimize my sound pitch when my students are shouting in class” while 2/9 equivalent to 22.2% agreed with the same prompt. On the other hand, 2/9 teachers corresponding to 22.2% disagreed with the same statement and other 2/9 also equivalent to 22.2% strongly disagreed with the statement. A total number of teachers who agreed and who strongly agreed with this point is equal to 55.5% while other 44.4 % rejected the idea through disagree and strongly disagree. Secondly 5/9 teachers corresponding to 55.6 % strongly agreed with the second point in the table saying that “I use a variety of sounds when I am teaching stories in English” and 4/9 agreed with the same point. A total percentage of teachers who agreed and strongly agreed that they use a variety of sounds when they are teaching stories in English is equal to 100%.

3.2 Results from live class observations.

Alongwith the results from tables about nonverbal clues used while teaching English, classroom observations were conducted with 9 teachers to check out different nonverbal elements used by teachers when they are teaching English, 2 teachers from each school were observed. After analyzing checklists used for class observation, we found that teachers used nonverbal cues in their respective English classes at a rate described here below:

1. 9/9 Teacher frequently used eye contact with students when they were asking them questions or when students were answering questions asked by the teachers
2. 3/9 Teachers blink their eyes for a specific message to a student, for instance when they wanted to tell them to shut up.
3. 2/9 Teachers tapped their feet as a signal to tell stop individual reading.
4. 9/ 9 Teachers nodded the head to say yes to students, especially permitting them to go out.
5. 7/9 Teachers used claps to motivate their students especially when students managed to pronounce a specific word correctly.
6. 8/9 Teachers made both hands up and down while saying ‘stand up’ and ‘sit down’.

7. 9/9 Teachers moved around when they were teaching vocabulary while asking individual learners to repeat the words after them.

8. 2/9 Teacher spoke in a so low voice when the students made noise when she was reading for them.

9. 6/9 Teachers spoke loudly especially when they were reading stories to the students

10. 4/9 Teachers sat in chair while teaching especially when teaching grammar and phonetics.

3.3 Effect of nonverbal communication on teaching English.

Table 3.5 Effect of N.V.C related to body movements

Degree/Frequency	S.A	%	A	%	N.I	%	D	%	S. D	%	Tot	%
Teacher's body movements in class support learning of new vocabulary	30	61.2	19	38.7	0	0	0	0	0	0	49	100
Movements of shoulders, hands and head make grammar lessons more accurate.	29	59.1	20	40.8	0	0	0	0	0	0	49	100
Different body movements of the students in class when learning phonology, help the teacher to decide on the way forward.	16	32.7	30	61.2	3	6.1	0	0	0	0	49	100

Source: Primary Data 2024

In Table 3.5, both teachers and students making a number of 30/49 equivalent to 62.21% strongly agreed that teacher's movements in class support learning of new vocabulary in English whilst 19 respondents of 49 respondents' equivalent to 38.7% agreed that teacher's body movements in class support learning of new vocabulary. Hence, a total average of respondents who strongly agreed and that of who agreed with the statement that teacher's body movements in class support learning of new vocabulary in English is 100%. Moreover, under the same perspective, 29 respondents of 49 equivalent to 59.2% strongly agreed that teacher's movements of shoulders, hands and head make English grammar

lessons more accurate while 20/49 respondents (40.8%) agreed that teacher's movements of shoulders, hands and head make English grammar lessons more accurate. Therefore, a total percentage of those who strongly agree and that one of those who agreed with the statement is equal to 100%.

Last but not least about effect of body movements on learning English, 16/49 respondents (32.7%) strongly agreed to the statement that different body movements of the students in class when learning phonology, help the teacher to decide on the way forward. Meanwhile 30/49 respondents equivalent to 61.2% agreed to the same statement. On the other hand, 3/49 respondents equivalent to 6.1% had no idea about the same statement. At this point the average of those who strongly agreed and that one of those who agreed with the statement that different body movements of the students in class when learning phonology help the teacher to decide on the way forward is equal to 94%.

Table 3.6 Effect of N.V.C. related to eye contact in class

Degree/Frequency	S.A	%	A	%	N.I	%	D	%	S.D	%	Tot	%
Teacher's eye contact alerts the students	39	79.6	10	20.4	0	0	0	0	0	0	49	100
A regular eye contact of both teachers and students makes grammar lessons alive	40	81.7	9	18.3	0	0	0	0	0	0	49	100
Messages of anger and appreciation conveyed through eye contact monitor students' behaviors.	45	92	4	8	0	0	0	0	0	0	49	100

Source: Primary Data 2024

By table 3.6 above reserved to explore the effect of N.V.C. related to eye contact in English class, the findings showed that 39/49 teachers equivalent to 79.6% strongly agreed with the prompt that "teacher's eye contact alerts the students" and 10/49 agreed with the same point. For the second point in the same table 40/49 teachers equivalent to 81.7% strongly agreed that "A regular eye contact of both teachers and students makes grammar lessons alive" and 9/49 teachers equivalent to 18.3% agreed with the same point. Last but not least, 45/49 teachers equivalent to 92% strongly agreed with the third option that "Messages of anger and appreciation conveyed through eye contact monitor students' behaviors while learning English" and 4/49=8% agreed with the same statement.

Table 3.7 Effect of N.V.C related to distance on teaching and learning of English.

Degree/Frequency	S.A	%	A	%	N.I	%	D	%	S.D	%	Tot	%
Proper distance in class helps the students to hear properly and acquire new vocabulary	36	73.5	13	26.6	0	0	0	0	0	0	49	100
Teacher's movements in class apply for effective communication with students.	19	38.8	30	61.2	0	0	0	0	0	0	49	100
Sitting closer to students attracts the attention of students while learning vocabulary	27	55.1	22	44.9	0	0	0	0	0	0	49	100

Source: Primary data 2024

The results in Table 3.7 about effect of N.V.C related to distance indicate that 36/49 respondents corresponding to 73.5% strongly agreed that “Proper distance in class helps the students to hear properly and acquire new vocabulary” and 13/49 respondents agreed to the same statement. At the second point in this table which is Teacher’s movements in class apply for effective communication with students, 19/49 equivalent to 38.8% strongly agreed to the statement and 30/49 respondents agreed to the same point. For the last item which is “Sitting closer to students attracts the attention of students while learning vocabulary”, 27/49 respondents equivalent to 55.1% strongly agreed to statement and 22/49 respondents equivalent to 44.9 agreed with the same point.

Table 3.8 Effect of N.V.C related to sound projection while teaching English.

Degree/Frequency	S. A	%	A	%	N .I	%	D	%	S. D	%	To t	%
Teachers soft voice captures attention from the students to acquire vocabulary	43	87.8	6	12.2	0	0	0	0	0	0	49	100
Students learn vocabulary from their colleagues who speak louder in class while giving their answers.	49	100	0	0	0	0	0	0	0	0	49	100
Sound variation is more informative to students when they are learning phonology.	41	83.7	8	16.3	0	0	0	0	0	0	49	100

Source: Primary Data 2024

The table 3.8 about effect of N.V.C. related to sound projection in teaching English showed that 43/49 respondents corresponding to 87,8% strongly agreed with the statement that “Teachers soft voice captures attention from the students to acquire vocabulary” and 6/49 which is equal to 12,2% agreed to the same statement. With regard to item two in the table saying that “Students learn vocabulary from their colleagues who speak louder in class while giving their answers”, 49/49 respondents equivalent to 100% strongly agreed to the statement. About the third point that “Sound variation is more informative to students when they are learning phonology”, 41/49 respondents equivalent to 83.7 % strongly agreed to the statement and 7/49 =16,3% agreed to the same statement.

3.4 Challenges of nonverbal communication on teaching English.

This section also proved different challenges related to nonverbal communication when teaching and learning of English in the selected schools.

Table 3.9 Challenges related to body movements

Degree/Frequency	S.A	%	A	%	N.I	%	D	%	S.D	%	Tot	%
Uncontrollable arms movements of a teacher confuse learners when learning English vocabulary.	20	40.8	19	38.8	0	0	10	20.4	0	0	49	100
Frequent foot tapping of students disturbs learning of English.	33	67.3	16	32.7	0	0	0	0	0	0	49	100

Source: Primary Data 2024

In Table 3.9 which contains results regarding the challenges of N.V.C on teaching English, data from our respondent indicated that 20/49 respondent equivalent to 40.8% strongly agreed with the option that “Uncontrollable arms movements of a teacher confuse learners when learning English vocabulary” and 19/49 corresponding to 38,8% agreed to the statement while 10/49 respondents equivalent to 20.4% disagreed with the option. Secondly, 33/49 respondents equivalent to 67.3% strongly agreed to the second option that “Frequent foot tapping of students disturbs learning of English” and 16/49

respondents agreed that Frequent foot taping of students disturbs learning of English.

Table 3.10 Challenges related to eye contact

The table aimed at exploring the challenges of N.V.C related to eye contact on teaching English.

Degree/Frequency	S. A	%	A	%	N. I	%	D	%	S. D	%	Tot	%
Anger on teacher's face frighten the students	35	71.4	14	28.6	0	0	0	0	0	0	49	100
Learners with visual impairments find it difficult to learn from the teacher's face	36	73.5	13	26.5	0	0	0	0	0	0	49	100

Source: Primary Data 2024

From Table 3.10 the findings indicated that 35/49 respondents equivalent to 71,4% strongly agreed that “anger on teacher’s face frighten the students” and 14/49 respondents corresponding to 28.6% agreed with the statement. So, 100% of respondents accepted the idea that anger on teacher’s face frightens students while learning English through strongly agree and agree. For the second option in the same table, 36/49 respondents which is equal to 73,5% strongly agreed that learners with visual impairments find it difficult to learn from the teacher’s face and 13/49 respondents equivalent to 26.5% agreed to the same statement. 100% of the respondents accepted the idea that “learners with visual impairments find it difficult to learn from the teacher’s face”

Table 3.11 Challenges related to distance in class.

Degree/Frequency	S.A	%	A	%	N.I	%	D	%	S. D	%	Tot	%
We need to keep distant from one another in class during pandemics.	39	79.6	10	20.4	0	0	0	0	0	0	49	100
All students cannot learn English well when teacher teaches them sitting in a front chair.	10	20.4	29	59.2	0	0	0	0	10	20.4	49	100

Source: Primary Data 2024

The Table 3.11 which has results regarding challenges of N.V.C related to distance while teaching English showed that 39/49 respondents corresponding to 79.6% strongly agreed that We need to keep distant from one another in class during pandemics and 10/49 respondents equivalent to 20.4% agreed to the same statement. At this point 100% of the respondents accepted that distance is needed from one another during pandemics. In the same table with two options, 10/49 respondents corresponding to 20.4% strongly agreed with the second item that all students cannot learn English well when teacher teaches them sitting in a front chair and 29/49 respondents equivalent to 59.2% agreed with the option while 10/49 respondents which is equal to 20.4% strongly disagreed with the same statement. Shortly, 79.6% of respondents accepted that students cannot learn English well when the teacher sits in his/her front chair while 20.4% rejected this idea through strongly disagree.

Table 3.12 Challenges related to sound projection

The table here below intended to explore challenges of N.V.C. related to sound projection on teaching English.

Degree/Frequency	S.A	%	A	%	N.I	%	D	%	S.D	%	Tot	%
Very low pitch of sound of the learner or teacher affect understanding of English lessons.	29	59.2	20	40.8	0	0	0	0	0	0	49	100
Very high pitch of sound frightens the students especially those ones with heart problems.	12	24.5	30	61.2	0	0	7	14.3	0	0	49	100

Source: Primary Data 2024

From Table 3.12 which contains results regarding challenges of N.V.C related to sound projection on teaching English, finding showed that 29/49 respondents corresponding to 59.2% strongly agreed that very low pitch of sound of the learner or teacher affect understanding of English lessons and 20/49 respondents equivalent to 40.8% agreed with the same statement. Then, 100% of respondents accepted the idea through agree and strongly agree. Last but not least, findings in this table showed that 12/49 respondents equivalent to 24.5% strongly agreed with the statement that very high pitch of sound frightens the students especially those ones with heart problems and 30/49 respondents corresponding to 61.2% agreed with the statement while 7/49 equivalent to

14.3% respondents disagreed with the statement. The average of agree and strongly agree to the second item in this table is 87% while 14.3% rejected the idea.

4. CONCLUSION

Results of the study indicated that teachers made the learning environment active through their body movements, sound projection and proper distance whereby students felt watchful in the classrooms and took active participation in the learning process, which in return improved the degree of their mastering of English language skills such as phonetics, phonology, vocabulary, and grammar. The study showed that teachers were able to apply nonlinguistic technology that was not limited to effective use of gazing, good use of body movements, adequate use of sound projection and maintaining proper distance with students while teaching English.

Results from the study indicated that both teachers and students developed a level of motivation and interest in teaching-learning process of English that really changed into the achievements of desired strategies of teaching English. Teachers who did not properly use non-verbal communication in the classroom while teaching; not only lost their interest in the teaching-learning process but also were not able to attract the students towards classroom teaching and could not promote English language skills as well. The study revealed that non-verbal communication brought positive effect on the acquisition of English language skills such as vocabulary, phonetics, phonology and grammar. The study showed that there are different challenges in using body movements because it was restricted to students with visual impairments. Low sound pitch was also found to be a barrier for learning English vocabulary, phonetics and phonology to students with hearing difficulties.

It was seen that teachers feared to get closer to students suffering from influenza for the fear of getting infected which caused inadequate interaction and unfair communication in class. It was seen that the uncontrolled teachers' arms shaking could interfere with what was being said by the teacher and therefore confused English students. Briefly, the skill of N.VC. if practiced by teachers, will have a positive and profound effect on the students' mood. Non-verbal communication was seen to be highly reliable in the communication process, so as the recipient of a message were between two contradictory verbal and nonverbal messages, logic dictated toward the non-verbal message and asked them to pay more

attention to non-verbal than verbal messages because non-verbal cues frequently revealed the intention of the sender of the information and reflected his/her emotional reactions.

Based on the obtained results of this study, it was concluded that attention to non-verbal communication skills can make a positive change in the future of a student's life. It seems necessary for the teachers to practice and learn effective communication skills, especially for those who always interact with a large group of students. One of the factors contributing to the success or failure of students is the quality of the relationship and how the teacher builds this relationship with students. Especially, it is more effective for students who are more responsive to human relations and communication skills. Finally, it is recommended that the teachers should improve their communication skills to have better communication with their audience. The authorities are recommended to help improve the teachers' level of communication skills through holding training courses.

Based on the results, the study recommends the following:

- Teachers should know and understand that body movements have to be used where and when it is necessary because extreme use of it can be challenging for English learners.
- Teachers should sense that intonation plays a very essential role while teaching phonology and phonetics and try their best to apply that skill while teaching these language skills.
- Teachers should keep proper distance in class to support learners with learning difficulties class to foster the acquisition of grammar and vocabulary.
- Teachers should not only rely on body movements because some of them are restricted to students with visual and hearing difficulties.
- Teacher should use a variety of nonverbal clues to help students of different learning difficulties including visual, hearing and physical learning challenges.
- Teachers should be aware that all facial expressions play a crucial role in making English lessons alive. Teachers should be careful in a sense that whatever comes from their faces communicates a message to their students.

- Ministry of Education should collaborate with its agencies in education like REB in charge of hiring and training teachers and even NESAC in charge of schools' inspection to initiate the use of N.V.C. in teaching, not only teaching of English but also teaching of other subjects
- Ministry of education should promote partnership with private investments to mobilize the budgets in education for the sake of supporting the development of N.V.C that caters for all students' categories in education.
- REB should ensure through regular monitoring and evaluation that all the teachers in Rwandan schools are using N.V.C in teaching and learning process.
- REB should develop methodology and establishment of teaching methods for nursery, primary, secondary specialized schools and adult literacy schools that are N.V.C. based.
- NGOs should help in the development of teaching materials that are N.V.C. based to promote teaching in Rwanda.
- Ministry of education in Rwanda should develop strategies for resource mobilization for empowering teachers, through trainings about the use of N.V.C.
- Ministry of education should take a first step in playing advocacy for the purpose of getting funds to empower the use of N.V.C in teaching and learning.
- Ministry of Education should put in place effective strategies aiming at promoting N.V.C as pedagogy of teaching not only English but also other subjects.
- Ministry of education should make it a policy that the skill of non-verbal communication should be used in the educational set up at every level of education for all the subjects.
- Rwanda Basic education Board is in charge of promoting the quality of education in basic, specialized and adult schools. Then, REB should ensure the following are done:
- REB should prepare and distribute materials that are N.V.C based such as curricula, teaching materials, teachers guide so that they can be used in a classroom setting for formal education.
- REB should organize and prepare teachers' orientation in non-verbal communication for teachers at all levels.

- REB should incorporate in the educational curriculum the importance of non-verbal communication and make it a part of the teacher education programs so that teachers will be trained in this important teaching pedagogy.
- REB should develop textbooks that integrate the skill of nonverbal communication in the supplementary material for the effective use of teachers.
- REB should strengthen in service training for teachers in the use of nonverbal communication in teaching in Rwandan schools.
- Nongovernmental organization should also play their role in developing projects in education sector that promote the use of N.V.C. in teaching.
- NGOs should also mobilize their funds to support the use of N.V.C. in teaching and learning programs in Rwanda.
- NGOs should strive to enhance the quality of education through supporting and introducing the formal use N.V.C teaching pedagogy in Rwanda.
- NGOS should fund curriculum revision for the implementation of N.V.C in Rwanda

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Challenges facing the Delivery of Public Early Childhood Education Programmes in Kenya: A Study of Mandera County Public ECDE Centers

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Abstract

This study focused on examining the challenges facing devolution of Early Childhood education programs in Mandera North County, Kenya. It adopted the descriptive survey design using the mixed methodology. The study used a sample of 523 respondents selected by stratified and simple random sampling. Questionnaire and interview schedules were used for collecting data for the study. Quantitative data was analyzed using frequencies and percentages while content analysis was used to analyze qualitative information. The study found out that majority of the pre-schools in the study area lacked adequate pre-school teachers, textbooks and play materials. Majority of the employed pre-school teachers had undergone pre-school teacher training courses therefore they had adequate and current pedagogical skills. Pre-schools had inadequate infrastructure. The study therefore recommended that there is need for county government, parents and other education stakeholders to provide instructional materials and construct more classrooms for efficient and improved service delivery in all the pre-schools in the study area. Further, it was recommended that there is need for employment of more trained pre-school teachers by the county government to improve learning.

Keywords: Challenges; Delivery; Public Early Childhood Education

1. INTRODUCTION

1.1 Introduction

Education is critical in equipping the recipients with the skills attitudes and competences required in promoting self and national development (Gross Giacquinta& Bernstein, 2017). Thus, education is considered the cornerstone of the development process of a nation. While it increases the productive capacity of its constituent individuals, education has an incremental effect on the society's aspirations in the economic, social-cultural and political realms. Global nations have put up notable efforts to ensure the right of education for all, but despite these activities more than 100 million children worldwide have no access to primary education (UNESCO, 2014).

Early Childhood Development and Education (ECDE) programmes face numerous challenges globally, impacting the quality and accessibility of early childhood education. Key issues include inadequate funding, insufficient training for educators, and disparities in access. According to UNESCO (2015), many countries struggle to allocate sufficient resources to ECDE, resulting in subpar facilities and limited educational materials. Furthermore, the quality of early childhood educators is often compromised due to lack of proper training and professional development opportunities (UNESCO, 2015). These challenges are exacerbated by socio-economic disparities, which limit access to quality early childhood education for marginalized populations (UNICEF, 2019).

In Africa, the challenges facing ECDE programmes are more pronounced due to socio-economic constraints and limited government investment. According to Garcia, Pence, and Evans (2008), many African countries face significant barriers in providing quality ECDE, including inadequate infrastructure, insufficient funding, and a lack of trained personnel. Cultural factors and low parental awareness also hinder the effectiveness of ECDE programmes (Garcia, Pence, & Evans, 2008). Moreover, political instability and economic challenges further exacerbate these issues, making it difficult for many African countries to prioritize early childhood education (UNICEF, 2019).

In Eastern Africa, the situation is similar, with additional challenges related to regional conflicts and displacement. According to the World Bank (2018), countries in Eastern Africa face significant obstacles in delivering effective

ECDE programmes, including inadequate funding, poor infrastructure, and a shortage of trained teachers. The region's high levels of poverty and food insecurity also impact children's ability to attend and benefit from early childhood education (World Bank, 2018). Additionally, conflicts and displacement disrupt educational services, making it difficult for children in these areas to access consistent and quality ECDE (UNHCR, 2017).

In Kenya, ECDE programmes face several challenges that hinder their effectiveness. According to the Ministry of Education (2018), issues such as inadequate funding, lack of proper infrastructure, and insufficient training for ECDE teachers are prevalent. Many ECDE centers in Kenya operate with limited resources, impacting the quality of education provided (Ministry of Education, 2018). Additionally, regional disparities and socio-economic factors affect access to ECDE, particularly in rural and marginalized communities (UNICEF, 2019). Despite these challenges, the Kenyan government has made efforts to improve ECDE through policy reforms and increased investment in early childhood education (Ministry of Education, 2018).

According to Hoffman (2016), early childhood encompasses the period of human development from the prenatal stage through the transition into the early primary grades. Van der Gaag (2017) stresses that during the children's early years there are four main critical domains of development; which are physical, cognitive, linguistic and socio-emotional. Therefore, ECD links the young child's cognitive, emotional, social and physical processes with the care and services provided by the schools to support the children's development (Bandy, 2015). The benefits of supporting ECD include improved cognitive development, greater educational success and increased productivity in life.

Pence (2014) argues that the skills developed in early childhood form the basis for future learning and labor market success, and the failure to develop these skills can negatively affect educational attainment and productivity and earning potential. Without access to quality ECD, poor children often fall behind their more advantaged peers before they even begin school. As they get older, the gaps widen: they are likely to perform poorly in school, earn less as adults and engage in risky social behaviors (Hoffman, 2017). Young (2008) found that ECD investments have a positive impact on older girls and women. In addition to the direct impact of ECD interventions on young children, positive

externalities can occur in the areas of girls' education and women's labor force participation rate.

The overwhelming evidence about the importance of ECDE has made many people and governments world-wide to be aware of the need to have quality programs for young children (Moorhead, 2015). India for instance has community based ECDE programs that provide comprehensive and relatively cheap and integrated programs. The programs are virtually in all Indian states and offer supplementary nutrition for children up to six years and expectant and nursing mothers. In Colombia, the government partly finances the cost of early childhood development education. Colombian parents pay half of the care givers salary and security while the government finances a loan scheme to help mothers run the nurseries. In Mauritius, mothers of 20-45 years are usually trained to take care of young children in their homes. MOEST (2013) Report indicates that Thailand has worked out a funding scheme to support ECDE programs in the community on continuing bases.

According to UNESCO (2014), despite the state's achievements in policy implementation, there are still obstacles that stand in the way. Challenges experienced include limited technical/ human resource capacity which has led to delays in meeting some targets such as completion of various building projects by public works department, the movement of key personnel through transfer, retirement or voluntary departure, lack of appropriate institutional framework which makes inter-sectorial collaboration difficult and funding by donors. Cuts in funding from major donors contributed to delays.

On the other hand, constitution of Kenya (2010) has established two levels of government, the National and the County with each given specific role to perform as far as managing education is concerned. The National government is concerned with curricula, examinations, policy, standards, granting charters to tertiary institutions, universities and other learning institutions dealing with research, secondary education, special needs education, employment of teachers and management of co-curricular activities. The county government on the other hand handles village polytechnics, pre-primary education, home crafts and other learner care facilities. The basis of such devolution is hinged on the Basic Education Act (GoK, 2013), and the Sessional Paper No.14 of 2012 on educational reforms and trainings. With these principles in place there was need

to readjust the education structure so as to meet the requirements in the constitution.

It is important to note that, ECDE being the initial stage of setting the learner's foundation, especially the aspect of cognitive and socialization domains, all stakeholders are required to critically address matters of accessibility, quality, relevance and equity of ECDE programs (Kibera & Kimokoti, 2017). Notably, the policy document indicates that, various stakeholders are engaged in service provision for learners, yet the resources available are insufficient for the number of learners requiring the same services. There is need therefore to maximize resources which are available so as to ensure that the ECDE services offered are accessed in an equitable manner, acceptable and socially relevant way. This guarantees a more efficient coordination of service delivery among other partners (GoK, 2016).

The Kenyan government in an endeavor to embrace the NAEYC and NAECS guidelines formulated an assessment tool called Kenya School Readiness Assessment Tool (KSRAT) (Mochama, 2015). Through the newly established tool, ECDE children would be gauged using their chronological age and development. Assessment for learning is successful when it is embedded in teaching and learning. There is need, therefore, to look into challenges influencing devolution of education in Mandera County, Kenya.

In Mandera County, Kenya, the challenges facing ECDE are even more acute due to the region's unique socio-economic and environmental conditions. According to Obara and Okungu (2020), Mandera County experiences significant barriers to effective ECDE, including high levels of poverty, cultural factors, and limited access to educational facilities. The region's arid and semi-arid climate also poses challenges, as food insecurity and nomadic lifestyles impact children's ability to attend school regularly (Obara & Okungu, 2020). Furthermore, the shortage of trained ECDE teachers and inadequate infrastructure further hinder the delivery of quality early childhood education in Mandera County (UNICEF, 2019).

Early Childhood Development and Education (ECDE) is a crucial stage in child growth and development. The devolution of ECDE to county governments in Kenya was intended to improve infrastructure, provide childcare facilities, and enhance pre-primary education. However, this transition has faced numerous

challenges. Key issues include unclear policy frameworks, underfunding, and lack of preparedness among county governments to manage ECDE programmes effectively (Elimu-Yetu Coalition, 2016). For instance, a study by Atieno (2014) in Kisumu County highlighted that county governments lack the necessary framework and readiness to handle ECDE responsibilities. Additionally, the World Bank (2014) reported that many public ECDE centers in Kenya suffer from stalled programs, irregular and delayed teacher salaries, inconsistent feeding programs, poor infrastructure, and unclear policy guidelines.

Despite the Kenyan Constitution of 2010 mandating county governments to manage early childhood education and ensure the provision of adequate infrastructure, qualified teachers, and sufficient learning materials, these goals have not been fully realized. Globally, decentralization of education aims to improve policies and resources for vulnerable learners through effective planning and increased investments (Rossiter, 2016; Powers, 2016). However, in Kenya, and specifically in Mandera County, the full potential of devolution in enhancing ECDE access and quality remains unmet. This research aims to investigate the challenges facing the devolution of early childhood education programs in Mandera County, Kenya.

The purpose of this study was to examine challenges facing devolution of early childhood education programs in Mandera County, Kenya. The following are the specific objectives of this study:

1. To ascertain the status of teacher adequacy in delivering public ECDE centers programs in Mandera County
2. To establish the extent of availability of instructional materials influence delivering of public ECDE centers programs in Mandera County
3. To identify the strategies put in place by the county government to motivate teachers in order to improve service delivery in ECDE centers in Mandera County.

The study was designed to provide information that was useful to the county government and the entire DICECE office in Mandera County particularly on the actual benefits on pupils' access to ECDE services. The MOE may use the findings of this study in the policy formulation regarding funding of the ECDE centers in the county. The findings of the study may help to identify priority

areas that need more funding in ECDE centers. The study findings might also help parents as stakeholders in education to understand the role of both the national government and county government in development of ECDE programs. The findings may also benefit future researchers by providing data on which future studies regarding capitation grants funding in ECDE centers in Kenya may be based.

2. MATERIALS AND METHODS

Creswell (2014) defines research designs as plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. This study adopted descriptive survey design. This design enabled the researcher to describe the state of affairs as they are and report the findings (Kombo& Tromp, 2009). According to Kothari (2009), such design is efficient method of collecting descriptive data regarding the characteristics of populations to justify current conditions and practices. Moreover, descriptive survey design allow rapid collection of data from a large sample within the shortest time possible by use of questionnaires, interview schedules and document analysis. The study adopted mixed methods which involve integration of philosophical assumptions where there is use of both quantitative and qualitative approaches. In this study, both quantitative and qualitative data were collected thus making the study a mixed method research. It is thus more than simply collecting and analyzing both kinds of data; it also involves the use of both approaches in tandem so that the overall strength of a study is greater than either one of the two approaches (Creswell, 2009). According to Creswell and Plano Clark, (2007) the mixing of quantitative and qualitative approaches provides a better understanding of research problems than either approach alone. Mixed methodology is the corner stone of research within social science that is experienced within everyday life”.

A study population is a group of individuals, objects or items from which a sample or study subjects are drawn. The subjects or objects forming a sample have at least one thing in common. For the purpose of this study, the target population was ECDE teachers of Baby class, Middle and Top Class. The county has a total of 797 public ECDE centers with 387 teachers comprising of 70 male and 1317 female teachers. In addition, the study targeted 1 county Director of ECDE, 6 sub-county ECDE officers and 52 primary school head teachers. It should be noted that most ECDE centers are found within the

precincts of individual primary schools and church compounds making the number of head teachers to be less. The target population is presented in Table 2.1.

Table 2.1: Target Population

Sub-County	Number of Schools	Number of Teachers	Sub-county ECDE officers	Primary school head teachers	Total target population
Mandera West	121	176	1	121	298
Mandera South	67	203	1	67	271
Banissa	83	257	1	83	341
Mandera Town	141	336	1	141	478
Mandera North	64	259	1	64	324
Mandera East					
Lafey	76	156	1	76	233
Total	52	387	6	52	1945

Source: Mandera County ECDE Office, 2024

Maree (2007) defines sampling as the process used to select a portion of the population for study. This implies the selection by the researcher, of participants for a particular study he/she deems in the best position to provide the relevant information needed for such a study. This section provides the sampling process adopted for this study. Patton (2002) argue that the sample size depends on what one wants to know, the purpose of the inquiry, what is at stake, what is useful, what will have credibility and what can be done with available time and resource. The sample size formula for this study was determined by the Krejcie and Morgan (1970) as quoted by Kasomo (2001). The formula is given as:

$$n = \frac{N}{1 + \frac{N}{N-1} \left(\frac{e^2}{N} - \frac{e^2}{N-1} \right)}$$

Where

n=Sample size

X^2 =Chi Square for the specified confidence level at 1 degree of freedom=(3.841) from tables

N=Population size

P=Population proportion (.50 in the table)

ME=Desired margin of error (expressed as a proportion=0.05)

For Teachers, the sample size was;

$$\begin{aligned} n &= \frac{3.841 * 387 * .5(1 - .5)}{(.0025 * (387 - 1)) + (3.841 * .5 * (1 - .5))} \\ &= 1331.86675 / 4.42525 \\ &= 194 \end{aligned}$$

For Head Teachers

$$n = \frac{3.841 * 52 * .5(1 - .5)}{(.0025 * (52 - 1)) + (3.841 * .5 * (1 - .5))} = 227$$

Table 2.2 presents the sample size of the study.

Table 2.2 Sample Size

Category	Target population	Sample Size
Director of ECDE	1	1
Sub county ECDE Officers	6	6
Head teachers	52	52
ECDE Teachers	387	194
Total	1946	253

Source: Primary Data 2024

Questionnaires were used to obtain information from ECDE teachers and primary school head teachers. Questionnaires are preferred because they are considered convenient to be used when handling large group of data. According to Kothari, (2008), the questionnaire generates data that are quantitative in nature and hence this tool is deemed appropriate since it collects such data in line with the design of the study. The questionnaire will have six questions with section one covering the demographic information of the respondents, section two had items on the status of teacher adequacy in public ECDE centers, section three had information on the kind of support accorded to ECDE teachers by Ministry of Education, section four had information on the extent to which devolution has enhanced infrastructure development in ECDE centers and section five had items related to the extent of availability of instructional materials while the last section contained items on the strategies put in place by the county government to motivate teachers in order to improve service delivery in ECDE centers in Mandera County. The questionnaires will provide quantitative aspects of data from both the pre-school teachers and the primary school head teachers.

Orodho (2009) postulate that many people are willing to communicate orally than in writing and they would provide data more readily and fully than on a questionnaire. An investigator is able to encourage subjects and probe them deeply into a problem. In this study interviews will be used to collect data from the director of ECDE and the Sub-County ECDE officers. The interviews cover information concerning measures the county had put in place to motivate teachers in order to improve service delivery in ECDE centers. How the County Government facilitated infrastructural development to improve service delivery in ECDE centres. How do ECDE teachers perceive devolution of ECDE programs. How has devolution enhanced availability of instructional materials in ECDE centres in Mandera county in order to improve service delivery and teacher: pupil ratio in the county/Sub-county. Interviews, compared to questionnaires- are more powerful in eliciting narrative data that allows researchers to investigate people's views in greater depth (Kvale, &Brinkmann, 2009).

Analysis of data involves interpretation, organization and presentation of collected information so as to decrease the information collected from the field to be practical (Onen & Oso, 2005). The study will employed descriptive survey design. Questionnaires collected from the field was checked to confirm if all

questions had been answered and data was coded. Quantitative data were first organized into themes, and then descriptive statistical method was used to explain the frequencies and percentages calculated from the data obtained in the field. This information was presented in tabular form to make interpretation clearer. Content analysis was used in order to determine the frequency and trends in the variables under the study. Qualitative data from interview schedule were analyzed using thematic method. This involved identifying, examining, and interpreting the patterns and themes in textual data with aim of answering the research questions of the study. This then be interpreted as a measure of direction regarding the objectives. The findings of the quantitative and qualitative study helped to detail, elaborating the challenges facing the devolution of early childhood education programs in Kenya: a study of Mandera county public ECDE centers. This was because by only relying on quantitative finding the study could not understand in-depth scenario. Suggestion which was asked in qualitative component was very useful which couldn't be found out in close ended questions from questionnaires.

3. RESULTS AND DISCUSSIONS

3.1 Status of Teacher Adequacy in Public ECDE Centres

The first objective of this study was to assess the status of teacher adequacy in public ECDE centres in Mandera County. To achieve this objective, respondents were asked to indicate in the questionnaire whether or not their schools had adequate number of teachers. Their responses were tabulated and the results are presented in Figure 3.1.

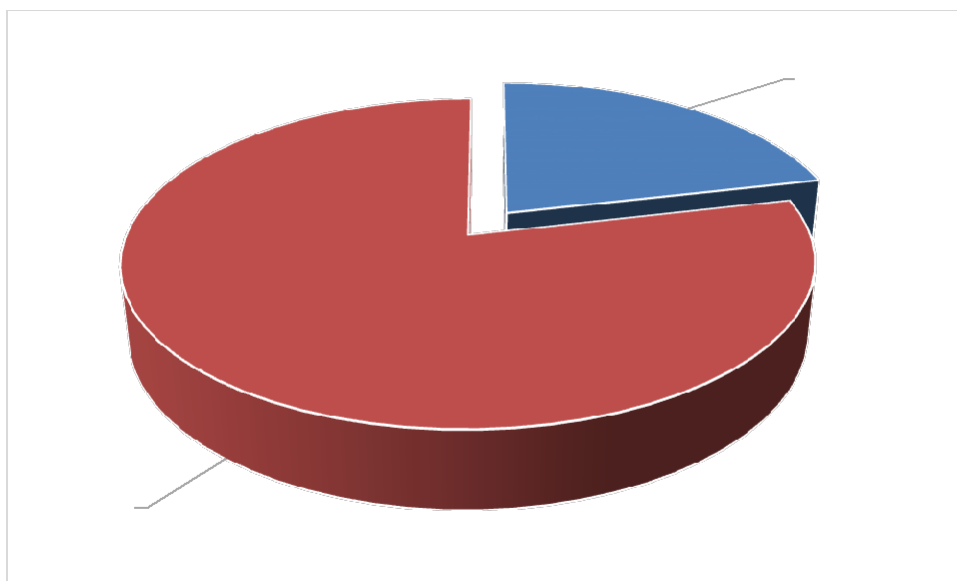


Figure 3.1: Adequacy of Teachers in Public ECDE Centres. **Source: Field Data (2024)**

Figure 3.1 shows that 175 (78.5%) teachers acknowledged that their pre-schools were having an inadequate number of teachers while 48 (21.5%) respondents reported that their schools had adequate pre-school teachers. From the responses, it can be shown that the majority (78.5%) of the teachers in pre-schools in Mandera County revealed that their schools lacked an adequate number of teachers.

This therefore shows that pre-schools in Mandera County lack an adequate number of teachers, hindering the implementation of ECDE programs. Additionally, teachers were asked to rate their level of agreement on five-point Likert scale items in the questionnaire on teacher adequacy. The results of the analyzed information are presented in Figure 3.1.

From the responses, it is evident that inadequate teacher staffing is a significant issue in the pre-schools of Mandera County, affecting the quality of education and implementation of the ECDE programs. The majority of respondents agreed or strongly agreed on the need for more teachers to handle the student population and improve curriculum implementation.

Table 3.1: Teachers’ Responses on Adequacy of Pre-School Teachers

Statement	SD		D		N		A		SA	
	F	%	F	%	F	%	F	%	F	%
Devolution and decentralization of education has contributed to manageable pupil- teacher ratio in my school	208	45.8	109	24.0	26	5.7	61	13.4	50	11.0
There are enough ECDE teachers to teach children in my school	87	19.2	191	42.1	0	0.0	89	19.6	87	19.2
Deployment of teachers to county schools has enabled my school to reduce the teaching burden that teachers face on daily basis	169	37.2	136	30.0	15	3.3	64	14.1	70	15.4
Teachers benchmarking in various Counties has facilitated improvement in learners’ academic performance in ECDE centers	86	18.9	152	33.5	43	9.5	84	18.5	89	19.6
Parents have employed extra teachers in our pre-schools for efficiency in curriculum implementation	26	5.7	76	16.7	47	10.4	164	36.1	141	31.1
All teachers in our pre-schools have undergone pre-school teacher training	60	13.2	29	6.4	38	8.4	199	43.8	128	28.2
Majority of the pre-school teachers have been employed by the county government	132	29.1	140	30.8	68	15.0	67	14.8	47	10.4
Teachers in our school have adequate teaching experience and thus able to handle pre-school learners according to their needs	92	20.3	41	9.0	48	10.6	151	33.3	122	26.9
Teachers in my school have current pedagogical skills to handle learners	9.3		71	15.6	67	14.8	140	30.8	134	29.5

Source: Field Data (2024)

Table 3.1 shows that 208 (45.8%) teachers strongly disagreed with the statement that devolution and decentralization of education had contributed to manageable pupil-teacher ratio in their schools, 109 (24.0%) teachers disagreed with the statement, 61 (13.4%) teachers agreed with the statement and 50 (11.0%) teachers strongly agreed with the statement. The study findings showed that majority (69.8%) of the teachers in pre-schools in Mandera County reported that devolution and decentralization of education had not contributed to manageable pupil- teacher ratio in their schools. This implies that the pupil to teacher ratio was still high in most pre-schools in the region. Further, 191 (42.1%) teachers disagreed with the statement that there were enough ECDE teachers to teach children in their schools, 89(19.6%) teachers agreed with the statement and 87 (19.2%) respondents strongly disagreed with the statement while another 87(19.2%) teachers strongly agreed with the statement. From the responses, it emerged that majority (61.3%) of the pre-school teachers in Mandera County believed that their schools had inadequate teachers.

This therefore can compromise the quality of education being offered at ECDE centers in the region. In addition, 169(37.2%) teachers strongly disagreed with the statement that deployment of teachers to county schools had enabled their schools to reduce the teaching burden that teachers face on daily basis, 136(30.0%) teachers disagreed with the statement, 70(15.4%) teachers strongly agreed with the statement and 64(14.1%) teachers agreed with the statement while 15(3.3%) teachers were undecided on the statement. From the responses, it emerged that majority (67.2%) of the ECDE teachers in Mandera County reported that the county had not deployed adequate teachers in their schools thus there is increased workload among the existing teachers. Similarly, 152(33.5%) teachers were in disagreement with the statement that with the teachers benchmarking in various Counties had facilitated improvement in learners' academic performance in ECDE centers, 89(19.6%) teachers were strongly in agreement with the statement, 86(18.9%) teachers were strongly in disagreement with the statement and 84(18.5%) teachers agreed with the statement while 43(9.5%) teachers were neutral on the statement. As shown by the responses, it can be argued that most (52.4%) of the pre-school teachers in Mandera County perceived that teachers' benchmarking in various counties did not facilitate improvement in learners' academic performance in ECDE centers.

This was attributed to the fact that most ECDE teachers had not been given opportunities of benchmarking in other counties and therefore did not understand the benefits associated with benchmarking. In addition, 164(36.1%) teachers agreed with the statement that parents have employed extra teachers in their pre-schools for efficiency in curriculum implementation, 141(31.1%) teachers strongly agreed with the statement, 76(16.7%) teachers disagreed and 47(10.4%) teachers were neutral on the statement while 26(5.7%) teachers were strongly in disagreement with the statement. The study finding shows that majority (67.2%) of the pre-school teachers in the study area acknowledged that parents had employed extra teachers in their pre-schools for efficiency in curriculum implementation in the centers.

Further, 199(43.8%) teachers agreed with the statement that all teachers in pre-schools had undergone pre-school teacher training, 128(28.2%) teachers strongly agreed with the statement, 128(28.2%) teachers strongly agreed with the statement, 60(13.2%) teachers were strongly in disagreement with the statement and 38(8.4%) teachers were neutral on the statement while 29(6.4%) teachers disagreed with the statement. As shown by the responses, it can be reported that majority (72.0%) of the pre-school teachers believed that all teachers in pre-schools in the study area had undergone pre-school teacher training courses.

Moreover, 140(30.8%) teachers were in disagreement with the statement that majority of the pre-school teachers have been employed by the county government, 132(29.1%) teachers strongly agreed with the statement, 68(15.0%) teachers were neutral and 67(14.8%) teachers were in agreement with the statement while 47(10.4%) teachers strongly agreed with the statement. From the responses, it emerged that most (59.9%) of the pre-school teachers were of the view that majority of the pre-school teachers were not employees of the county government.

Similarly, 151(33.3%) teachers agreed with the statement that teachers in their schools had adequate teaching experience and thus able to handle pre-school learners according to their needs, 122(26.9%) teachers strongly agreed with the statement, 92(20.35) teachers were strongly in disagreement with the statement and 48(10.6%) teachers were undecided on the statement while 41(9.0%) teachers were in disagreement with the statement. From the responses, it emerged that majority (60.9%) of the pre-school teachers in the study area

believed that teachers had adequate teaching experience and thus able to handle pre-school learners according to their needs.

On the statement that teachers in pre-schools have current pedagogical skills to handle pre-school learners, 140(30.8%) teachers were in disagreement with the statement, 134(29.5%) teachers strongly agreed with the statement, 71(15.6%) teachers disagreed with the statement and 67(14.85) teachers were neutral on the statement while 42(9.3%) teachers were strongly in disagreement. As pointed by the responses, it can be shown that majority (60.3%) of the pre-school teachers in the study area acknowledged that they had adequate and current pedagogical skills which allowed them to effectively handle pre-school learners. The pedagogical skills for teaching of pre-school learners can only be achieved through in-service or pre-service training. This therefore shows that majority of the pre-school teachers in the study area have undergone pre-school teacher training programme.

Interviews with the primary school head teachers pointed out that teachers recruited by the county government were inadequate since only one teacher per school had been recruited in some schools. However, not all schools had a pre-school teacher recruited by the county government. One head teacher said that;

“In my school, there is only one teacher who was recruited by the county government. While other four teachers are under parents.”

This therefore points out that teachers recruited under the county government programme are inadequate forcing parents to still pay more teachers. In some schools it emerged that one teacher was handling a population of over 65 learners since parents were reluctant to employ an extra teacher owing to the fact that parents believe that it's the prerogative of the county government to employ pre-school teachers. This compromises on the quality of learners' education at pre-school level and even to the higher levels of learning since learners will lack a good foundation of education.

3.2 Availability of Instructional Materials

The fourth objective of this study was to establish the extent of availability of instructional materials in public ECDE centers in Mandera County. The study findings from director of ECDE and sub county ECDE officers' interviews revealed that plans were underway to ensure that all the ECDE

centers in the county can access adequate instructional materials in order to improve service delivery by increasing county budgetary allocation to ECDE sector. The county director of ECDE noted that:

“As we are still waiting for funds each teacher is encouraged to develop instructional materials for use in their centers through purchasing, donations and utilizing the locally available materials, borrowing and using parent’s children to collect some of the materials. To ensure that teachers develop the materials, we organize for material displays where the best teachers are rewarded and appraised. This helps teacher to improve their skill of development according to the needs of the learners”

3.3 Strategies Put in Place to Motivate Teachers and Improve Service Delivery

The fifth objective of this study was to identify the strategies put in place by the County Government to motivate teachers in order to improve service delivery in ECDE centres in Mandera County. To achieve this objective, the pre-school teachers were asked to rate the level of agreement on a five-point Likert scale items in the questionnaire on strategies that need to be put in place by the county government so as to motivate them and enhance service delivery. Their responses were tabulated and the results are presented in Table 3.2

Table 3.2: Pre-school Teachers’ Responses on Strategies Put in Place to Motivate

Statement	SD D		UD A		SA
	F	%F	F	%F	F
Provision of good remunerations	59	13.0%	79	17.4%	10
Provision of medical allowance for pre-school teachers	47	10.4%	31	6.8%	48
Provision of proper working environment	89	19.6%	31	6.8%	33
Provision of house allowance	40	8.8%	22	4.8%	20
Provision of in-service courses for skills development	11	2.4%	21	4.6%	26
Provision of commuter allowance	40	8.8%	42	9.3%	37
Provision of promotion opportunities	48	10.6%	45	9.9%	25

Source: Field Data (2024)

The majority of pre-school teachers, 67.4%, agreed that providing good remuneration is essential to motivating teachers and improving service delivery. Specifically, 39.4% of respondents agreed with this statement, and 28.0% strongly agreed. On the other hand, 17.4% disagreed, 13.0% strongly disagreed, and 2.2% were undecided. This suggests a strong belief among teachers that better pay is necessary to enhance their performance and commitment. A significant number of teachers, 72.3%, highlighted the need for medical allowances. 45.2% of respondents agreed that medical allowances are important for motivation, with 27.1% strongly agreeing. Conversely, 10.6% were neutral, 10.4% strongly disagreed, and 6.8% disagreed. This reflects the need for medical coverage, as many teachers lack access to such schemes and must cover medical expenses out of pocket.

Regarding Provision of Proper Working Environment 66.3% of teachers agreed that a proper working environment is crucial for improving service delivery. 34.6% agreed with this statement, and 31.7% strongly agreed. However, 19.6% strongly disagreed, 7.3% were undecided, and 6.8% disagreed. This indicates that while there is strong support for better working conditions, a notable minority still holds different views. Regarding house allowances, 82.0% of teachers expressed the need for such provisions. Specifically, 49.8% agreed and 32.2% strongly agreed that house allowances are necessary. 8.8% strongly disagreed, 4.8% disagreed, and 4.4% were undecided. This highlights a widespread belief that house allowances would significantly benefit teachers by improving their living conditions.

In provision of In-Service Courses for Skills Development: 87.2% of teachers recognized the need for in-service courses to develop their skills. 49.3% agreed that these courses are important, and 37.9% strongly agreed. 5.7% were undecided, 4.6% disagreed, and 2.4% strongly disagreed. This underscores the importance of continuous professional development to ensure teachers are well-equipped for their roles. 73.8% of teachers supported the provision of commuter allowances. 43.6% strongly agreed with this need, and 30.2% agreed. 9.3% disagreed, 8.8% strongly disagreed, and 8.1% were neutral. This reflects a significant concern about transportation costs and the impact on teachers' ability to commute effectively. Finally, 74.0% of teachers saw promotion opportunities as essential for their professional development. 37.9% agreed, and 36.1% strongly agreed. 10.6% strongly disagreed, 9.9% disagreed, and 5.5% were undecided. This indicates a strong demand for career advancement.

opportunities as a key factor in job satisfaction and professional growth. These findings collectively suggest that improving remuneration, providing medical allowances, ensuring a good working environment, offering house allowances, facilitating in-service training, providing commuter allowances, and ensuring promotion opportunities are crucial factors in enhancing service delivery and motivation among pre-school teachers in Mandera County.

4. CONCLUSION

The purpose of this study was to examine challenges facing devolution of early childhood education programs in Mandera County, Kenya. The study specifically addressed the status of teacher adequacy in public ECDE centers, the kind of support accorded to ECDE teachers by Ministry of Education, the extent to which devolution has enhanced infrastructure development, extent of availability of instructional materials and the strategies put in place by the county government to motivate teachers in order to improve service delivery. Data were collected using questionnaires and interviews yielding both quantitative and qualitative data which were analyzed using descriptive statistics.

Based on the findings, the study concludes that Devolution of early childhood education programs has gone through a lot of changes since its inception in 2010. However, implementing ECDE programs in Mandera county has not been fully achieved. Most Pre-schools were highly populated thus, pupil teacher ratio was still high affecting curriculum implementation. This therefore compromised the quality of education being offered at ECDE centers in the region. Further, the county government had not fully provided adequate, relevant teaching and learning materials which has hindered full implementation. The study also concluded that the county government had constructed a few classrooms in the public primary schools thus supporting ECDE programs. However, it further emerged that only one classroom out of the needed three were constructed in approximately sixty schools per year in the county. The rest of the classrooms were provided by the parents and the host primary school.

Based on the findings, the study makes the following recommendations. There is need for the county government to employ more ECDE teachers in order to reduce high pupil's teacher ratio in the region. Further, they should sponsor teachers with in-service training courses so as to ensure that they have the

necessary skills for teaching of pre-school learners. Teachers' education is one of the most important indicators of high quality in early childhood education. There is need for the county government, parents and other education stakeholders to team up in the construction of more child friendly classrooms and provide teaching and learning materials for quality outcomes in the pre-schools. There is need for a similar study to be undertaken in different counties in Kenya to allow for the generalization of the study findings.

There is need for a study on factors influencing service delivery in pre-schools in Kenya.

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