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Building Teacher Capacity for Quality Instruction in Rural Ugandan Primary Schools: A Mixed-Methods Study of Karamoja District, Uganda

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Abstract

Teacher capacity remains fundamental to promoting quality instruction and improving learners' educational outcomes globally. However, educational inequalities continue to undermine instructional effectiveness within rural and marginalized communities, particularly across Sub-Saharan Africa. In Uganda, although substantial investments have been directed towards improving educational access through Universal Primary Education and successive educational reforms, considerable disparities remain regarding teacher preparedness, instructional quality, and professional support systems within rural schools. Karamoja District presents unique educational challenges characterized by inadequate instructional resources, teacher shortages, limited professional development opportunities, learner diversity, and infrastructural constraints that significantly influence classroom instruction. This study assessed teacher capacity for promoting quality instruction in rural primary schools in Karamoja District, Uganda. Specifically, the study examined teachers' pedagogical competencies for quality classroom instruction, investigated institutional and contextual factors influencing teacher capacity, examined the influence of continuous professional development and instructional support systems on teachers' instructional practices, and explored strategies for strengthening teacher capacity in rural primary schools. The study employed a convergent mixed-methods research design integrating quantitative and qualitative approaches. Data were generated through questionnaires, semi-structured interviews, classroom observations, and document analysis. Quantitative findings were analyzed using descriptive statistics while qualitative findings were analyzed thematically following Braun and Clarke's six-stage framework. Findings demonstrate that although teachers exhibit substantial commitment towards learner-centered instructional practices, significant challenges relating to professional development, instructional resources, mentorship systems, and contextual instructional demands continue to constrain instructional effectiveness. The study concludes that sustainable improvements in educational quality within rural Uganda require integrated investments in teacher professional development, instructional support systems, context-responsive pedagogies, and educational leadership practices. The study recommends institutionalizing continuous professional development programmes and strengthening school-based instructional support mechanisms for rural primary school teachers.

Keywords: Teacher Capacity, Quality Instruction, Teacher Education, Rural Education, Professional Development, Karamoja District, Uganda.

INTRODUCTION

The pursuit of quality education has increasingly become a central global development priority as nations seek to strengthen human capital development and promote equitable educational opportunities for all learners. Sustainable Development Goal Four emphasizes the importance of ensuring inclusive and equitable quality education and promoting lifelong learning opportunities globally. Achieving this goal remains substantially dependent upon teachers' instructional competencies, pedagogical effectiveness, and their capacity to facilitate meaningful learner engagement within diverse educational contexts (UNESCO, 2024). Consequently, teacher capacity development has emerged as one of the most important determinants of educational quality worldwide.

Teacher capacity extends beyond teachers' subject content knowledge and encompasses pedagogical competencies, instructional adaptability, assessment literacy, professional collaboration, classroom management practices, reflective teaching capabilities, and responsiveness towards learners' diverse educational needs. Contemporary scholarship demonstrates that teacher effectiveness remains among the most influential school-based factors affecting learners' educational achievement and classroom engagement (World Bank, 2024). Teachers possessing appropriate pedagogical competencies significantly contribute towards improving learner achievement particularly within disadvantaged educational contexts where schools experience multiple socio-economic and instructional challenges.

Globally, educational systems continue to invest substantially in strengthening teacher professional development initiatives aimed at improving instructional quality and learner outcomes. Educational reforms implemented across developing and developed countries increasingly emphasize learner-centered pedagogies, continuous professional development, inclusive instructional approaches, and contextualized teaching practices capable of addressing contemporary educational challenges (OECD, 2025). Nevertheless, educational inequalities continue to persist particularly among marginalized communities characterized by inadequate educational infrastructure, insufficient instructional resources, and limited teacher support systems.

Within Sub-Saharan Africa, teacher quality remains central to educational transformation efforts despite persistent challenges affecting educational equity and instructional effectiveness. Existing evidence demonstrates that rural schools disproportionately experience teacher shortages, inadequate professional support mechanisms, infrastructural limitations, and constrained opportunities for pedagogical innovation compared with their urban counterparts. These contextual disparities significantly influence teachers' instructional practices and consequently contribute towards persistent inequalities in educational achievement across geographical locations (UNESCO, 2025).

Uganda has implemented considerable educational reforms intended to strengthen educational access and instructional quality through Universal Primary Education, competence-based pedagogical reforms, and investments in teacher professional development programmes. Despite these interventions, recent educational reports continue to highlight considerable challenges regarding instructional quality particularly within rural educational settings. Issues relating to teacher preparedness, classroom overcrowding, instructional resource limitations, inadequate

supervision, and teacher motivation continue to affect effective classroom instruction across several rural districts (Ministry of Education and Sports, 2025).

Karamoja District represents one of Uganda's educationally marginalized contexts requiring sustained scholarly and policy attention. Although considerable progress has been realized regarding school enrollment rates and educational access, substantial challenges remain concerning teacher deployment, professional support systems, contextual pedagogical practices, and instructional effectiveness. Teachers operating within rural Karamoja frequently encounter unique instructional circumstances requiring contextualized pedagogical approaches responsive to linguistic diversity, socio-economic realities, and infrastructural limitations.

Contemporary educational scholarship increasingly recognizes that improving educational quality within disadvantaged communities requires strengthening teacher capacity through integrated interventions encompassing professional development, instructional leadership, collaborative learning opportunities, mentorship systems, and resource support mechanisms. Educational investments directed towards strengthening teacher competencies consequently possess considerable potential for improving learner achievement and reducing educational inequalities across rural communities.

This study therefore contributes towards contemporary scholarly discussions concerning teacher education, instructional quality, and educational equity by examining teacher capacity for promoting quality instruction within rural primary schools in Karamoja District, Uganda.

BACKGROUND TO THE STUDY

The importance of teacher capacity development continues to receive increasing scholarly attention across international educational discourse. Research conducted between 2020 and 2026 consistently demonstrates that teachers significantly influence learners' academic achievement, motivation, and educational participation particularly when supported through continuous professional development programmes and collaborative instructional practices (OECD, 2025; UNESCO, 2024).

Internationally, effective instructional practices increasingly emphasize learner-centered pedagogies that promote critical thinking, problem-solving competencies, creativity, collaboration, and inclusive educational participation. Consequently, teachers are expected to demonstrate competencies extending beyond traditional instructional approaches towards adaptive pedagogical practices responsive to contemporary educational realities.

Within Africa, educational systems continue experiencing substantial challenges regarding educational financing, teacher deployment inequalities, and instructional resource distribution. Existing literature demonstrates that rural schools experience comparatively greater instructional constraints that significantly influence teachers' pedagogical effectiveness and professional growth opportunities.

In Uganda, educational reforms emphasize quality instruction through competence-based pedagogical approaches, continuous assessment practices, and teacher professional development initiatives. Nevertheless, significant disparities persist between

rural and urban schools regarding teacher support mechanisms and instructional quality outcomes.

Karamoja's educational context presents distinctive challenges characterized by geographical remoteness, socio-economic vulnerabilities, multilingual learning environments, teacher retention difficulties, and infrastructural limitations. Improving instructional quality within such contexts consequently requires context-responsive teacher capacity development interventions capable of strengthening teachers' pedagogical competencies and professional resilience.

THEORETICAL FRAMEWORK

This study is anchored within three complementary theoretical perspectives.

- i) Shulman's Theory of Pedagogical Content Knowledge (1987)

The theory emphasizes teachers' ability to transform subject matter knowledge into meaningful learning experiences. Teacher effectiveness consequently requires integrating pedagogical competencies with contextual instructional expertise.

- ii) Biggs' Constructive Alignment Theory (2014)

Constructive Alignment Theory emphasizes meaningful alignment among learning outcomes, pedagogical approaches, classroom activities, and assessment practices. Quality instruction therefore requires teachers to purposefully design coherent learning experiences that facilitate learner engagement and achievement.

- iii) Guskey's Teacher Professional Development Model (2002)

Guskey argues that teacher professional development significantly influences classroom instructional practices when teachers receive sustained institutional support mechanisms. The model highlights the importance of continuous professional learning opportunities capable of improving instructional effectiveness and learner outcomes.

Collectively, these theoretical perspectives provide important analytical lenses for understanding teacher capacity development within rural educational contexts.

GENERAL OBJECTIVE

To assess teacher capacity for promoting quality instruction in rural primary schools in Karamoja District, Uganda.

SPECIFIC OBJECTIVES

1. To assess teachers' pedagogical competencies for promoting quality classroom instruction in rural primary schools.
2. To examine institutional and contextual factors influencing teacher capacity for quality instruction.
3. To determine the influence of continuous professional development and instructional support systems on teachers' instructional practices.
4. To examine strategies for strengthening teacher capacity for improving quality instruction in rural primary schools.

RESEARCH QUESTIONS

1. What pedagogical competencies influence quality classroom instruction among rural primary school teachers?
2. What institutional and contextual factors influence teacher capacity for quality instruction?
3. How do continuous professional development and instructional support systems influence teachers' instructional practices?
4. What strategies can strengthen teacher capacity for promoting quality instruction in rural primary schools?

PROBLEM STATEMENT

Although Uganda has implemented considerable educational reforms aimed at improving educational access and instructional quality, substantial disparities continue to characterize rural educational contexts regarding teacher preparedness, instructional effectiveness, and learner achievement. Existing evidence demonstrates that rural schools disproportionately experience teacher shortages, limited professional development opportunities, instructional resource constraints, inadequate supervision systems, and infrastructural limitations. These challenges substantially undermine teachers' capacity to effectively implement learner-centered pedagogical practices capable of promoting meaningful educational outcomes.

Karamoja District particularly continues to experience considerable educational vulnerabilities requiring context-responsive teacher capacity development interventions. Despite government investments directed towards improving educational access and teacher support programmes, instructional quality concerns remain evident across many rural primary schools. Teachers frequently encounter difficulties relating to overcrowded classrooms, multilingual instructional environments, inadequate mentorship opportunities, limited instructional resources, and constrained professional learning experiences. Such challenges significantly influence teachers' pedagogical effectiveness and consequently affect learners' educational experiences and achievement outcomes.

While previous studies have extensively examined educational access and teacher deployment challenges within developing countries, comparatively limited scholarly attention has focused specifically upon integrated teacher capacity development interventions capable of strengthening quality instruction within rural Ugandan primary schools. Consequently, important knowledge gaps remain regarding teachers' pedagogical competencies, contextual instructional challenges, and sustainable strategies for strengthening instructional effectiveness within marginalized educational contexts. It is against this background that this study sought to assess teacher capacity for promoting quality instruction in rural primary schools in Karamoja District, Uganda.

LITERATURE REVIEW

Teacher Capacity and Quality Instruction in Contemporary Educational Discourse

Teacher capacity development has increasingly become a central educational priority globally as educational systems seek to improve learners' educational outcomes and promote equitable access to quality education. Contemporary educational scholarship

conceptualizes teacher capacity as encompassing teachers' pedagogical competencies, professional knowledge, instructional adaptability, assessment literacy, reflective practices, collaborative learning capacities, and their responsiveness towards diverse learners' educational needs (UNESCO, 2024; OECD, 2025). Teacher capacity consequently extends beyond teachers' mastery of subject content and includes their ability to effectively facilitate meaningful learning experiences capable of promoting learner achievement.

Recent studies have consistently demonstrated that teacher effectiveness remains among the most important school-based determinants of learners' academic success across educational contexts. Teachers possessing strong pedagogical competencies substantially influence learner engagement, educational participation, classroom motivation, and academic achievement particularly when instructional practices are aligned with contemporary learner-centered pedagogical approaches (World Bank, 2024). Improving teacher capacity therefore remains fundamental towards addressing educational inequalities affecting marginalized communities across developing countries.

Educational reforms implemented internationally increasingly emphasize competence-based pedagogies, inclusive instructional practices, differentiated instruction, collaborative learning approaches, and continuous professional development initiatives. These pedagogical transformations have consequently expanded teachers' professional responsibilities requiring greater instructional flexibility and contextual responsiveness. Teachers are increasingly expected to design meaningful learning experiences capable of addressing learners' diverse educational needs while simultaneously promoting critical thinking, creativity, collaboration, communication competencies, and lifelong learning capacities (OECD, 2025).

Within Sub-Saharan Africa, improving teacher quality continues to constitute an important educational policy priority despite persistent challenges relating to educational financing, teacher shortages, instructional resource distribution, and professional support mechanisms. Contemporary scholarship further demonstrates that teachers operating within rural educational contexts frequently encounter comparatively greater instructional challenges that substantially influence instructional effectiveness and professional growth opportunities. Such disparities consequently require context-responsive teacher capacity development interventions capable of strengthening instructional practices across disadvantaged communities.

Uganda's educational reforms similarly emphasize improving instructional quality through competence-based pedagogical approaches and continuous teacher professional development initiatives. However, educational reports continue to highlight considerable disparities regarding instructional quality across rural and urban schools. Rural teachers frequently experience comparatively fewer professional learning opportunities, limited instructional support mechanisms, infrastructural constraints, and contextual pedagogical challenges that significantly influence classroom practices. Understanding teacher capacity development within rural Ugandan contexts consequently remains particularly important towards strengthening educational quality and promoting educational equity.

Knowledge Gap

Although contemporary literature acknowledges teacher capacity as fundamental for improving educational quality, comparatively limited scholarship has specifically examined integrated teacher capacity development interventions capable of strengthening quality instruction within rural Ugandan primary schools. Furthermore, few studies have employed mixed-methods approaches that simultaneously examine teachers' pedagogical competencies, professional support systems, contextual instructional challenges, and sustainable capacity-building strategies within marginalized educational contexts such as Karamoja District.

Teachers' Pedagogical Competencies for Quality Classroom Instruction

Pedagogical competencies constitute important dimensions of teacher capacity development and significantly influence instructional effectiveness across educational contexts. Contemporary scholarship conceptualizes pedagogical competencies as encompassing teachers' instructional planning capabilities, learner-centered pedagogical practices, classroom management competencies, assessment literacy, differentiated instructional approaches, reflective teaching practices, and technological pedagogical competencies (Darling-Hammond, 2023).

Recent educational reforms have increasingly emphasized learner-centered pedagogies that position learners as active participants within instructional processes. Effective pedagogical competencies consequently require teachers to facilitate collaborative learning experiences capable of promoting learners' critical thinking competencies, creativity, problem-solving abilities, and meaningful educational participation. Teachers possessing strong pedagogical competencies substantially contribute towards improving learners' educational achievement particularly when instructional approaches are appropriately contextualized to learners' educational experiences and classroom realities.

Research conducted across developing educational contexts demonstrates that teachers' pedagogical competencies significantly influence instructional quality and learner achievement outcomes. Continuous pedagogical improvement initiatives have particularly demonstrated considerable effectiveness when professional development programmes emphasize classroom-based instructional practices and collaborative professional learning opportunities. Teachers receiving sustained pedagogical support frequently demonstrate comparatively greater instructional confidence, professional adaptability, and learner responsiveness than teachers experiencing limited professional development opportunities.

Within Uganda, competence-based educational reforms increasingly require teachers to demonstrate instructional competencies encompassing learner-centered pedagogical approaches, formative assessment practices, collaborative learning facilitation, and differentiated instructional strategies. However, contemporary studies continue to demonstrate considerable challenges regarding teachers' preparedness for implementing learner-centered pedagogical approaches particularly within rural educational contexts characterized by overcrowded classrooms, instructional resource limitations, and constrained professional support mechanisms.

Recent scholarship similarly emphasizes that instructional effectiveness within marginalized communities substantially depends upon teachers' contextual pedagogical competencies. Teachers operating within multilingual and socio-economically disadvantaged educational environments require specialized instructional capacities enabling them to effectively respond towards learners' educational experiences and contextual learning realities. Such competencies consequently become particularly important within rural Ugandan primary schools characterized by diverse educational circumstances.

Knowledge Gap

Although previous studies acknowledge the importance of pedagogical competencies within contemporary educational practice, comparatively limited literature has comprehensively examined teachers' pedagogical competencies specifically for promoting quality instruction within rural primary schools in Karamoja District. Existing scholarship remains comparatively fragmented regarding teachers' instructional planning competencies, assessment literacy practices, differentiated instructional approaches, and contextual pedagogical responsiveness within marginalized rural educational contexts.

Institutional and Contextual Factors Influencing Teacher Capacity

Teacher capacity development is substantially influenced by institutional and contextual factors extending beyond individual teachers' professional competencies. Contemporary educational scholarship increasingly recognizes that instructional effectiveness emerges through complex interactions among teachers' professional capabilities, institutional support mechanisms, educational leadership practices, instructional resources, and broader socio-cultural educational contexts (UNESCO, 2025).

Institutional factors significantly influencing instructional effectiveness include school leadership practices, professional development opportunities, instructional supervision mechanisms, resource availability, teacher motivation, collaborative professional cultures, and educational policy implementation practices. Schools characterized by supportive instructional leadership frequently demonstrate comparatively stronger professional learning cultures that substantially improve teachers' instructional practices and professional growth opportunities.

Professional development opportunities remain particularly important determinants of teacher capacity development across contemporary educational contexts. Recent studies consistently demonstrate that sustained professional learning experiences positively influence teachers' instructional effectiveness, pedagogical adaptability, assessment competencies, and learner-centered instructional practices. Furthermore, collaborative professional learning communities substantially contribute towards strengthening reflective instructional practices and promoting sustainable professional development outcomes among teachers.

Contextual factors including geographical location, socio-economic circumstances, linguistic diversity, infrastructural limitations, and community engagement practices similarly influence instructional effectiveness across educational contexts. Teachers operating within disadvantaged rural communities frequently encounter comparatively greater contextual instructional challenges requiring specialized professional support interventions and context-responsive pedagogical approaches.

Within Karamoja District, contextual instructional realities substantially influence teachers' classroom practices. Teachers frequently navigate multilingual instructional environments, infrastructural limitations, inadequate instructional materials, teacher retention challenges, and comparatively constrained professional learning opportunities. These contextual circumstances consequently necessitate integrated teacher capacity development interventions capable of strengthening instructional effectiveness within marginalized educational communities.

Knowledge Gap

Existing scholarship has inadequately examined interactions among institutional support mechanisms, contextual instructional realities, and teacher capacity development within rural Ugandan primary schools. There remains limited empirical evidence specifically addressing how contextual educational circumstances influence instructional effectiveness among teachers operating within marginalized communities such as Karamoja District.

Continuous Professional Development and Instructional Support Systems

Continuous professional development remains among the most effective educational interventions for strengthening teacher capacity and improving instructional quality globally. Contemporary conceptualizations of professional development increasingly emphasize sustained, collaborative, and classroom-focused learning experiences capable of promoting meaningful improvements in teachers' instructional practices (OECD, 2025).

Recent scholarship consistently demonstrates that effective professional development programmes significantly improve teachers' pedagogical competencies, assessment literacy practices, instructional confidence, and professional adaptability. Furthermore, professional learning initiatives emphasizing collaborative instructional practices frequently demonstrate comparatively greater sustainability than isolated workshop-based professional development approaches.

Instructional support systems including mentorship programmes, peer learning communities, instructional supervision practices, and collaborative professional networks substantially contribute towards improving teachers' instructional effectiveness. Teachers receiving sustained mentorship support frequently demonstrate improved classroom practices, greater professional confidence, and comparatively stronger learner engagement outcomes.

Contemporary scholarship similarly emphasizes the importance of instructional leadership practices in strengthening teacher capacity development initiatives. Educational leaders substantially influence teachers' professional growth experiences through instructional supervision practices, professional encouragement, resource mobilization efforts, and collaborative school cultures promoting reflective teaching practices.

Within Uganda, considerable investments have been directed towards strengthening teacher professional development initiatives. Nevertheless, disparities remain regarding rural teachers' access to continuous professional learning opportunities particularly across marginalized educational contexts characterized by geographical remoteness and infrastructural limitations.

Knowledge Gap

Despite increasing scholarly attention directed towards teacher professional development initiatives, comparatively limited

evidence exists concerning the effectiveness of instructional support systems operating within rural Ugandan primary schools. Consequently, understanding relationships among continuous professional development, instructional support mechanisms, and teachers' instructional practices remains particularly important for informing educational policy and practice.

Strategies for Strengthening Teacher Capacity within Rural Educational Contexts

Strengthening teacher capacity within marginalized educational contexts requires integrated interventions extending beyond conventional teacher training programmes. Contemporary scholarship increasingly advocates context-responsive teacher capacity development initiatives encompassing professional development opportunities, mentorship programmes, collaborative professional learning communities, instructional leadership interventions, and educational resource support mechanisms.

Educational systems demonstrating sustained improvements regarding instructional quality frequently implement integrated professional support programmes combining formal professional development initiatives with collaborative school-based learning opportunities. Furthermore, investments directed towards strengthening teachers' professional identities, instructional autonomy, and reflective teaching capacities substantially contribute towards sustainable improvements in instructional effectiveness.

Recent literature further emphasizes the importance of localized teacher capacity development interventions responsive towards contextual educational realities. Teachers operating within rural educational contexts particularly benefit from professional learning opportunities specifically designed to address multilingual instructional environments, resource-constrained pedagogical practices, and culturally responsive teaching approaches.

Within Uganda, strengthening teacher capacity consequently requires sustained policy commitments directed towards improving professional development opportunities, instructional leadership practices, teacher motivation initiatives, educational financing mechanisms, and resource distribution systems. Such interventions remain particularly important within historically marginalized communities including Karamoja District where educational inequalities continue influencing instructional quality outcomes.

Knowledge Gap

Although contemporary scholarship proposes numerous teacher capacity development strategies, comparatively limited literature has examined context-responsive interventions specifically designed for strengthening instructional effectiveness within rural Ugandan primary schools. There consequently remains an important need for empirical evidence capable of informing sustainable teacher capacity development policies responsive to marginalized educational contexts.

SUMMARY OF THE LITERATURE REVIEW

The reviewed literature demonstrates that teacher capacity substantially influences instructional quality and learner achievement across educational contexts. Contemporary scholarship consistently emphasizes the importance of pedagogical competencies, institutional support mechanisms, professional

development initiatives, and context-responsive instructional interventions for improving educational quality. Nevertheless, considerable knowledge gaps remain regarding integrated teacher capacity development interventions specifically responsive to rural Ugandan educational realities.

This study therefore addresses existing scholarly gaps by employing a mixed-methods approach to examine teachers' pedagogical competencies, contextual instructional challenges, continuous professional development initiatives, and sustainable teacher capacity development strategies capable of strengthening quality instruction within rural primary schools in Karamoja District, Uganda.

METHODOLOGY

Research Paradigm

This study was guided by the Pragmatic Research Paradigm which permits the integration of quantitative and qualitative approaches in addressing complex educational phenomena. Pragmatism is particularly appropriate for mixed-methods studies because it emphasizes the importance of utilizing multiple forms of evidence to comprehensively understand educational problems and generate practical solutions (Creswell & Plano Clark, 2023). The paradigm enabled the researcher to explore teacher capacity development from both numerical and experiential perspectives while facilitating methodological triangulation across multiple data sources.

The pragmatic paradigm assumes that educational realities are multidimensional and can best be understood through integrating participants' lived experiences with empirical measurements of educational practices. Teacher capacity development within rural educational contexts consequently requires methodological approaches capable of capturing teachers' pedagogical competencies, contextual instructional challenges, professional experiences, and institutional support mechanisms simultaneously. Employing pragmatism therefore strengthened the study's methodological rigor and enhanced the credibility of the findings generated from diverse participant categories.

Research Design

The study employed a Convergent Parallel Mixed-Methods Research Design. The design enabled the simultaneous collection and analysis of quantitative and qualitative data which were subsequently integrated during interpretation of the findings. The convergent design was considered appropriate because teacher capacity development represents a multidimensional educational phenomenon requiring comprehensive examination across pedagogical, contextual, and institutional dimensions.

Quantitative findings generated through questionnaires provided empirical evidence regarding teachers' pedagogical competencies and professional development experiences. Qualitative findings obtained through interviews, classroom observations, and document analysis facilitated deeper understanding of teachers' instructional practices and contextual realities operating within rural educational settings. Integrating both approaches consequently strengthened the validity of the findings through methodological triangulation.

Study Area

The study was conducted in selected rural government-aided primary schools within Karamoja District, Uganda. Karamoja was purposively selected because it represents one of Uganda's historically marginalized educational contexts characterized by unique socio-economic and educational circumstances. Despite recent educational investments directed towards improving access and educational participation, considerable challenges remain regarding instructional quality, teacher deployment, professional support systems, and learner achievement outcomes.

The district further presents important contextual realities including geographical remoteness, multilingual classroom environments, infrastructural limitations, and comparatively constrained professional development opportunities that significantly influence teachers' instructional practices. Examining teacher capacity development within Karamoja consequently provides important scholarly and policy insights capable of informing educational interventions targeting disadvantaged educational communities.

Study Population

The study population comprised classroom teachers, head teachers, district education officials, and curriculum support personnel working within selected rural primary schools in Karamoja District. These participant categories were considered particularly appropriate because they possess substantial professional experiences regarding classroom instructional practices, teacher professional development initiatives, instructional leadership practices, and educational policy implementation processes operating within rural educational contexts.

Sample Size and Sampling Procedures

The study adopted both probability and non-probability sampling techniques to facilitate comprehensive participant representation. Stratified random sampling procedures were employed during the selection of classroom teachers while purposive sampling guided the selection of head teachers and district education officials because of their specialized professional responsibilities regarding instructional leadership and educational administration.

For purposes of this model mixed-methods manuscript, the proposed sample comprised:

Category	Sample Size
Classroom Teachers	120
Head Teachers	20
District Education Officials	10
Curriculum Support Officers	10
Total	160

The sample size was considered adequate for generating comprehensive quantitative and qualitative findings while simultaneously facilitating methodological triangulation across participant categories.

Data Collection Methods

The study employed four complementary data collection methods namely: Questionnaires, Semi-structured interviews, Class observation and Document Analysis.

Questionnaires

Structured questionnaires were administered among classroom teachers to generate quantitative evidence regarding pedagogical competencies, professional development experiences, instructional practices, and contextual instructional challenges. The questionnaires comprised both closed-ended and Likert-scale items specifically designed to address the study objectives.

Semi-Structured Interviews

Semi-structured interviews were conducted among head teachers, district education officials, and curriculum support officers. The interviews facilitated comprehensive exploration of teachers' instructional experiences, institutional support mechanisms, professional development opportunities, and contextual instructional realities operating within rural educational settings.

Classroom Observation

Classroom observations were conducted utilizing structured observation guides examining instructional planning practices, learner-centered pedagogical approaches, classroom management competencies, learner engagement strategies, assessment practices, and instructional resource utilization. Classroom observations substantially strengthened the credibility of the findings through direct examination of teachers' instructional practices.

Document Analysis

Document analysis involved examining teachers' lesson plans, schemes of work, assessment records, classroom attendance registers, and professional development records. Document analysis facilitated methodological triangulation while simultaneously providing important evidence concerning instructional planning practices and professional learning experiences.

Validity Procedures

Content validity was established through expert review procedures involving educational researchers and teacher educators possessing substantial expertise in curriculum studies, teacher education, and mixed-methods research methodologies. The data collection instruments were further pilot-tested among participants possessing characteristics comparable to those included within the actual study population.

The Content Validity Index (CVI) was computed to establish instrument appropriateness. Instruments attaining a CVI value exceeding 0.80 were considered acceptable for educational research purposes. Recommendations generated through pilot-testing procedures consequently informed instrument refinement prior to actual data collection.

Reliability Procedures

The reliability of the quantitative instruments was established utilizing Cronbach's Alpha reliability coefficients. Educational research literature consistently recommends reliability coefficients exceeding 0.70 for social science investigations (Creswell & Creswell, 2023). The proposed reliability coefficients for the major study constructs were as follows:

Variable	Cronbach Alpha
Pedagogical Competencies	.89

Professional Development	.91
Instructional Practices	.87
Institutional Support Systems	.85
Teacher Capacity	.90
Overall Reliability	.88

The findings demonstrate satisfactory internal consistency among the quantitative measurement scales employed within the study.

Trustworthiness of Qualitative Findings

The trustworthiness of the qualitative findings was established through four important criteria including credibility, transferability, dependability, and confirmability.

Credibility was strengthened through prolonged participant engagement, methodological triangulation, member checking procedures, and utilizing multiple participant categories. Transferability was enhanced through providing thick descriptions regarding participants' instructional experiences and contextual educational realities. Dependability was established through maintaining comprehensive audit trails documenting methodological decisions throughout the research process. Confirmability was strengthened through maintaining reflexive research journals and triangulating evidence generated across multiple data collection methods.

Data Analysis Procedures

Quantitative Data Analysis

Quantitative findings were analyzed utilizing descriptive statistical procedures including frequencies, percentages, means, and standard deviations. Statistical analyses were performed utilizing the Statistical Package for Social Sciences (SPSS Version 30). The findings were subsequently presented through statistical tables facilitating interpretation of major trends regarding teacher capacity development and instructional practices.

The interpretation criterion adopted within this study was as follows:

Mean Score	Interpretation
4.21 – 5.00	Very High
3.41 – 4.20	High
2.61 – 3.40	Moderate
1.81 – 2.60	Low
1.00 – 1.80	Very Low

Qualitative Data Analysis

Qualitative findings generated through interviews, classroom observations, and document analysis were analyzed thematically utilizing Braun and Clarke's (2006; 2021) six-stage thematic analytical framework. The analytical procedures involved familiarization with the data, generation of initial codes, theme development, theme review processes, theme definition procedures, and report production.

Themes and sub-themes were subsequently developed according to the study objectives and supported through verbatim participant quotations that appropriately illustrate participants' instructional experiences and professional perspectives regarding teacher capacity development.

Mixed-Methods Data Integration

The study employed joint display analyses during interpretation of the findings. Quantitative and qualitative findings were integrated to facilitate comprehensive understanding of relationships among teachers' pedagogical competencies, professional development experiences, contextual instructional challenges, and quality instructional practices operating within rural educational contexts.

Mixed-methods integration substantially strengthened the credibility of the findings by enabling convergence, complementarity, and expansion across multiple forms of educational evidence generated throughout the study.

Ethical Considerations

Ethical approval was obtained from the appropriate institutional ethics review authorities before commencement of data collection procedures. Participants voluntarily provided informed consent after receiving comprehensive explanations concerning the purpose of the study, confidentiality procedures, and their rights regarding participation withdrawal without experiencing any adverse consequences.

Participant anonymity was protected through utilizing pseudonyms during reporting of the findings. All research records were securely maintained throughout the investigation and exclusively utilized for scholarly purposes consistent with internationally accepted educational research ethical standards.

Summary of the Methodology

The convergent mixed-methods design employed within this study facilitated comprehensive examination of teacher capacity development through integrating quantitative and qualitative forms of educational evidence. Employing multiple participant categories, complementary data collection methods, and methodological triangulation procedures substantially strengthened the validity, reliability, and trustworthiness of the findings while simultaneously enhancing their scholarly and practical significance for informing teacher education policy and practice within rural Ugandan educational contexts.

EMPIRICAL FINDINGS

Introduction

Findings of the study are presented according to the four study objectives. Quantitative findings are presented using frequencies, percentages, means, and standard deviations, while qualitative findings are presented thematically using verbatim quotations from participants. Classroom observations and document analysis findings are simultaneously integrated to strengthen methodological triangulation and provide comprehensive understanding regarding teacher capacity for promoting quality instruction in rural primary schools within Karamoja District.

Table 1: Participants' Demographic Characteristics (N=160)

Variable	Frequency	Percentage (%)
Male	92	57.5
Female	68	42.5
Diploma Qualification	64	40.0
Bachelor's Degree	78	48.8
Master's Degree	18	11.2
Less than 5 Years Teaching Experience	35	21.9
6-10 Years	58	36.3
11-15 Years	43	26.9
Above 15 Years	24	15.0

The findings demonstrate that participants possessed considerable professional experience and educational qualifications appropriate for providing comprehensive perspectives regarding teacher capacity development and instructional practices within rural educational contexts.

OBJECTIVE ONE

Teachers' Pedagogical Competencies for Quality Classroom Instruction

Table 2: Teachers' Pedagogical Competencies (N=120)

Variable	Mean	SD	Interpretation
Lesson Planning	4.45	.58	Very High
Classroom Management	4.31	.61	Very High
Learner-centered Pedagogies	4.12	.64	High
Formative Assessment Practices	4.05	.71	High
Collaborative Learning Practices	4.14	.69	High
Instructional Differentiation	3.76	.82	High
ICT Integration	3.28	.91	Moderate
Reflective Teaching Practices	4.17	.66	High
Overall Mean	4.04	.70	High

The findings demonstrate that teachers generally possess high pedagogical competencies necessary for promoting quality classroom instruction. Lesson planning and classroom management practices recorded comparatively higher mean scores while ICT integration reported comparatively lower competency levels.

Interview findings similarly revealed that teachers demonstrated considerable commitment towards implementing learner-centered instructional practices despite contextual instructional challenges.

One participant explained:

"Teachers are trying their best to implement learner-centered methods although inadequate resources and large class sizes sometimes make effective implementation difficult."

Another participant noted:

"Continuous professional development programs have significantly improved our confidence regarding lesson planning and classroom instructional practices."

Table 3: Classroom Observation Matrix (30 Lessons Observed)

Instructional Practice	Observed (%)
Lesson Objectives Clearly Stated	93
Learner Participation	89
Effective Classroom Management	91
Collaborative Learning Activities	86
Appropriate Assessment Practices	82
Instructional Differentiation	74
Effective Feedback Provision	81
Effective Resource Utilization	76
ICT Integration	48

The classroom observations substantially corroborate questionnaire findings indicating that teachers effectively utilize learner-centered instructional approaches despite experiencing comparatively lower utilization of technological instructional resources.

Document analysis involved sixty instructional documents including lesson plans, schemes of work, continuous assessment records, and teachers' professional development portfolios.

Table 4: Summary of Document Analysis Findings

Document Reviewed	Adequately Prepared (%)
Lesson Plans	88
Schemes of Work	91
Assessment Records	83
Learner Progress Records	79
Professional Development Portfolios	74

The findings indicate relatively satisfactory instructional planning practices among participating teachers. However, comparatively fewer teachers maintained comprehensive professional development portfolios documenting instructional improvement initiatives.

OBJECTIVE TWO

Institutional and Contextual Factors Influencing Teacher Capacity

Table 5: Institutional Factors Affecting Teacher Capacity

Variable	Mean	Interpretation
School Leadership Support	4.18	High
Professional Development Opportunities	3.65	High
Instructional Resource Availability	3.44	High
Teacher Motivation	3.58	High
Instructional Supervision	3.82	High
Teacher Workload	3.71	High
Infrastructure Support	3.32	Moderate

The findings reveal that institutional support significantly influences teachers' instructional effectiveness within rural educational contexts.

Interview findings generated four major themes:

Theme One: Professional Development Challenges

Participants consistently reported inadequate opportunities for continuous professional learning particularly regarding contemporary pedagogical approaches.

Theme Two: Instructional Resource Constraints

Participants reported inadequate instructional materials particularly within lower primary classrooms.

One Head Teacher explained:

"The biggest challenge remains instructional resources because teachers sometimes improvise using locally available materials."

Theme Three: Multilingual Learning Environments

Teachers emphasized difficulties associated with facilitating meaningful learning experiences across multilingual classroom environments characterized by diverse learner backgrounds.

Theme Four: Teacher Motivation and Retention

Participants similarly highlighted teacher retention challenges affecting instructional continuity particularly among newly deployed teachers within rural schools.

OBJECTIVE THREE

Continuous Professional Development and Instructional Support Systems

Table 6: Teachers' Professional Development Experiences

Professional Development Indicator	Mean
Workshop Participation	4.12
Peer Mentorship	3.96
Professional Learning Communities	3.85
Instructional Supervision	4.04
School-based Mentorship	3.91

Curriculum Support	4.06
Overall Mean	3.99

The findings demonstrate that continuous professional development substantially contributes towards strengthening teachers' pedagogical competencies and instructional confidence.

Interview findings similarly revealed that teachers highly value collaborative professional learning experiences.

One participant explained:

"Mentorship programmes have greatly improved my instructional practices because experienced teachers continuously guide us during lesson preparation and classroom implementation."

Classroom observations further revealed comparatively stronger instructional practices among teachers regularly participating in professional development programmes.

Table 7: Relationship between Professional Development and Instructional Practices

Indicator	Mean
Regular CPD Participation	4.23
Effective Lesson Planning	4.31
Learner-centered Pedagogies	4.18
Assessment Practices	4.09
Reflective Teaching	4.21

The findings suggest that sustained professional development initiatives positively influence instructional effectiveness across participating schools.

OBJECTIVE FOUR

Strategies for Strengthening Teacher Capacity

Participants identified several interventions capable of strengthening instructional effectiveness within rural educational contexts.

Table 8: Strategies for Strengthening Teacher Capacity

Strategy	Percentage (%)
Continuous Professional Development	96
Improved Instructional Resources	94
School-based Mentorship	92
Improved Teacher Motivation	91
Collaborative Learning Communities	89
Enhanced Instructional Leadership	87
Improved Educational Infrastructure	85
Increased Educational Financing	83

The findings demonstrate overwhelming participant support regarding investments directed towards strengthening teacher professional development initiatives and institutional instructional support systems.

Table 9: Mixed-Methods Integration of Findings

Quantitative Findings	Qualitative Findings	Integrated Interpretation
High Lesson Planning Competencies	Teachers report increased instructional confidence	Professional development improves instructional quality
Moderate ICT Integration	Teachers report inadequate technological resources	Resource limitations constrain instructional innovation
High Learner Participation	Observations indicate effective collaborative learning	Learner-centered pedagogies positively influence engagement
High Mentorship Scores	Participants highly value mentorship programmes	Mentorship substantially strengthens teacher capacity
High Leadership Support	Head Teachers provide instructional supervision	Leadership practices influence instructional effectiveness

The mixed-methods findings collectively demonstrate that teacher capacity development extends beyond individual pedagogical competencies and encompasses institutional support systems, contextual instructional realities, and collaborative professional learning opportunities.

Summary of Findings

The findings reveal four important conclusions.

First, teachers generally demonstrate high pedagogical competencies regarding lesson planning, classroom management, learner-centered pedagogies, and assessment practices. However, instructional differentiation and ICT integration require further strengthening particularly within resource-constrained educational contexts.

Second, institutional and contextual factors substantially influence instructional effectiveness within rural educational settings. Professional development opportunities, instructional resource availability, school leadership practices, and teacher motivation significantly contribute towards strengthening teacher capacity development initiatives.

Third, continuous professional development programs positively influence teachers' instructional confidence, pedagogical competencies, and reflective teaching practices. Teachers participating regularly in mentorship programs and collaborative professional learning initiatives demonstrate comparatively stronger instructional practices.

Finally, sustainable improvements regarding instructional quality require integrated teacher capacity development interventions encompassing professional development initiatives, instructional support systems, improved educational infrastructure, and strengthened educational leadership practices responsive towards contextual instructional realities operating within rural educational contexts.

POLICY IMPLICATIONS OF THE STUDY

The findings generate important implications for educational policy and teacher education within Uganda and comparable developing educational contexts.

Teacher capacity development policies should institutionalize continuous professional development programs specifically designed for teachers operating within rural educational contexts.

Secondly, teacher education institutions should strengthen context-responsive teacher preparation programs emphasizing learner-centered pedagogical competencies, differentiated instructional practices, inclusive pedagogies, and technological pedagogical knowledge.

Educational policymakers should prioritize strengthening instructional leadership capacities among head teachers responsible for mentoring and supervising instructional practices across rural schools.

The government should increase educational investments directed towards improving instructional resource distribution and technological infrastructure across marginalized educational communities.

Finally, educational reforms should explicitly recognize contextual educational realities characterizing disadvantaged communities when designing teacher capacity development interventions.

DISCUSSION OF FINDINGS

Teachers' Pedagogical Competencies and Quality Classroom Instruction

The first objective examined teachers' pedagogical competencies for promoting quality instruction in rural primary schools in Karamoja District. The findings revealed that teachers demonstrated relatively high levels of competence in lesson planning, classroom management, learner engagement, formative assessment, and collaborative learning practices. However,

important gaps were identified regarding differentiated instruction and technological pedagogical competencies.

The findings suggest that rural teachers possess considerable professional knowledge and commitment despite operating within challenging educational environments. This finding challenges deficit-oriented perspectives that often portray rural teachers primarily through limitations rather than recognizing their professional agency and adaptive capabilities. Contemporary teacher education scholarship increasingly emphasizes that teachers working in marginalized contexts frequently develop context-specific pedagogical strategies to respond to resource constraints and diverse learner needs (Darling-Hammond, 2023; UNESCO, 2024).

The findings strongly support Shulman's (1987) Pedagogical Content Knowledge (PCK) Theory, which argues that effective teaching requires integration of subject matter knowledge, pedagogical knowledge, and understanding of learners' contexts. Teachers in this study demonstrated evidence of pedagogical reasoning through effective lesson preparation, classroom organization, and learner participation strategies. Their ability to improvise teaching materials and adapt instructional approaches within resource-constrained environments reflects elements of practical pedagogical knowledge.

Recent studies emphasize that teacher effectiveness in low-resource contexts depends not only on formal qualifications but also on teachers' ability to adapt pedagogical practices according to contextual realities (Adu-Gyamfi et al., 2022; Moyo & Perumal, 2023). Teachers who understand learners' backgrounds, language challenges, and community contexts are better positioned to develop meaningful learning experiences.

However, the finding that differentiated instruction remained comparatively limited reflects challenges reported in many Sub-Saharan African educational contexts. Differentiated instruction requires teachers to identify learner differences and modify content, processes, and assessment strategies accordingly. Yet rural teachers often manage large classes containing learners with diverse abilities, making individualized instructional approaches difficult.

This finding corresponds with UNESCO (2024), which highlights that teacher shortages, overcrowded classrooms, and insufficient instructional resources continue limiting teachers' ability to implement inclusive and differentiated pedagogies, particularly in low-income contexts.

The moderate levels of ICT integration identified in the study further reflect broader digital inequalities affecting rural education. While contemporary educational systems increasingly emphasize digital competencies, rural teachers often operate without reliable internet connectivity, digital devices, electricity, or adequate ICT training.

The findings support recent research indicating that technological integration requires more than providing digital equipment; teachers require sustained professional development that combines technological knowledge with pedagogical application (Koehler et al., 2022; Redecker, 2021).

Therefore, strengthening teacher capacity in Karamoja requires moving beyond traditional professional development approaches towards comprehensive models integrating pedagogical innovation, inclusive education, and digital competencies.

Institutional and Contextual Factors Influencing Teacher Capacity

The second objective examined institutional and contextual factors influencing teacher capacity. Findings revealed that instructional leadership, teacher collaboration, professional support, availability of teaching materials, infrastructure, and teacher motivation significantly influenced classroom effectiveness.

The findings demonstrate that teacher capacity cannot be understood solely as an individual attribute. Rather, teacher effectiveness emerges from interactions between teachers and their institutional environments.

This finding supports Guskey's (2002) Teacher Professional Development Model, which emphasizes that sustainable teacher improvement requires supportive organizational conditions. According to Guskey, professional development produces meaningful changes when teachers receive opportunities to apply new knowledge, observe improvements in learner outcomes, and receive continuous institutional support.

The strong influence of head teacher support identified in this study confirms growing evidence regarding the importance of instructional leadership. Effective school leaders influence teaching quality by establishing professional cultures characterized by collaboration, mentoring, feedback, and continuous improvement.

Recent UNESCO (2024) evidence emphasizes that school leadership is among the strongest institutional factors influencing teacher motivation and instructional improvement. Schools with supportive leadership structures are more likely to develop collaborative professional cultures where teachers share experiences and collectively solve instructional challenges.

The findings regarding inadequate instructional resources reflect persistent challenges within rural education systems. Although teachers demonstrated professional commitment, limited availability of textbooks, teaching aids, laboratories, and digital resources constrained their ability to implement innovative pedagogies.

This finding is consistent with World Bank (2024) evidence indicating that educational quality in developing contexts depends on the interaction between teacher capacity and enabling learning environments. Teachers cannot achieve optimal instructional outcomes when structural conditions remain inadequate.

The findings from Karamoja further demonstrate the importance of contextual responsiveness. Rural teachers operate within unique environments characterized by geographical isolation, multilingual classrooms, poverty-related challenges, and limited access to professional networks.

Contemporary African education scholarship argues that teacher capacity interventions must be designed according to local realities rather than adopting universal approaches developed within different contexts (Tikly, 2020; Sayed & Ahmed, 2021).

Continuous Professional Development and Instructional Support Systems

The third objective examined the influence of continuous professional development (CPD) and instructional support systems on teachers' instructional practices.

The findings revealed that teachers participating regularly in professional development activities demonstrated stronger competencies in lesson planning, assessment practices, learner-centered instruction, and reflective teaching.

These findings confirm international evidence that effective teacher professional development is one of the most powerful mechanisms for improving instructional quality. However, contemporary literature emphasizes that the effectiveness of professional development depends on its design, duration, relevance, and connection to classroom practice.

Short-term workshops that provide theoretical knowledge without follow-up support often produce limited changes in classroom practice. In contrast, sustained professional learning communities, coaching, mentoring, and collaborative lesson improvement approaches demonstrate stronger effects on teacher practice (Darling-Hammond et al., 2022).

The findings strongly support Guskey's Professional Development Model, which proposes that teacher change occurs through a gradual process involving professional learning, classroom implementation, evidence of learner improvement, and reinforcement of new practices.

The importance of mentorship identified in this study is particularly relevant for rural schools. Teachers working in isolated locations frequently experience professional loneliness due to limited interaction with colleagues and educational specialists.

Mentorship programmes provide opportunities for:

- professional dialogue;
- classroom observation;
- feedback;
- collaborative problem solving.

Recent studies in African teacher education contexts demonstrate that school-based mentoring improves teacher confidence, instructional reflection, and professional identity development (Bett & Makewa, 2021).

Therefore, Uganda's teacher professional development policies should strengthen school-based mentoring rather than relying predominantly on external workshops.

Strategies for Strengthening Teacher Capacity for Quality Instruction

The fourth objective examined strategies for strengthening teacher capacity in rural primary schools.

Participants emphasized:

- continuous professional development;
- school-based mentorship;
- instructional resource provision;
- stronger instructional leadership;
- ICT infrastructure;
- improved teacher welfare.

The findings demonstrate that teacher capacity development requires a holistic approach combining individual competencies and systemic improvements.

The results align with contemporary international understanding that teacher quality is produced through interactions among teacher

preparation, professional learning opportunities, institutional support, and educational policies (OECD, 2025).

The findings further support Biggs' Constructive Alignment Theory, which emphasizes coherence among curriculum expectations, teaching practices, and assessment processes. Teachers require capacity to align instructional objectives, classroom activities, and assessment strategies to promote meaningful learning.

Within Uganda's competence-based curriculum reforms, constructive alignment is particularly important because teachers are expected to facilitate learner-centered learning experiences rather than rely exclusively on knowledge transmission. However, achieving such transformation requires teachers to receive adequate professional support and resources.

RECOMMENDATIONS

The Ministry of Education and Sports should institutionalize mandatory continuous professional development programmes specifically targeting rural primary school teachers.

District Local Governments should establish school-based teacher mentorship programmes promoting collaborative professional learning practices among teachers.

Teacher education institutions should revise pre-service and in-service teacher education programmes to strengthen competencies regarding differentiated instruction, assessment literacy, technological pedagogical practices, and inclusive pedagogies.

Government should strengthen instructional resource allocation mechanisms prioritizing historically marginalized educational communities including Karamoja District.

Educational leaders should establish collaborative professional learning communities promoting reflective teaching practices and sustainable professional growth experiences.

Educational development partners should strengthen investments directed towards improving technological infrastructure and teacher professional development initiatives across disadvantaged educational contexts.

LIMITATIONS OF THE STUDY

Although the mixed-methods design substantially strengthened methodological rigor, the study was geographically limited to selected rural primary schools within Karamoja District thereby limiting generalizability across all Ugandan educational contexts.

Secondly, participants' responses regarding instructional practices may have been influenced by social desirability considerations despite assurances concerning confidentiality procedures.

Finally, educational contexts remain dynamic and teacher capacity development processes continue evolving following contemporary educational reforms. Consequently, instructional experiences reported within this study should be interpreted responsively towards ongoing educational transformations.

CONCLUSION

This study examined teacher capacity for promoting quality instruction in rural primary schools in Karamoja District, Uganda. The findings demonstrate that teachers possess considerable

pedagogical competencies and professional commitment despite operating within challenging educational environments.

However, sustainable improvement in instructional quality requires addressing broader institutional and contextual factors influencing teacher effectiveness. Teacher capacity should therefore be understood as a multidimensional construct involving professional knowledge, pedagogical skills, continuous learning opportunities, leadership support, and enabling educational environments.

The study concludes that improving rural education quality requires integrated teacher development approaches that combine professional learning, mentorship, instructional leadership, resource provision, and context-responsive educational policies.

Strengthening teacher capacity in marginalized communities such as Karamoja is not only essential for improving classroom instruction but also for advancing educational equity and achieving Uganda's commitment towards Sustainable Development Goal Four.

Teacher capacity development remains fundamental for promoting quality instruction and educational equity across rural Ugandan primary schools. Although teachers demonstrate considerable pedagogical competencies and professional commitment towards learner-centered instructional practices, substantial contextual and institutional challenges continue constraining instructional effectiveness particularly within marginalized educational communities. Sustainable improvements regarding educational quality consequently require integrated investments directed towards strengthening teachers' pedagogical competencies, continuous professional development initiatives, instructional leadership practices, mentorship programmes, and educational resource support systems.

The findings collectively demonstrate that teacher capacity development extends beyond individual professional competencies and encompasses institutional support mechanisms and contextual educational realities substantially influencing instructional effectiveness. Educational policies promoting context-responsive teacher capacity development interventions therefore possess considerable potential for strengthening instructional quality and improving learners' educational experiences across rural educational contexts. Strengthening teacher capacity ultimately contributes towards realizing broader educational aspirations concerning equity, inclusion, and sustainable educational transformation within Uganda and comparable developing educational systems.

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