Original Article

Teachers' Perceptions of the Implementation of Group Learning in Selected Primary Schools in Uganda

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ABSTRACT

This study explores teachers' perceptions regarding the implementation of group learning pedagogy in primary schools in Uganda, guided by Vygotsky's Social Constructivist Theory, Bandura's Social Learning Theory, and Piaget's Constructivist Theory. A qualitative exploratory case study design was employed, utilizing interviews, lesson observations, and lesson plan analyses to gather comprehensive insights from eight teachers across both government-aided and private primary schools. The research reveals that while teachers recognize the pedagogical value of group learning, their implementation approaches are significantly influenced by contextual constraints and personal beliefs about effective instruction. Teachers reported employing diverse implementation approaches; with scaffold group tasks emerging as the most consistently used implementation approach due to its perceived effectiveness in addressing academic diversity and promoting conceptual mastery. However, more interactive approaches like role-play scenarios saw limited adoption, primarily due to perceived time constraints and doubts about their academic relevance. The findings highlight a complex interplay between teacher intentions and classroom realities. Teachers emphasized goals of inclusive participation and peer-assisted learning, yet faced challenges in managing diverse learner abilities, group dynamics, and resource limitations. Notably, implementation varied across subjects, with science classes demonstrating more comprehensive facilitation due to the natural alignment between collaborative learning and inquiry-based approaches. A gap emerged between teachers' recognition of group learning's social benefits and their actual classroom practices, which often prioritized academic outcomes over the development of collaborative skills. Teachers also lacked training in teaching collaborative skills, and schools provided little support for teachers to use group learning in different subjects and classes. These insights underscore the need for targeted professional development that addresses both the pedagogical and practical dimensions of group learning implementation. Recommendations include context-sensitive training programs to enhance teachers' group implementation skills, school-level support for collaborative learning environments, and further research to explore sustainable implementation

models for resource-constrained settings. The study contributes to ongoing discussions about adapting learner-centred pedagogies in primary education systems facing significant structural challenges.

INTRODUCTION

The implementation of group learning pedagogy in primary schools represents a critical shift from traditional teacher-centred approaches to more interactive, learner-centred methods (Kaendler et al., 2019). This pedagogical approach, rooted in collaborative learning theories, has gained global recognition for its potential to enhance cognitive development, social skills, and academic achievement (Glazewski & Ertmer, 2020). While these benefits are recognized worldwide, their realization depends on local implementation contexts. Nowhere is this more evident than in Uganda, where educational reforms have increasingly emphasized learner-centred methodologies (NCDC, 2022), making understanding teachers' perceptions of group learning implementation particularly significant (Mendoza & Heymann, 2022). The success of this pedagogical shift depends largely on how teachers interpret, adapt, and apply group learning strategies within their specific classroom contexts (Care et al., 2017).

Group learning finds its theoretical foundation in three key perspectives. Vygotsky's (1978) Social Constructivist Theory emphasizes the importance of social interaction in cognitive development, particularly through peer collaboration within the Zone of Proximal Development (Eun, 2019). Bandura's (1977) Social Learning Theory highlights how observation and modelling in group settings facilitate knowledge acquisition (Allan, 2017), while Piaget's (1973) Constructivist Theory underscores the active role of learners in constructing knowledge through hands-on experiences (Zajda & Zajda, 2021). These theoretical frameworks provide a robust basis for examining teachers' implementation of group learning strategies, yet little research has explored how Ugandan primary school teachers perceive and navigate the challenges of translating these universal theories into local practice (Kwarikunda et al., 2022).

The Ugandan educational context presents unique challenges for implementing these globally recognized theories effectively (MoES, 2021). Despite policy directives promoting collaborative learning approaches (NCDC, 2022), classroom realities such as large class sizes, limited resources, and diverse learner needs often constrain teachers' ability to implement group learning optimally

(Mendoza & Heymann, 2022). Previous studies have identified gaps between policy aspirations and classroom practice, particularly regarding teachers' preparedness to facilitate group learning and their access to necessary instructional resources (Kwarikunda et al., 2022). This study focuses specifically on teachers' perceptions of group learning implementation in selected primary schools in Uganda, seeking to understand the factors that influence their pedagogical choices and the challenges they encounter (Care et al., 2017).

By examining teachers' perspectives, this research addresses a critical gap in the literature regarding the implementation of group learning in resource-constrained primary school settings (Mavuru & Ramnarain, 2020). The findings will contribute to ongoing discussions about pedagogical reform in Uganda and similar contexts (Ofei-Manu & Didham, 2018), offering evidence-based insights that can inform teacher professional development programs and policy decisions (Simon, 2022). Understanding teachers' perceptions is essential for developing context-appropriate strategies that can enhance both teaching practices and student learning outcomes through effective group learning implementation (Yan et al., 2021).

Problem Statement

While group learning pedagogy is globally recognized for enhancing collaborative skills and academic achievement (Kaendler et al., 2019), its effective implementation in Ugandan primary schools remains problematic due to teachers' varied perceptions and implementation challenges (Mendoza & Heymann, 2022). Despite Uganda's competency-based curriculum emphasizing learner-centred approaches (NCDC, 2022), persistent use of traditional teacher-centred methods continues to hinder meaningful adoption of group learning strategies (MoES, 2021).

The situation in Mityana District exemplifies these implementation challenges, where 45% of primary school learners perform below average in core

subjects despite policy directives promoting group learning (MoES, 2021). This discrepancy suggests a critical gap between pedagogical policy and classroom practice, particularly regarding how teachers perceive and implement group learning approaches (Kwarikunda et al., 2022). The selection of Mityana District as the study area was driven by its unique educational challenges, as evidenced by alarmingly low learner performance rates - a staggering 60% of learners perform below average, making it one of the poorest-performing districts in Uganda (MoES, 2021). This underscores the need for targeted research to explore the specific challenges in achieving successful group learning outcomes, which may differ significantly from more urbanized areas.

While existing research has examined group learning outcomes, few studies have investigated teachers' perceptions of implementation barriers and facilitators in resource-constrained primary school settings (Care et al., 2017). This study addresses this gap by examining teachers' perceptions of group learning implementation in selected primary schools in Mityana District, Uganda. The research explores how teachers understand, adapt, and apply group learning strategies amidst contextual constraints, providing insights that could inform more effective professional development and policy interventions.

Purpose of the Study

This qualitative exploratory case study aimed to investigate teachers' perceptions regarding the implementation of group learning pedagogy in selected primary schools in Mityana District, Uganda.

LITERATURE REVIEW

Theoretical Foundations of Group Learning

This study is grounded in three complementary theoretical frameworks that illuminate different aspects of group learning implementation. Vygotsky's (1978) Social Constructivist Theory

forms facilitate cognitive development through the Zone of Proximal Development. This theory is the primary foundation, emphasizing how social interaction and collaborative environments are particularly relevant for understanding how teachers structure group interactions to maximize peer learning opportunities in Ugandan primary classrooms (Eun, 2019). Bandura's (1977) Social Learning Theory complements this perspective by highlighting the observational and modelling processes that occur during group work, where students acquire knowledge and skills by observing both teachers and peers (Allan, 2017). Finally, Piaget's (1973) Constructivist Theory underscores the active role of learners in constructing knowledge through hands-on group activities and peer discussions (Zajda & Zajda, 2021). Together, these theories provide a comprehensive lens for examining how teachers perceive and facilitate the social and cognitive dimensions of group learning.

While these theoretical perspectives offer valuable insights, their application in Ugandan primary schools presents both opportunities and challenges. Research by Galukande et al. (2015) and Kisembo et al. (2023) demonstrates how Vygotsky's principles can enhance learning outcomes when properly implemented. However, classroom realities such as large class sizes and limited resources often constrain teachers' ability to create ideal collaborative environments (Mendoza & Heymann, 2022). The theories also reveal implementation gaps - while they emphasize the importance of social interaction and knowledge construction, they provide limited guidance on practical strategies for managing diverse groups or assessing individual contributions within collaborative settings (Care et al., 2017). This theoretical review highlights the need to examine how Ugandan primary teachers navigate these complexities as they implement group learning approaches in their specific contexts.

Empirical Evidence on Group Learning Implementation

Research across diverse educational contexts reveals that successful group learning implementation depends on multiple interconnected elements. Studies demonstrate that when teachers carefully align collaborative activities with curriculum objectives, students show improved comprehension and knowledge retention (Smith et al., 2020). The availability of adequate physical resources, including learning materials and appropriate classroom spaces, significantly influences the quality of group interactions and participation levels (Johnson & Smith, 2019). Furthermore, teachers' professional training in facilitation techniques emerges as crucial for managing group dynamics and ensuring equitable participation (Brown et al., 2019). These findings collectively highlight the complex nature of implementing group learning effectively in classroom settings.

The literature particularly emphasizes teachers' pivotal role in orchestrating successful group learning experiences. Effective implementation requires skilled facilitation, including structuring meaningful tasks, monitoring group progress, and providing timely interventions (Baines et al., 2022). Teachers must balance guidance with student autonomy, creating environments where learners can productively challenge each other's thinking while developing collaborative skills (Lamm et al., 2013). Research also underscores the importance of establishing clear expectations and roles within groups to prevent dominant students from monopolizing discussions while encouraging participation from quieter members (Baines et al., 2022). These pedagogical strategies appear particularly important in inclusive classrooms serving diverse learners.

Addressing Critical Research Gaps

Despite these valuable insights, significant limitations persist in the existing research. Most

implementation studies originate from well-resourced educational systems in high-income countries, offering limited guidance for teachers working in constrained environments (Mendoza & Heymann, 2022). The literature provides scant evidence about how educators adapt group learning strategies when facing large class sizes, material shortages, or heterogeneous ability levels, common challenges in many African primary schools. Additionally, few studies investigate the sustainability of group learning approaches over time or their effectiveness across different subject areas and grade levels. These gaps leave important questions unanswered about how teachers maintain implementation quality amid real-world constraints.

The current study addresses these limitations by examining group learning implementation in Ugandan primary schools, where contextual challenges may require innovative adaptations of collaborative pedagogies. Existing research offers little understanding of how teachers in low-resource settings modify group learning approaches to accommodate local conditions while preserving educational benefits. By investigating implementation practices in this understudied context, the study contributes new insights about sustaining collaborative learning amid resource constraints and diverse classroom realities. The findings may help bridge the gap between theoretical ideals of group learning and practical implementation challenges faced by teachers daily.

RESEARCH METHODOLOGY

This study employed a qualitative exploratory case study design to examine teachers' perceptions of group learning implementation in selected Ugandan primary schools. The cross-sectional approach enabled the capture of diverse teacher experiences at a specific point in time, facilitating comparisons between different school contexts while maintaining depth of understanding (Hamzah et al., 2022). Grounded in the constructivist paradigm, the research acknowledged that teachers' perceptions of group learning are fundamentally shaped by their unique sociocultural and professional contexts (Kelly et al., 2018). This philosophical orientation proved particularly aligned with the study's core aim to explore how teachers interpret and implement group learning strategies within their specific classroom realities, recognizing the socially constructed nature of pedagogical knowledge.

The research was conducted in Mityana District, central Uganda, selected due to its distinctive combination of educational challenges and performance gaps persisting despite clear policy mandates for group learning implementation (MoES, 2021). The study specifically focused on Primary 5 teachers across both government-aided and private schools, as this grade level represents a critical academic transition point where collaborative learning becomes increasingly vital for mastering complex subjects (Vygotsky, 1978). While purposive sampling initially identified 16 teachers actively implementing group learning, the final analysis included 8 teachers as thematic saturation was achieved earlier than anticipated (Saunders et al., 2018). This sample refinement occurred when additional interviews consistently failed to yield new conceptual insights while maintaining balanced institutional representation across four government and four private school teachers. The sampling strategy ensured the inclusion of participants with particularly rich and relevant experiences while allowing for sufficiently deep exploration of implementation challenges and adaptive strategies.

Data collection employed three complementary methods designed to provide comprehensive perspectives. Semi-structured interviews lasting 60-90 minutes each explored teachers' perceptions, implementation strategies, and encountered challenges through open-ended questioning (Christian et al., 2021). Structured classroom observations systematically documented actual group learning practices, teacher facilitation techniques, and authentic student interactions during collaborative activities (Farine &

Whitehead, 2015). Detailed lesson plan analysis examined how teachers intentionally designed and structured group activities, revealing important contrasts between planned pedagogy and actual classroom implementation (Merriam & Grenier, 2019). The strategic triangulation of these methods significantly enhanced data credibility by providing multiple converging perspectives on implementation realities while mitigating individual method limitations (Denzin, 2017).

Thematic analysis was conducted manually through an iterative process of immersion and crystallization to identify robust patterns in teachers' perceptions and practices (Braun & Clarke, 2021). The rigorous analysis process involved multiple cycles of inductive coding, progressive theme development, and constant comparative analysis across all data sources (Skillman et al., 2019). Member checking sessions with participating teachers and extended peer debriefing with academic colleagues ensured interpretive validity and mitigated researcher bias throughout the analytical process (Amankwaa, 2016). Comprehensive ethical protocols were implemented including obtaining formal approvals from Kyambogo University, the Uganda National Council for Science and Technology (UNCST), and district education authorities. Confidentiality was strictly maintained through complete anonymization with all identifiers replaced by coded pseudonyms (like PS1T1-PS2T4), while all collected data received secure digital encryption and physical storage in locked university-approved cabinets to protect participant identities (Hart & Brando, 2018). The methodology's multiple layers of rigour enabled a nuanced and comprehensive exploration of how Ugandan primary teachers perceive and navigate the complex realities of group learning implementation within their resource-constrained educational settings.

RESULTS

The study achieved a 100% response rate, engaging eight primary school teachers from Mityana District, Uganda, representing both government-aided (PS1) and private (PS2) institutions, with a balanced gender distribution (5 male, 3 female). As shown in Table 1, participants exhibited diverse professional backgrounds, with teaching experience ranging from 2 to 27 years. Notably, government school teachers generally possessed more extensive classroom experience (6-27 years) compared to their private school counterparts (2-5 years), while qualifications varied between Diploma in Primary Education and Grade III Teaching Certificates. This demographic variation proved analytically valuable, as it captured implementation perspectives across different career stages and training backgrounds.

The examination of 32 lesson plans across four core subjects revealed how teachers operationalized group learning within their specific contexts. Government school teachers, with their longer tenure, demonstrated more established (though potentially rigid) approaches to group implementation, while private school teachers exhibited greater experimentation in their early-career practices. This divergence highlights how institutional context and professional experience shape teachers' perceptions and applications of group learning strategies. The inclusion of both school types provided critical insights into how resource availability (typically greater in private schools) interacts with teacher expertise (typically greater in government schools) to influence implementation approaches.

Table 1: Demographics of Teachers

Government-aided Primary School (PS1)

	Category	Subject	Sex	Experience	Highest qualification
PS1T1	Teacher	Eng.	F	15 years	Diploma in Primary Education
PS1T2	Teacher	Math	M	27 years	Diploma in Primary Education
PS1T3	Teacher	SCI	F	3 years	Grade III Certificate
PS1T4	Teacher	SST	M	6 years	Grade III Certificate

Private Primary School (PS2)

PS2 T1	Teacher	Eng.	M	5 years	Diploma in Primary Education
PS2T2	Teacher	SST	M	5 years	Grade III Certificate
PS2T3	Teacher	SCI	F	2 years	Grade III Certificate
PS2T4	Teacher	Math	M	2 years	Diploma in Primary Education

Teachers' Practices in Implementing Group Learning

The study revealed that teachers employed various strategies to facilitate group learning in primary schools in Mityana District. One key approach was *assigning team tasks for collaborative work*, where teachers designed activities requiring learners to work individually and then share solutions within their groups. Some teachers allocated specific roles (e.g., secretary, presenter) to ensure participation, while others structured inter-group collaborative tasks, such as research projects. However, a critical gap was observed in the lack of clear guidelines, monitoring, and feedback on collaborative interactions, which often led to uneven participation and diminished the effectiveness of group learning.

Another practice was the *implementation of role-play scenarios*, particularly in English lessons, where learners assumed character roles to enhance language skills, active listening, and confidence. Teachers provided structured guidelines, such as turn-taking and clear pronunciation, which fostered engagement and collaboration. Lesson plans and observations confirmed that role-playing effectively promoted group learning by encouraging peer interaction and adherence to communication rules. However, its application remained largely confined to language subjects, with Mathematics and Science teachers rarely adapting role-play techniques to their disciplines - a notable missed opportunity for cross-curricular skill development.

Teachers also *periodically changed group compositions* to promote inclusivity and varied peer interactions. This strategy aimed to mix learners of different proficiency levels, prevent social cliques and address evolving learning needs. While teachers reported benefits such as enhanced peer learning and broader social networks, observations revealed a lack of structured guidelines for interaction within new groups. Without explicit rules or monitoring, some learners remained passive, reducing the potential for meaningful collaboration. The findings suggest that simply altering group compositions is insufficient without deliberate facilitation of group dynamics.

Across all observed strategies, *scaffolded learning within groups* demonstrated the most consistent positive outcomes when properly implemented. Teachers who systematically provided temporary support through structured tasks, clearly defined roles, and phased withdrawal of assistance achieved notably higher levels of engaged participation. The most successful instances combined scaffolding with regular peer reporting sessions, creating accountability while developing metacognitive skills. However, inconsistent application of these supporting elements particularly the omission of peer feedback opportunities limited the effectiveness of scaffolding in some classrooms.

The comparative analysis between government and private schools revealed nuanced differences in implementation quality. Private school teachers more frequently employed role-play and maintained stricter scaffolding protocols, possibly due to smaller class sizes. Government school teachers demonstrated a stronger emphasis on group composition strategies, likely responding to more heterogeneous classrooms. Both settings shared common challenges, particularly in sustaining monitoring intensity and providing differentiated feedback throughout extended group activities.

DISCUSSION

The findings on teachers' practices in implementing group learning reveal a dynamic interplay between pedagogical intentions and contextual realities. Teachers in Mityana District primary schools employed diverse strategies such as collaborative team tasks, role-play scenarios, periodic group reconfiguration, and scaffolded learning to foster engagement and inclusivity. However, the selective adoption of these methods suggests that teachers prioritized approaches they perceived as most effective for their specific classroom needs. Scaffolded learning, for instance, was widely embraced due to its adaptability in addressing varying learner abilities, aligning with Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD) and exemplifying what Chaudhry et al. (2023) term mediated group learning, where teachers actively structure peer interactions to optimize the ZPD. In contrast, role-play was underutilized, possibly due to perceived logistical challenges or a stronger emphasis on academic outcomes over interactive skill-building. This selective implementation underscores the influence of teachers' beliefs about which strategies best serve their instructional goals, as well as the constraints imposed by curriculum demands and classroom realities.

Teachers' motivations for using group learning strategies were largely rooted in a desire to promote equity and active participation. By periodically regrouping learners, scaffolding tasks, and assigning collaborative roles, they aimed to create inclusive environments where all learners regardless of ability level could contribute meaningfully. These intentions resonate with research highlighting the benefits of structured group work in enhancing critical thinking, social skills, and peer-assisted learning (Tomlinson, 2018). However, while teachers articulated these goals, their execution often lacked systematic monitoring and feedback mechanisms to ensure equitable participation. For example, regrouping strategies were intended to disrupt social cliques and encourage diverse peer interactions, yet without explicit guidelines on collaborative norms, some learners remained disengaged. This gap between intention and implementation suggests that while teachers recognized the theoretical benefits of group learning, practical challenges such as large class sizes and time constraints limited their ability to fully realize these ideals.

The effectiveness of group learning strategies also varied significantly across subjects, with science classes demonstrating more structured facilitation compared to other disciplines. This discrepancy may stem from the inherently collaborative nature of scientific inquiry, which lends itself naturally to group-based experimentation and problem-solving. In contrast, subjects like Mathematics and English saw more inconsistent application, with some teachers focusing narrowly on task completion rather than fostering collaborative dialogue. Notably, teachers frequently rewarded groups for correct academic outputs while neglecting to reinforce positive group dynamics, such as leadership, peer support, and conflict resolution. This oversight aligns with critiques in the literature that highlight the tendency to prioritize cognitive outcomes over social-emotional learning in group work (Brown et al., 2019). The findings thus reveal a tension between the holistic aims of group learning and the practical pressures of curriculum coverage and assessment.

Contextual factors, including learner diversity and classroom management challenges, further shaped teachers' implementation of group learning. Teachers navigated varying academic abilities, personality differences, and participation imbalances, requiring constant adaptation of their strategies. While some educators successfully tailored tasks to individual needs such as through scaffolded support others struggled to maintain engagement, particularly in larger classes. The absence of consistent feedback on group interactions was a recurring limitation, as teachers often focused on task outcomes rather than the collaborative process. Research emphasizes that effective group learning depends not just on task design but also on facilitation techniques that promote accountability and positive interdependence (Johnson et al., 2019). The observed inconsistencies suggest that without structured protocols for interaction, even well-intentioned strategies may fall short of fostering genuine collaboration.

Ultimately, this study makes three significant contributions to the understanding of collaborative learning in low-resource contexts. First, it provides empirical evidence of how Ugandan teachers operationalize Vygotskian principles through mediated group learning approaches (Chaudhry et al., 2023), demonstrating that even in resource-constrained environments, scaffolded peer interactions can effectively extend learners' ZPD when properly structured. Second, the findings challenge assumptions about uniform implementation across subjects by revealing distinct disciplinary patterns in facilitation quality - with science classes naturally leveraging inquiry-based approaches while other subjects struggle to adapt collaborative frameworks (Mavuru & Ramnarain, 2020). Third, the study identifies the critical "implementation gap" between teachers' theoretical knowledge and classroom practices, highlighting how systemic constraints like large class sizes and assessment pressures distort even well-intentioned collaborative efforts (Kwarikunda et al., 2022).

These insights collectively advance discussions about adapting learner-centred pedagogies in contexts where teachers must balance competing demands while facing significant structural challenges.

Theoretical Implications

This study makes important theoretical contributions by examining how group learning principles are adapted and implemented in Uganda's resource-constrained primary school settings. The findings demonstrate that while teachers draw upon foundational theories such as Vygotsky's (1978) social constructivism, their practices reflect pragmatic modifications necessitated by contextual challenges, what might be conceptualized as "adaptive scaffolding." Unlike idealized models of peer-assisted learning, teachers in this study often implemented scaffolded group tasks with limited resources, adjusting collaborative structures to accommodate large class sizes and material shortages, realities explicitly recognized in Uganda's Education Sector Strategic Plan (MoES, 2021). This adaptation suggests that traditional group learning frameworks may require systematic recontextualization in low-resource environments, where theoretical ideals must be balanced against practical constraints enshrined in national policy frameworks.

The research provides empirical support for Kaendler et al.'s (2019) assertion that teacher competencies and classroom conditions critically mediate the effectiveness of group learning models, while revealing how Uganda's specific policy environment shapes these dynamics. The study found that while mixed-ability grouping was sporadically attempted, its success varied significantly depending on teachers' ability to manage diverse learner needs within overcrowded classrooms - a challenge compounded by Uganda's 56:1 average pupil-teacher ratio in primary schools (Kiggundu et al., 2023). In contrast, same-ability grouping was more commonly observed,

particularly in Mathematics, where teachers often segregated learners by perceived competency, a practice that inadvertently reinforced gendered participation patterns despite Uganda's Gender in Education Policy (MoES, 2017). This finding extends Allan's (2017) social learning theory by highlighting how implicit cultural biases interact with national policy implementation gaps to shape pedagogical decision-making.

Additionally, the study challenges Universalist assumptions about collaborative learning by illustrating how structural barriers recognized in Uganda's National Teacher Policy (MoES, 2019), including insufficient training, high student-teacher ratios, and rigid curricula - constrain the implementation of theoretically optimal group learning strategies. The observed reliance on teacher-directed scaffolding, rather than pure peer collaboration, suggests that in policy contexts like Uganda's, mediated group learning may represent a more sustainable pathway for implementing the competency-based curriculum than fully autonomous cooperative models. This insight aligns with recent critiques of "one-size-fits-all" pedagogical transfers from high-resource to low-resource contexts (Chaudhry et al., 2023) while providing localized evidence to inform Uganda's ongoing curriculum reform efforts.

Finally, the study contributes to the discourse on equity in group learning by revealing how systemic inequities, including disparities in teacher training and classroom resources documented in Uganda's National Education Accounts (MoES, 2020) affect the feasibility of theoretically prescribed group learning methods. The uneven implementation of role-playing and mixed-ability grouping across subjects underscores the tension between pedagogical ideals and Uganda's classroom realities. These findings call for a more context-sensitive theorization of group learning that acknowledges the interplay between teacher agency, institutional constraints, and cultural norms - a crucial consideration for policymakers implementing Uganda's 2040 education transformation agenda.

By bridging the gap between theory and practice, this study underscores the necessity of grounded theoretical frameworks that emerge from Uganda's specific educational context. Such frameworks would not only refine existing social learning theories but could also inform the development of more contextually appropriate teacher training programs and classroom resources under Uganda's current education sector plan. The concept of "adaptive scaffolding" in particular offers a theoretically robust yet practically feasible model for implementing group learning within the constraints of Uganda's education system.

Limitations of the Study

This study on teachers' practices in implementing group learning in Mityana District primary schools has several limitations that should be considered when interpreting the findings. First, the research was confined to a small sample of schools within a single district, which may limit the transferability of the results to other educational settings. While the study provides valuable insights into group learning practices in this specific context, the findings may not fully represent the challenges and strategies employed in schools with different socio-economic conditions, resource availability, or cultural dynamics. Future research could employ multi-site case studies across diverse Ugandan regions (e.g., urban Kampala vs. rural Karamoja) to examine how geographical and socio-economic factors influence group learning adaptation, while maintaining the depth of qualitative inquiry through purposeful comparative analysis.

A second limitation stems from the reliance on self-reported data from teachers, which may be subject to biases such as social desirability or selective recall. Teachers might have emphasized practices they perceived as effective or aligned with pedagogical expectations, while underreporting challenges or less successful strategies. Although

the study employed multiple data collection methods including interviews, lesson observations, and document analysis, the absence of more objective measures such as standardized classroom assessments or third-party evaluations, may have influenced the depth of the findings. Subsequent studies could integrate innovative validation techniques such as classroom video analysis combined with stimulated recall interviews, allowing teachers to reflect on and explain their observed practices while reducing retrospective bias. This approach could yield richer, more nuanced understandings of the relationship between reported and enacted pedagogies.

Additionally, the study's qualitative design, while valuable for exploring teachers' perspectives and experiences, does not provide measurable data on the academic or behavioural outcomes of group learning. Without quantitative analysis, it is difficult to assess the direct impact of these practices on learners' performance or engagement. A sequential mixed-methods design could first identify key implementation patterns through qualitative exploration, then employ quasi-experimental methods to measure their effects on learning outcomes using standardized instruments adapted to the Ugandan context (e.g., primary leaving exam results combined with teacher-developed assessments). This would provide empirical evidence about which group learning strategies most effectively enhance both academic achievement and collaborative skills development.

Another limitation is the study's focus on immediate classroom practices rather than long-term effects. While the research sheds light on how teachers structure and facilitate group learning, it does not examine whether these practices lead to sustained improvements in learners' academic achievement, collaboration skills, or social development. Future longitudinal research could track cohorts of learners from Primary 5 through secondary school, employing periodic classroom observations and learning assessments to map the enduring impacts

of early group learning experiences. Such studies could particularly investigate whether scaffolded group work in primary school predicts later competencies in collaborative problem-solving - a crucial skill emphasized in Uganda's competency-based curriculum reforms.

Finally, the study did not extensively explore contextual barriers that may hinder effective group learning implementation, such as large class sizes, limited teaching materials, or insufficient teacher training. While some challenges were indirectly mentioned by participants, a more systematic investigation into these factors could offer a clearer understanding of the obstacles teachers face. Policy-focused research could employ system-level analysis combining school surveys, resource audits, and teacher time-use studies to quantify how specific constraints (e.g., pupil-textbook ratios or professional development access) correlate with implementation quality. These findings could directly inform Uganda's education sector planning by identifying which resource investments would most effectively enable collaborative learning practices.

Recommendations

Immediate-term interventions should focus on practical teacher training programs that develop hands-on facilitation skills for group learning, as this represents the most feasible and high-impact opportunity for improvement. Workshops should prioritize scaffolding techniques, dynamic grouping strategies, and inclusive participation methods that teachers can readily apply in resource-constrained classrooms, with training delivered through school-based peer learning circles that maximize limited professional development resources. These efforts should be complemented by school-level adjustments that create basic enabling conditions for collaborative learning, including reorganizing existing classroom furniture into flexible configurations and dedicating specific timetable

slots for group work low-cost interventions that can yield significant implementation improvements.

Medium-term institutional changes should establish supportive policy frameworks and curriculum adaptations to sustain effective group learning practices. Education authorities should integrate collaborative learning benchmarks into subject syllabi while providing adaptable activity templates that guide teachers in different subjects, with particular attention to addressing the current imbalance between content coverage and skill development. School administrators need to implement monitoring systems that track group learning implementation through classroom observations and simple peer feedback mechanisms, while advocating for gradual class size reductions where feasible. These systemic supports should be coupled with recognition systems that celebrate effective group learning practices through school performance metrics and teacher appraisal processes.

Longer-term research and innovation initiatives should investigate sustainable models for collaborative learning in low-resource environments through partnerships between universities, schools, and policymakers. Priority should be given to longitudinal studies measuring both academic outcomes and social-emotional development, as well as action research projects that develop context-appropriate assessment tools for group learning. Emerging technologies should be explored for their potential to support collaborative pedagogies without compromising interpersonal learning, particularly in large-class contexts. Such research should maintain focus on producing scalable, practical solutions that address the real constraints identified in this study while building local capacity for ongoing pedagogical innovation.

CONCLUSION

This study has provided valuable insights into teachers' perceptions and practices regarding group learning implementation in selected Ugandan primary schools. The findings reveal that while teachers recognize the theoretical benefits of group learning approaches, their actual implementation is significantly shaped by contextual realities such as large class sizes, limited resources, and curriculum demands. Teachers demonstrate both creativity and pragmatism in adapting group learning strategies to their challenging environments, particularly through scaffolded learning approaches and periodic group reconfiguration. However, the study also highlights gaps between pedagogical intentions and classroom execution, particularly in the areas of structured facilitation, equitable participation, and consistent monitoring of group dynamics.

The research illuminates how Uganda's education system navigates the global shift toward learner-centred pedagogies within local constraints. Teachers' approaches reflect an emerging hybrid model of collaborative learning that blends theoretical principles with necessary adaptations - a phenomenon observed in other sub-Saharan African contexts implementing competency-based curricula. The variations observed between subjects and school types suggest that effective professional development should move beyond generic training to address discipline-specific facilitation needs and resource realities.

These findings advance our understanding of educational innovation in low-resource settings by demonstrating how pedagogical theories transform when implemented in authentic classrooms. The Ugandan experience offers lessons for similar education systems seeking to implement collaborative learning amid constraints. Rather than viewing adaptations as compromises, this study reveals them as necessary evolutions of educational theory when meeting real classroom needs. The teachers' practices collectively outline a potential roadmap for implementing group learning that honours both its cognitive and social objectives while remaining feasible in under-resourced environments.

The study ultimately reframes how we conceptualize educational quality in developing contexts. It suggests that measuring successful implementation requires looking beyond fidelity to theoretical models, instead valuing how teachers creatively adapt practices to maximize learning within their means. As Uganda continues its curriculum reform journey, these findings invite policymakers to reconsider support systems for teachers - not just as implementers of prescribed methods, but as skilled professionals capable of contextualizing pedagogies. The path forward lies in developing frameworks that empower teachers to balance collaborative learning's dual goals of academic growth and social development within Uganda's educational reality.

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