Pedagogical Practices in Overcrowded Classrooms: Evidence from Education Stakeholders in Malawi

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This study investigates pedagogical practices for managing large classes in Malawi's primary education system, where overcrowded classrooms, driven by Free Primary Education and global education agendas, strain limited resources. Utilizing an exploratory research design, data were collected from six Teacher Training Colleges and nine public teaching practice schools across Malawi's six education divisions. Participants included teacher educators, student teachers, teachers, head teachers, and teaching practice coordinators. Qualitative and quantitative methods, including interviews, focus group discussions, questionnaires, and classroom observations, were employed to examine effective pedagogical strategies, challenges, and patterns in large class instruction. Findings indicate that group work is the primary strategy used, with group leaders acting as assistant teachers and behavior monitors. However, challenges such as limited space, insufficient learning materials, and time constraints hinder effective implementation. Heterogeneous grouping and peer teaching are common but limit engagement due to dominant learners and resource scarcity. Barriers such as space limitations, material shortages, and time pressures interact to constrain sound pedagogy, forcing teachers to prioritize assessment over instruction. The Initial Primary Teacher Education Curriculum lacks adequate focus on large class management, and systemic issues, including low remuneration and limited professional development, demotivate educators. These findings highlight the need for targeted interventions to support effective teaching in resource-constrained, overcrowded classrooms.

Keywords: overcrowded classes, LMIC, mixed methods, large class pedagogy

Introduction

Access to free primary education has been a global priority since the 1948 Universal Declaration of Human Rights (United Nations General Assembly, 1948). This commitment was reaffirmed in The Dakar Framework for Action (UNESCO, 2000), a global commitment adopted by 164 countries to achieve Education for All (EFA) by 2015 that established six key goals focused on expanding early childhood education, universal primary education, lifelong learning opportunities, adult literacy, gender parity, and improving educational quality. The right to education was also

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established by the Sustainable Development Agenda (United Nations, 2015), formally known as the 2030 Agenda for Sustainable Development, which includes Sustainable Development Goal 4 (SDG 4), committing nations to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030 through ten specific targets that broaden and extend the unfinished EFA agenda. Consequently, many countries have significantly increased primary school enrollment (Earle et al., 2018). The rapid expansion of access has outpaced the provision of teachers and school infrastructure, leading to "access shock" in certain education systems (Avenstrup et al., 2004; Benbow et al., 2007). Malawi, as one example, experienced a 139% surge in enrollment as of 2024, straining an already overburdened education system (Avenstrup et al., 2004; World Bank, 2025). Accelerating population growth in Malawi and other low- and middle-income countries (LMICs) further exacerbates this challenge (Benbow et al., 2007).

For more than 20 years, Malawi's Ministry of Education (MoE) has continuously sought to improve access and educational quality through curricular reforms, provision of textbooks, increases in staffing, teacher recruitment, and teacher professional development that targets general pedagogy (Kadzamira & Rose, 2003). Despite these efforts, Malawi's context remains similar to other LMICs where pedagogical practices remain dated, not evidence-based, and fail to account for contextual realities such as large classes (Kazima et al., 2022; Tabulawa, 2013). Teaching in overcrowded classes[1] demands substantial planning, effective classroom management, adequate resources, ongoing support, systemic capacities that many LMICs lack (Jawitz, 2013; Mizrachi et al., 2010; Pasigna, 1997). Scholars have identified setting high academic and behavioral expectations, providing clear instruction, differentiating teaching, offering incentives for learning, routinizing procedures, and developing strong teacher-student relationships as characteristics of successful large-classroom management (Bain & Achilles, 1986). However, empirical evidence supporting these strategies in large classrooms, especially in LMICs, remains limited (Barnes-Story et al., 2025; Benbow et al., 2007).

While funding for school construction and teacher recruitment is critical to reduce class sizes, these solutions require time and substantial financial investments. Meanwhile, overcrowded classrooms persist in Malawi and other LMICs, where many children fail to develop foundational literacy and numeracy skills despite years of schooling (Abt Associates, 2021; UNESCO, 2015). Research on primary education in LMICs often focuses on access rather than evidence-based pedagogy (Chesterfield, 1997; UNESCO, 2015). The scarcity of empirical studies on effective teaching methods for large classes underscores the need for rigorous investigation to identify practices that enhance academic achievement in overcrowded primary classrooms. Moreover, empirical evidence of how Initial Primary Teacher Education (IPTE) Programs equip student teachers with pedagogical knowledge to combat the realities of large classrooms is scarce.

[1] For example, the Malawian Ministry of Education (2020) prescribes class sizes of no more than 70 learners in a class, which is large, but the reality is a national average of 120 learners.

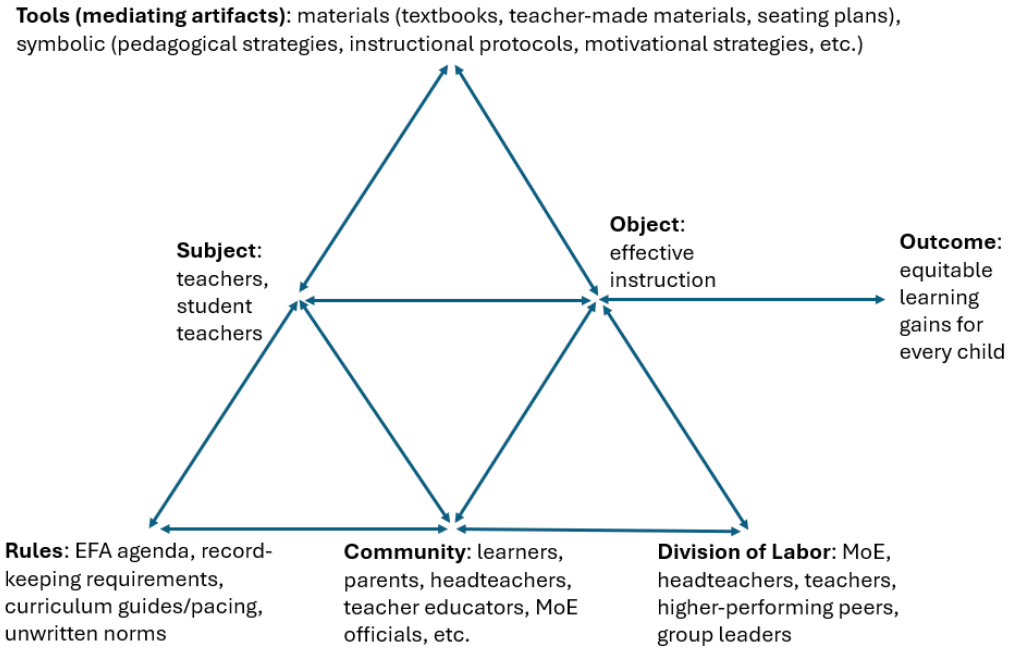
Present Research

Our research seeks to advance the understanding of effective, contextually relevant pedagogical practices for overcrowded classrooms in LMICs with the aim to inform pre-/in-service teacher education/training and curricular reforms targeting pedagogy. We employed an exploratory research design to investigate large class pedagogy (LCP) as taught in Malawi's IPTE programs and applied by student teachers and classroom teachers in teaching practice primary schools. Researchers collected qualitative data through key informant interviews, focus group discussions, and institutional surveys. We focused on teaching strategies, pedagogical methods, assessment practices, classroom management techniques, and challenges associated with large classes.

We situate our work within the second-generation Cultural-Historical Activity Theory (CHAT; as developed by Yrjö Engeström [2015]) and conceptualize classroom instruction as a systemic, mediated process embedded within social, cultural, and historical contexts. This framework models instruction as six inter-related components: subject (individual/agent engaged in the activity), object (goal), tools (mediating artifacts: physical, psychological, or symbolic instruments mediating the subject's interaction with the object), rules (policies/norms), community (network of stakeholders), and division of labor (allocation of tasks)—see Figure 1 below. These components interact dynamically, generating tensions and/or contradictions within the system. We reflect on these systemic components in our discussion.

Figure 1.

Classroom Instruction via Cultural-Historical Activity Theory Lens



Our study is guided by the following overarching research questions:

1) What large class pedagogical practices do teacher educators, practicing teachers, and student teachers in Malawi consider to be most effective, and why?

2) What challenges do educators experience when trying to implement these practices in overcrowded classrooms?

Review of Existing Evidence

There is limited empirical research on effective pedagogical, feedback and assessment practices that work well in large classes (e.g., whole class instructional approaches [Adamu et al., 2022; Benbow et al., 2007] and cooperative learning approaches [Dayan et al., 2018; Verspoor, 2008]). The available evidence is mainly anecdotal, observational, or stakeholder perceptions. The evidence typically falls into a few categories: group work; active learning strategies, differentiated instruction and remediation, and classroom management (Adhikary, 2020; Akintunde & Adeyiga, 2023; Anindya & Anisa, 2020; Benbow et al., 2007; Nakabugo et al., 2008; Safura et al., 2023; Shamim, 2012; Syed et al., 2023; Ulfah et al., 2020). In large classes, group work may facilitate sharing limited teaching resources and instructional materials, build an environment of mutual support and continuity in learning, ease classroom management and teaching, encourage participation and interaction, facilitate peer support, and encourage group responsibility (Benbow et al., 2007; Mezrigui, 2015; Mokeddem-Tagrara, 2023; O'Sullivan, 2006; Osai et al., 2021; Pertiwi & Indriastuti, 2020; Wadesango, 2021). However, group work effectiveness is limited by space and time constraints, resources availability, and the needs of individual learners. Therefore, whole class, teacher-led instruction is common, where the teacher maintains control of the class and student learning is passive (Benbow et al., 2007; Kikechi et al., 2012; Marais, 2016; Opolot-Okurut et al., 2015).

Active learning strategies are also emphasized in the literature. Teachers employ a variety of strategies such as role play, think-pair-share, student debates, and writing activities during group work, pair work and individual seat work in in large classes (Altinyelken, 2010; Erlina et al., 2022; Haddad, 2015; Lloyd-Strovas, 2015; Nakabugo et al., 2008). Active learning strategies are essential for keeping students engaged in instructional content and enhancing classroom interaction.

Differentiating instruction is particularly challenging in overcrowded classrooms. Some teachers try assigning students to different tasks based on their skills levels (Akintunde & Adeyiga, 2023; Blatchford & Russell, 2019). Other teachers utilize the structured remediation lesson integrated into school timetables. Remediation involves ongoing efforts to recover lost learning through additional remediation lessons and specialized strategies with LMICs implementing diverse remediation models (UNESCO, 2020). Effective programs feature continuous assessment, monitoring, adjustments, and evidence-based approaches tailored to needs, particularly for students with reading difficulties (Richards-Tutor et al., 2016; Vaughn et al., 2006). Successful examples from LMICs include Ghana's after-school programs yielding literacy and numeracy gains in grades 1–3 (UNESCO, 2020), Kenya's targeted instruction for grade 3 English skills (USAID, 2023), and the Teaching at the Right Level (TARL) model, scaled across several countries with significant language and literacy improvements, especially for the lowest performers (Banerjee et al., 2016;

Duflo et al., 2011; Lipovsek et al., 2023). In Ghana, TARL-trained teachers grouped students by ability for one-hour daily sessions, boosting test scores (Banerjee et al., 2016). Additionally, community volunteers or college students, with minimal training and structured curricula, can effectively aid struggling learners (Jacob et al., 2016; Lindo et al., 2018).

Effective classroom management includes building a strong classroom community and managing student behavior, as these significantly influence learning outcomes (Hattie, 2009). In large classes, excessive time spent on task management or behavior control can hinder learning (Marais, 2016). Evidence suggests that teachers who build strong classroom communities use strategies such as knowing students' names, establishing rapport with students, and building trust and support (Botha, 2022; Haddad, 2015; Meylina, 2015; Subuhana, 2023). Behavior management strategies in large classes may include establishing classroom rules, behavior expectations and consequences for misbehavior (Benbow et al., 2007; Botha, 2022; Nakabugo et al., 2008; Safura et al., 2023), teacher movement to maintain close proximity to learners (Asodike & Onyeike, 2016; Botha, 2022; Ming & Qiang, 2017; Sudrajat, 2021), and positive discipline strategies such as incentives, rewards, and positive narration (Akintunde & Adeyiga, 2023; Asodike & Onyeike, 2016; Haddad, 2015; Nakabugo et al., 2008). Classroom routines such as using seating charts, taking attendance, and practicing classroom procedures can contribute to an orderly classroom (Ara & Hossain, 2016; Haddad, 2015; Khosa, 2022; Mokeddem-Tagrara, 2023). Despite the findings shared above, the available evidence is not based on empirical research examining the actual impact of suggested pedagogical practices on learning outcomes (see Barnes-Story et al., 2025 for a scoping review of large class pedagogy); therefore, limited conclusions can be drawn from these anecdotal and observational findings.

Our research contributes to the empirical understanding of current pedagogical practices in low-resource, overcrowded classrooms by examining the beliefs of Malawian education stakeholders. We also examine large class pedagogical practices taught in IPTE programs and student teachers and teacher educator beliefs. We identify promising practices and knowledge gaps to inform future education system interventions. Lastly, understanding the challenges that educators experience is crucial for shedding light on systemic issues impacting the success of intervention/training. Empirical evidence from this research can inform the design of training to improve teaching practices in overcrowded classrooms in LMICs.

The Context of Malawi

The United Nations has documented an annual growth rate of 2.6% for the population of primary school aged children across SSA over the past decade (United Nations Department of Economic and Social Affairs Population Division, 2024). In Malawi, this population was projected to pass 4.10 million in 2025, intensifying educational challenges and strains on the system. Despite government-funded efforts to increase teacher hiring, insufficient deployment has led to class sizes as large as

414, with a national average of 120 (Ministry of Education, 2020). High repetition rates (27% for boys, 26% for girls) and low primary school completion rates (36% for boys, 41% for girls) reflect systemic education issues (Ministry of Education, 2024a). Learning outcomes are among the lowest in the region, with only 4% of grade 2 and 11% of grade 4 students demonstrating proficient oral reading fluency in the local language (Abt Associates, 2021) and grade 4 students showing only emergent numeracy skills (Brombacher et al., 2015).

The Government of Malawi continues to be committed to improving the quality of education and reducing teacher workload through concerted efforts such as increasing the number of teachers and classrooms. We acknowledge that scaling up the educational resources in the country will take time and, in the meantime, students enrolled today deserve a high-quality education. Thus, current teachers need training and support to provide the best possible instruction to their students. The Malawi Teacher Competency Framework encourages teachers to understand the curriculum and adapt teaching and assessment methods for large classes, but it fails to provide specific guidance to help teachers accomplish these goals and does not address the class size issue. Furthermore, there is no evidence that IPTE programs adequately address the issue of instruction in overcrowded classes.

In Malawi, the early grades timetable allocates two teacher-led periods of remedial instruction each week, but without effective pedagogical training for large classes, teachers will be unable to use this time effectively. Teacher educators and student teachers should actively participate in research designed to identify strategies that optimize teaching in large classes (Reason & Bradbury, 2008). It is essential to reframe the narrative around large-classroom teaching (Valérien, 1991) and engage in rigorous research on effective LCP to achieve educational equity and address severe learning poverty across Malawi.

In this study, practicing teachers reported primary class sizes of 75 to 230 learners, averaging 109. The IPTE Programme Handbook recommends a maximum of 60 learners for student teachers (Florida State University, 2023), yet most reported classes over 90. Observed classes had enrollments of 62 to 150, but with up to 41% absenteeism, actual attendance ranged from 57 to 138.

Methods

Research Design

This study utilized an exploratory research design (Bridges, 2023) to examine LCP taught and used in Malawi during pre-service teacher preparation. We sought to establish the specific practices that both primary school student teachers and class teachers use in teaching practice schools (TPSs) as well as those taught by teacher educators at teacher training colleges (TTCs). Researchers conducted a total of 15 Key Informant Interviews (KIIs) and 18 Focus Group Discussions (FGDs), in addition to administering 9 surveys (one at all participating institutions). The FGDs gathered information about the use of teaching strategies, pedagogical methods, assessment

strategies, classroom management, and other challenges found in large classes. KIIs collected information on the understanding of large class teaching practices, assessment, and management practices—as well as administrative support provided for teachers and student teachers. Surveys collected demographic site-level data.

School and Class Selection

To avoid selection bias, we randomly sampled six TTCs in various types of locations representing the six education divisions in Malawi, along with one rural and/or one urban TPS attached to each TTC. The final sample included nine primary schools: six rural, one peri-urban, one urban, and one semi-urban. At each TTC, we engaged 6-8 teacher educators teaching a variety of disciplines in FGDs and conducted a KII with the Teaching Practice Coordinator. At each TPS, we conducted two FGDs (one with approximately six student teachers and another with 6-8 classroom teachers) and a KII with the headteacher. Additionally, we observed and recorded lessons in three classrooms across Standards 2 and 4 at each school. Due to space constraints, these analyses will be reported in a separate paper.

Participants

Participants from TTCs included teacher educators, teaching practice coordinators and student teachers. TTC participants were recruited based on the nomination by the Heads of Department (i.e., Department Chairs from the Education Department, Languages Department, Mathematics Department, and Professional Studies Department). Participants from the TPSs included headteachers and class teachers. Headteachers nominated teachers to participate based on their class size. Additionally, 27 teachers were selected for classroom observation.

Table 1.
Participant Engagement

Participant type	Number	Focal data collection tool(s)
Teacher educator	36	Focus group discussions (FGDs)
Teaching practice coordinator	6	Key informant interviews (KIIs)
Student teacher	54	Focus group discussions (FGDs)
Headteacher	10	Key informant interviews (KIIs), institutional survey
Class teacher	54	Focus group discussions (FGDs), selected classroom observations

Ethical Considerations

Prior to data collection, the research team obtained research approval from the Florida State University Institutional Review Board (IRB). Approval was submitted to the Malawi MoE to obtain permission to access educational institutions and to collect data from participants. We implemented an informed consent process

approved by the Florida State University IRB and the MoE. These boards ensured that participants would be fully informed of the research processes, were able to withdraw from or refuse participation in the research, and their data would be deidentified and protected.

Enumerator Training

Data collection was led by the second and third authors and supported by three Malawian researchers who were part of the Strengthening Teacher Education and Practice Activity—a collaboration funded through United States Agency for International Development (USAID)-Malawi. All researchers completed training on ethical research procedures and best practices for data collection, with opportunities to practice facilitating FGDs and KIIs.

Data Collection Process

We collected data in April 2024 over a duration of four weeks, collecting informed consent from all participants prior to administering any data collection tools. The KIIs and FGDs were conducted in English and Chichewa in quiet spaces and offices within the school.

Data Analysis

We used thematic analysis to identify LCP practices in Malawi and factors that inhibit effective practices (Miles et al., 2020). FGDs and KIIs were transcribed verbatim and coded using NVivo 14. We utilized a combination of deductive and inductive codes and developed themes through second-cycle analysis (Saldaña, 2021). Collaboratively, we completed coding and analysis, following guidelines from Richards and Hemphill (2018), with reflexive memo-writing and data source triangulation to enhance trustworthiness.

Findings

Pedagogical Practices Educators Believe are Effective for Large Classes

Educators in this study identified three key approaches for teaching large classes effectively: group work, remediation, and classroom management through peer monitoring.

Group Work

First, group work is the primary strategy mentioned by teachers, student teachers, and teacher educators to handle large classes, as it reduces teacher workload and, in their view, fosters learner participation and peer teaching. However, educators face challenges in facilitating group work effectively because of the large number of groups they must manage, leading to repetitive approaches and limiting opportunities for diverse activities to enhance learning.

Educators describe group work as their main strategy to teach large classes effectively, citing its ability to create a small-class atmosphere within a large setting. Teachers described facilitating group work by assigning group names, determining group size based on attendance and availability of materials (typically 5-10 learners

in a group but up to 20), designating group leaders to manage tasks, providing clear instructions, actively monitoring groups, and reorganizing groups periodically to avoid over-familiarity. They also noted that grouping learners and assigning group leaders also helps reduce problem behaviors through increased participation and leaders who distribute materials and keep their peers on-task. Groups can share materials, alleviating resource shortages, and teachers have less marking to complete by assessing group work rather than individual work.

Teachers and student teachers rely on group work but face many challenges that hinder its effectiveness. Instructional strategies taught at TTCs are often impractical due to large class sizes and limited classroom space at TPSs. Proficient learners may dominate tasks, sidelining struggling peers who disengage or disrupt. A headteacher cautioned that only capable learners benefit if groups are not carefully managed. Resource sharing remains difficult, with groups of 10–20 learners often sharing one book, limiting participation. Although educators regularly mentioned that groups ideally should not exceed eight learners, shortages of materials and time lead to larger groups. Overcrowded classrooms also restrict teacher movement, complicating group monitoring and enabling off-task behavior. Furthermore, many teachers find that the 35–40-minute lesson periods are insufficient to complete all the steps of group work including introductions, instructions or modelling, monitoring, and group presentations—especially because they may have up to 20 groups per class.

Teachers in this study exclusively use mixed-ability groups to leverage peer teaching, pairing "able" or "fast" learners with "less able" or "slow" ones. One teacher educator noted that "bright learners" act as "assistant teachers" in these groups, with group leaders—typically advanced learners—in charge of demonstrating concepts and supporting their peers academically, while managing tasks and behavior.

Remedial Lessons

Second, to meet the needs of learners in overcrowded classrooms, all primary school educators rely on remedial lessons, which are typically held 2–3 times weekly in government schools, but only once per week in double-shift schools. These sessions rely on re-teaching, peer teaching, and group work. The presence of the entire class during these lessons may limit the provision of targeted support. Educators emphasized remedial lessons as the primary method to support struggling learners in large classes, due to the difficulty of integrating individualized support, misconception correction, differentiation, or extra practice during regular lessons. Instead, a large portion of class time is prioritized for assessment and marking, and remedial sessions, scheduled one-to-three times weekly, are designated as the time to address knowledge gaps.

In the Malawian context, remedial lessons occur within the regular timetable and all learners attend, requiring teachers to plan activities for both enrichment and remediation. Educators in this study lacked a consistent approach to addressing struggling learners' needs during these periods. When asked about how they support struggling learners, Emmanuel, a primary school headteacher, observed,

> "For the lesson on a particular day, they have again a period of remediation, more especially on Mondays, Wednesdays, and Fridays, where they check those learners who were not doing well during lesson presentation. Because as they deliver their lessons, they even assess their learners whether they are following. To those who are finding some challenges, they do remediation activities."

Some teachers reteach challenging lessons at a slower pace or using alternative methods, while others organize differentiated groups for games or leveled activities, which are led by higher-performing learners. For instance, Mary, a student teacher, described grouping learners by specific difficulties: "…we divide those learners according to those things they have difficulties with [sic]. If a learner is finding difficulties in letter sounds, we will group the child with his or her friends who are having problems with letter sounds…" Occasionally, teachers provide direct instruction to small groups, but given large class sizes and high remedial needs, targeted support occurs infrequently, perhaps once every few weeks. Remedial periods are also used for completing individual assessments, which further limits time for instruction.

Effective remedial support includes explicit instruction, targeted feedback, small-group teaching, familiar language use, differentiated instruction, skill progression, practice opportunities, progress monitoring, and data-driven adjustments (Fletcher et al., 2011; Foorman et al., 2016; Spear-Swerling, 2015). In Malawi, a policy requiring all learners to attend remedial periods complicates differentiation, as teachers must address varied skill levels (UNESCO, 2020). Teachers in LMICs attempt skill-based grouping and progression, reassigning learners as they advance (Wawire et al., 2024). However, large class sizes hinder small-group instruction and feedback, with reliance on peer leaders for differentiated activities. Struggling learners receive infrequent direct teacher support due to high demand.

Some teachers in Malawi adopt innovative remediation strategies. One educator described collaborating with a partner teacher to provide small-group literacy instruction to struggling learners when non-core subjects were being taught. Another educator adjusted lesson activities to match the learners' skill levels, such as assigning syllables instead of paragraphs to struggling readers. District- and school-level solutions, like grouping learners across classes by specific needs, could enhance instructional effectiveness (Duflo et al., 2011; UNESCO, 2022). Employing trained paraprofessionals or community volunteers with structured curricula could also support small-group remediation (Jacob et al., 2016; Lindo et al., 2018; UNESCO, 2020; USAID, 2023).

Classroom Management Techniques

Third, nearly all educators across primary schools and TTCs identify classroom management as critical in overcrowded settings. Educators reported using classroom rules, consequences, counseling, seating plans, attention getters, proximity, positive narration, and encouragement to maintain focus and minimize disruptions, enabling more instructional time. However, due to the large number of learners, primary

school teachers systemically lean heavily on classroom peer monitoring to manage behavior. The following section will summarize these themes, elaborate on their implications, and explore potential evidence-based improvements for large-class pedagogy.

In half of the FGDs, educators described using several reactive and relational strategies for managing behavior in large classes, but also enlist select learners, called class leaders, to monitor and manage the behavior of their peers. For instance, teachers use attention getters like songs, dance, tone variation, storytelling, games, and handclapping to re-engage distracted learners. They also believe that knowing learners' names helps them to address off-task behavior effectively, as Ann, a primary school teacher noted, "…when one learner is misbehaving…the teacher just mentions that name" to regain focus.

Preventative classroom management strategies are used to curb disruptive behavior in overcrowded classrooms. Some educators co-create classroom rules with learners, which are linked to specific consequences like chores, standing during lessons, or demoting group leaders. Some teachers mentioned offering guidance, involving parents, or engaging discipline committees to address persistent issues. Many educators believe that seating plans, such as alternating genders or arranging rows with a central path, can promote attentiveness. For example, some educators also try to establish routines when transitioning to group work.

Teachers and student teachers strive to manage behavior through positive relationships, despite challenges connecting with individual learners in large classes. Standard 1 and 2 teachers who received training as part of the USAID-funded NextGen project explained that they greet learners at the door, fostering connection and improving attendance by creating a positive mood. Positive narration (praising specific desired behaviors) encourages others to follow suit. Luka, a teacher educator noted, "I praise [a learner] …and others start following." They use clapping sequences to celebrate correct answers, while encouraging learners for incorrect responses with phrases like "Thank you for trying."

Reliance on group leaders is prevalent. They provide academic support and behavior monitoring during group work. Class leaders, appointed or elected, assist with discipline when teachers are writing on the board or out of the room. However, class leaders face tensions between loyalty to teachers and policing peers, which can involve fear or violence, potentially harming both the class leaders and other students.

Challenges Implementing Large Classroom Strategies in Overcrowded Classrooms

Primary school teachers as well as teacher educators cited four key barriers to effective teaching in large classes. First, the scarcity of space, materials, and time produced by overcrowded classrooms, textbook shortages (often 20+ learners per book), and timetable pressures—limit effective teaching and increase behavior issues (Marais, 2016). Second, excessive assessment demands lead teachers to prioritize

marking over instruction, resulting in little time for assessment data to guide instruction. Third, the IPTE curriculum and in-service training lack targeted content on LCP, despite rising enrollments and policy requirements (Ministry of Education, 2024b). Finally, teacher frustration and demotivation, driven by low pay, delayed stipends, and limited pathways for professional growth hinder progress. Addressing these systemic challenges is critical for effective interventions.

Scarcity of Resources Interact to Amplify Challenges

Educators described how the space constraints, insufficient materials, and time pressures of overcrowded classrooms amplify each other to hinder teaching and learning. When asked about challenges that teachers face, Blessings, a primary school teacher observed, "The most challenge to teachers is inadequate resources, seconded by inadequate infrastructures." Furthermore, the wide range of learner needs in large classes are extremely challenging to meet and exacerbated by these resource scarcities.

Inadequate classroom space and classroom shortages in Malawi create significant barriers to effective teaching in large classes. Classroom shortages lead to double shifting, shortening school days and restricting remedial lessons to once a week. Overcrowding can create noisy classrooms, making it hard for learners to hear the teacher, and insufficient space and furniture makes it difficult to use active learning strategies. Insufficient toilets cause delays, further disrupting learning. For example, educators at one school reported having only eight toilets for over 2000 learners. Inside the classroom, teachers report that cramped conditions encourage copying and off-task behavior, while restricting teacher movement for behavior management, individualized support, or group monitoring.

Insufficient textbooks and teaching materials in Malawi's large classes hinder effective pedagogy. Reporting ratios as high as 20 learners per book, teachers resort to less effective methods, like excessive blackboard copying, reducing instructional time and engagement. Teacher-made materials help but creating them for large classes is time-intensive and costly—exacerbated by low pay, delayed stipends, and unsecured classrooms.

Time scarcity is a significant frustration for educators. Preparing materials, conducting assessments, and marking assignments for more than 100 learners takes substantial time. Group and pair work, while valuable, is also time intensive. Teachers described the difficulty of students to accomplish their work and 10–20 groups to report out within 35–40-minute lessons. Double shifting due to classroom shortages reduces the school day to 3.5 hours, further compressing instructional time. Yowasi, a primary school teacher, noted, "because sometimes we just teach without learners understanding because we are running out of time. So, we are against time." In response, many teachers regretfully described coping by prioritizing curriculum coverage over learning, focusing on select learners, or emphasizing assessments over instruction.

Assessment Requirements Overwhelm Teachers

The primary school teachers in this study consider the volume and frequency of required assessments unrealistic for large classes, describing overwhelming expectations from learners, parents, headteachers, and the government. Consequently, teachers and student teachers prioritize daily marking, continuous assessments, and end-of-unit/term testing over instructional time.

Primary school teachers face intense pressure from parents, learners, headteachers, and the Ministry of Education to prioritize frequent assessments and daily marking, expectations that have not changed since free primary education was introduced. This emphasis reduces instructional time, with teachers spending 10–15 minutes per 30–40-minute lesson correcting books. Oral assessments take up to a week to complete. Continuous assessment records are mandated, but stakeholders explained that teacher training focuses on record-keeping rather than using data to inform instruction.

Teachers adapt to the intense assessment demands by reducing question quality, relying on low-level recall or multiple-choice questions, and employing group assessments to save time and resources. Chifundo, a student teacher, noted "instead of twenty questions, I can just give five," due to class size. Group assessments simplify marking but lack research on their impact on primary-grade learning (Ackers & Hardman, 2001; Hoadley, 2024; Nappi, 2017). While some of these practices (such as group assessment) may be positive adaptations, they likely undermine the ultimate purposes of assessment. For example, time pressures lead some teachers to fill progress records without assessing all learners, corroding assessment validity. Thokozani, a teacher educator observed, "there's no way you can assess 147 learners each and every week."

IPTE is Not Contextualized for Class Sizes in Malawi

While education stakeholders in Malawi are cognizant that overcrowded classes are a persistent systemic issue since the introduction of free primary education, the findings of this study suggest that teacher PD and the IPTE curriculum do not adequately address best practices for teaching and managing large classes. Malawian educators report that PD, including district-level refresher courses, school-based continuous PD, teacher learning circles, and intervention-specific trainings, are inadequate. According to participants, systemic issues such as inconsistent PD opportunities, lack of funding, limited materials, and few skilled training personnel—combined with a PD culture that is more focused on financial incentives and arrangements than high-quality implementation—undermine teacher growth.

Educators Throughout the System are Demotivated

Educators at all levels in the system describe feeling undercompensated, unsupported, and unrecognized by the government and their superiors. As a result, they are less motivated to take on the extraordinary work required to teach large classes well. Several participants described teachers and teacher educators as "working under protest." They are overburdened with the demands of teaching and assessing such large classes while also being underpaid and having few opportunities to advance professionally or receive recognition for their work. Despite

these challenges, teachers expressed ongoing commitment to fulfilling their responsibilities, perhaps out of a sense of professional calling or concern for the learners in their care. However, these challenges take a toll on their motivation and impact learners in their classes.

Improving LCP in Malawi will require listening to the voices of these teachers and attending to the concerns that affect their professional satisfaction and motivation. Teachers, teacher educators, and student teachers in this study report that they are experiencing financial challenges due to low or delayed pay, stipends, and allowances, which affects their motivation. Student teachers struggle with basic needs due to delayed stipends, while teacher educators face financial strain from unpaid travel allowances to observe and evaluate student teacher performance. The flat salary structure offers minimal raises for teachers, even after years of service. Low pay and poor conditions reduce professional commitment, hindering teaching quality. Addressing these financial challenges is essential for improving LCP.

Beyond pay, teachers feel that their efforts are not recognized and rewarded. Mphatso, a primary school headteacher explained that teachers often lack promotions, saying, "You might see a teacher teaching for 10, 15 years without any promotion... So those things are demotivating the teachers." Participants in this study suggest that even simple acknowledgments like certificates could boost motivation, but resource shortages prevent this. Another headteacher, Dumisani, noted, "teacher motivation [would improve] …if they are given something as a reward for best practices, but inadequate resources hinder it." Teacher motivation is critical for effective LCP, as implementation quality depends on motivated educators and supportive conditions.

Discussion

Our research examined the pedagogical practices that education stakeholders in Malawi consider effective for managing large classes, as well as the key challenges they encounter when implementing these practices. Findings indicate that the strategies most frequently reported by participants—providing clear instructions, actively monitoring groups, assigning specific learner roles, and forming mixed-ability groups—are broadly aligned with established expert recommendations (Juanita Möller, 2021; Molina et al., 2018) and are commonly documented throughout sub-Saharan Africa (Altinyelken, 2012; Reda & Hagos, 2015; Kitsili & Murray, 2024). Teachers also employ proximity control—standing near disruptive learners without verbal intervention—as a non-disruptive behavior-management technique (Ulfah et al., 2020), although its effectiveness is often compromised in overcrowded classrooms with severely restricted space.

Despite the apparent appropriateness of these approaches, several persistent challenges undermine their impact. Over-reliance on peer teaching and fixed group leaders can overburden higher-ability students while denying critical support to those who need it most (Mitchell, 2023). Furthermore, learning outcomes are hampered by inadequate modelling of classroom routines, the absence of role

rotation within groups, physical space constraints, shortages of teaching and learning materials, and high rates of learner absenteeism.

Applying Engeström's (2015) second-generation Cultural-Historical Activity Theory (CHAT) helps explain why evidence-based practices struggle to take root and why learning outcomes remain low despite teachers' considerable efforts. In this framework, the subjects are primary-school teachers and student teachers, most of whom receive little or no specific preparation for teaching classes of 80–150+ learners. They rely on a narrow set of mediating tools—a single chalkboard, one textbook shared among 10–20 children, improvised group-work protocols, peer monitors, remedial scripts, and simplified assessment shortcuts—to pursue the immediate object of keeping an unmanageably large class functioning each day: delivering some curriculum, maintaining basic order, and fulfilling mandatory record-keeping. The intended outcome—equitable learning gains for every child—is systematically blocked and is unlikely to be achieved in the foreseeable future given ongoing population growth and universal-enrolment policies (e.g., Barnes-Story et al., 2025).

Instruction is tightly constrained by rules such as Free Primary Education (FPE) mandates that guarantee access without corresponding increases in teachers, classrooms, or materials, combined with heavy administrative requirements for daily marking and continuous assessment. The broader community includes learners, parents, headteachers, teacher training colleges, the MoE, and international donors pursuing SDG 4. The division of labor is heavily skewed: much of the actual teaching, behavior monitoring, and resource distribution is offloaded onto children themselves (group leaders and higher-achieving peers) while the Ministry imposes assessment demands that cannot realistically be met. This system produces a profound and enduring contradiction: the survival strategies that allow teachers to meet the daily object–making the overcrowded classroom day function–are the very same strategies that prevent the system from achieving its stated outcome of equitable learning for all. Peer delegation and assessment shortcuts enable short-term coping but deepen inequity and sustain learning poverty over time.

This contradiction also manifests in assessment and teacher development. Continuous assessment policies, intended to be formative, have become burdensome summative record-keeping exercises that consume instructional time without informing teaching (Barrett, 2007; Sayed & Kanjee, 2013). Similarly, the Initial Primary Teacher Education (IPTE) curriculum offers only generic guidance on group work and engagement, providing almost no context-specific preparation for multilingual, under-resourced, 100+-learner classrooms (Florida State University, 2023). Teacher educators and practitioners alike report that many recommended activities are physically impossible or ineffective under real conditions.

Teachers in Malawi and similar LMICs consistently rank resource and infrastructure deficits above pedagogical skill gaps as the primary barrier to quality (Schweisfurth, 2011; present study). Coping mechanisms—prioritizing curriculum coverage over depth, focusing on responsive learners, and shifting effort toward assessment

compliance—are rational responses within the current system but directly contribute to persistently low learning outcomes across the region (Bold et al., 2017; Lavy, 2015). Effective reform must therefore move beyond isolated training on "better group work" and target the structural contradictions identified in the CHAT analysis: aligning rules with realistic class sizes, redistributing labor through additional qualified adults rather than children, expanding usable tools (textbooks, space, planning time), and redesigning pre- and in-service preparation around empirically piloted large-class methods supported by sustained mentoring and coaching (Barnes-Story, 2025; Darling-Hammond, 2017; Piper et al., 2018). Without such systemic intervention, evidence-based large-class pedagogy will remain an aspiration rather than a classroom reality.

Conclusion

The overall goal of this research is to examine pedagogical practices that Malawian educators and preservice teachers perceive to be effective for overcrowded classrooms. We further examine challenges that educators face during implementation of instruction in large classes. The findings highlight that groupwork, ability grouping, remediation, and active learning strategies are viewed as crucial LCP, despite class size being a major hindrance to effective implementation. Teachers also indicate that they use a variety of management strategies including peer monitoring and class leaders. Preventative actions, reactive strategies, and positive relationships are perceived to be useful, though not often used. Limited space, insufficient resources, and time pressures interdependently constrain effective pedagogy, amplifying each other to limit instructional practices. Recommendations ignoring these interconnected barriers are unlikely to yield sustainable improvements in teaching or learning outcomes. However, addressing one barrier, such as by increasing learner books, could create positive ripple effects by reducing time spent on material preparation and classroom management, allowing teachers to focus on differentiated group work and individual support. Interventions should leverage these interconnections to prioritize solutions with the broadest impact on teaching and learning. Shanahan (2020) puts it simply and succinctly that "the only way to know if any instructional approach is effective is to try it out in classrooms and to measure its impact on student learning" (p. 242). Research has yet to determine what types of strategies or methods improve student outcomes within the real conditions teachers face in Malawi (small classrooms, many learners, few resources). Furthermore, any such recommendations need to account for fostering student learning in ways that draw on (rather than clash with) sociocultural norms of Malawian classrooms and society. Effective LCP has not yet been realized.

Research is critical for generating more effective evidence-based pedagogical practices that are geared toward collaborations with teachers and other stakeholders in the country to determine what enhancements could work within the context. This calls for researchers and educational stakeholders to create and test evidence-based models that include more explicit instruction, culturally appropriate learner-centered

teaching, the use of group and pair work and other active learning strategies, streamlined classroom routines, classroom management strategies, implicit and explicit feedback techniques, and strategies to promote teacher-student interactions in a culturally appropriate manner. These models can be designed and pilot tested with adequate training and coaching support for teachers in the classroom. One opportunity to improve LCP in Malawi is to better leverage partner teaching (co-teaching) among teachers who are assigned to the same class (a common situation in large classes at urban schools). Education stakeholders might consider increasing the capacity of teachers and administrators for effective co-teaching and establishing policy guidelines for co-teaching, monitoring and evaluation frameworks, and support for co-teachers. This could reduce teachers' reliance on class leaders and peer monitors.

Further research is needed to understand workload-efficient approaches to assessment in very large classes. Peer- and self-assessment could reduce marking demands, but learners frequently distrust peer grading, resulting in perceived bias (Akintunde & Adeyiga, 2023; Asodike & Onyeike, 2016). With clear rubrics, training, and teacher oversight, however, peer assessment has been shown to be both time-saving and pedagogically valuable (Harris & Brown, 2013). Current assessment demands, compounded by class size, create an environment largely unsupportive of Assessment for Learning (Clarke, 2011; Darling-Hammond & Wentworth, 2010). Policy responses should therefore include streamlined assessment frameworks, parent and learner sensitization to reduced marking frequency, and targeted professional development on using assessment data for differentiated instruction and remediation (Bold et al., 2017).

While this study is Malawi-specific, several implications are relevant to LMICs facing comparable constraints (e.g., overcrowded classes, limited materials, and short instructional periods). Primary schools in similar contexts should explore how evidence-based practices maximize the value of group/pair work and whole class instruction.

By establishing evidence-based, contextually relevant strategies for differentiated instruction, feedback, classroom management, and questioning to encourage high order thinking, administrators can promote teacher-student interactions that drive learning. In addition to core pedagogical content knowledge, teachers need to learn pedagogical knowledge that is contextualized for large classes as part of their pre-service and in-service teacher training. These trainings should also help teachers enhance the existing structures of remedial programs by focusing on best practices to deliver multi-tiered instruction, integrate positive classroom management, and discourage over-reliance on peer teaching/monitoring. Teachers need time to plan for instruction, and student teachers need to learn how to teach in classes with a limited number of learners.

Pre-service teacher education curriculum should be revised/updated to include teaching approaches for large classes in the context of LMICs. Teacher educators need to receive training in evidence-based methods for teaching in large classes and

opportunities to model these methods to mentor, class, and student teachers in demonstration or teaching practice schools (Koo et al., 2025). LCP should be prioritized on the list of critical topics for participatory action research, encouraging piloting/contextualizing evidence-based approaches and creating an evidence base for what works in LMICs.

Systemically, LMIC governments need to find a way to reduce class size by investing in the provision of classroom blocks and the hiring of teachers. Teaching and learning require increased access to learning materials. Stronger policies and resources, such as a framework and structured teacher's guide, a structure for remedial lessons, accompanying training for teachers can educate and empower teachers to be capable of meeting the needs of their many learners—particularly if the materials support differentiating instruction to sequence skill progression, utilizing assessment to inform instruction, and providing targeted support to struggling learners. These education systems must establish realistic assessment requirements and expectations for teachers and sensitize stakeholders on the purposes of assessment, assessment priorities, and the importance of using assessment data to inform instruction. Capacity building is needed for teachers and administrators on the core aspects of assessments—assessment *for* learning, assessment *of* learning, and assessment *as* learning—as well as techniques for assessments, types of assessment, and peer assessments that work well in large classes.

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