



PAL NETWORK
People's Action for Learning

TEACHERS' KNOWLEDGE, PRACTICES, ATTITUDE, AND BELIEFS

TANZANIA & SENEGAL

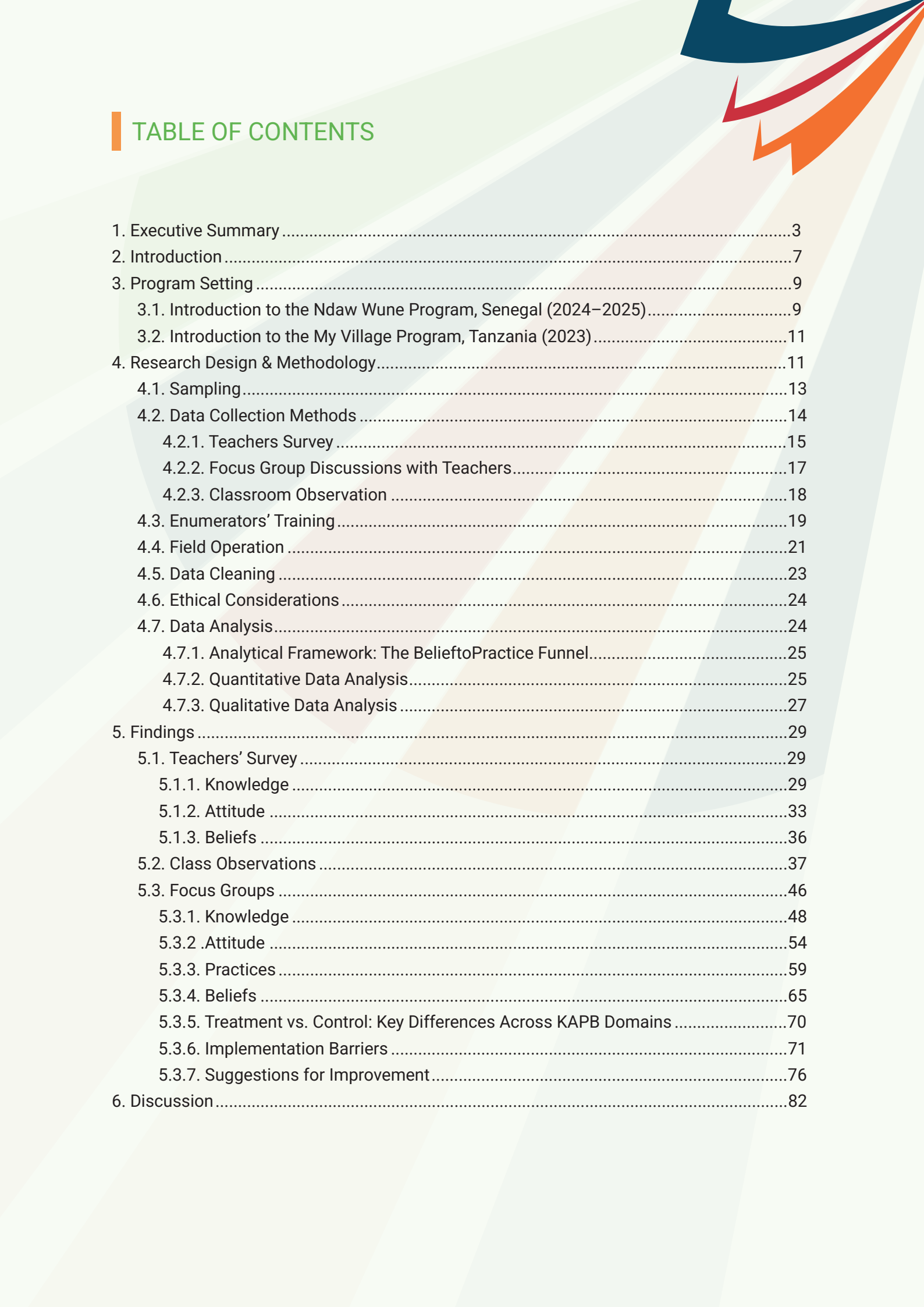


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EXECUTIVE SUMMARY

This report presents the findings of a multicountry study examining how structured pedagogy programs—My Village in Tanzania and Ndaw Wune in Senegal—have influenced early grade teachers’ Knowledge, Attitudes, Practices, and Beliefs (KAPB) in support of remedial learning. Designed to accelerate foundational literacy and numeracy among children falling behind, both programs provide teachers with structured, studentcentered strategies and tools. The study investigates how these interventions interact with broader systemic and contextual factors to shape what teachers know, believe, and are able to do in real classrooms.

Using a mixedmethods approach—teacher surveys, classroom observations, and focus group discussions—the study engaged over 560 teachers across 235 schools, with data collection led by Uwezo Tanzania and LARTES Senegal. In Tanzania, where teachers had been trained a year prior, the sample included 123 schools and 280 teachers. In Senegal, where training had concluded just two months earlier, the sample covered 112 schools and 280 teachers. These differing timelines offered comparative insights into how pedagogical shifts emerge and sustain over time.

KEY FINDINGS

The study revealed a complex interplay between teacher development and systemic factors:

- **Knowledge and Attitude Gains, Limited Practice Impact:** The studied structured remedial pedagogical training, typically around 46 days in duration, significantly boosted teachers' knowledge of pedagogical strategies and fostered more positive attitudes toward new approaches. In Tanzania, treatment teachers scored 0.73 points higher on knowledge assessments. In Senegal, attitude scores significantly improved, with treatment teachers 22% more likely to embrace active roles and scoring 0.48 points higher on the cognitiveaffective scale. However, these internal shifts did not consistently translate into statistically significant improvements in observed instructional practices such as adaptive teaching or consistent assessment use. While classroom observations (67 in Tanzania, 52 in Senegal) showed trained teachers excelling in student participation and classroom management (e.g., in Tanzania 0.5 points higher for group formation, 0.53 points higher for using more diverse teaching material use), improvements in providing feedback or using assessments were less consistent. Controlled regressions often showed intervention effects at a 10% pvalue, indicating external barriers as primary drivers.
- **Beliefs Activated, Not Changed:** While teacher beliefs about student potential remained statistically similar between trained and untrained groups in both countries, averaging 3.7 on the belief scale, the training provided a framework that enabled trained teachers to articulate a more optimistic view of struggling students' capacity. They saw learning delays as instructional challenges rather than inherent deficits, demonstrating a shift from fixed to growth mindsets.
- **Shift Towards StudentCentered Approaches:** Qualitative data from focus groups showed that trained teachers moved away from textbookdriven instruction towards more adaptive, studentresponsive methods. These included diagnostic assessments, levelbased grouping, peer learning, games, and visual aids. Teachers described assessment as a continuous, formative tool and student participation as central to learning—signaling a major pedagogical shift.
- **Persistent Implementation Barriers:** Despite positive shifts, consistent implementation was hampered by significant structural challenges. These included large class sizes, lack of materials (especially student textbooks, charts, and basic supplies), heavy curriculum demands/time constraints, sometimes unsupportive leadership or peer resistance, and students' high rate of absenteeism particularly in Tanzania. Notably, trained teachers were more likely to acknowledge these barriers and creatively persist in their efforts.

- **Contextual and Program Differences:** In Tanzania, longer program exposure allowed deeper integration of practices, but spillover from national reforms and donor programs may have diluted impact estimates. In Senegal, the short interval between training and data collection meant teachers were enthusiastic but still experimenting. Language policy complexities also emerged, with teachers struggling to apply local language instruction where they lacked fluency.
- **Volunteer Teachers—Undervalued Yet Crucial:** In Tanzania, community-based volunteers played an essential role in implementing My Village camps. They were deeply committed and reported personal growth, but lacked formal pathways for recognition or professional development. Their contributions represent a largely untapped human resource for scaling learner-centered instruction.



Table A: Main findings of the study

Main Findings		
	Tanzania	Senegal
Knowledge	After controlling for background features, Treatment teacher scored 0.73 points higher. The difference was statistically significant and consistent across regions.	After controlling for background features, treatment teacher scored 0.4 points higher. The difference is only significant at 10% pvalue and inconsistent across regions.
Attitude	Across all attitude categories, teachers in the treatment group showed statistically significant improvements in their openness to change. Treatment teachers are 13% more prone to be active in response to new programs and have 0.42 higher score on positive feelings toward change.	"Across all attitude categories, teachers in the treatment group showed statistically significant improvements in their openness to change. Treatment teachers are 22% more prone to be active in response to new programs and have 0.48 points higher score on positive feelings toward change.
Beliefs	No statistical differences are identified between treatment and control teachers.	No statistical differences are identified between treatment and control teachers.
	Training provided a framework that enabled trained teachers to articulate a more optimistic view of struggling students' capacity	Teachers who witnessed oncestruggling students improve through targeted strategies experienced a profound change in what they believed was possible.
Practices	After controlling for background features, the treatment teachers scored 0.36 points higher on matching teaching material to students' level of understanding, 0.5 points higher on group formation and 0.53 points higher on using more diverse teaching material. Number of students participating in the class was slightly higher in classes of treatment teacher. Structural barriers are still prevalent.	After controlling for background features, the treatment teachers scored 1.5 points lower on fostering peer interactions in the class, and 1 points higher on the usage of teacher aid material. While trained teachers show a shift toward studentcentered methods, structural barriers still affected both groups.

RECOMMENDATIONS

To ensure the sustained impact and effective scaling of remedial pedagogy initiatives, this study's findings underscore the critical need to move beyond isolated teacher training and address the broader ecosystem. Key recommendations drawn from the report include:

- **Strengthen and Extend Teacher Professional Development:** Initial training should be longer and more intensive, allowing for deeper processing and practical application. This must be complemented by sustained posttraining support, including structured followup, refresher sessions, coaching visits, and fostering robust peer learning networks. These ongoing mechanisms are essential for consolidating gains, addressing implementation challenges, and preventing reliance on infrequent, updated training.
- **Address Systemic Constraints as Prerequisites:** Effective implementation is significantly challenged by structural barriers. Therefore, programs and policies must prioritize and ensure the provision of adequate and appropriate materials, including student textbooks and didactic aids, as well as address infrastructure deficits. Strategies must also be developed to mitigate the impact of large class sizes and heavy curriculum demands/time constraints, possibly by adjusting curriculum pacing or allocating dedicated time for foundational skills and assessment. These are not afterthoughts but prerequisites for successful scale.
- **Ensure Institutional Alignment and Support:** Scaling effective pedagogical practices requires aligning training content with national curricula, teacher training colleges, and continuous professional development (CPD) frameworks. Crucially, school leadership (head teachers) and other supervising actors (inspectors, pedagogical advisors) must be oriented and involved to foster shared understanding and avoid conflicting expectations or resistance to new methods like grouping or peer learning. This alignment should integrate techniques like formative assessment and grouping into core expectations and accountability mechanisms.
- **Foster Flexibility, Trust, and Teacher Agency:** Recognize that teachers are not passive implementers and possess significant agency. Shift from a compliance-driven culture to one of trust and professional judgment. This involves designing programs with flexibility to adapt to low-resource, high-enrollment classrooms and providing clear guidance on handling nonideal conditions. Furthermore, actively involve teachers in curriculum and program development to ensure relevance, build ownership, and leverage their classroom realities and expertise.



- **Recognize and Integrate Volunteer Teachers:** Communitybased volunteer teachers are an asset, particularly for supporting struggling students. Their significant contributions warrant formal recognition through incentives, certification, or integration into the national education system to ensure their motivation, retention, and the sustainability of learnercentered approaches they implement.
- **Contextualize ScaleUp Strategies:** Scaling efforts must be responsive to where teachers are in their professional journey with structured pedagogy and remediation approaches and the specific needs of their local context. This means tailoring support based on whether teachers are new to concepts like grouping or formative assessment or need help institutionalizing practices they have already begun to adopt.

CONCLUSION

This study reaffirms that teachers are not merely recipients of reform but its core drivers. When provided with clear frameworks, relevant tools, and professional trust, they respond with ingenuity, commitment, and care. Structured pedagogy has the potential to transform teaching and learning at scale—but only if paired with systemic support, institutional alignment, and contextual sensitivity. Listening to teachers and building reform with—not for—them is essential to bridging the gap between knowledge and practice, and unlocking equitable foundational learning for all children

2. INTRODUCTION

The Teachers' Knowledge, Attitudes, Practices, and Beliefs (KAPB) Study is a multicountry, mixedmethod research initiative led by the People's Action for Learning (PAL) Network. It explores how structured pedagogical approaches—designed to remediate foundational literacy and numeracy gaps—shape primary school teachers' professional thinking and classroom behavior. The study focuses on four interrelated dimensions: teachers' knowledge of learners and pedagogy, their attitudes toward professional change, their classroom practices, and their beliefs about students' learning potential. These dimensions are examined in relation to teacher exposure to two structured pedagogy programs: My Village in Tanzania and Ndaw Wune in Senegal.

The KAPB study responds to growing interest across the PAL Network in understanding not just whether structured pedagogy works, but how it transforms

teaching—particularly in underresourced environments. The aim is not to evaluate student learning outcomes, but to examine the instructional changes enabled by these approaches: What do teachers actually do differently? What beliefs or identities

shift as a result of training? How do classroom dynamics evolve?

The study is grounded in structured pedagogical models that emphasize tailoring instruction to children’s actual learning levels, most notably, Teaching at the Right Level (TaRL) and its contextualized variants. These models typically involve diagnosing children’s foundational skills, grouping them by ability rather than grade or age, and delivering levelappropriate instruction using interactive and inclusive strategies. In both countries, the training programs provided approximately four to six days of initial training (three in literacy, three in numeracy), followed by classroom implementation.

This report draws findings from focus group discussions (FGDs), teacher surveys, and classroom observations with teachers from both treatment and control groups across two countries:

- In Tanzania, the My Village program (locally known as Jifunze or Kijiji Changu) was delivered by Uwezo Tanzania under their broader Jifunze model. The first phase of the program was implemented in 100 villages across three districts: Kisarawe, Gairo, and Ludewa. The program focused on equipping teachers with instructional tools and strategies to assess student learning levels and provide levelbased, engaging instruction. The FGDs, teacher surveys, and

classroom observations were conducted in two of those districts (Kisarawe and Gairo), involving teachers who had received training more than a year before the fieldwork. Teachers were interviewed in their home schools after the program had concluded, offering retrospective reflections on classroom practice and program influence.

- In Senegal, the Ndaw Wune program was implemented in 2024–25 by the organization ARED (Associates in Research and Education for Development), targeting children in grades 2–3 who had not yet acquired basic reading skills. The approach included training in instructional grouping, the use of workbooks and guides, and levelappropriate peer and group learning strategies. Teachers received training shortly before the focus groups, approximately two months prior, and were actively engaged in delivering remedial instruction in afterschool settings during data collection. FGDs, teacher surveys, and classroom observations were conducted across four regions: Diourbel, Kaolack, Matam, and Saint Louis.

The comparative design deliberately includes these variations in program duration and timing to enrich analysis. Tanzanian teachers provided longterm, retrospective accounts, while Senegalese teachers offered realtime insights during active implementation. Together, these perspectives enable a more nuanced understanding of how structured pedagogy is received, translated, and sustained—or not—in diverse classroom contexts.



This report triangulates data from teacher surveys, FGDs, and classroom observations to capture teacher voice, explore their interpretation of pedagogical change, and examine both enabling factors and constraints. It seeks to go beyond instructional mechanics to probe how remediation models may (or may not) translate into meaningful pedagogical shifts.

To navigate this report:

- Section 1 presents the Executive Summary—a synthesis of key findings, conclusions, and recommendations for both technical and management audiences.
- Section 2 introduces the study’s purpose and scope.
- Section 3 describes the research design, including the innovative BelieftoPractice Funnel used to trace how knowledge, attitudes, and beliefs translate into classroom practices.
- Section 6 presents core findings, broken down by method: Teacher Survey (6.1), Classroom Observations (6.2), and Focus Group Discussions (6.3).
- Section 7 offers a crosscutting discussion and implications for scale and sustainability.

Understanding teachers’ KAPB is essential, as it informs how they respond to daily challenges, shape the learning environment, and foster student engagement and achievement. Hence, the overarching research questions include:

- How do remediation-oriented teacher training programs shape teachers’ KAPB?
- What are the barriers and enablers affecting implementation?

- How do trained and untrained teachers differ in their KAPB profiles?
- What can be done to strengthen these structured pedagogy models?

3. PROGRAM SETTING

This section introduces the implementation context of two structured pedagogy programs—Ndaw Wune in Senegal and My Village in Tanzania—both designed to improve foundational learning outcomes through targeted remediation. These initiatives focus on earlygrade children who are struggling with literacy and numeracy and employ structured, groupbased instruction delivered outside of regular school hours.

Although the two programs differ in delivery models, recruitment strategies, and institutional arrangements, they are united by three core features:

- A strong emphasis on equity, particularly in reaching lowerperforming learners;
- Community engagement, leveraging local actors and settings to foster ownership and participation;
- Evidencebased instructional design, grounded in diagnostic assessment and levelbased grouping.

The following subsections detail the program design, scale, and operational approaches for each intervention:

- Ndaw Wune in Senegal, implemented during the 2024–2025 academic year.
- My Village in Tanzania, implemented during the 2023 academic year.

3.1 INTRODUCTION TO THE NDAW WUNE PROGRAM, SENEGAL (2024–2025)

The Ndaw Wune program is a remedial education initiative led by ARED (Associates in Research and Education for Development), aimed at supporting earlygrade learners in Senegal who struggle with foundational skills in reading and mathematics. Targeting students in Grade 2 (CP) and Grade 3 (CE1), the program delivers instruction after school hours, three days per week (typically Monday, Wednesday, and Friday) over twohour sessions. The instructional model is structured, communityembedded, and emphasizes active learning through tailored pedagogical tools.

The Ndaw Wune program builds on ARED's prior experience with literacy and numeracy interventions in Senegal. Previous pilot phases have informed the current iteration, leading to refinements in curriculum design, tutor selection, and supervision models. The ongoing scaleup reflects both enhanced institutional capacity and growing national demand for scalable, inclusive remedial programs in lowresource contexts.

In 2024–2025 academic year, the program is being implemented at a substantial scale across four regions—Matam, SaintLouis, Kaolack, and Diourbel—reaching:

- 3,000 students, evenly split by gender (1,449 girls and 1,551 boys),
- Across 66 schools,
- With support from 100 tutors and 10 supervisors,
- Under the oversight of six Education and Training Inspectorates (IEF): Matam,

Podor, Kanel, SaintLouis Commune, Kaolack Commune, and Bambey.

Tutors receive structured preprogram training focused on the use of leveled workbooks, student grouping strategies, and active facilitation methods. Instruction is delivered in three national languages—Wolof, Pulaar, and Serer—based on the dominant language of the school. Each tutor is assigned to a single classroom and follows structured daily lesson plans using specially developed literacy and numeracy guides, educational games, stories, and assessment tools. Tutors include both certified teachers and community teachers, supported through regular supervision, daily selfreporting, and monthly supervisor reporting.

Each Ndaw Wune classes includes 30 students (approximately 15 girls and 15 boys), divided into three leveled groups. Student work through reading/ and math workbooks which allows two groups to work independently while the class tutor (community members and teachers during summer vacation and certified community teachers during the school year instructs the other group. A teacher's guide supports teachers to teach one group and to guide and problemsolve the other two. Groups rotate, with each group receiving focused instruction at the appropriate learning level in reading and math once a week. The workbooks and instruction are designed to use every minute of instructional time and to instill the habits of independent work among students and studentfocused facilitation instead of whole class instruction based on rote memorization.



Student recruitment is done in coordination with local school administrators and parents. All students are screened for learning difficulties, students who fail the screening are tested, and the lowest performing students are selected. Prior to class initiation, a simple diagnostic pretest is administered to assess learning levels and guide group placement.

Monitoring and support systems include Tutor and Supervisor Daily Reports and Monthly Supervision Reports, which allow ARED and its partners to track instructional quality, address implementation challenges, and provide timely support. Student learning gains are tracked using embedded formative assessments and periodic supervisor-administered checks, focusing on reading fluency and basic arithmetic proficiency.

This current phase of Ndaw Wune builds on earlier lessons while maintaining a strong commitment to equitable access to foundational learning. The program emphasizes inclusive strategies and gendersensitive facilitation, reinforcing its focus on reaching underserved learners with quality instruction.

3.2 Introduction to the My Village Program, Tanzania (2023)

In Tanzania, the My Village initiative was implemented across 100 villages in three districts—Kisarawe, Gairo, and Ludewa—covering 30, 30, and 40 schools respectively. The program was led by Uwezo Tanzania and aimed to support children with foundational learning difficulties in literacy and numeracy.

Each participating school recruited two teachers: one government-employed and one community volunteer. These teachers underwent a six-day training program, equally divided between literacy and numeracy instruction. Following the training, teachers assessed students to identify those struggling with foundational skills, who were then enrolled in 30-day learning camps designed to offer intensive, level-appropriate support.

The My Village initiative is grounded in a vision of universal foundational learning—ensuring that all children in the village can read and perform basic arithmetic. The program leverages data from learning assessments to galvanize community engagement, encouraging local stakeholders to take collective responsibility for improving children's learning outcomes.

Citizen volunteers are central to the Uwezo model. They are not merely data collectors or beneficiaries, but active producers of knowledge who drive local accountability. Uwezo works with district-level partner organizations to coordinate these assessments across mainland Tanzania, fostering decentralized implementation and localized ownership.

The broader Uwezo assessment system is designed to generate independent data on actual literacy and numeracy competencies among schoolaged children. It also captures information on contextual factors

that may influence learning outcomes, including household socioeconomic status, parental education levels, parental engagement, and frequency of school inspections. By providing robust, communitydriven evidence on learning outcomes, Uwezo aims to inform both public discourse and policy decisions—offering a reality check on whether existing investments in education are producing the desired results.

4. RESEARCH DESIGN & METHODOLOGY

The persistent gap in educational outcomes, particularly among earlygrade learners, underscores the need for structured teacher training programs that align teaching practices with children’s learning levels. Such programs, like Ndaw Wune in Senegal and My Village in Tanzania, have the potential to deliver significant returns on investment by improving educational system performance and student outcomes. To maximize their impact, it is essential to understand not only whether such interventions work, but how and why they influence teaching practice—by examining underlying mechanisms, identifying barriers and enablers, and generating actionable insights for program refinement.

In collaboration with the implementing organizations, the PAL Network identified key research questions to guide this study, focusing on understanding the impact and implementation of the programs:

1. How do the Ndaw Wune and My Village programs influence teachers’ knowledge, attitudes, practices, and beliefs (KAPB)

regarding pedagogical approaches? Specifically, how do trained teachers differ from untrained ones in terms of:

- Knowledge refers to teachers’ understanding of how students learn, how to assess learning levels, and how to select and sequence instructional strategies accordingly.
- Attitudes reflect teachers’ emotional and psychological orientation toward teaching, including confidence, openness to change, and willingness to experiment with new methods.
- Practices describe what teachers do in the classroom, including use of grouping, games, materials, assessment routines, and adaptation to student needs.
- Beliefs capture teachers’ core assumptions about student learning potential, especially their views about whether all students, including those who struggle, can learn with time and appropriate support.

2. What barriers hinder the successful implementation of the studied pedagogical approaches?
This includes challenges related to resources, teacher preparedness, classroom dynamics, and external factors such as community or systemic constraints.

3. What factors facilitate the successful implementation of the pedagogical approaches in diverse contexts?

This includes identifying enabling conditions such as supportive leadership, teacher motivation, availability of resources, and alignment with local needs.



4. What enhancements could improve the effectiveness and adaptability of the studied programs?

This involves evaluating the program design, delivery mechanisms, and scalability to ensure sustained improvements in teaching and learning.

By addressing these research questions, the study seeks to generate actionable insights to refine Ndaw Wune and My Village and similar programs, contributing to the broader goal of transforming foundational learning outcomes in Senegal, Tanzania, and beyond.

The study adopts a mixed methods design with a strong qualitative emphasis, combining:

- Teacher surveys,
- Focus group discussions,
- Classroom observations.

This triangulated approach captures both self-reported and observed practices while centering teacher voice and interpretation. The intent is not merely to track compliance, but to understand how pedagogical change is understood, enacted, and potentially sustained in real-world classrooms.

Senegal and Tanzania were selected based on a multicriteria framework, considering:

- Member organizations' fieldwork capacity,
- Governmental openness to evidence-informed scaleup,
- Political and policy environments,
- And contextual diversity across income levels, education infrastructure, and language settings.

The study also builds on PAL Network members' established partnerships with governments and education actors in both countries, reinforcing its potential to influence realtime implementation and future system integration.

By deepening our understanding of teacher KAPB and the conditions that shape it, this study contributes to the broader goal of strengthening foundational learning through context-sensitive, scalable pedagogical solutions.

4.1 SAMPLING

The research team collaborated closely with field partners to plan sampling strategies and train enumerators. A key priority was to identify treatment and control schools in both Senegal and Tanzania that were comparable in background characteristics, despite limitations in available quantitative data on schools. In the absence of robust secondary data, the team relied on local knowledge, program implementation experience, and existing research studies targeting similar contexts to guide sampling decisions.

TANZANIA SAMPLING APPROACH

In Tanzania, the sampling process was undertaken in close coordination with Uwezo Tanzania, the implementing partner of the My Village program. Two districts—Kisarawe and Gairo—were selected for treatment based on feasibility and budget considerations. Kisarawe is located approximately 30 km from Dar es Salaam, while Gairo is around 400 km away. In each district, 30 program schools were selected.

Schools were verified to ensure the presence of teachers who had completed the sixday My Village training on literacy, numeracy, assessment tools, and groupbased activities, and had led before and afterschool learning camps to support foundational skills. This study was conducted a year after the initial phase of My Village implementation, allowing teachers to reflect on their regular classroom practices.

- Final Tanzania sample:
 - o 199 teachers surveyed (105 treatment, 94 control)
 - o 67 classroom observations
 - o 4 focus group discussions (21 teachers)

Treatment schools were randomly selected from the official list of participating schools. Control schools were drawn from neighboring villages and selected based on similarities in socioeconomic status, population size, school performance, and class size—ensuring comparable household contexts between groups.

SENEGAL SAMPLING APPROACH

In Senegal, treatment and control participants were drawn from four regions where Ndaw Wune was implemented: Diourbel, Saint Louis, Kaolack, and Matam. Due to limitations in available control sites, additional schools were selected from Podor and Bambey. Teachers in treatment schools had completed training under ARED and were actively implementing remedial instruction during the study period.

Schools were randomly selected based on Ndaw Wune participation. Since a significant portion of teachers in the treatment regions were trained, control schools were randomly chosen from nearby regions with similar characteristics but no exposure to Ndaw Wune. Some control teachers had received training through the national education system or other donorfunded programs.

- Final Senegal sample:
 - o 207 teachers surveyed (101 treatment, 106 control)
 - o 52 classroom observations
 - o 4 focus group discussions (28 teachers)

Data collection was launched concurrently across the four core regions. The field team engaged early with regional academy inspections, academic authorities, and focal points to secure support, refine logistics, and ensure successful implementation.



4.2 DATA COLLECTION METHODS

Data collection was conducted simultaneously in Tanzania and Senegal by thirdparty professional teams with proven field experience and prior collaboration with the PAL Network. Both teams were also members of the PAL Network, ensuring familiarity with its values and research standards.

- In Tanzania, Uwezo Tanzania—also the implementer of the My Village program—oversaw the data collection process.
- In Senegal, the Laboratoire de Recherche sur les Transformations Économiques et Sociales (LARTES) at Université Cheikh Anta Diop de Dakar served as the independent data collection partner for ARED's Ndaw Wune program.

Each organization worked in close coordination with national and local authorities. In Senegal, permits were secured within one month; in Tanzania, the process took two months

The research employed a multitool approach comprising:

- Teacher surveys
- Classroom observations
- Focus group discussions (FGDs) with teachers

All tools were adapted from validated instruments developed by leading research organizations and calibrated for the local contexts of Senegal and Tanzania:

- The knowledge assessment drew on a tool developed by Pratham, JPAL, and UNICEF in Zambia.
- The attitude scale was adapted from a Malaysian study on teachers' attitudes toward change, authored by Kim and Kareem (2017).
- The classroom observation framework used the same Pratham–JPAL–UNICEF tool, enhanced with elements from the World Bank's Teach Primary manual.
- The belief items in the survey were selected based on findings from multiple JPAL impact evaluations, focusing on beliefs shown to be statistically significant predictors of teacher behavior.

Draft tools were reviewed by country teams, who provided contextspecific inputs to ensure cultural, linguistic, and practical relevance. Final tools reflected this collaborative refinement process. Figure 1 (see report) provides a visual summary of the methods. Detailed versions of the tools are included in the appendices.

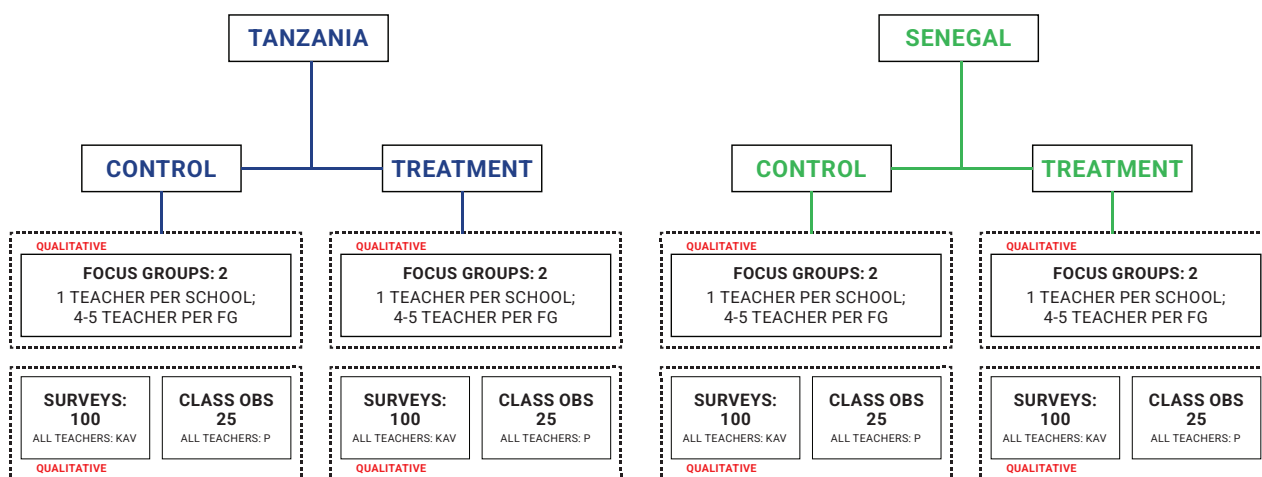


Figure 1 Research design

The data collection sequence began with teacher surveys, followed by classroom observations, and concluded with focus groups. This order was designed to prevent focus group discussions from influencing survey responses and to accommodate the logistical challenges of the study's expansive geographic scope.

the inception phase of the study. The questionnaire was designed for feasibility and adaptability across national and cultural contexts, while maintaining psychometric rigor. Details on internal reliability and validity are provided in the Constraints chapter.

SURVEY DESIGN OBJECTIVES

4.2.1 TEACHERS SURVEY

The KPAB survey questionnaire comprises of three distinct sections: knowledge, attitude, and beliefs. The primary objective of the survey questionnaire is to capture teachers' selfreported levels of knowledge on structured pedagogical approaches that are designed to respond to individual students' learning level.

The survey also focuses on recording teachers' beliefs and attitude toward adopting new approaches and students' capacity to learning.

Survey items were drawn from established literature in each domain, reviewed during

The strategy in developing the survey was to ensure 1) international applicability, especially within African country contexts, 2) feasibility and ease of administration and adaptation and 3) psychometric rigor. More specifically, the survey questionnaire objectives are to:

- Establish a standardized score for teachers' knowledge and understanding of structured pedagogies.
- Accurately assess teachers' attitude toward pedagogical innovation and educational changes they are trained for.
- Record instances of teachers' values and beliefs with regards to education, learning and upward mobility.



SURVEY ADMINISTRATION AND SCORING

The questionnaire was administered by trained surveyors through faceto face interviews to reduce bias and minimize errors. It comprised 30 questions and typically took 13–25 minutes to complete. Scoring system:

- Knowledge section: Simple linear scoring based on the number of correct answers.
- Attitude section: Sixpoint Likert scale (1–6) mapped to four interpretive quadrants:
 - o 1.00–2.24: Resistance
 - o 2.25–3.49: Indifference
 - o 3.50–4.74: Acceptance
 - o 4.75–6.00: Embracing
- Belief section: Sixpoint Likert scale, analyzed across three themes:
 - o Socioeconomic development
 - o Education system
 - o Classroom level beliefs

DATA CLEANING AND QUALITY ASSURANCE

At the end of each data collection day, field teams in Tanzania and Senegal conducted rigorous data cleaning using metadata (e.g., submission time, GPS location, surveyor ID). Any unusual patterns—such as overly short response times—were flagged and reviewed by field supervisors.

Supervisors consulted with surveyors on flagged cases and submitted documentation to the principal investigators, who determined whether to retain or discard affected entries. This review process

reinforced best practices during implementation.

Data quality issues were minimal due to experienced data collectors and effective preoperation training, with fewer than ten faulty observations removed early in the process, ensuring a clean final dataset. Most data was structured in coded formats at entry for efficiency, but open text variables like training courses, teacher positions, languages spoken, and classes taught were text mined and converted into categorical variables based on their relevance to the program's theory of change. Variables such as teacher training, languages spoken, and classroom seating arrangements proved highly explanatory. This rapid feedback loop and proactive resolution prevented significant deviations from data quality standards, eliminating the need for extensive interventions. Internal reliability of the tool was assessed using Cronbach's alpha scores which are extensively discussed in the Constraints chapter of this report.

4.2.2 FOCUS GROUP DISCUSSIONS WITH TEACHERS

The focus group component of the Teachers' KAPB Study (KAPB Study) was designed to capture the perspectives, reflections, and lived experiences of teachers who had either participated in remedial pedagogical programs or were teaching without such training. While surveys and classroom observations provide quantifiable indicators of change, focus groups help to uncover the "how" and "why" behind teacher behavior — surfacing nuanced insights into the internal and contextual shifts triggered by professional development.

The primary aim of the focus group sessions in this study is to gather indepth insights into teachers' KAPB regarding remedial pedagogical approaches and to explore the facilitators and barriers that influence the successful implementation of these pedagogies in their classroom.

DESIGN AND IMPLEMENTATION

Focus groups were conducted in both treatment and control settings across the two countries:

- 4 total focus group sessions per country: two with treatment teachers, two with control teachers.
- Each session included 5–8 participants and lasted approximately 75–90 minutes.
- Sessions followed a semistructured guide, with room for emergent discussion.

Each session was facilitated by two trained moderators to ensure inclusivity and guide discussion flow. All sessions were audiorecorded with consent for accurate transcription and analysis.

TRANSCRIPTION AND DATA HANDLING

A rigorous and contextsensitive process was followed for transcription and translation:

- In Tanzania, sessions were transcribed verbatim in Kiswahili by facilitators and assistants. Transcripts were reviewed by Uwezo Tanzania and professionally translated into English. Field staff bilingual in English and local languages reviewed translations to ensure accuracy in tone and cultural nuance.

- In Senegal, transcription was completed in French by fluent facilitators and assistants, with oversight from LARTESEFAB. As the discussions occurred in local languages, French transcription captured the shared language of analysis.

All transcripts were enriched by field notes, SurveyCTO session data, and assistant facilitator observations. This facilitatorled transcription process ensured fidelity to the meaning, style, and embedded cultural references present in teachers' discourse.

4.2.3 CLASSROOM OBSERVATION

Classroom observations were used to better understand and examine teachers' practices and behavior toward different learners. The primary aim of the classroom observations was to systematically gather detailed data on teachers' instructional practices, classroom management, and student engagement in the classrooms. By directly observing these practices, the study aims at identifying effective teaching strategies, challenges in implementation, and the contextual factors influencing the learning environment for the teachers in both control and treatment groups. This approach facilitated the comparison between teachers who have received remedial pedagogical trainings versus those who have not. In addition, observation allowed the triangulation of data collected from other approaches employed in the study.



In Tanzania, 67 classroom observations were conducted—39 in treatment and 28 in control schools—with 76% in grades 1–3 and the remaining in grade 4. In Senegal, 52 observations were completed—25 treatment and 27 control. Each observation captured a complete instructional cycle, lasting approximately 45 to 60 minutes, to ensure coverage of group activities, teacher explanations, assessment routines, and student responses. The specific objectives of the classroom observation was to:

- Evaluate teacher performance in implementing structured pedagogical approaches, focusing on the differentiation of teaching methods and student grouping, to understand what practices from the training they adopt in their teaching and which one they do not adopt.
- Assess classroom management strategies, including how teachers handle student behavior, transitions between activities, and the general learning environment.
- Measure student engagement and ontask behavior during the lesson.
- Identify resource constraints in the classroom that may impact teaching and learning (e.g., availability of materials, classroom space).
- Observe teacherstudent interactions and peer learning activities to better understand the dynamics of collaborative learning.

The class observation tool was organized into three key sections to enhance clarity and data collection efficiency. The first section gathered background information on the teacher and school, including teacher training, general school conditions, and classroom environment. The second section

quantified and averaged specific teacherstudent interactions and selected teacher actions, identified in prior research as critical to implementing accelerated learning pedagogies. The third section used a Likertscale category to evaluate teacher performance and student interactions, guided by a detailed scoring rubric. This structured approach ensured comprehensive data capture while maintaining alignment with the program's objectives. Each section was designed to provide clear, actionable insights for analysis.

Interrater reliability was systematically monitored. Observers' ratings for shared lessons showed minimal variance, indicating strong scoring alignment and high procedural reliability. Regular calibration sessions ensured consistent interpretation of the scoring rubric. Where variation in scoring patterns was identified—such as one observer consistently scoring higher or lower than others—targeted feedback and recalibration were conducted. However, the need for such interventions was minimal, as most observers had backgrounds as educational inspectors or experienced education researchers.

Consistent with survey protocols, daily data cleaning procedures were implemented. Observations were reviewed using metadata (e.g., duration, submission time, observer ID) to detect irregularities or systematic biases. Text fields were mined and coded as needed to ensure structured analysis across all cases.

14.3 ENUMERATORS' TRAINING

Prior to data collection, each country team underwent a twoday, 10hour training session tailored to the study's research methodology and tools. The training covered modules on research design, survey interviews, classroom observations, focus group facilitation, and the use of digital data collection tools. Simultaneous translation was provided to ensure accessibility and effectiveness. The research tools are comprehensively described in the study's research design report, with Appendix I.

MODULE 1: RESEARCH DESIGN ORIENTATION

The research design module aimed to familiarize surveyors with the study's objectives and methodologies, equipping them to make informed decisions when addressing data quality issues that required their judgment. A simplified summary of the research design report was presented, followed by interactive discussions on the study's structure during training sessions in both countries.

MODULE 2: SURVEY TOOL FAMILIARIZATION

The second module focused on the survey tools, reviewing each question individually with participants and research principals. This ensured clarity on question intent, response options, measurement scales, and objectives. Discussions addressed language clarity and effective delivery in interview settings. Standardized interviewing techniques and strategies to minimize

interview rejections were also shared. Notably, most surveyors, recruited by the implementing partners, had extensive data collection experience and were familiar with key interviewing concepts, enhancing the module's effectiveness.

MODULE 3: CLASSROOM OBSERVATION TRAINING

The third module outlined the framework for implementing and analyzing classroom observation templates. Each item in the observation tools was reviewed, its purpose explained, and general guidelines provided for accurate observations. For questions using a Likert scale, detailed criteria were shared to assign scores consistently. Discussions centered on language clarity and behavioral protocols during observations. The surveyors' prior experience as classroom inspectors facilitated effective communication of concepts and alleviated concerns about their behavior introducing bias into classroom dynamics.

MODULE 4: FOCUS GROUP FACILITATION

The focus group training module equipped facilitators with techniques for participatory dialogue, neutrality, and contextsensitive engagement. A facilitation guide—covering discussion prompts, group management strategies, and session documentation—was shared. The guideline included key questions to guide the focus groups, tips for effective facilitation, such as ensuring fair airtime among participants and managing dominant voices and silences, and visual indicators to observe, including body language, power dynamics, and dominant



speakers. A structured format for documenting sessions was also developed to help facilitators systematically capture key details, observations, and reflections during and after each focus group. Facilitators underwent training on the focus group guidelines, session structure, techniques for maintaining balanced participation and neutrality, strategies for managing group dynamics, and the available support and reporting mechanisms. Pilot focus groups were conducted with facilitators to test and refine the guidelines, questions, and facilitation approaches. These sessions allowed facilitators to practice, identify potential challenges in managing group dynamics, receive feedback, and refine their facilitation skills ahead of the main data collection phase.

MODULE 5: DIGITAL TOOLS AND ETHICS PROTOCOL

The final module focused on the digital tools used in the operation, which were installed on the surveyors' personal tablets and devices. The research team guided participants through the digital forms of each tool to ensure seamless execution, verifying that surveyor understood data type limitations and questionsequencing functions. A comprehensive user consent and Prevention of Sexual Exploitation and Abuse (PSEA) protocol was presented, with guidance on data submission guidelines, monitoring protocols, and the risks of submitting inaccurate data. Following the theoretical training, participants conducted a pilot at preselected schools. This live implementation of the tools in classrooms with real teachers generated critical feedback, which was documented and proved instrumental in

ensuring smooth execution during actual fieldwork.

4.4 FIELD OPERATION

In Senegal, the data collection team comprised twelve investigators: eight research assistants from diverse fields (statistics, geography, sociology, and computer science) who administered questionnaires and facilitated focus groups, and four education inspectors who conducted classroom observations. Investigators were selected for their extensive experience in quantitative and qualitative data collection, gained through numerous national and international studies.

A total of 52 classroom observations were conducted, evenly split between 25 target and 27 control classes. Among the 52 observed teachers, five of the 25 treatment group, were community actors who had received Ndaw Wune training and had previously taught in classrooms. The study targeted second and thirdyear classes (CP–CE1), with the same grade levels observed in control schools. Observations covered reading and mathematics, taught in national languages in both target and control classes, with each session lasting up to 45 minutes and incorporating interactive activities.

A total of 207 questionnaires were administered: 106 to control teachers and 101 to target teachers. To ensure the required quota of 25 target teachers in Podor (where only 10 Ndaw Wune schools exist), an additional five questionnaires were allocated to the SaintLouis Inspection of Education and Training (IEF) as a precautionary measure.

In Tanzania, the data collection team comprised 26 investigators, most of whom had prior education research experience with Uwezo Tanzania. Classroom observers had formal inspection backgrounds with national authorities. Heavy rainfall during the data collection period in the target districts complicated logistics, as road closures caused delays.

The My Village program in Tanzania supported learning camps for children in grades 3–6. However, with the new school year, national protocols reassigned teachers to different classes, preventing observations from focusing specifically on these grades. Additionally, some teachers had relocated to schools in other regions. In total, 26 teachers (7 in Gairo and 19 in Kisarawe) were absent from intervention schools. Using existing contact information, the team developed an alternative logistical plan to locate and interview these teachers. Of the teacher surveys collected, 199 were authenticated and included in the study sample, 105 in treatment and 94 in control groups. A total of 67 authenticated classroom observations were also completed; 39 treatment and 28 control classrooms.

Focus groups were designed to ensure cultural relevance, contextual depth, and participant comfort. All FGDs were facilitated by experienced moderators embedded in local education ecosystems, ensuring both linguistic fluency and trust with participants.

•In Tanzania, four focus group sessions were conducted, two in Kisarawe and two in Gairo, equally divided between treatment and control teachers and held in Swahili, the national language of instruction in early primary grades. Participants spoke freely

and comfortably in Kiswahili, and all facilitators were native speakers.

•In Senegal, sessions were conducted in three major Senegalese languages (wolof, pulaar, and sérère) to accommodate participant fluency and regional diversity. The choice of language was based on participants' preferred modes of communication and regional language norms.

All tools were hosted on the SurveyCTO cloud platform, with templated forms uploaded to the PAL Network's enterprise account. Implementing partner personnel were granted access to download these forms onto their devices for completion. When a stable internet connection was available, completed forms were uploaded to SurveyCTO's storage.

For teacher surveys, data was recorded through conversations with teachers, with questions designed to follow a sequential flow. In contrast, classroom observation and focus group tools were less linear. Observers sat at the back of classrooms, recording observations and maintaining a tally of activities, particularly for categories requiring five-minute interval averages, which were then averaged for the entire class period. For Likert scale items, observers were instructed to finalize scores after the class, reflecting on the full session. Observers were advised to find a quiet room postclass to transfer notes into the SurveyCTO template and upload them to the system.



For focus groups sessions, the digital tool was only a milestone marker to help assess the focus group session and have a summary version of the focus group, before the transcripts for the session were available. All focus group discussions were audio recorded (with informed consent) to ensure accurate capture of the conversation. In addition, the assistant and the facilitator took notes during each session to document group dynamics, body language, and moments of emphasis or hesitation. After each focus group session, debriefing meetings were held with facilitators to reflect on key insights, challenges encountered, and areas for improvement. Facilitators documented lessons learned, including observations about group dynamics, cultural nuances, and effective facilitation strategies, to inform future research efforts. They shared their notes, completed structured forms, and session observations with the consultant team. They also provided audio recordings to support comprehensive data analysis. The consultant team reviewed the collected data, notes, structured forms, and audio recordings, to monitor quality. Early interventions were made where necessary to address any quality issues and provide feedback for ongoing improvement.

Facilitators engaged in reflective analysis sessions with the consultant team to discuss emerging themes, recurring patterns, and unexpected insights, thereby enriching the data analysis with their perspectives. Facilitators were also encouraged to provide feedback on the process, tools, and guidelines, contributing to the continuous improvement of the focus group methodology.

4.5 DATA CLEANING

At the end of each operational day, the research team accessed submitted data and implemented data cleaning protocols. Drawing metadata for each observation, date, submission time, location, and surveyor name, the principal investigators flagged potentially problematic observations to field supervisors. These included observations that were too brief, submitted outside normal data collection hours, or showed unusual patterns in multiple choice question responses. Field supervisors investigated these cases, contacting the relevant surveyor for clarification. Following their investigation, supervisors provided their judgment, supported by documentation, to the principal investigators, who decided whether to retain or discard the data. During these discussions, staff were reminded of best practices recommended by the research team.

Overall, data quality concerns were minimal in both Tanzania and Senegal, reflecting the competence of experienced data collectors and effective preoperation training. Few anomalies, which emerged early in the data collection process, stemmed from individual judgments in handling edge cases. Prompt identification and resolution created a rapid feedback loop, preventing significant deviations from standards and eliminating the need for extensive data quality interventions.

Across both countries, fewer than ten observations were deemed faulty and excluded, having been removed during the live data collection phase. As a result, these entries were not present in the final cleaned dataset used for analysis.

Most survey responses were captured using structured, precoded formats within the digital tools, facilitating smooth data entry and minimizing variability. However, select variables, including teacher position, training courses completed, languages spoken, and classes taught, were recorded as opentext entries to allow for contextual flexibility. These entries were textmined during data cleaning to identify recurring patterns and subsequently converted into categorical variables. The conversion was guided by the research team's understanding of the program's theory of change, ensuring that the selected categories were aligned with the study's core objectives. Variables such as teacher training, language of instruction, and classroom seating arrangements were found to be particularly explanatory, offering valuable dimensions for subsequent analysis.

4.6 ETHICAL CONSIDERATIONS

Ethical integrity was a foundational component of all data collection activities. Before each research activity, whether it was a classroom observation, questionnaire administration, or focus group discussion, the consent form was systematically read and explained to the participating teacher. All participants were informed about the purpose of the study and focus group sessions, as well as their role in the study

and their rights. Participation was voluntary, with participants free to withdraw at any time without any negative consequence. Moderators and surveyors were trained to offer participants the option to skip any questions they were uncomfortable answering. Written informed consent was obtained from every participant prior to the session (Appendix II).

Participants were assured of confidentiality, with no names used in transcripts or reports. Moderators were trained to manage group dynamics, ensure balanced participation, and create a nonjudgmental space for teachers to speak honestly. Where teachers expressed concerns about professional risks or systemic constraints, these were treated with care and coded to ensure anonymity in reporting. The process was designed to respect teacher autonomy, create a safe space for reflection, and elevate teacher voice in ways that are both respectful and analytically rigorous. The activity only commenced after the teacher approved and signed the document. In Senegal alone, a total of 280 consent forms were signed, affirming the voluntary and informed participation of all teachers involved.



4.7 DATA ANALYSIS

The analysis is structured using the KAPB framework, Knowledge, Attitude, Practice, and Belief, to systematically examine variations between treatment and control groups, within and across countries, and across different dimensions of pedagogical engagement. This framework allows for an integrated understanding of:

- Knowledge: How well teachers understand assessment, grouping, and levelbased instruction
- Attitudes: Their openness to change, emotional responses, and motivation levels
- Practices: Observable shifts in classroom techniques and instructional routines
- Beliefs: Underlying convictions about student capacity, pedagogy, and the role of the teacher

In addition to analyzing shifts across these four dimensions, the study also captured teachers' reflections on the challenges they faced during both the training and implementation phases. This includes barriers such as time constraints, insufficient resources, or mismatches between training content and classroom realities.

Finally, the analysis highlights the alternative strategies and recommendations suggested by teachers to strengthen training design and ensure more effective translation of new pedagogical methods into their daily practice. These insights provide a foundation for practical improvements to professional development models and classroom support mechanisms.

4.7.1 ANALYTICAL FRAMEWORK: THE BELIEFTOPRACTICE FUNNEL

Not all changes in teacher knowledge, attitudes, or beliefs translate directly into classroom practice. To interpret where and why teacher change occurs, or stalls, this study applies a fivestage framework called the BelieftoPractice Funnel, adapted from the work of Guskey (2002), Fullan (2007), and implementation science models (Fixsen et al., 2005).

The funnel traces how professional learning, including structured pedagogy training, filters through the following five layers:

- 1.Knowledge, Attitudes, and Beliefs (KAB): What teachers say they know and believe.
- 2.Perceived Feasibility: Whether they believe they can act on this knowledge in their specific classroom context.
- 3.Motivated Intent: Whether they want to act on it, and feel responsible for doing so.
- 4.Enabling Conditions: Whether the school system, materials, peers, and leadership allow them to apply these practices.
- 5.Observed Practice: What teachers actually do in the classroom, visible and measurable behaviors.

This framework allows us to identify when a teacher's positive shift in belief or attitude does not result in behavior change, and to explore what blocked that change. Importantly, the three data sources in this study align with different stages of the funnel:

Table 1: Data Sources of the Study

Data Source	Primary Insight into Funnel Level(s)
Focus Groups (FGDs)	Levels 1–3 (beliefs, feasibility perceptions, motivation)
Teacher Surveys	Levels 1–3 (selfreported knowledge, practices, confidence)
Classroom Observations	Levels 4–5 (system constraints and actual practice)

By integrating these methods, the funnel provides a structured interpretive lens for analyzing which dimensions of change were most affected by the intervention, and where further support is needed for that change to become visible in classrooms.

4.7.2 QUANTITATIVE DATA ANALYSIS

For the quantitative analysis, a simple difference method was used to compare program participants (treatment group) and nonparticipants (control group). Recognizing that the groups were nonequivalent, the research team made significant efforts to statistically match schools in both groups based on observable variables available in the data. Indicators outlined in the study's inception report were incorporated into teacher survey and classroom observation tools. The analysis aimed to establish relationships between training and observable KAPB outcomes.

The simple difference approach measured postintervention differences between participants and nonparticipants, with the

control group comprising teachers who did not participate in the program but for whom data were collected afterward. Ideally, nonparticipants would have been identical to participants except for program participation, but early adopters of new programs often possessed observable and unobservable advantages, potentially skewing outcomes. To mitigate this, careful statistical matching was implemented to construct a comparable control group, minimizing systematic biases. The efficiency of this approach depended heavily on the availability of structured data and field insights, ensuring robust comparisons despite the nonrandomized design. The quantitative model was specified as follows:

$$Y_{ic} = \delta D_c + X_{ic}' \beta + \varepsilon_{ic}$$

where c indexes school type, and i is the individual teacher in the sample. Y_{ic} is an outcome for teacher i in school type c . This model provides full nonparametric control for timeinvariant village type specific effects. The regressor of interest D_c indicates school types and periods that program coverage is provided. X_{ic}' is a vector time varying controlling variables at an individual level.

STATA MP14 was the primary statistical software for all quantitative analyses. The teacher survey's knowledge module was processed as a simple aggregate score, calculated by summing the scores of its ten unweighted questions for each observation. Correct answers scored 1, incorrect answers scored 0, with a maximum possible score of 10. The decision to use unweighted questions was deliberate, as empirical evidence suggests that differential item weighting typically has minimal impact on the reliability and validity of total scores. This is because differential weighting is most effective when (a) weights vary widely, (b) items have low intercorrelation, and (c) there are few items, conditions rarely met in test development. For a test assessing a single construct, items are generally intercorrelated, and weight differences between items are small, reducing the impact of differential weighting.

The attitude module comprised three components: (1) cognitive responses to the accelerated learning pedagogies, (2) affective responses exploring emotional reactions to these changes, and (3) behavioral responses indicating whether teachers adopted an active or passive stance toward the changes. Active attitudes could be either embracing or resistive, depending on the combined cognitive and affective scores, while passive attitudes could be positive (acceptive) or negative (indifferent).

All questions in the attitude module used a Likert-type scale. Affective questions were intentionally framed negatively to minimize demand bias toward positive responses like "I agree." For scoring, cognitive and affective responses were calculated separately and averaged into a single variable. Behavioral

questions were treated differently to capture their horseshoeshaped distribution, where extremely negative and extremely positive responses both indicate active behavior. A second-order polynomial transformation was applied, labeling outcomes below 2 as passive and those above 2 as active.

Consistent with the quadric conceptualization of teacher attitudes outlined in the inception report, the cognitive-affective and behavioral variables were reported separately to clearly present the accepting, indifferent, embracing, and resistive categories.

The beliefs section of the teacher survey consisted of three categories: socioeconomic development beliefs, classroom management beliefs, and education system beliefs, with four, six, and five indicators, respectively. All indicators used a Likert scale, and five questions were negatively framed to minimize social desirability and demand biases during interviews. Scores for each category were averaged and reported separately, then combined into a single aggregated variable.

The classroom observation tool was structured into three sections: (1) background details on the class, school, and teacher; (2) frequency counts of specific student-teacher interactions recorded at five-minute intervals; and (3) a Likert-scale evaluation of student-teacher interaction quality, guided by established research protocols. The analytical framework for the classroom observation aligns with that of the teacher surveys, utilizing a simple difference method with parametric controls.

Background information serves as control variables for the analysis. The Likertscale section was analyzed similar to the attitude and belief section of the surveys. For the frequency recording section, data was normalized based on each outcome variable's statistical distribution, with zscores applied in a simple difference regression analysis to minimize noise and reduce the impact of outliers

4.7.3 QUALITATIVE DATA ANALYSIS

The classroom observation tool comprised three sections: (1) background information on the class, school, and teacher; (2) averaging the frequency of specific studentteacher interactions at five minute intervals; and (3) scoring the quality of studentteacher interactions on a Likert scale, guided by research protocols.

The qualitative component of the KAPB Study was designed to complement survey and classroom observation by capturing the rich, narrative experiences of teachers in their own words. Focus group discussions (FGDs) were conducted with teachers from both treatment and control groups in Tanzania and Senegal, allowing for comparative analysis across pedagogical exposure and national contexts.

The analysis of focus group data in the Teachers' KAPB Study followed a structured, iterative, and multilayered process that integrated both deductive and inductive approaches. This dual strategy allowed the research team to align the analysis with the predefined research objectives while remaining open to unpredicted themes and

emergent patterns grounded in teacher experiences.

Thematic analysis was conducted using both manual coding and structured data summary tools, enabling crosscase comparisons between treatment and control groups and across country contexts (Tanzania and Senegal). The analysis was organized around the core KAPB domains, Knowledge, Attitude, Practice, and Belief, while also identifying crosscutting themes related to systems, pedagogy, and classroom realities. NVIVO 14 was used as the main qualitative data management tool to support the analysis.

The coding framework consisted of deductive codes, directly linked to the KAPB domains and the research questions (e.g., "Use of assessment tools," "Grouping by level," "Belief in student potential"), as well as inductive codes, which emerged during transcript review and memoing (e.g., "curriculum pressure," "hopes and desires," "language challenges," "burnout," "available resources").

Each transcript was reviewed multiple times by the coding team. Segments were tagged based on these codes, and analytic memos were written to interpret recurring themes, contradictions, and illustrative examples. To ensure consistency and rigor in synthesis, the team developed a set of standardized analytic tables, applied to each focus group:

1. Question Coverage Table: Identified whether each of the guiding questions was addressed (explicitly or implicitly) and noted the speaker and timestamp reference where relevant.
2. Response Summary Table: For each question covered, participant



responses were summarized individually (by ID), highlighting agreement, divergence, or elaboration.

3. Themes and Codes Table: Summarized highlevel themes and subcodes, including illustrative quotes in both original language (where relevant) and English translation.
4. ThemebyParticipant Matrix: Mapped which themes each participant engaged with, indicating how deeply and in what role (e.g., initiate, elaborate, agree).
5. Enhanced KAPB Mapping Table: Synthesized how each participating teacher reflected across KAPB dimensions to assess what the training enabled.
6. CrossGroup Comparison Tables: Used for comparative analysis across treatment and control groups, and between countries, on seven structured dimensions (see below).

This thematic analysis framework enabled the study to move beyond descriptive reporting toward a richer understanding of what structured pedagogy programs enable, pedagogically, emotionally, and practically, and under what conditions.

4.1.FINDINGS

The Teachers' KAPB study does not attempt to measure impact in a causal or statistical sense. Rather, it seeks to understand what structured pedagogy enables, in terms of new habits, confidence, relational shifts, and adaptive strategies. The findings are grounded in teacher voice and interpreted through their narrative experiences.

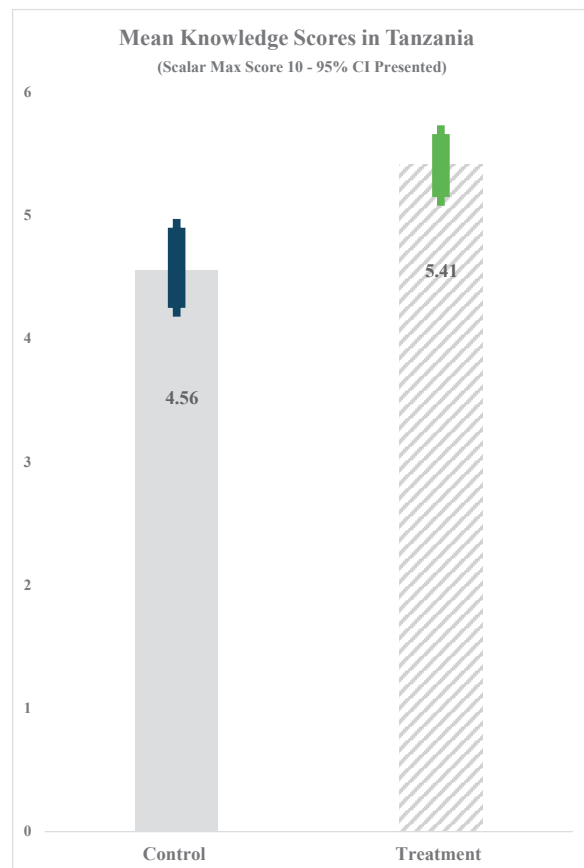


Figure 3: Mean Knowledge Scores in Tanzania; 95% Confidence Interval Provide

5.1 TEACHERS' SURVEY

The teacher survey covered three major area of investigation into teachers' knowledge, attitude and beliefs with regards to accelerated learning pedagogies.

5.1.1 KNOWLEDGE

In Tanzania, a simple statistical comparison of treatment and control groups reveals a statistically significant difference in teacher knowledge scores. On average, treatment

group teachers scored 0.9 points higher than control group teachers, with less variation in their results. Additionally, teachers in Gairo, both treatment and control, scored 0.6 points higher on average than those in Kisarawe (Figure 3).

statistically significant difference in teacher knowledge scores. On average, treatment group teachers scored 0.9 points higher than control group teachers, with less variation in their results. Additionally, teachers in Gairo, both treatment and control, scored 0.6 points higher on average than those in Kisarawe (Figure 3).

This effect persists after controlling for background variables, as shown in regression analyses (see Table 1). Age, gender, and the number of professional development courses were not statistically significant predictors of knowledge scores. The number of courses approached but did not reach the significance threshold. However, the number of languages spoken, and the class grade taught were strongly negatively correlated with scores. For each additional grade level taught, scores decreased by 0.27 points, and for each additional language spoken, scores dropped by 0.37 points.

Notably, multigrade classes, coded as grade 0 during data cleaning, were associated with higher scores, suggesting that teachers in these classes performed better. These variables may reflect teacher assignment criteria, such as communityrootedness or commitment, as multilingual teachers are often younger with distinct career ambitions.

Further analysis revealed districtlevel dynamics in teacher behavior. In Gairo, monolingual Swahilispeaking teachers

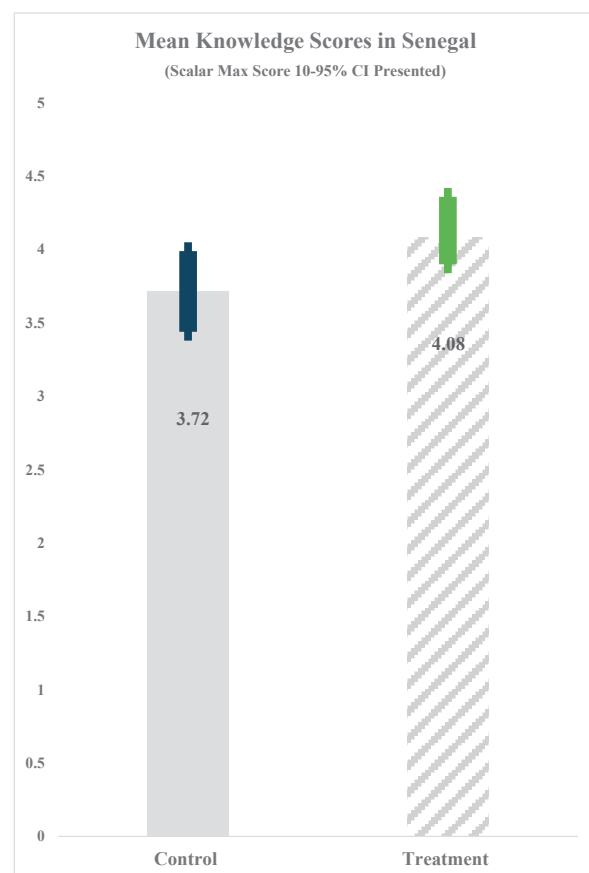


Figure 4- Mean Knowledge Scores in Senegal; 95% Confidence Interval Provide

outperformed bilingual teachers, despite being fewer in number (31 vs. 64 observations). These teachers typically identified as regular teachers, unlike the diverse position titles used by others, and often taught multigrade classes. They also completed 0.7 more career development courses on average, with less variation. In Gairo-specific regressions, the number of languages spoken remained a significant predictor, but class grade lost statistical significance. In Kisarawe, however, the number of languages was insignificant,



while class grade remained significant at a 10% pvalue, though not at 5%, highlighting districts specific influences on teacher performance.

In Senegal, in comparison of knowledge at the district level, only Saint Louis exhibits a significant difference between the two groups. However, Saint Louis records the lowest scores among Senegal's major districts, averaging 3 compared to approximately 4 in the other three districts. The control group in Saint Louis scores 2.7, notably lower than the treatment group's 3.6, driving the significant difference. Meanwhile, Matam records the highest scores, with treatment teachers averaging 4.6 and control teachers 4.3.

Regressing knowledge scores on the intervention variable and a vector of control variables yields a marginally significant effect at the 10% level. However, this weak effect vanishes when results are disaggregated by region. Notably, the number of courses completed by teachers is a significant predictor of knowledge scores in Saint Louis, while female teachers in Matam outperform others by 0.8 points. Table 2 present the coefficients of regressors for key outcomes of interest from the teacher survey in Senegal.

In conclusion, in Tanzania, the study found that teachers who received a special training program scored slightly higher (0.9 points) on a knowledge test compared to those who didn't, with more consistent results, and teachers in Gairo outperformed those in Kisarawe regardless of training. However, teaching higher grades or speaking multiple languages was associated with lower scores—potentially reflecting the increased complexity of uppergrade instruction or the

relatively limited experience of younger, multilingual teachers. In contrast, multigrade teachers performed better, possibly indicating stronger commitment or adaptive teaching skills developed through managing diverse classrooms. In Senegal, the training only showed a clear impact in Saint Louis, where trained teachers scored higher (3.6 vs. 2.7), though this district had the lowest scores overall compared to others like Matam, where female teachers and those with more professional courses excelled. The training's success varied by location and teacher characteristics, suggesting that while it helps, local factors significantly influence its effectiveness.

Table 2: Regression Results for Outcomes of Interest in Tanzania Teacher Survey

	(1) Knowledge	(2) COGAFF Attitude	(3) BHV Attitude	(4) Belief
Intervention	0.733*** (0.203)	0.423*** (0.077)	0.133* (0.073)	-0.012 (0.044)
Age	0.011 (0.014)	-0.006 (0.005)	0.003 (0.005)	-0.001 (0.003)
Gender	0.166 (0.192)	0.021 (0.073)	0.014 (0.069)	0.003 (0.042)
Grade	-0.272*** (0.064)	0.023 (0.024)	-0.001 (0.023)	0.017 (0.014)
Number of languages spoken	-0.368* (0.187)	0.048 (0.071)	-0.055 (0.067)	0.040 (0.041)
Number of courses completed	0.105 (0.065)	0.056** (0.025)	0.022 (0.023)	0.007 (0.014)
Constant	4.937*** (0.605)	3.992*** (0.230)	0.498** (0.217)	3.682*** (0.133)
Observations	197	197	197	197
Adjusted R-squared	0.169	0.180	0.009	-0.019
F-statistic	7.66	8.17	1.29	0.41

Table 2: Regression Results for Outcomes of Interest in Tanzania Teacher Survey

	(1) Knowledge	(2) COGAFF Attitude	(3) BHV Attitude	(4) Belief
Intervention	0.400* (0.206)	0.476*** (0.076)	0.223*** (0.069)	0.017 (0.049)
Age	-0.023* (0.013)	0.004 (0.005)	0.002 (0.004)	-0.007** (0.003)
Gender	0.265 (0.202)	-0.023 (0.075)	0.105 (0.067)	-0.018 (0.048)
Grade	0.031 (0.095)	0.083** (0.035)	0.035 (0.032)	0.015 (0.023)
Number of languages spoken	0.029 (0.221)	0.017 (0.082)	-0.027 (0.074)	-0.060 (0.053)
Number of courses completed	0.023 (0.020)	-0.006 (0.007)	0.014** (0.007)	-0.000 (0.005)
Constant	4.299*** (0.796)	3.218*** (0.293)	0.080 (0.265)	4.101*** (0.189)
Observations	207	207	207	207
Adjusted R-squared	0.017	0.175	0.069	-0.001
F-statistic	1.60	8.26	3.54	0.97

Standard errors in parentheses

Regular standard errors in all models.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

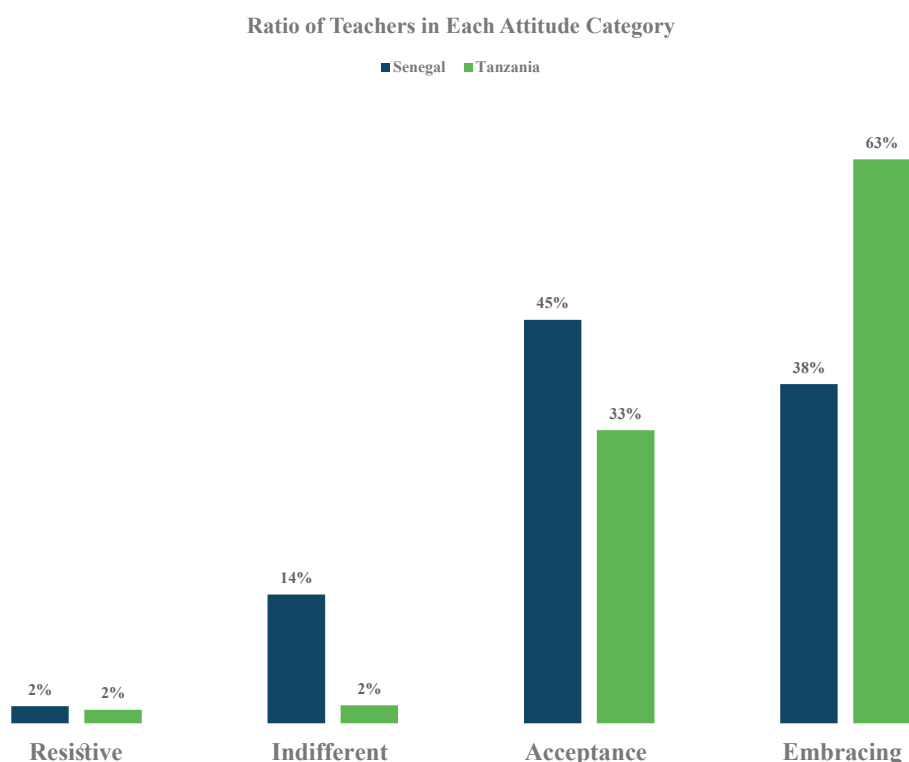


Figure 5: Distribution Across Four Teacher Attitude Categories

5.1.2 ATTITUDE

As shown in Figure 5 (treatment teachers only), Tanzania outperforms Senegal in embracing changes introduced by accelerated learning pedagogies. In Senegal, 14% of interviewed teachers expressed indifference toward the proposed programs.

Comparative statistical tests on aggregate cognitiveaffective and behavioral scores reveal significant differences between treatment and control groups in both countries. Treatment teachers score 0.47 points higher on average on the cognitiveaffective scale and are 15% more likely to exhibit active behavioral responses.

In Tanzania, as presented in Figure 6, the average aggregate cognitive and affective

scores are 12% higher among treatment groups and the behavioral scores are 28% higher. Regressing aggregate cognitiveaffective and behavioral scores on the intervention variable (Table 1), alongside standard background controls, confirm these findings. The intervention coefficients are positive and significant in both cases, indicating a positive shift across all attitude categories behavioral, cognitive and affective. For the cognitiveaffective score, the number of courses completed is a significant positive predictor, but this does not hold for the behavioral score. This effect is primarily driven by dynamics in Kisarawe, as the variable becomes insignificant when the regression is restricted to Gairo.

In Senegal, as presented in Figure 6, the attitude section of the survey shows a statistically significant improvement in treatment teachers' attitudes toward changes introduced by accelerated learning programs. Ttests confirm significant differences in both aggregate cognitiveaffective and behavioral scores although the confidence intervals are much larger because of higher variation. With treatment groups scoring on average 86% higher on behavioral outcome and 13% on aggregate cognitive and affective score. These effects persist in regressions with control variables (Table 2), with coefficients significant at the 1% pvalue, underscoring the intervention's strong impact. Treatment teachers are 22% more likely to adopt an active role in response to the proposed changes and score 0.5 points higher on the cognitiveaffective Likert scale. Unlike in Tanzania, class grade, rather than the number of courses completed, is positively correlated with cognitiveaffective scores, indicating that teachers in higher, nonmultigrade classes have more favorable attitudes. For behavioral scores, the number of courses completed emerges as a significant predictor.

In Tanzania and Senegal, the study showed that teachers trained in accelerated learning programs had more positive attitudes and behaviors toward these new teaching methods compared to untrained teachers, with Tanzania showing stronger overall acceptance. In Tanzania, trained teachers scored 12% higher on cognitive and affective attitudes and 28% higher on behavioral responses, with Kisarawe driving these results. In Senegal, trained teachers scored 13% higher on cognitiveaffective attitudes and 86% higher on behavioral responses, with 22% more likely to take active roles,

though their results were less consistent due to greater variation. The training significantly improved teachers' enthusiasm and engagement across both countries, but in Tanzania, taking more professional courses boosted attitudes, while in Senegal, teaching higher grades was linked to better attitudes, and more courses improved behavioral responses. This means the training works to get teachers on board with new methods, but its success depends on local factors like district and teacher experience.



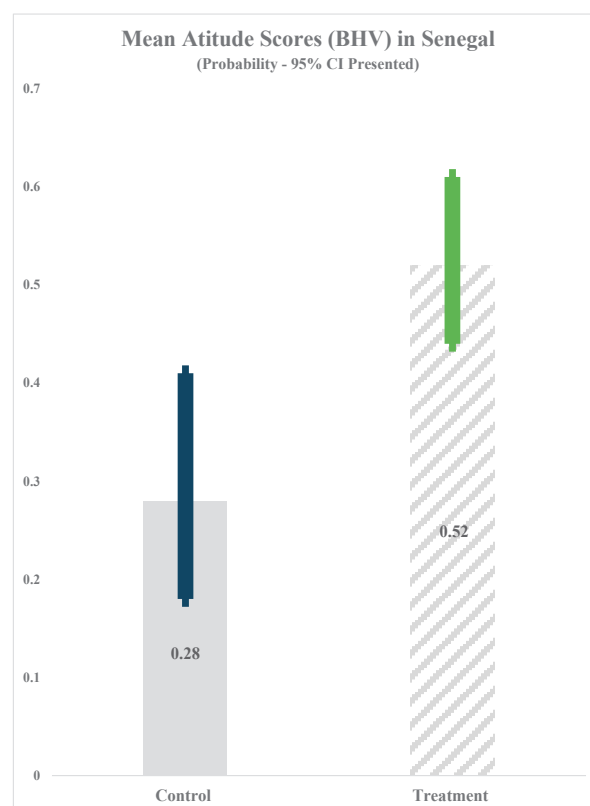
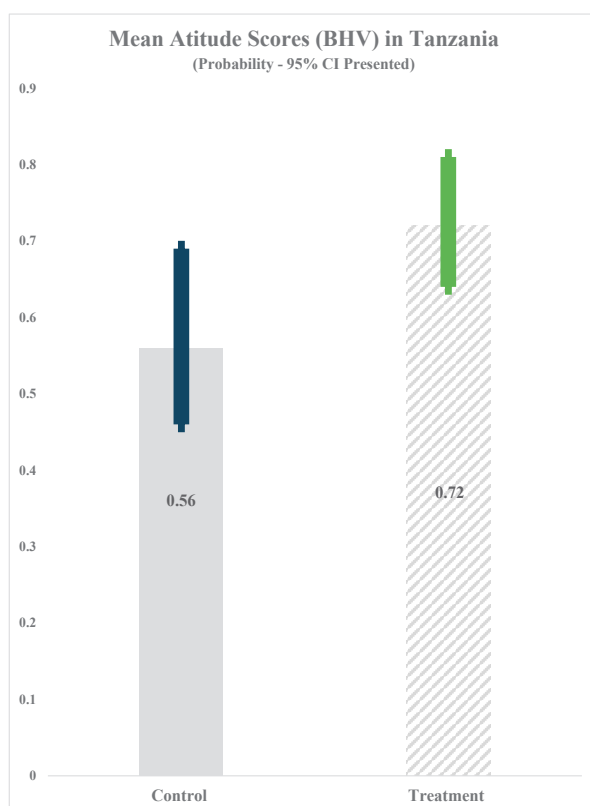
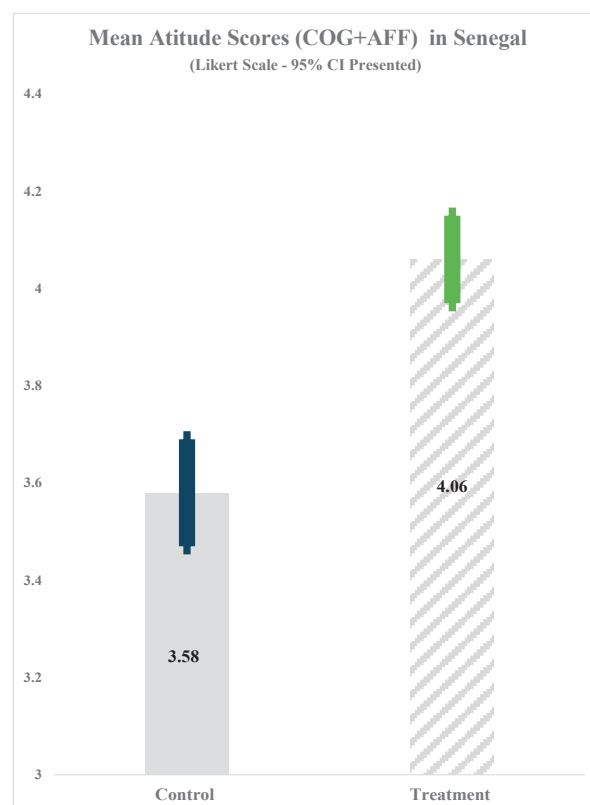
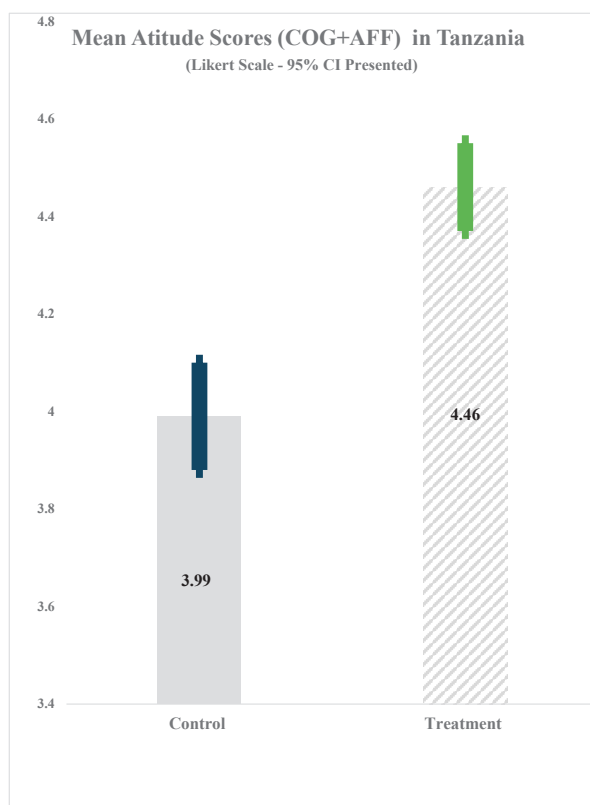


Figure 6: Mean Attitude Score in Senegal and Tanzania; 95% Confidence Interval Provided

5.1.3 BELIEFS

In both Tanzania and Senegal, there were no statistically significant differences between treatment and control groups in teachers' aggregate belief scores or in any of the specific belief subcategories. . In Tanzania, both groups averaged 3.7 on the final aggregate belief indicator, falling between neutral (3) and slightly positive (4) on the response scale. Senegal's scores were identical.

Regression analysis, including control variables such as teacher demographics and professional background, did not alter these findings. Teachers in both groups appeared to hold similar underlying beliefs about student learning, pedagogy, and educational outcomes.

However, these beliefs remained latent—untranslated into meaningful differences in cognitive, affective, behavioral, or knowledgebased indicators. This suggests that while foundational beliefs may be present, they are not being mobilized through the training programs or reinforced through classroom practice and feedback loops.

In Senegal, districtlevel analysis reveals specific trends. In Kaolack, Matam, and Saint Louis, the number of languages spoken by teachers is a strong negative predictor of belief scores. Teachers who speak more languages tend to hold beliefs less aligned with student learning and the accelerated learning program's theory of change.



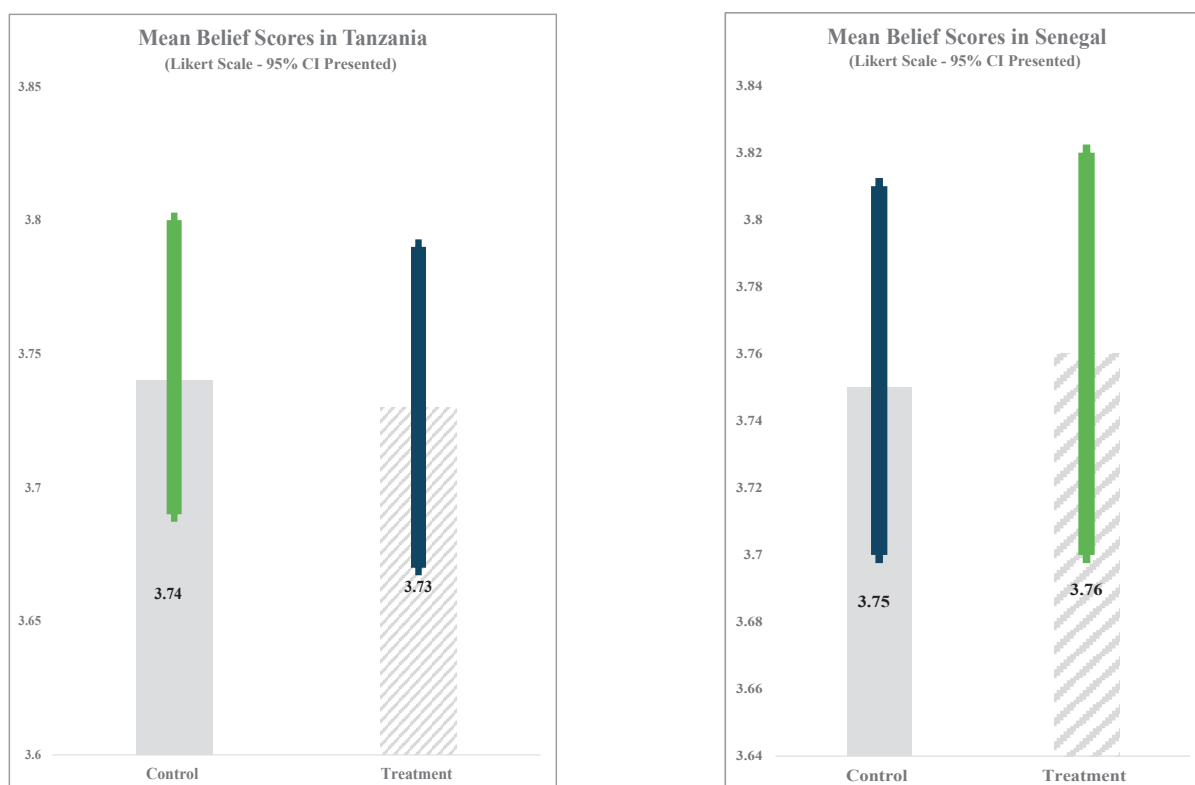


Figure 7: Mean Belief Scores in Tanzania and Senegal; 95% Confidence Interval Provided

This pattern mirrors the knowledge-related findings in Tanzania, where the number of languages spoken by teachers emerged as a negative predictor of both knowledge and belief scores. One interpretation is that the number of languages spoken may serve as a proxy for a teacher's socioeconomic background or career orientation. Teachers fluent in multiple languages are often younger, potentially better educated, and more likely to come from urban or comparatively privileged settings. While it was initially hypothesized that such multilingualism would enhance teachers' ability to engage with students from diverse linguistic backgrounds, the data suggest a more complex dynamic. These teachers may feel less rooted or less committed to the

rural, underresourced school contexts in which they work, which in turn could influence their beliefs, attitudes, and motivation toward implementing new pedagogical approaches. In contrast, monolingual teachers, who are more likely to be rooted in their local communities, may feel a stronger sense of purpose and alignment with the needs of their rural students, contributing to better teaching outcomes. This insight highlights the importance of considering teachers' personal and social contexts—such as their connection to the community and satisfaction with their teaching environment—when designing interventions to improve educational performance in rural settings.

5.2 CLASS OBSERVATIONS

The class observation tool was organized into three key sections to enhance clarity and data collection efficiency. The first section gathered background information on the teacher and school, including teacher training, general school conditions, and classroom environment. The second section quantified and averaged specific teacher-student interactions and selected teacher actions, identified in prior research as critical to implementing accelerated learning pedagogies. The third section used a Likert-scale category to evaluate teacher performance and student interactions, guided by a detailed scoring rubric.

The frequency section of the tool recorded observable behaviors and activities during five-minute intervals, such as the number of students listening to the teacher, participating actively, or engaging in group work, as well as those who were off-task or distracted. It also tracked classroom noise unrelated to the lesson, the use of teaching aids like flashcards or projectors, and the frequency of teacher actions, such as asking questions to check understanding or providing individual feedback. Additionally, the tool noted specific activities, like foundational skills exercises (e.g., phonics or addition), and instances of peer tutoring, where higher-level students supported their peers, offering a snapshot of how actively students and teachers interacted during lessons.

The second part of the tool evaluated

teacher performance across 15 categories, rated on a scale from 0 (very poor) to 4 (excellent), focusing on the quality of

instructional practices and classroom management. Key observations included whether teachers used valid assessments aligned with learning objectives, tailored activities to students' skill levels, and adapted strategies to accommodate diverse learning styles. The tool also assessed classroom organization, such as whether the setup encouraged peer learning, and the teacher's ability to manage the class, set clear expectations, and promote student autonomy. For teachers trained, the tool evaluated their use of provided teaching guides and materials. These ratings, combined with detailed notes, helped assess how effectively teachers fostered an engaging, inclusive, and well-structured learning environment, providing critical insights into the impact of training interventions on classroom practices.

In Tanzania, Class observation results, as shown in Figure 8 and Figure 9, indicate that treatment teachers significantly outperform control teachers in fostering student participation and managing classrooms. However, no differences are observed in areas such as providing feedback, conducting assessments, promoting peer learning, or implementing adaptive teaching. These findings suggest that classroom practices are heavily influenced by contextual barriers and challenges teachers face, depending on their school or setting.



Not all variables showing statistically significant differences between treatment and control groups retain significance when control variables are included. In controlled regressions, the intervention variable often loses statistical significance, with only a few categories, presented in Table 3, Table 4, and Table 5, remaining significant at the 10% p-value. This pattern indicates that observed behaviors are primarily driven by external factors beyond the intervention's scope, such as the everyday challenges teachers encounter.

Of the 15 Likertscale items assessing the quality of classroom interactions, seven show statistically significant differences between treatment and control groups. One additional item appears significant but is pertinent to a question specific to intervention observations and was expected to be so by design. The significant items include: (1) class activities aligned with all students' levels, (2) varied activities to engage diverse learners, (3) teacher's mastery in classroom management, (4) teacher forming skillbased, manageable groups with clear roles, (5) teacher encouraging student participation and interaction throughout the session, (6) teacher using teaching materials and equipment suited to students' levels, and (7) teacher actively promoting student autonomy in learning. Items related to assessments, peer interactions, adaptive teaching, constructive feedback, or setting clear expectations show no significant differences between treatment and control groups in Tanzania.

Among the seven significant Likertscale items, those related to group formation and teaching material utilization show the largest differences between treatment and control

groups, with effect sizes of 0.87 and 0.83 points, respectively. These represent nearly a one-point shift on the Likert scale, a substantial improvement. The other items exhibit improvements of approximately 0.5 points over the control group.

However, when these dependent variables are regressed on the intervention variable and a vector of control variables, the intervention coefficient often becomes insignificant or barely reaches statistical significance. Notably, in four categories, teaching material utilization, group formation, variety of activities, and classroom management, school condition/equipment emerges as a statistically significant regressor with a negative coefficient. This suggests that older schools perform better in these areas. This pattern is primarily observed in Kisarawe in Tanzania and may reflect staffing policies in newer schools. Additionally, two items, level matching and teaching material utilization, show a negative and significant coefficient for class grade, indicating that performance declines in higher grades.

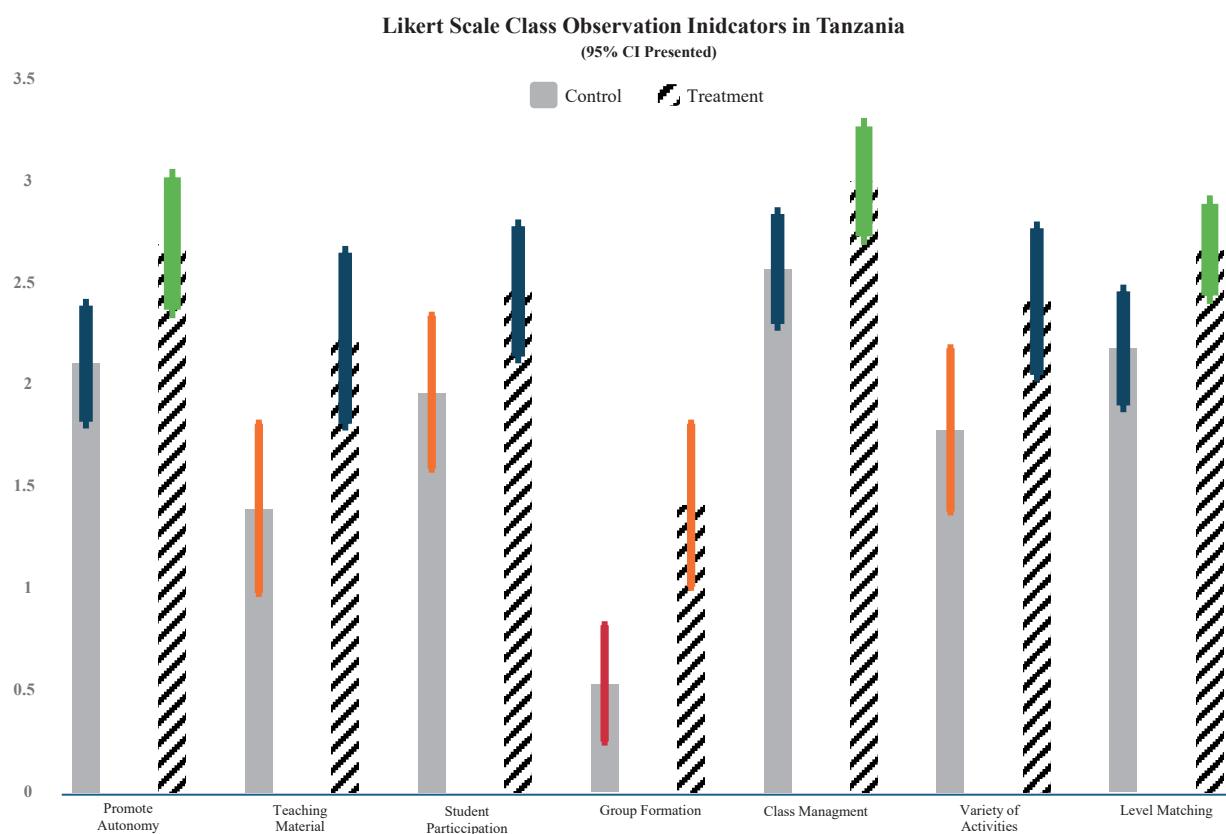


Figure 8: Mean Scores from Likert Section of Class Observation Tool in Tanzania



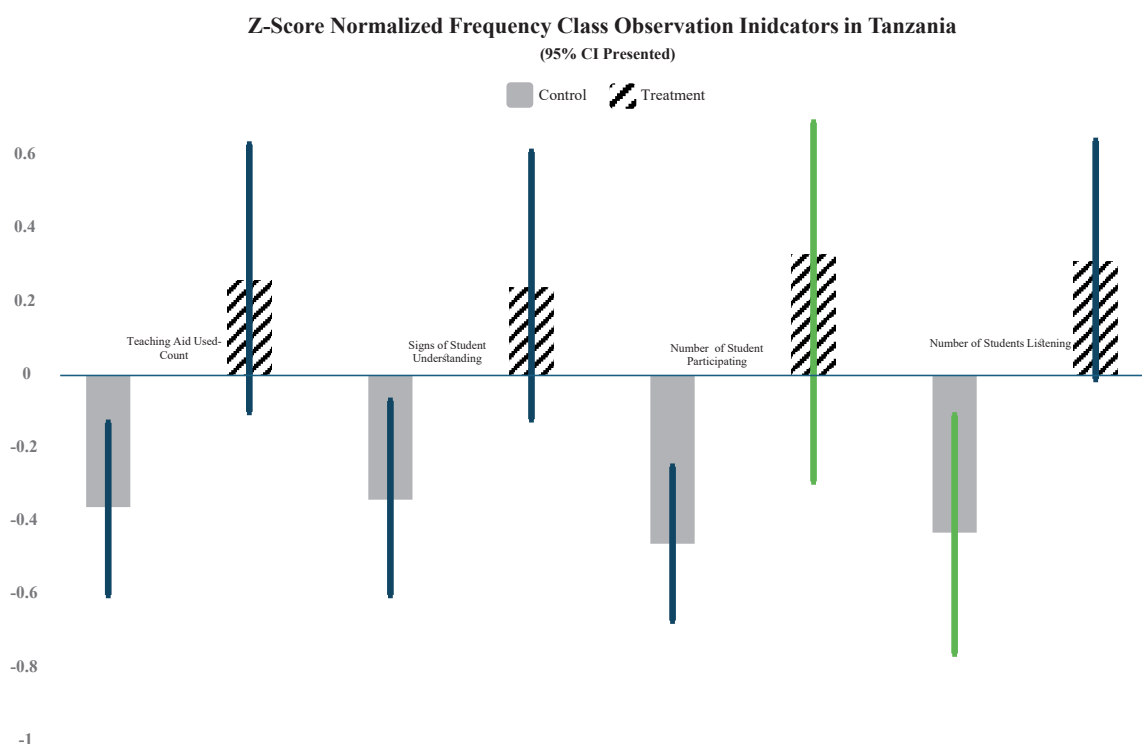


Figure 9: Mean ZScore Normalized Scores from Frequency Section of Class Observation in Tanzania

The finding that circular seating arrangements are a statistically significant predictor of student participation is intuitive. However, this study does not establish the direction of causality between the two variables. Moreover, only nine classes in the sample employed circular seating, with 55% of them located in the Gairo district. No clear correlation was found between this seating arrangement and school type, classroom conditions, or teacher age.

Additionally, across both treatment and control male teachers appear to perform better in promoting student autonomy, while younger teachers seem more adept at utilizing teaching materials. Nonetheless, both effects are only marginally significant, with p-values around the 10% threshold.

Another component of the class observation tool involved recording the frequency of

specific studentteacher interactions at five-minute intervals. To ensure comparability and reduce the influence of outliers, the recorded values for each variable were normalized into z-scores. This approach was necessary, as the number of events recorded lacked a predefined threshold and held limited standalone interpretive value. The primary aim was to compare treatment and control teachers, and normalization provided the most appropriate basis for comparison.

After normalization and subsequent t-tests, four variables showed statistically significant differences between treatment and control groups: 1) the number of students listening during each interval, 2) the number of students participating, 3) the number of students demonstrating visible understanding of the lesson, and 4) the number of teaching aids used by the teacher.

However, these differences lost statistical significance once class size was controlled for, as treatment classes in the Tanzanian sample tended to be larger than control classes. Notably, the student participation variable maintained marginal statistical significance, with a pvalue close to 10%.

In two instances, use of teaching aids and students demonstrating signs of understanding, school and equipment conditions emerge as statistically significant contributors. Regarding the number of students listening, teacher age has a negative and significant coefficient, while grade level shows a positive and significant association. Aside from class size, these effects appear suspicious and cannot be interpreted as reliable causal relationships. No distinct districtlevel patterns were observed when analyzing the two districts separately.

In conclusion, in Tanzania trained teachers performed better in seven key areas, such as aligning activities with students' skill levels, using varied teaching methods, managing classrooms effectively, forming skillbased student groups, encouraging participation, using appropriate teaching materials, and promoting student independence. The biggest improvements were in group formation and material use, with trained teachers scoring nearly one point higher on a 0–4 scale, while other areas improved by about half a point. However, these differences often weakened when accounting for factors like school conditions, with older schools unexpectedly showing better results in some areas, particularly in Kisarawe, possibly due to staffing differences. Trained teachers also had more students listening, participating, and showing understanding, and they used

more teaching aids, but these effects diminished when adjusting for larger class sizes in the treatment group. Male and younger teachers slightly outperformed others in specific areas, and circular seating arrangements, more common in Gairo, were linked to better student participation, though the reasons remain unclear. Overall, the training improved classroom practices, but its impact varied by school conditions, class size, and district



Table 4-Regression Results for Outcomes of Interest in Likert Section of Tanzania's Class Observations

	(1) Level Matching	(2) Variety of Activities	(3) Class Management	(4) Group Formation	(5) Student Participation	(6) Teaching Material	(7) Promote Autonomy
Intervention	0.357* (0.190)	0.317 (0.278)	0.250 (0.209)	0.493* (0.261)	0.430 (0.271)	0.526* (0.310)	0.356 (0.241)
School Condition	-0.333 (0.214)	-0.996*** (0.312)	-0.353 (0.235)	-0.970*** (0.294)	-0.360 (0.305)	-0.587* (0.349)	-0.356 (0.271)
School Equipment Level	0.133 (0.218)	0.326 (0.318)	0.470* (0.239)	0.515* (0.299)	-0.069 (0.310)	0.530 (0.355)	0.304 (0.276)
Gender	-0.270 (0.194)	-0.114 (0.283)	-0.186 (0.213)	0.221 (0.267)	-0.067 (0.276)	0.047 (0.316)	-0.449* (0.246)
Age	0.132 (0.232)	-0.347 (0.340)	-0.246 (0.255)	-0.343 (0.320)	-0.079 (0.331)	-0.697* (0.379)	-0.260 (0.294)
Grade	-0.129** (0.059)	-0.110 (0.087)	0.037 (0.065)	0.003 (0.082)	-0.006 (0.085)	-0.206** (0.097)	-0.098 (0.075)
Sitting Arrangement	0.104 (0.266)	0.526 (0.388)	0.323 (0.292)	1.059*** (0.365)	0.348 (0.378)	0.238 (0.433)	0.459 (0.336)
Constant	2.496*** (0.611)	3.387*** (0.893)	2.948*** (0.672)	1.510* (0.840)	2.188** (0.870)	3.657*** (0.997)	3.127*** (0.774)
Observations	67	67	67	67	67	67	67
Adjusted R-squared	0.129	0.174	0.078	0.288	0.028	0.191	0.126
F-statistic	2.22	2.73	1.69	4.34	1.24	2.94	2.18

Standard errors in parentheses

Regular standard errors in all models.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Regression Results for Outcomes of Interest in Frequency Section of Tanzania's Class Observations

	(1) Students Listening	(2) Students Participating	(3) Students Understanding	(4) Teaching Aid Used
Intervention	0.109 (0.070)	0.278* (0.141)	-0.133 (0.175)	0.192 (0.261)
School Condition	-0.052 (0.071)	-0.050 (0.144)	-0.460** (0.179)	-0.544** (0.267)
School Equipment Level	-0.110 (0.074)	-0.074 (0.149)	0.291 (0.185)	0.714** (0.276)
Gender	0.033 (0.069)	0.187 (0.139)	0.187 (0.173)	0.042 (0.257)
Age	-0.202** (0.081)	0.004 (0.163)	-0.099 (0.203)	-0.244 (0.302)
Grade	0.043** (0.020)	-0.016 (0.040)	-0.084* (0.050)	-0.063 (0.074)
Class Size	0.036*** (0.001)	0.032*** (0.003)	0.029*** (0.003)	0.007 (0.005)
Sitting Arrangement	0.125 (0.092)	-0.231 (0.187)	0.378 (0.232)	0.500 (0.346)
Constant	-1.381*** (0.204)	-1.591*** (0.413)	-0.945* (0.512)	-0.024 (0.764)
Observations	67	67	67	67
Adjusted R-squared	0.942	0.761	0.631	0.180
F-statistic	133.85	27.25	15.13	2.81

Standard errors in parentheses

Regular standard errors in all models.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In Senegal, the output analysis reveals limited statistical differences between control and treatment groups. While a few variables from both the Likertscale and frequency sections of the observation tool exhibit statistically significant differences, most of these do not remain significant once control variables are added. Furthermore, some of the significant findings do not align with the program's theory of change.

Within the frequency section, where observers recorded specific interactions at five-minute intervals and averaged them across the class session, three variables showed significant differences between treatment and control groups: 1) number of students listening, 2) number of students offtask, and 3) number of students showing visible signs of understanding. Control classes outperformed treatment classes in all three variables. Specifically, the average

zscore for students listening was 1.4 points higher in control classes; the number of offtask students was 0.8 zscores higher in control classes; and students showing signs of understanding such as nodding, engaging with material and answering teachers verbal ques had a 0.87 zscore advantage in the control group.

However, it is important to note that class sizes differed significantly between groups. In Senegal, treatment classes were considerably smaller (average of 26 students) compared to control classes (average of 52). This is the reverse of the situation in Tanzania, where treatment classes were larger (average of 54 students) than control classes (average of 36). These discrepancies suggest that some of the observed differences in normalized frequency values may be influenced by class size rather than the intervention itself.

As represented in Table 5, when a control vector is introduced into regression models of output variables, all three initially significant variables lose their statistical significance. Interestingly, two other variables then show significant differences. First, the number of peer interactions observed in class yields three statistically significant coefficients. Treatment classes scored 1.4 zscores lower than control classes, while classes with a circular seating arrangement scored 1.419 zscores higher. Additionally, class size was negatively associated with peer interaction, with each

additional student linked to a 0.022point drop in score.. Notably, the effect is concentrated in the Matam district but is strong enough to influence aggregatelevel regressions.

The second variable showing a statistically significant treatment effect is the number of teaching aids used by the teacher. On average, treatment classes employed 1.1 zscores more teaching aids than control classes. This variable also increased with class grade and size, with the trend largely driven by observations from the Saint Louis district.

Table 6: Regression Results for Outcomes of Interest in Frequency Section of Senegal's Class Observations

	(1) Students Listening	(2) Students Off Task	(3) Students Understanding	(4) Peer Interactions	(5) Teaching Aid Used
Intervention	0.196 (0.212)	-0.278 (0.432)	-0.000 (0.348)	-1.406*** (0.426)	1.092*** (0.399)
School Condition	0.074 (0.153)	-0.333 (0.311)	0.413 (0.251)	0.308 (0.307)	0.399 (0.287)
School Equipment Level	-0.178 (0.196)	0.333 (0.399)	-0.570* (0.321)	-0.214 (0.393)	-0.290 (0.368)
Gender	-0.002 (0.133)	0.328 (0.272)	-0.206 (0.219)	0.186 (0.268)	-0.353 (0.251)
Age	0.044 (0.112)	0.142 (0.228)	0.134 (0.184)	-0.002 (0.225)	0.420* (0.210)
Grade	-0.003 (0.018)	0.008 (0.037)	0.019 (0.030)	0.040 (0.037)	0.134*** (0.035)
Class Size	0.057*** (0.005)	0.019* (0.010)	0.044*** (0.008)	-0.022** (0.010)	0.021** (0.009)
Sitting Arrangement	0.155 (0.170)	-0.194 (0.346)	0.320 (0.278)	1.419*** (0.341)	-0.376 (0.319)
Constant	-2.418*** (0.432)	-1.184 (0.879)	-2.096*** (0.708)	0.351 (0.866)	-3.183*** (0.811)
Observations	52	52	52	52	52
Adjusted R-squared	0.820	0.252	0.514	0.273	0.363
F-statistic	29.96	3.14	7.75	3.40	4.64

Standard errors in parentheses
Regular standard errors in all models.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In the Likertscale section of the classroom observation tool, five variables showed statistically significant differences in score comparisons between treatment and control groups. These variables are: alignment of class activities with student understanding, quality of the peer learning environment, group formation, use of appropriate teaching materials, and adaptive teaching. However, none of these differences remain statistically significant once background variables are controlled for as presented in Table 6.

Interestingly, classroom seating arrangement emerges as a statistically significant predictor in the observer's assessment of both peer learning environment and group formation in Table 6

regressions. Specifically, classes arranged in a circular seating format score, on average, one point higher on the Likert scale for peer learning environment and 1.35 points higher for group formation quality. In both cases, class size is also a significant negative predictor.

Like findings in Tanzania, variables such as class grade, school infrastructure condition, and availability of equipment occasionally appear as significant regressors. The latter two, in particular, serve as observable proxies for broader systemic barriers that teachers may face in delivering effective instruction. For all other variables captured through the classroom observation tool, no discernible differences were found between treatment and control groups.

Table 7: Regression Results for Outcomes of Interest in Likert Section of Senegal's Class Observations

	(1) Level Matching	(2) Peer Learning Env.	(3) Group Formation	(4) Teaching Material	(5) Adaptive Teaching
Intervention	0.315 (0.409)	0.125 (0.388)	0.357 (0.392)	0.739 (0.579)	0.310 (0.474)
School Condition	0.203 (0.294)	0.407 (0.279)	0.534* (0.282)	0.452 (0.417)	0.027 (0.341)
School Equipment Level	-0.791** (0.378)	-0.527 (0.358)	-0.121 (0.362)	-0.689 (0.535)	-0.615 (0.438)
Gender	-0.061 (0.257)	-0.002 (0.244)	-0.198 (0.246)	-0.106 (0.364)	-0.065 (0.298)
Age	0.114 (0.216)	-0.269 (0.205)	-0.069 (0.207)	0.044 (0.306)	-0.001 (0.250)
Grade	0.018 (0.035)	-0.005 (0.034)	0.014 (0.034)	0.159*** (0.050)	0.114*** (0.041)
Class Size	-0.002 (0.009)	-0.024*** (0.009)	-0.018* (0.009)	-0.009 (0.013)	-0.004 (0.011)
Sitting Arrangement	0.030 (0.327)	1.056*** (0.310)	1.355*** (0.313)	-0.253 (0.463)	0.377 (0.379)
Constant	2.846*** (0.832)	3.051*** (0.789)	1.168 (0.797)	1.161 (1.178)	1.523 (0.964)
Observations	52	52	52	52	52
Adjusted R-squared	0.030	0.562	0.630	0.208	0.226
F-statistic	1.20	9.17	11.86	2.67	2.86

Standard errors in parentheses
Regular standard errors in all models.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$



In Senegal, the classrooms observation findings reveal limited differences in teaching effectiveness between the two groups, with results heavily influenced by class size rather than the training program itself. Surprisingly, control classes, which were much larger (averaging 52 students compared to 26 in treatment classes), had more students listening, fewer offtask, and more showing understanding of lessons, though these differences vanished when factors like class size were considered. Treatment classes used slightly more teaching aids, especially in Saint Louis, and had fewer peer interactions, particularly in Matam, where circular seating arrangements boosted peer engagement and group work quality. On a 0–4 scale assessing teaching practices, trained teachers initially seemed better at aligning activities with student levels, fostering peer learning, forming groups, using materials, and adapting teaching, but these advantages disappeared when accounting for background factors. Circular seating and smaller class sizes consistently improved outcomes, while older

school infrastructure sometimes hindered performance, suggesting that classroom environment and systemic factors matter more than the training in Senegal's context.

5.3 FOCUS GROUPS

The focus group discussions (FGDs) conducted for the Study brought together a diverse group of primary school teachers from both treatment and control groups across Tanzania and Senegal.

This section provides an overview of the participants' professional profiles, their training exposure, and the contextual conditions under which they work.

Understanding who these teachers are, their backgrounds, roles, and environments, is essential for interpreting how structured pedagogy was received, implemented, or resisted. Each focus group involved between 5–8 teachers, reflecting a mix of teaching experience, subject area, and school type.

Table 8: Focus groups participants' information.

	Treatment	Control	Treatment	Control
Number of teachers (Females/Males)	10 (4/6)	11 (5/6)	14 (5/9)	14 (8/6)
Years of teaching experiences:	2	2	2	5
15 years:	4	4	2	4
610 years:	3	1	2	1
1115 years:	1	4	8	4
15+ years:	10.4	12.2	14.3	10.8
*Average years teaching	10	10	16	8.5
*Median				
Education level				
Completed certificate	7	6	3	4
Completed diploma	2	3	8	8
Completed bachelors	1	2	3	2
Completed masters				

In Tanzania, focus group participants included a balanced mix of approximately 50% governmentemployed teachers and 50% community volunteer teachers within the treatment groups. Most participants taught classes between Grade 2 and Grade 4. Their teaching experience varied widely, ranging from as little as two years to over a decade in the classroom. All treatment group teachers had received structured pedagogical training as part of the program, whereas those in the control group had participated in standard preservice education or periodic inservice Continuous Professional Development (CPD) sessions typically offered within the national education system. Both treatment and

control group teachers had participated in other trainings, supported by international organizations, as well. All interviews were conducted at the teachers' respective schools, more than a year after the training had taken place, allowing for reflection on postprogram implementation.

In Senegal, all focus group participants were formal, governmentemployed teachers, primarily responsible for teaching Grade 2 and Grade 3. The gender balance across groups was generally even, though it varied slightly between sessions. Participants ranged from earlycareer teachers to those with extensive classroom experience. Teachers in the treatment groups had



completed their Ndaw Wune training just 1 to 2 months prior to the discussions, whereas control group teachers had not been exposed to any remedial pedagogy at the time. Interviews took place during the active implementation phase of the program, often immediately following a remedial teaching session, offering realtime insights into their experiences.

The profile of focus group participants reveals notable crosscountry and grouplevel differences in gender balance, teaching experience, and educational attainment. In terms of gender, both countries show a relatively balanced composition, though treatment groups have male majority, and the control groups have a slight female majority.

Regarding teaching experience, the average years of teaching in both treatment and control groups in Senegal and Tanzania exceed 10 years (Senegal treatment group has the highest average: 14.3 years). The median years also reflect that most of the Senegal's treatment group have more than 16 years of experiences. The lowest median also belongs to Senegal control group. This contrast is important in understanding findings, as the differences among the control and treatment groups might be partly rooted in the differences in teachers' years of experiences.

Perhaps the most striking difference is in education level. In Tanzania, most teachers across both groups held only a certificate qualification—7 out of 10 in the treatment group and 6 out of 11 in the control. In contrast, Senegalese teachers tended to have higher qualifications, with most holding a bachelor degree (8 in both groups) and several with master's degrees. This reflects

systemic differences in entry requirements and professional training pathways between the two countries, potentially shaping the depth and style of pedagogical implementation observed during the study.

While the groups were intentionally stratified by treatment status, care was taken to include diversity in teaching experience and gender. This diversity allowed for a robust discussion of how structured pedagogy intersects with different professional realities, from longstanding classroom routines to newer teaching experiences shaped by community or donor programs. By analyzing these voices together, the study uncovers not only how training shapes pedagogy, but also how context shapes what teachers can do with that training.

The focus group session findings are categorized into the four focus points of the study, namely: Knowledge, Attitude, Practices and Beliefs. As well as items which teachers perceive as barriers or opportunities for the programs they had trained.

5.3.1 KNOWLEDGE

This section explores how structured pedagogy programs influenced teachers' knowledge, particularly their understanding of students' learning levels assessment, misconceptions, and instructional content based on children's needs.

5.3.1.1 Use of assessment

In the remedial structured pedagogies in this study, assessment plays a central role: teachers are expected to use quick,

identify the student's challenges and guides the teacher in choosing the right strategies to help".(TZTFG1, R3)

The learning level assessment tool that teachers had learned through the Jifunze program was mentioned as a practical and empowering method to quickly identify which children were struggling and to plan grouping and content accordingly. Moreover, the treatment group indicates that they use inclass activities as an assessment tool as well rather than relying only on questions and quizzes. One teacher noted:

"I assess using a checklist. You check how many students managed. Those who succeeded get a checkmark. Those who didn't, I leave them unchecked. When they finally succeed, I add the checkmark. Then I move to another topic" (TZTFG1, R4)

In contrast, control group teachers in Tanzania showed limited or generic notions of assessment, typically referring only to end of term exams or informal observations. Some viewed assessment as the responsibility of external examiners rather than a teaching tool. Assessment in this group was viewed more as standardized "testing" and "quizzes" rather than formative assessment to assess the "level of understanding" among students for providing tailored lessons.

In Senegal, trained teachers under the Ndaw Wune program described the use of pretests and weekly checks to group students into low, medium, and high levels, a structured approach they credited to the training. These assessments were short, visual, and oral, allowing teachers to adjust group placement or content delivery.

"The training taught us how to identify the level of each child, we now divide the class by ability and give each one what they can handle." (SNTFG2, M1)

"At the start, we did an evaluation. Now every week, we check again. Some students move to another group if they improve." (SNTFG3, M1)

In the control groups in Senegal, teachers described assessment as a formal activity, usually aligned with school terms, to report progress or meet administrative requirement.

"We give a dictation or math problem, and from that we write their marks. It is for the record." (SNCFG2, M3)

The assessment tools and approaches described by teachers in the treatment groups in both countries, were seen as essential to lesson planning. Teachers reported that before the training, they taught to the textbook or grade level, regardless of actual student proficiency. After training, they were more aware that many students had not mastered foundational concepts and needed instruction at a different level. Across both countries, treatment group teachers demonstrated an intentional shift in mindset: teaching the child, not the textbook. This was reflected in how they structured lessons, used assessments, and regrouped students dynamically.

formative tools to identify student learning levels and adapt their teaching accordingly. In both countries, trained teachers demonstrated a clearer understanding of how to assess students' learning levels and use that information to shape instruction. This was particularly evident in their



references to specific assessment tools and oral assessments.

In Tanzania, teachers in the treatment groups, frequently described using oral questions or one-on-one assessments to gauge students' reading or math skills. Oral assessment happens throughout the class before, during and after teaching a new lesson to help teachers with understanding how to proceed. For instance, a teacher in Kisarawe stated:

"I use what's called continuous assessment. Continuous assessment helps

5.3.1.2 Misconceptions of student learning challenges

The way teachers conceptualized student learning difficulties differed notably between treatment and control groups in both Tanzania and Senegal. Treatment group teachers, who received structured pedagogy training, were more likely to frame student errors as misconceptions, misunderstandings arising from instructional methods or societal beliefs about learning. In contrast, control group teachers tended to attribute learning challenges to individual student deficits or the difficulty of specific subjects, rarely framing errors as correctable misunderstandings. This difference has important implications for how teachers adapt their teaching strategies and how they perceive the possibility of student progress.

In Tanzania, teachers in the treatment groups consistently recognized misconceptions in students' understanding as challenges that could be addressed through improved teaching methods. They often connected errors to previous instructional approaches or social

expectations, particularly in early literacy and numeracy. One teacher from Kisarawe described recognizing phonics-based misconceptions after applying structured pedagogy techniques:

"They're difficult for students. And students from certain environments struggle to distinguish "sa" from "za." (TZTFG1, R2).

Another teacher explained: "I can say it has helped me, especially with these young children when teaching them to read. In the Uwezo training, there is something I didn't know, for example, when you take a letter and a syllable." (TZTFG2, R2)

Another teacher highlighted societal misconceptions about the difficulty of mathematics:

"You'll find someone saying mathematics is difficult in primary school, and they continue to say it's difficult until secondary school, and they finish their education still seeing mathematics as difficult in their lives." (TZTFG2, R2)

These participants in the treatment groups in Tanzania, also mentioned that their tools for teaching have diversified after training, which gives them more options and ability to adapt to students' needs. They have also mentioned that traditional methods used to "take more time" both for teachers to teach and for students to learn a specific concept in reading and mathematics. Specifically, in reading, students used to have challenges in sorting out their thoughts in a sequential way, but Jifunze method helped with the string and answering the comprehension questions, as well as coming up with their own ways and stories, which alternatively

increased the creativity among the students in using words and answering comprehension questions.

Thus, treatment teachers framed misunderstandings as modifiable through targeted instructional change and reframed societal messages.

By contrast, teachers in the control groups focused more on learning difficulties linked to student abilities or the complexity of certain subjects. They rarely described misconceptions or misunderstandings in the technical sense, instead emphasizing external barriers or personal limitations. One teacher explained:

“For example, in English class, they find it very hard to understand. Teaching in a language that isn’t their first language can really hinder their learning.” (TZCFG1, M2)

Such comments suggest that control group teachers often viewed challenges as subjectbased difficulties or student limitations, not as misconceptions to be corrected through instructional adaptation.

Moreover, participants in the control group also indicated that school education is not a priority among the community, whereas participants in the treatment group were mostly concerned about how to show students to use the classroom learnings in math and reading in daily life. This contrast indicates a more detailed and practical knowledge of the curricula among the treatment group. A teacher at Tanzania control group at Viagma says:

“In our community, the importance of school education is not a priority. Even bringing children to register is done because the government insists.” (TZCFG1,R3)

In Senegal, teachers trained under the Ndaw Wune program demonstrated a strong focus on diagnosing specific student misconceptions, particularly in foundational literacy and numeracy. They often connected misunderstandings to prior instructional gaps or lack of realworld contextualization. For example, one teacher in Diourbel observed:

“Students think 302 is bigger than 320 because they read left to right. Before Ndaw Wune, I did not know we must show them with real examples.” (SNTFG2, M2)

Another emphasized:

“In maths, they believe addition is just putting numbers together without thinking about value. We now explain with objects to make it real.”(SNTFG3, M1)

Teachers in the treatment groups mentioned difficulties with place value, reading fluency, and math vocabulary. They also noted that Ndaw Wune workbooks made it easier to detect gaps in student understanding and adjust instruction accordingly. These treatment group teachers framed errors as addressable misunderstandings, not fixed deficits, and adapted their teaching practices accordingly.

In the control groups, by contrast, teachers frequently attributed learning challenges to student backgrounds, innate ability, or home environments, rarely diagnosing specific misconceptions. One teacher in Kaolack remarked:



"If a child cannot write in Grade 3, it means the problem started at home. We cannot change everything."
(SNCFG1, M1)

These statements show that control group teachers often perceived learning difficulties as predetermined or external, rather than arising from modifiable misconceptions, what we will discuss in details in the 'belief' section.

In Senegal, both treatment and control groups in the regions where Pullar language was dominantly spoken (Matam and Saint Louis), mentioned the importance of Pulaar language on subjectspecific training.

In summary, teachers who received structured pedagogy training tended to frame student errors as misconceptions arising from instructional approaches or societal beliefs, recognizing misunderstandings as challenges that could be addressed through targeted teaching. In contrast, control group teachers more often attributed learning difficulties to individual student limitations or subject complexity, rarely identifying misconceptions as instructional opportunities for correction. These patterns suggest that without structured training, many teachers lack systematic strategies for diagnosing and addressing misconceptions, as well as and limited pedagogical knowledge addressing them. Instead they tend to rely on assumptions or external explanations for why students struggle to learn, or even question their own ability to teach a specific subject.

5.3.1.3 Needbased lesson planning

Tanzanian teachers trained under Jifunze program demonstrated a shift from rigid

syllabusdriven instruction to adaptive, studentlevel planning. They explicitly described designing different lesson activities based on learning group levels and responding dynamically to student progress. One teacher explained:

"I learned from Uwezo to plan and know the understanding and learning levels of the children I enroll." (TZTFG2, R5)

In contrast, control group teachers in Tanzania, described teaching directly from the textbook without systematic adaptation to student levels. Lessons were delivered uniformly to the entire class, regardless of student understanding. One teacher noted:

"Often, training emphasizes following what was taught, but implementation can require raw materials, time, or money." (TZCFG1, R3)

Despite the constraints, the focus groups captured moments where teachers exercised professional judgment to adapt instruction creatively with more flexibility and fewer administrative constraints.

"[to make class lively] Either by singing a song or having everyone stand up and participate." (TZTFG2, R4)

Such examples underscore the resourcefulness and agency that structured pedagogy can unlock when teachers are trusted and supported.

In Senegal, teachers exposed to the Ndaw Wune program reported using frequent informal assessments to regroup students weekly, and described explicitly planning lessons by student group levels, adjusting activities even when teaching the same topic. One teacher reflected:

“Indeed, these training courses help us to adopt differentiated methodologies at group level and teach us how to manage activity time for each group so as not to let a group get bored.” (SNTFG3, R4)

Control group teachers in Senegal primarily described teaching to the textbook and emphasizing completion of curriculum units, regardless of variation in student comprehension. The strategy some adopt is to extend school hours for poor performers. One control teacher stated:

“After the reinforcement sessions, some students have improved. Some students don't even come to these reinforcement classes. Today, I have 20 absences despite the summons.”(SNCFG2, R5)

Strategies for struggling students focused on assigning extra homework or simply encouraging them to “try harder,” with no mention of differentiated planning. Control teachers often relied on repeating the same lesson until about 50% of students showed some understanding, rather than modifying their instructional approach:

“Once each lesson has been completed, an assessment is carried out. If the assessment shows that half the class has understood, we can continue. But if half haven't, that means they haven't understood. So we can redo the lesson the next day.” (SNCFG2, R4, RELI program influence)

This approach indicates limited differentiation, and adaptation was reactive rather than planned.

Treatment group teachers across Tanzania and Senegal demonstrated intent to shift toward lesson planning based on students' actual learning levels, designing

differentiated activities, adjusting pacing, and responding to ongoing assessments. In contrast, control group teachers typically planned according to textbook schedules or national curricula, with limited or no systematic adaptation for learner variation. When students struggled, control teachers tended to repeat lessons or urge more effort, rather than modifying their teaching approach. These findings suggest that without structured training, many teachers lack practical strategies for responsive lesson planning, often defaulting to curriculum fidelity over instructional flexibility.

5.3.1.4 Summary

In both Tanzania and Senegal, structured pedagogy training substantially deepened teachers' knowledge of student learning processes. Trained teachers demonstrated a stronger grasp of how to assess students' learning levels using diagnostic and formative strategies, and how to adapt instruction accordingly. They framed student errors as misconceptions arising from instructional approaches or societal beliefs and responded by adjusting lessons and methods. They want their lesson planning became increasingly differentiated and responsive to learner needs, moving away from rigid textbookdriven routines, should the circumstances allow. In contrast, control group teachers typically associated learning difficulties with student limitations or subject difficulty, rather than diagnosing misconceptions or adapting pedagogy. Their planning practices were characterized by curriculum fidelity and reactive repetition, with little systematic adjustment for varied learning levels. Together, these findings suggest that structured pedagogy training



equips teachers with critical knowledge and practical strategies to assess, interpret, and address student learning needs in real time, building a foundation for more inclusive and effective classroom practice.

Compared to their control group counterparts, teachers in the treatment groups demonstrated a more diagnostic and intentional understanding of assessment. They described using specific tools, such as oral quizzes, word cards, and written tests, to evaluate students' needs and adapt instruction. In contrast, control group teachers typically described assessment in summative terms, such as endofterm exams or administrative requirements, with little reference to using results to guide teaching. Some control teachers even described assessment as an external process done "for reporting," rather than as part of instruction. This suggests that structured pedagogy programs not only equipped teachers with practical tools, but also reframed their understanding of the purpose of assessment, from evaluation to instructional planning.

In both countries, treatment teachers showed improved understanding of student learning levels and how to assess them, but the framing differed. Tanzanian teachers emphasized the JZK community shared experiences and levelbased grouping more systematically, likely reflecting longer exposure and deeper institutionalization of Jifunze practices. In Senegal, the emphasis was often on oral questioning and visual aids, with fewer mentions of diagnostic frameworks, possibly due to the more recent rollout of Ndaw Wune. Control teachers in both countries expressed challenges in adapting instruction to student needs, but Senegalese teachers more frequently linked these challenges to lack of training, while

Tanzanian teachers often cited syllabus pressure.

5.3.2 ATTITUDE

This section explores how teachers' attitudes toward pedagogical change, innovation, and instructional confidence were shaped by their exposure (or lack thereof) to structured pedagogy training. Attitudes are not only emotional responses, they also reflect deeper judgments about what is worth doing, what is possible to implement, and what teachers feel ownership over. In the context of the KAPB study, attitude captures teachers' openness to adopting new approaches, their motivation to persist, and the degree to which training either empowered or overwhelmed them.

Focus group findings suggest that while both treatment and control teachers care deeply about student success, their disposition toward instructional change differs significantly depending on their training exposure and the support systems surrounding it.

5.3.2.1 Confidence and Openness to Change

Teachers who received structured pedagogy training in both Tanzania and Senegal expressed a notably more positive and open attitude toward instructional change. We see a shift in attitude from skepticism to ownership, and from apprehension to agency when comparing

treatment and control groups. In both countries, trained teachers described themselves as more willing to adapt, more eager to try new techniques, and more emotionally invested in inclusive teaching practices.

In Tanzania, one teacher from the treatment group noted:

"[To] give them a chance to sit together with their peers and solve problems together, it is very important." (TZTFG2, R3)

Another emphasized:

"These children who learn slowly tend to isolate themselves in class... [now] I mix the slow learners with the gifted ones [in groups]" (TZTFG1, R3)

When teaching a difficult subject, the treatment group in Tanzania assign leadership roles to students who understood the lesson to be the facilitators and help their peers to better understand. One participant from the treatment group mentions:

"(continued from previous quote) we mix them with the slow learners. We put them in groups and work together, so it helps even if one learns from their peer, they can understand more." (TZTFG1, R3)

Another teacher said:

"I use the assessment I learned from Uwezo to plan and know the understanding and learning levels of the children I enroll. Next year, I expect to group these children based on their understanding. It has helped a lot in enrollment, unlike before when I just tested children superficially. Now it has simplified enrollment." (TZTFG2, R5)

This theme was also expressed in one of the control groups about a training they had received. This program, Tusome Pamoja.

This program was a USAID-funded education program in Tanzania focused on improving reading outcomes in Kiswahili for early grade students. It supported curriculum reform, teacher training, materials development, and system-level improvements. When one teacher shared the phrase below, others nodded in agreement:

"Nowadays, there are modern techniques—so as the world changes, you learn new things when you meet other teachers. They teach you new methods, or the facilitators show you more modern techniques than what you learned before.." (TZCFG2, M2)

Another control teacher also touches upon the benefits of the same training with staying up-to-date with the new findings in science and technology:

"The training helps a lot. First, it reminds us of things we've forgotten. Also, with advances in science and technology. Through training, we get new information. We also exchange experiences with colleagues, learning new methods. ... We learned to use songs and games, making the classroom environment exciting. Students look forward to new things every day, enjoying school more." (TZCFG1, R4)

While teachers have different approaches towards group work and leadership roles among students, it is proven that different



trainings shifted their perspective towards students and increases their willingness to involve students more actively in the teaching and learning process.

In Senegal, the treatment group also mentioned that their willingness to experiment has increased as a result of the training. A teacher involved in Ndaw Wune explained:

“Nowadays, it’s the student who is at the center of learning. We build knowledge based on what the students already know. The student brings their understanding, and we support and guide them from there.” (SNTFG2, R2)

In contrast, control group teachers more often described themselves as exhausted, discouraged, or resigned to traditional methods. For example, one teacher, in their 4th year of teaching, expressed their unmotivated point of view towards change:

“It’s impossible to do our work with peace of mind. We don’t sleep because of the workload. At the end of the school day, we’re exhausted and can’t do anything else. It’s extremely difficult.” (SNCFG1, R5)

5.3.2.2 Emotional Responses to Training

In the treatment groups, many teachers shared emotional reflections about what the training made them feel, not just what they learned. Teachers in both countries reported feeling reinvigorated, less isolated, and even proud of their role as changemakers.

In Tanzania, a teacher described:

“For me, the time Uwezo set for training was short, considering the many things we were empowered to do, making us confident. But time was short, so I wished Uwezo could

organize longer training to cover many things to enable us to help our students..”(TZTFG2, R2)

In Senegal, teachers in the treatment group expressed gratitude and appreciation for Ndaw Wuné training as it enables more student engagement in the classroom. However, they also expressed that the added pressure of implementing the training immediately. While teachers felt empowered, they also described feeling overwhelmed by the speed and expectations.

“Also, the training period for ARED needs to be reviewed. I would like them to increase it, with at least one full week. Right now, the training is only 4 days, which is too short. Everything feels rushed and not everyone learns at the same pace. I truly wish they would extend the training time for better comprehension. That’s my biggest request.” (SNTFG2,R5)

These reflections show that attitude is not static, it is shaped by both the content of the training and the conditions under which implementation happens. When followup support was present or the training was welldemonstrated, attitudes were positive and teachers were at ease with experimenting. When implementation demands were too abrupt or unsupported, some teachers’ initial optimism gave way to selfdoubt.

5.3.2.3 Professional Identity and Motivation

Across both countries, all groups expressed positive views about the teacher trainingprograms they had received, emphasizing their importance for professional growth and renewed motivation in the classroom.

Several teachers, particularly in the treatment groups, described a renewed sense of purpose and pride in being educators.

In Tanzania, teachers in the treatment group viewed Jifunze training as a great professional development opportunity, indicating their need for regular training to keep up to date with new approaches. They also specifically mentioned that the training motivated them to do their job better.

"It [Jifunze training] is not a burden for me. ... It makes my teaching life easier. Before, it was very difficult to teach a child, who didn't understand anything after 40 minutes. ... I become confused, worried – but after these methods, it reduced the burden, and my life has become easier, and the child understands." (TZTFG2, R5)

In Tanzania, volunteer teachers in particular described the training as motivating and validating, making them feel seen and included in a system that often overlooks them. In one of the control groups in Tanzania, five out of six participants considered teacher training programs motivating. They highlighted Boost training as the one being very helpful both in learning new methods and increasing their self-confidence as teachers.

In Senegal, one treatment teacher said:

"A child who struggled in class, who had difficulty with math or the Seereer language, can excel thanks to ARED. In the four years we've been implementing this program, we've observed clear and significant progress." (SNTFG2, R6)

In one of the control groups in Senegal, 4 out

of 6 teachers also mentioned the positive outcome of training they had received in Pulaar language, emphasizing the importance of using children's mother tongue to teach them.

"I had problems expressing myself in Pulaar. That's what motivated me to take part. To run my course properly, I had to master the Pular language. Today, I'm starting to speak Pular without any problems. Using the Pular language has enabled the students to master reading. All this has been made possible by the use of the Pulaar language." (SNCFG, R1)

In general, in control groups, teachers more often expressed feelings of discouragement, isolation, or stagnation. They described doing their best within difficult constraints, but without access to new tools or inspiration. This gap, between teachers with renewed energy and those "just managing", underscores how essential professional development can be not just for skillbuilding, but for reigniting commitment.

5.3.2.4 Peer Culture and Leadership Influence

Across both countries, treatment group teachers emphasized the influence of peers and school leaders on their attitudes toward innovation. In contrast, some teachers in both countries expressed frustration that community resisted change, which created tension. As one teachers in Tanzania mentioned:

"Even the village leadership—when we started the project here, we introduced it at the village level. They didn't accept it. We had to request a village meeting. Uwezo staff even came to speak with the village chairman, but he didn't agree." (TZTFG1, R3)



Leadership also played a key role. Teachers were more likely to embrace innovation when they felt that headteachers or district officials valued new practices, or at least allowed flexibility. When leaders were perceived as punitive or obsessed with curriculum completion, teachers described pulling back.

5.3.2.5 Summary

Structured pedagogy profoundly impacts teacher attitudes, fostering openness to change, boosting confidence, and restoring motivation. This suggests teachers aren't change-resistant, but rather await permission and support. Teacher attitudes are shaped by external signals; innovation without support feels risky. Belief in student learning links to action, contingent on emotional readiness, professional support, and logistical enablement.

Treatment groups showed renewed motivation, confidence, and openness, crediting training for reenergizing them. Control groups expressed fatigue or apprehension, citing lack of support or fear of mistakes. Trained teachers viewed systemic challenges as surmountable, unlike control teachers. Observation data reinforced this, with trained teachers exhibiting more dynamic classroom engagement.

While both countries' teachers gained confidence and motivation, the tone varied. Tanzanian teachers showed settled confidence, while Senegalese teachers were "still adjusting." Control groups expressed frustration; Senegalese teachers cited systemic issues, Tanzanian teachers, isolation.

5.3.3 PRACTICES

This section examines how teachers' instructional practices, particularly the use of grouping, peer learning, games, and assessment-informed instruction, evolved as a result of structured pedagogy training. While "practice" is often described in terms of observable classroom behavior, here it is understood as what teachers shared with us about what they choose to do, what they adapt from training, and how they enact teaching strategies in real-world conditions. Focus group findings from Tanzania and Senegal show that teachers exposed to structured pedagogy programs reported more varied, inclusive, and student-centered instructional practices compared to their control group counterparts. However, the degree of implementation varied based on classroom conditions, timing of the training, and teachers' professional agency.

5.3.3.1 Use of Grouping

Perhaps the most noticeable shift in practice among trained teachers, according to their narratives, was the systematic use of grouping based on student learning levels and the integration of peer learning strategies. In both countries, teachers described how they had moved away from one-size-fits-all teaching and began organizing students into smaller groups tailored to their literacy or numeracy skills.

In Tanzania, three teachers in the Jifunze program described setting up three distinct groups, beginning, intermediate, and advanced, and tailoring their instruction accordingly. One teacher explained:

"Those who have challenges with multiplication and subtraction in one group, and those with challenges in number recognition in one group." (TZTFG2, R5)

Another teacher in Senegal described:

"If the pupil stumbles, this enables us to correct again and move on to the other autonomy group." (SNTFG3, R4)

In Senegal, the Ndaw Wune training emphasized group work, with facilitators providing targeted instruction to one group while the others worked independently with structured materials. Teachers reported using this model with confidence:

"I think it's a good idea to place highperforming students in small groups where they can become group leaders and help their peers, as this peertopeer teaching is very beneficial." (SNTFG3,R8)

Similarly in Tanzania:

"Then bring out your key concept, and now students explore it. And the teacher becomes more of a supervisor "(TZTFG1, R2)

Control group teachers in both countries, in contrast, described more traditional, wholeclass instruction. While some mentioned pairing students occasionally, grouping was usually informal and not tied to student assessment or differentiated instruction.

For instance, this quote from a Senegalese teacher shows their Wholeclass, curriculumdriven instruction as the norm. Teachers did not use diagnostic grouping or differentiated activities.

"Since the start of the school year, I haven't done any remediation because I simply don't have the time. On top of that, I struggle with the curriculum and planning. During periods meant for reinforcement, I'm forced to move forward with new content due to time limitations. ." (SNCFG1, R7)

Or this quote from a teacher in Senegal shows the wholeclass instruction:

"Once each lesson has been completed, an assessment is carried out. If the assessment shows that half the class has understood, we can continue.." (SNCFG2, R4)

Grouping students by ability and using peer support strategies emerged as core practices among some of the trained teachers, enhancing participation and tailoring instruction to individual needs, a shift rarely observed in the control groups.

5.3.3.2 Games, Visual Aids, and ActivityBased Instruction

Another striking feature of practice change in the treatment groups was the use of playful, participatory activities to support foundational skills. Teachers who had gone through training frequently mentioned using games, cards, movementbased learning, and storytelling techniques, all of which are hallmarks of the structured pedagogy model.

In Senegal, one teacher recounted:

"Thanks to the training I received from Ndaw Wuné, my classroom management has improved thanks to the educational songs and games integrated into the course. I've found that even adopting these methods at the level of our respective classes would be better suited. As I mentioned, before I didn't



use songs and educational games to entertain the class and keep my course going, but now I do and it's proving effective.." (SNTFG3, R1)

Another teacher in Ngobedi (Tanzania) said:

"The methods from Uwezo training have helped me a lot and built my confidence. Initially, you go to class with your methods, unsure of how children will receive them. After using various Uwezo methods, I am confident in using them anywhere. Children have become friends, and we play together, so they are happy and receptive to what I teach. (TZTFG2, R1)

They described rotating learning stations, using storybooks and songs, and assigning group leaders among students:

"I think it's a good idea to place highperforming students in small groups where they can become group leaders and help their peers, as this peertopeer teaching is very beneficial.." (SNTFG3, R8)

Another powerful quote shows the use of peerlearning by some of the treatment teachers:

"And after that, use a participatory method, like small groups. Then bring out your key concept, and now students explore it. And the teacher becomes more of a supervisor" (TZTFG1, R2)

This level of delegated responsibility to students signals a significant shift in how teachers viewed their role: not only as content deliverers, but as facilitators of student learning.

By contrast, control group teachers described using a more traditional pedagogy, where the teacher explains, students listen, and learning materials are often limited to the chalkboard and textbook.

In Senegal, a control group participant explained:

"The words are written on the blackboard, and the pupils spell and write them on the slates to master them. The teacher can even do exercises on it to see if they've assimilated it." (SNCFG1, R6)

While many control teachers expressed concern for struggling learners, they often lacked the tools, materials, or strategies to engage students beyond rote learning. Some viewed group work or games as disruptive or impractical, especially in large classes. These teachers often cited lack of materials or time as a reason for not trying new methods. For instance, one teacher from Senegal said:

"The programs are always interesting, but the tools are lacking, and we also have serious time constraints I." (SNCFG1, R3)

In sum, in both countries, some of the trained teachers introduced activitybased and visual learning techniques to create more engaging classrooms, while control group teachers remained constrained by traditional, textbookdriven methods. The integration of games and visual aids not only energized students but also diversified learning approaches, a practice notably missing among control teachers who lacked resources or pedagogical strategies to adapt.

6.3.3.3. Assessment Informed Planning

Trained teachers also spoke about using assessment data to inform daily or weekly lesson planning, a marked departure from curriculum-based pacing. In both countries, teachers in the treatment groups mentioned that before training, they often moved through lessons according to the textbook or government scheme, regardless of whether students were following. One teacher in Tanzania said:

“Therefore, the important thing is assessment. Assessing the children first before teaching to identify their challenges and grouping them based on the challenges identified through that assessment.” (TZTFG2, R5)

Comparably, one teacher in Senegal said:

“In addition, we carry out regular assessments daily, weekly or fortnightly to see how many students haven't understood and those who just need a little effort to enrich their progress.” (SNCFG3, R4)

In control groups, planning was generally driven by external factors, the textbook, the school calendar, or inspection requirements. Some teachers expressed regret that they could not adapt more. For instance, one Senegalese teacher said:

“Our biggest problem is time management, because the curriculum is heavy. Children already struggled with the existing curriculum, and then we added another program.” (SNCFG1, R5)

6.3.3.4. Limits to Practice Change

While the adoption of new practices was evident among trained teachers, many also

described challenges that affected the consistency and depth of implementation. Common barriers included:

- Overcrowded classrooms that made group management difficult
- Lack of follow-up support or refresher sessions
- Curriculum demand and pressure to follow the official syllabus or prepare students for exams, which left little time for extended games or group activities
- Lack of materials, such as enough learning cards or space to rotate groups

Some teachers described reverting to traditional methods under pressure or fatigue. For example, one teacher in one of the treatment groups in Tanzania explained:

“The methods are good, unless you have a large class, and we're teaching with few teachers, [but the challenge is the number] of students. There are too many, too many periods. Because of our small number, even continuous assessments that should be done daily become difficult.” (TZTFG2, R2)

Another one said:

“For example, the second grade has 290 students in a room like this one. The KKK teacher needs methods to help the children learn to read and write. In this class, there are learning groups: fast learners, slow learners, and very slow learners. Can the teacher succeed with 290 students?” (TZTFG2, R2)

One teacher in a treatment group in Senegal stated:



“One of the biggest challenges is time management, particularly due to the number of exercises we must assign across the three groups. For example, when I give one group an exercise, I have to simultaneously supervise the two others. Some students work very slowly, which delays transitioning to new exercises until everyone is finished.” (SNTFG2, R6)

Others expressed frustration that their efforts to innovate were not always recognized by school leadership or peers. A treatment group teacher in Senegal said: “ARED doesn’t give us chalk. We use the school’s chalk. And when the school runs out, it’s the director who has to figure out how to get more to finish the school year. Last year we had this issue—in June, there was no more chalk credit at the school. My colleagues pointed fingers at me, saying “the ARED team used up all our chalk!” .”, (SNTFG2, R1)

These examples show that even when teachers internalize studentcentered principles, they cannot carry the burden of transformation alone. Tools, time, and trust are required for such practices to take root and thrive.

6.3.3.5. Summary

In structured pedagogy models, studentcenteredness is a concrete instructional shift: the use of group work, games, peer learning, movement, and visual tools are all designed to increase student interaction and agency. While all teachers valued student learning, those trained in structured pedagogy were more likely to describe, and embody, studentcentered strategies, often moving away from lecturebased, wholeclass instruction toward more interactive and differentiated methods.

More specifically, structured pedagogy programs led to visible and meaningful shifts in:

- Groupbased instruction tailored to learning levels
- Use of games, visuals, and movement to engage students
- Lesson planning based on assessments, not just textbooks

This shift was also emotionally significant for teachers. Many spoke of renewed connection with students, noticing their interests, strengths, and progress in ways that weren’t possible through wholeclass instruction alone.

However, implementation was uneven, and many teachers voiced the need for more material support, peer collaboration, and institutional encouragement to maintain and expand these changes. Despite these challenges, the treatment teachers’ reflections reveal a movement toward more inclusive, responsive, and childcentered teaching, often in contrast to the more rigid and resourceconstrained practices of the control groups.

Therefore, the data suggest that studentcenteredness is not innate, nor is it resisted, it must be taught, modeled, and supported. When it is, teachers are not only willing to change how they teach, but also how they see their students: not as a uniform group to manage, but as individuals to empower.

Teachers in the treatment groups described using a broader repertoire of studentcentered practices, including levelbased grouping, peer teaching, games,

visual aids, and storytelling, which they attributed directly to their structured pedagogy training. These practices were not only described, but often elaborated with examples of adaptation to local conditions like specific languages. In contrast, control group, if they are not trained in similar methods, teachers predominantly reported traditional methods such as wholeclass instruction, copying from the board, and rigid adherence to textbook pacing. Even when control teachers expressed interest in more interactive methods, they rarely reported using them consistently, often citing classroom management concerns or time constraints. This contrast suggests that training provided both techniques and the pedagogical reasoning behind them, enabling treatment teachers to vary instruction in ways that were rarely observed among their peers.

Classroom observations largely reinforced the focus group findings related to teaching practices. In treatment classrooms across both countries, observers noted more frequent use of teaching aids, structured group activities, and varied instructional techniques, particularly in schools with better material access. For example, in Tanzania, treatment teachers scored nearly one full point higher on the Likert scale item related to group formation (0.87), and frequently used charts, flashcards, or storytelling to support different learning levels. In Senegal, although differences were less pronounced, treatment teachers were more likely to promote student autonomy and use levelbased tools during observed lessons.

However, not all selfreported practices were confirmed in observation. In several classrooms where teachers described grouping or differentiated instruction during

FGDs, observers saw uniform instruction with little adaptation to learner needs. Peer interaction was particularly limited in both countries, despite being frequently cited in FGDs. In Senegal, observation data even showed control group teachers outperforming treatment teachers in the number of peer interactions and students showing visible understanding, a surprising finding likely shaped by smaller class sizes in treatment schools or their additional training in similar methods. These discrepancies highlight the importance of triangulating narrative and behavioral data when assessing pedagogical change.

Reported practices were more developed in Tanzania, especially among treatment teachers who gave detailed examples of group work, peer tutoring, and remedial games. Senegalese treatment teachers also described active methods but often framed them as “still new” or “in trial.” Observational data supported this difference in depth: Tanzanian classrooms showed more consistent use of lowcost learning aids and levelbased grouping, while Senegalese classrooms showed more wholeclass instruction, even among trained teachers. Among control groups, Tanzanian teachers described textbookdriven pacing, while Senegalese teachers focused more on lack of materials or training.



5.3.4. BELIEFS

This section explores what teachers believe about students' potential to learn, especially those who are struggling, and how those beliefs are influenced by exposure to structured pedagogy. Unlike knowledge or practice, which can be observed and measured more directly, beliefs shape the invisible foundations of teaching, guiding what teachers expect from their learners, how they respond to failure, and what they perceive as possible in constrained environments. This belief informs pedagogical decisions a teacher makes.

5.3.4.1 Children's learning

Focus group discussions across both countries showed a stark contrast in how treatment and control teachers described their beliefs about student learning potential. Teachers trained through Jifunze or Ndaw Wune frequently emphasized that all children can learn, just not always in the same way or at the same time. These teachers described shifting from a fixed mindset to a more growth-oriented view, often triggered by witnessing small successes. In contrast, many control group teachers attributed persistent underperformance to fixed traits like intelligence or home background. Survey results corroborate this tension: despite similar mean belief scores across groups (both averaging ~3.7), these beliefs appeared to be dormant among control teachers, unactivated by successful classroom experience or structured frameworks

Many admitted they had once believed that some children simply could not learn, but

had since changed their minds after witnessing progress among students who had long been dismissed as "slow" or "incapable."

In Tanzania, a teacher reflected:

"they can all learn because I will be with them, following up and assessing frequently. Those who can will help those who haven't yet.."(TZTFG2, R3)

Another added:

"If other teachers get this training (Jifunze), they will stop having biased views about children from certain families. They'll stop thinking that children from this family can't succeed even after seventh grade, which is not true."(TZTFG2, R5)

Even teachers in control group but with training in "Tusome Pamoja" show similar belief. This is also confirmed by the teacher survey too:

"I believe they can. With proper enabling, anything is possible. Every child can learn with the right methods.."(TZCFG1, R6)

In Senegal, a similar shift was evident. Teachers involved in Ndaw Wune emphasized that previous assumptions about who could succeed had been challenged through the experience of teaching at level.

"They're beginning to understand the value of ARED. A child who was at the bottom of the class in the first semester can, by thesecond semester, be among the top five or close. We've seen this firsthand among students participating in ARED.."(SNTFG2, R2)

Teachers in Senegal control groups have learned of new methods from their network, which inseeded their new belief in student ability to learn:

“One solution came from an inspector during a teacher’s council meeting. He told me not to spend too much time explaining a lesson. Instead, give as many varied exercises as possible to help the children understand. By repeating varied exercises, especially in mathematics, some students eventually get it. I use multiple methods to help students grasp the lesson. (SNCFG1, R3)

However, there is a theme in control group where students were considered incapable or uninterested in learning. These teachers attribute this to mental issues (like depression), or lack of parent support rather than unsuitable methods:

“I have one student who ran out of the classroom when he saw a picture of a cricket in a book I had opened. It’s difficult to teach that child anything.. He has symptoms of depression..” (SNCFG1,R2)

These stories point to a powerful pedagogical insight: belief in student potential is often built through evidence, seeing struggling learners succeed transforms not only practice, but conviction.

In contrast, teachers in the control groups were more likely to interpret student underperformance through a deficit lens, often attributing it to parental neglect or disability, language barriers, or children’s supposed lack of innate intelligence.

A Senegalese control group teacher said:

“We teach them all at the same level, but their abilities are not the same. Some students are gifted, and others are very weak. You can teach some of these students an entire lesson for a whole day, and they’ll still never understand..”(SNCFG1, R8)

Another one stated:

“We do remediation, but there will always be some “black sheep.” There’s nothing we can do – and corporal punishment is banned now, unfortunately for us.” (SNCFG1, R1)

In Senegal, two teachers in SNCFG2 noted that when children arrive in Grade 3 without foundational skills like writing their name, this often reflects homebased challenges beyond the teacher’s control.

These responses were not dismissive but often tinged with resignation. Teachers did not lack compassion; they lacked confidence that the system, or their own toolkit, could change outcomes for all learners.

Although belief scores in the survey were statistically similar across groups, classroom observations suggest deeper attitudinal differences in how those beliefs are enacted. In treatment classrooms, teachers were more likely to assign leadership roles to struggling learners or persist with students who initially lagged behind. One observer noted a teacher in Kisarawe who began each lesson by “sitting with those who understand nothing first”, then rotating through small groups, a subtle yet powerful expression of belief in eventual progress.



The difference between countries was largely one of timing and depth. In Tanzania, where training had been completed over a year prior, belief shifts were more stable and often framed in terms of longterm transformation. In Senegal, where teachers were still implementing Ndaw Wune, the belief shift appeared fresh and energized, but also more vulnerable to setbacks. Control teachers in both contexts expressed care but lacked the tools, confidence, or experience to maintain high expectations for struggling learners. These findings suggest that belief change is both a pedagogical and experiential process, and one that must be continually reinforced through supportive structures and visible learner progress.

5.3.4.2. Beliefs and Teacher Expectations

One of the most powerful ways beliefs manifested was in how teachers spoke about expectations from students. In treatment groups, some of the teachers described raising their expectations once they saw that levelbased instruction worked. A Tanzanian teacher said:

“Mostly, we don't separate them (slow learners) from the other students in the classroom..We put them in groups and work together, so it helps even if one learns from their peer, they can understand more than when you teach them.” (TZTFG2, R5)

In Senegal one teacher stated:

“a child who struggled in class, who had difficulty with math or the Seereer language, can excel thanks to ARED. In the four years we've been implementing this program, we've observed clear and significant progress.”(SNTFG2, R6)

Belief in student potential also encouraged pedagogical risktaking. Teachers were more willing to adjust pacing, offer individual support, or persist when progress was slow, because they expected progress eventually. On teacher in the treatment group in Senegal treatment group said:

“I focus on those who are underperforming and have gaps in math or reading. I call them together every Tuesday and Thursday afternoon. I set up groups for the top performers and, separately, I set up groups for the bottom performers to give each level homework..” (SNTFG3,R1)

Similarly, in Senegal, one teacher explained:

“Generally, in a small group, only two or three students pass. For the letters group, during the first eight weeks, if the student is assiduous and the course runs normally, this letters group should disappear. Of course, you also need to take into account the student's level and ability to progress. For the less successful, it may take longer than eight weeks..” (SNTFG3, M4)

These stories signal a move toward inclusive pedagogy not only in practice, but in underlying belief systems, which is arguably more enduring.

5.3.4.3 Tension Between Beliefs and System Constraints

Despite their optimism, even teachers who expressed strong belief in student potential acknowledged moments when their beliefs were tested by systemic constraints. They mentioned structural challenges that made it difficult to act on that belief. Large class sizes, unrealistic curriculum pacing, and pressure to “cover content” often clashed with their new convictions.

One Tanzanian teacher said:

"They start with those struggling with reading for an hour, then come for an hour of math, which was challenging. If it was possible, we would teach in phases, like 30 days of reading only. This one hour of reading, another hour of math, according to school schedules, by the evening the child is tired. So, the issue of time for lessons was a bit challenging.." (TZTFG1, R5)

One Senegalese teacher reflected:

"As far as time is concerned, we have a lot of material to cover in just two hours, which requires too much effort. If it were possible to reduce or reorganize the content so that we do storytelling on Mondays and play games on Wednesdays, that would be better. Under these conditions, it's tiring for us, Ndaw Wuné's tutors, to stay on duty morning and evening." (SNTFG3, R7)

This burden is a challenge for all teachers, even in control groups who want to innovate:

"The contents of these programs are very extensive. There's not enough time to cover both L1 and L2 material. There are some lessons I can't even deliver. I teach a CP class with an overwhelming number of 75 students. We received 6 textbooks... Sometimes, you arrive in class not even knowing what to do." (SNCFG1, R5)

These tensions point to a critical insight: beliefs may change before systems do. Teachers can shift their mindset, but without structural support, even the most inclusive beliefs may be hard to act upon consistently.

5.3.4.4. Summary

Beliefs about student potential are

fundamental to achieving educational equity. Our focus group data reveals that structured pedagogy training significantly shifts teacher mindsets, moving them from a fatalistic "some children can learn" to an inclusive "all children can learn, just not in the same way or time." This transformation is most pronounced in teachers trained in remedial pedagogical approaches.

These belief shifts weren't explicitly taught; rather, they emerged through practice and success. Teachers who witnessed once-struggling students improve through targeted strategies experienced a profound change in what they believed was possible. This hands-on success, seen during learning camps in Tanzania and emerging in Senegal, is crucial for internalizing new beliefs.

However, these optimistic beliefs are fragile without systemic support. To sustain this pedagogical optimism, educational systems must align incentives, reduce barriers, and ensure teachers aren't forced to choose between curriculum coverage and student care.

In contrast, control group teachers, lacking exposure to enabling methods, often attributed student struggles to fixed traits like home background or innate ability, offering few active strategies for improvement. While compassionate, they remained more likely to frame challenges as personal deficits.

This cross-country analysis underscores that belief transformation is context and experience-dependent. For teachers to truly shift their views on learning potential, they need effective strategies and the opportunity to witness those strategies succeed in practice.



Therefore, effective pedagogical programs must not only deliver new content but also enable teachers to see and internalize their students' capacity for growth.

5.3.5. TREATMENT VS. CONTROL: KEY DIFFERENCES ACROSS KAPB DOMAINS

To consolidate the focus group insights across the four KAPB domains, the following table summarizes the most prominent differences observed between treatment and control groups. While the domainspecific

narratives have already highlighted how pedagogy informed their knowledge, attitudes, practices, and beliefs, this crosscutting comparison provides a more holistic view of what training enabled, and where significant contrasts emerged.

The synthesis also highlights that while trained teachers were more likely to describe and attempt learnercentered strategies, persistent constraints, such as large class sizes, material shortages, and accountability pressures, continued to influence how both groups enacted their professional roles.

Table 8: Summary of focus group finding in each intervention category and their interpretation

KAPB Domain	Treatment Group Insights	Control Group Insights	Interpretation
Knowledge	Teachers described using assessment tools, levelbased grouping to tailor instruction.	Teachers relied on summative tests or generic textbook coverage; "assessment" meant endofterm exams.	Structured pedagogy programs (My Village, Ndaw Wune) shifted teachers' mental model of assessment from evaluation to instruction.
Attitudes	Expressed renewed energy, professional pride, and openness to innovation. Peers and school leaders seen as enablers.	Some expressed hope, but some felt fatigued, unsupported, or afraid to try new methods.	Training and followup support appear to be critical in fostering confidence and openness to change.
Practices	Reported using games, group work, low cost materials, and peer tutoring. Teaching was adapted to level and need.	Teaching often described as wholeclass, curriculumdriven, focused on copying or repetition.	While trained teachers show a shift toward studentcentered methods, structural barriers still affected both groups.
Beliefs	Shifted from "some kids can't learn" to "all children can learn with time and method." Success stories cited often.	More likely to express fixed views, e.g., "some children just can't catch up," especially those from poor backgrounds.	Belief change was linked to visible learner progress and success with new methods, not just exposure to theory.

teachers' exposure to remedial structured

5.3.6. IMPLEMENTATION BARRIERS

Despite the reported benefits of structured pedagogy training, teachers in both countries described a range of barriers that constrained their ability to implement what they had learned. These barriers fall into two broad categories: structural constraints, which are systemic and often beyond the teacher's control (e.g., large class sizes, curriculum demands, resource shortages), and adaptive constraints, which are related to teacher mindset, motivation, or school culture.

While some barriers were shared across treatment and control groups, the way teachers interpreted and responded to these constraints differed depending on their training exposure.

This section synthesizes how teachers spoke about these challenges and what they reveal about the conditions necessary for sustaining instructional change.

5.3.6.1 Structural Barriers: Conditions That Undermine Implementation

Teachers across both countries frequently cited overcrowded classrooms as a key obstacle to applying structured pedagogy effectively. Even teachers who embraced group work, assessment, and level-based instruction described reaching a breaking point when faced with a class of 60–90 students and no classroom support. In Tanzania, a teacher shared:

“If the class is overcrowded, like with students sitting by the door and only one teacher, it's hard to apply Jifunze methods in the classroom. Each child needs space to

play and form words using materials. If the class is within the standard size, the teacher can manage in first and second grades.” (TZTFG2, R5)

In Senegal, a similar frustration was voiced:

“The method works, in theory. But when you have one teacher and three groups to manage, you can't do it properly.” (SNTFG3, M1)

In addition to class size, teachers mentioned insufficient materials, particularly printed cards, games, or level-specific workbooks. In several cases, teachers improvised by handcopying materials or using oral activities instead, but they acknowledged that this slowed them down or made instruction uneven.

“There's a lack of teaching materials in schools. And even those few we have arrive late. For example, we are just now receiving the new curriculum textbooks.” (TZTFG1, R2)

A serious problem is the limited integration of Jifunze and formal education. Mostly, the schools have special classes in this form after hours such as 3:30–6:00 PM, when students and teachers are too tired and level of absenteeism is high.

“Because these programs in schools are implemented after working hours. From around 3:30pm onwards, the programs begin. At that time, some teachers and students haven't even eaten yet.” (TZTFG1, R2)

That, in return, creates additional problem when community and parents don't support late attendance of the students:



“On that note, I want to add something, the low parental engagement. Some parents didn’t agree to their children staying late. Even the village leadership, when we started the project here, we introduced it at the village level. They didn’t accept it.” (TZTFG1,R3)

Absenteeism is one of the most persistent implementation challenges reported by both treatment and control group teachers in both countries. In all the groups in Tanzania and one control group in Senegal teachers associated students’ absenteeism with hunger. Teachers in Tanzania treatment groups repeatedly emphasized that children who must stay late at school without having eaten, or who did not receive lunch, often left before or during program sessions. This resulted in significant drops in attendance during afternoon sessions, undermining lesson plans and learning continuity. The issue was described not as sporadic but as a systemic barrier, especially for children from the most foodinsecure households, reinforcing the link between basic needs and effective learning.

Another common barrier was curriculum pressure. Teachers repeatedly describe the curriculum as “heavy”, “vast”, “extensive”, or “cumbersome”. This is particularly emphasized for CI and CP classes in Senegal. Many teachers described the heavy curriculum does not match the student level and capacity.

“There is a workload issue, because after every training the schedule changes. As my colleagues said, the amount of work exceeds the time resources we have...I believe there are subjects that should be removed from the primary curriculum. In my opinion, from CI to CE1, children just need to

learn how to read, write, and do math.” (SNCFG1, R1)

Therefore, there is no time to benefit from tools like games. in Senegal one teacher said about Nadaw Wune class:

“However, adding other activities like educational games, Ndaw Wune contracts, and outofprogram readings has overloaded the timetable..”(SNTFG2, R3)

These pressures discouraged teachers from slowing down, differentiating instruction, or repeating lessons, even when they knew it would benefit students.

5.3.6.2 Adaptive Barriers: Internal and Cultural Resistance

While structural barriers were prominent in both control and treatment groups, adaptive barriers, such as resistance to change, lack of confidence, or professional isolation, were more commonly reported in the untrained teachers.

In Tanzania, a treatment teacher shared that they disagree with other teachers about the potential to educate a student, despite their background:

“If other teachers get this training, they will stop having biased views about children from certain families. They'll stop thinking that children from this family can't succeed even after seventh grade, which is not true.” (TZTFG2, R5)

Another Senegalese teacher speaks of the isolation they feel when their colleagues are afraid to take part in new methods:

“For our colleagues, it's their busy schedules that prevent them from taking part in sharing

days with us... as they are often reluctant as soon as they hear about the program and the timetable.”(SNTFG3, R6)

In general, teachers do not feel well supported from the system or the implementation partners:

“In Senegal, we can’t really talk about a functioning education system, because it’s not based on anything sustainable.”(SNTFG2, R2)

In Senegal, one teacher from a treatment group talks about the burden of being a pioneer in implementing new methods:

“For instance, I have a group of 22 students, and mixing the word group with the syllable group just doesn’t work. It gets too noisy, and classroom control becomes difficult. I’ve had to improvise by forming a group of 10 students. Plus, I have two colleagues who often observe my lessons, which adds extra pressure.” (SNTFG2,R5)

This teacher also shows intention to improvise to keep the program (at least in essence). These responses point to some lack of psychological safety and professional encouragement, which can make teachers reluctant to innovate.

Trained teachers, in general , appeared more confident, but even they encountered adaptive friction. For example, teachers described being discouraged by colleagues who resisted the new methods or by school leaders who did not understand or value structured pedagogy.

This reveals that school culture matters: innovation is easier to sustain when it is shared, supported, and expected, not when it

isolates or exposes teachers to criticism. It also shows that change needs to be systematic not only locally focused on teachers. If teachers are trained but the headteacher, principle, inspector, etc. are not, applying new methods may feel isolated and risky.

5.3.6.3 Navigating the Barriers: Workarounds and Persistence

Despite facing significant barriers—including limited materials, large class sizes, and time constraints—teachers in the treatment groups more consistently described adaptive strategies and workarounds than those in the control groups. Their responses reflect a strong sense of persistence and a willingness to adjust their practices to meet students’ diverse learning needs.

One common strategy was rethinking how students were grouped. Rather than strictly separating children by ability levels, some teachers intentionally mixed learners to promote peer support. As one teacher from Gairo, Tanzania, explained:

“Looking at the methods from Uwezo, we had to have three groups for each subject... But before going to those groups, in the first session ... those with challenges .. and those who are a bit better.. The first method is to mix them together by giving activities that will elevate those who are struggling.” (TZTFG2, R5)

To address academic challenges collaboratively, teachers in Gairo also formed Teacher Learning Communities (TLCs). In these forums, difficult topics are presented to a designated coordinator, documented, and collectively addressed—providing both peer support and professional growth (TZTFG1).



Beyond professional circles, teachers also described building bridges with parents through communityled efforts. For example, the UWAWA initiative in Tanzania brought together teachers and parents to support children who were lagging behind—such as Grade 3 students performing at a Grade 1 level. During meetings, books were distributed to struggling learners so parents could assist them at home.

These communitybased and schoollevel efforts reveal how teachers fostered collaborative environments to navigate systemic limitations and support students with varying needs. A strong emphasis was also placed on teacherstudent relationships as a tool for engagement:

“Another thing is the teacher being friends with the children, not creating a distance between yourself and the children... because many children who struggled with reading, writing, and arithmetic were scared of their teachers... Be friends so that if they have any challenges, they can tell you. Also, involve the parents because sometimes parents do not know the challenges their children are facing. If the teacher communicates well with the parents... they can give you cooperation to help that child move from the current state to understanding more.”

TZTFG2, R5

Teachers also emphasized placing struggling students at the center of group work—sometimes giving them leadership roles—to increase their participation and confidence. When challenges extended beyond the classroom, support mechanisms varied by context. In Senegal, for instance, home visits (V.A.D.) were conducted during school holidays to check in on disengaged students. However, teachers noted that

these visits are often burdensome and receive little institutional backing. For chronic absenteeism, teachers typically involved school leadership to engage directly with families.

Adaptability extended to classroom environments as well. Teachers reported moving classes outdoors or rearranging spaces to suit specific learning activities. They also made use of lowcost or improvised teaching aids—such as pebbles, sticks, cans, and soda bottles—to bring abstract concepts to life. In some cases, teachers even purchased their own supplies, like chalk, to maintain continuity.

Many teachers credited their ability to adapt to training programs such as Ndaw Wune, RELIT , and Jifunze/My Village, which

helped them simplify lessons and use differentiated strategies more confidently. The use of local language was also a recurring tool for comprehension:

“Thanks to RELIT, we discovered bilingualism, the use of both the local language and French simultaneously. This allowed for faster knowledge transfer and helped students understand quickly.”

— SNTFG2, R2

Taken together, these examples highlight the determination of trained teachers to sustain learnercentered practices—even when structural support is weak. Their belief in the methods and commitment to students appear to be key enablers of persistence and innovation in the face of adversity.

5.3.6.4 Summary

The focus group data illustrate that implementation of structured pedagogy is shaped as much by context as by training. Teachers across both countries faced structural barriers, including class size, curriculum mandates, and material shortages, that directly limited their ability to apply new practices. But equally important were adaptive barriers, such as professional insecurity, resistance from peers, and unsupportive leadership.

Notably, trained teachers were more likely to acknowledge barriers honestly, rather than internalizing blame; persist creatively, finding ways to apply at least parts of the training; frame the struggle as systemic, not personal.

These findings reinforce a critical insight: pedagogical transformation is not a product of training alone, it depends on an ecosystem of support. Without systemic alignment and sustained reinforcement, even the best-trained teachers will struggle to translate belief and knowledge into consistent practice.

5.3.7 SUGGESTIONS FOR IMPROVEMENT

In every focus group, regardless of country, group type, or individual experience, teachers had something to say about how trainings could be improved. These suggestions were thoughtful, constructive, and rooted in practical experience with implementation. Teachers appreciated the structured pedagogy programs and spoke positively about what they had gained. But

they also identified gaps in content, delivery, followup, and support, highlighting the need for training to be ongoing, context-responsive, and embedded in real classroom challenges.

Based on feedback from teachers and participants, numerous suggestions have been put forth to enhance the effectiveness of remedial programs such as Ndaw Wune and My Village. These recommendations address various facets of program design, implementation, training, and systemic support, reflecting a collective desire for more tailored and practical approaches.

5.3.5.1. Program Structure and Content

Suggestions for program structure and content emphasize a need for greater focus and relevance. There is a call to streamline the curriculum by reducing or eliminating nonessential activities to concentrate primarily on foundational literacy and numeracy, especially for the children at low literacy.

"I would also point out that it's stressful to cover all the content of the daily program in just two hours. So we're asking for a review of the content" (SNTFG3, R3)

Reviewing and simplifying reading materials is also a key recommendation, advocating for shorter, more culturally relevant texts and clearer, more concise followup questions.

Teachers in a treatment group in Senegal, expressed a desire for more structured and specific guidance in teaching mathematics, contrasting it with their current reliance on improvisation or less detailed training. One teacher explicitly states, "For math, we really need a practical guide or outline, as I run the



course according to my own skills" (SNTFG3). This highlights a current approach where teachers devise their own associations or methods. This teacher emphasizes that "in Ndaw Wuné, there should be specific content on mathematical activities.

Furthermore, Senegalese teachers highlight significant challenges and confusion arising from the use of different languages, particularly local languages and French, for mathematics instruction and express a preference for alignment. A key concern is raised regarding "numeracy," where "mathematical language is difficult because Pulaar has to be adapted to mathematics, whereas it's simpler in French, and the teacher isn't trained in Pulaar numeracy" (SNTFG3). Another teacher from the same group states, "My only problem is the Pulaar used in mathematics. We haven't been trained to name these figures and appellations." This directly points to a disconnect between the language chosen for instruction and the teachers' or students' proficiency and familiarity with mathematical concepts in that language. The problem is compounded in remediation programs like Ndaw Wuné: "if we teach in Pulaar in Ndaw Wuné, it becomes more difficult. For example, asking a pupil to perform an operation in Pulaar when he's been taught the technique in French makes him unable to express himself in class". This demonstrates the confusion and hindrance caused by switching instructional languages for the same subject. There is a clear call for consistency and the demand to align the language of remediation with regular classes.

"When we talk about remediation, we're talking about things that have already been

dealt with. Students carry out activities in French during lessons, so if we need to reinforce them, it would be simpler to stay with the same logic, rather than change the context completely. In this case, the problem isn't solved" (SNTFG3)

Some parents also contribute to the challenge, expressing a preference for French instruction. One of the teachers in one of the treatment groups in Senegal stated, "Parents tell me I sent my child to school to learn French, not Seereer" (SNTFG2). This may indicate certain expectations among some parents that formal education, including math, should primarily be in French.

Other content-related improvements include correcting errors in manuals, ensuring clarity of instructions, reverting to color manuals for increased student engagement, and reviewing the correspondence between images and texts.

Systemically, suggestions include reviewing the target age/grade for remediation, potentially focusing on earlier grades, reducing the overall number of subjects in the school curriculum, and involving teachers and the public in curriculum development to align with community and national needs.

The result of disconnect between the local teachers and curriculum developers creates an unrealistic overload of topics without understanding the true capacity of students, teachers, and schools to carry on. Teachers in Tanzania (Gairo) say:

“But the curriculum is developed out there—they go abroad to revise the curriculum. For two or three weeks, they go to Malaysia or Finland... meet with PhDs (from other countries) and others to change the curriculum, instead of asking us... You’ll find content meant for Grade 7 is now being taught in Grade 4. They can’t grasp it. They really can’t.” (TZTFG1, R2 and R4)

Finally, in Tanzania, extending training content beyond reading and numeracy to include subjects like English is suggested to address teacher skill gaps (See TZTFG1, R3).

5.3.5.2. Time Management and Scheduling

Addressing time constraints is a critical area for improvement. Teachers suggest reducing the amount of material within the allocated time or, alternatively, extending the overall duration of the My Village program beyond the current 30day limit.

To catch up with the extensive curriculum, schools squeeze multiple subjects in a period, i.e teaching literacy and math at the same hour. Adjustments to the daily teaching schedule are also proposed, such as teaching subjects in phases (e.g., one hour solely for reading, then one hour for math) to prevent student fatigue from mixed sessions.

“Teaching two periods in one session is tiring for the child. They may understand math but not reading. So, extending the time a bit, with separate periods for reading and math, would be more effective.” (TzTFG2, R3)

5.3.5.3. Teacher Training Duration and Depth

Improving teacher training is seen as

fundamental to program success. In both Tanzania and Senegal, there is a strong consensus that the current 46 day training is too short and rushed, necessitating an increase in duration. Teachers suggested extending the training by a few days, integrating more hands on activities, peer teaching simulations, and concrete classroom examples.

Regular refresher courses and ongoing training are also highly recommended to keep teachers updated on evolving methods and to discuss challenges. Crucially, extending training to all teachers and schools, rather than a limited sample, is emphasized for broader impact. Teachers in both countries acknowledged that even with strong initial training, maintaining quality and consistency was difficult without reinforcement.

Several teachers also requested visual reminders, such as posters or job aids that could be displayed in classrooms to reinforce key techniques.

5.3.5.4 Assessment

For assessment, the key suggestion is to dedicate specific, built in time slots for student evaluation, such as a weekly block, to ensure it is consistently integrated into planning. For instance, a Senegalese teacher says:

“We really need dedicated time for assessing students. Right now, it’s difficult to evaluate their progress properly without specific time slots for it. If we had a weekly block reserved just for evaluation, it would be much more effective.” (SNTFG2, R4)



5.3.5.5 Materials and Resources: Tailoring to Classroom Realities

Teachers appreciated the structured methodology but noted that some activities or group models did not align with real classroom constraints. They called for more adaptation in the training to fit multigrade classrooms, large class sizes, and lowresource settings.

The consistent provision of adequate materials and resources is a recurring theme. This includes very basic didactic materials, measurement tools, and basic supplies like chalk and pens. There is general mentions of need for functional digital tools, such as tablets, that are properly integrated into the curriculum.

Ensuring sufficient student textbooks and complete manuals that do not require manual supplementation by teachers is also highlighted. Additionally, establishing village libraries is suggested to support selfstudy for outofschool learners.

Teachers' comments suggest that while the pedagogy was wellreceived, the reality of implementation conditions needs to be more explicitly acknowledged and addressed in the training content itself.

5.3.5.6 Logistics and Support

Logistical and systemic support are crucial for effective program implementation. Addressing large and overcrowded class sizes, which hinder differentiated instruction and create noise, is a primary concern, potentially requiring reduced group sizes or more teachers.

Lack of adequate infrastructure, including desks, benches, and inclusive facilities for

students with special needs, also needs to be addressed to ensure feasible classroom layouts.

Improved communication from program managers to teachers is requested. A teacher in Senegal (Diourbel) says:

"Another weakness I'll mention is the lack of communication from the project. That's something that really bothers me. When you're working with a team, especially with teachers, communication is key. Sometimes we face issues that never get brought up." (SNTFG2, R2)

Increasing the number of facilitators or teachers involved in the program is suggested, especially given student numbers.

More comprehensive support and involvement of school principals/head teachers in training and followup is recommended to bolster schoollevel support. Teachers suggested that even a short orientation session for school leaders could help align expectations and reduce pressure to revert to old practices. One teacher in Tanzania mentioned:

"Our headteacher wants the syllabus finished. He didn't attend the training. So he doesn't understand when I slow down." (TZTFG1, R2)

Adequate financial support or an operating budget for schools is also deemed necessary. Teacher motivation is a significant concern, with calls for better compensation or allowances, as current compensation is considered very low. Providing support for teachers undertaking home visits (V.A.D.), such as compensation

or logistical assistance (e.g., transportation), is also suggested, with the alternative of eliminating such visits if support is not feasible (see SNTFG2).

Incorporating crosscutting issues like abuse awareness into lessons and community education is also suggested to address sociocultural issues affecting student wellbeing. Finally, addressing external factors contributing to student absenteeism and tardiness, such as hunger or home problems, is crucial. This involves more active parental involvement and ensuring food availability at school, with government support.

5.3.5.7 Peer Collaboration and Learning Communities

Several teachers, particularly those in treatment groups, described learning just as much from peer discussions and exchanges as from formal training sessions. They recommended integrating collaborative reflection into the training model and supporting informal teacher learning networks. As one Tanzanian teacher stated: “We shared ideas after the training. It helped me see how others are doing it. We should have regular sessions like that.” (TZTFG2, R1)

Another Senegalese teacher shared: “The WhatsApp group we made was very useful. We ask questions, share pictures. It keeps the method alive.” (SNTFG2, M2)

These insights point to the importance of ongoing peer engagement, not just expert-led instruction.

5.3.5.8 Strengthening Practical Technology Integration in Training

Across both Tanzania and Senegal, teachers

express a strong and consistent demand for training that goes beyond theory and equips them with the practical skills to use modern technology in the classroom. While the curriculum increasingly mandates digital literacy and technology-enhanced instruction, teachers are often left without the tools or hands-on experience to deliver lessons accordingly.

A Tanzanian teacher captured this disconnect succinctly:

“What I really need is training—more training on how to use modern methods. Technological methods, as my colleague mentioned here. Methods for using technology have advanced so much. That’s where Tanzania is headed. That’s what the curriculum requires. That’s why I really need in-depth training.” TZTFG1, R1

This view was echoed by another teacher who noted that if given the chance, they would request training specifically on “the use of technology” and “updated teaching methods” (TZTFG1, R3).

To align curriculum mandates with actual teaching capacity, training programs must include practical, hands-on modules on how to use digital tools and integrate technology into subject instruction. Moreover, these efforts must be accompanied by basic infrastructure—such as computers, projectors, and electricity access—to ensure that technology-enhanced teaching is feasible, not just aspirational.

5.3.5.9 Summary Teachers across all focus

groups—regardless of country or training exposure—provided thoughtful and practical suggestions to strengthen the design,



delivery, and support systems of remedial programs like My Village and Ndaw Wune. While the trainings were generally appreciated, educators identified critical gaps in relevance, duration, materials, and followup support.

Key recommendations included:

- Streamlining content to focus on foundational skills and making reading materials simpler and more culturally appropriate.
- Improving guidance for teaching numeracy, especially in local languages, with calls for consistency between the language of instruction in regular and remedial programs.
- Extending training duration and incorporating more hands-on activities, refresher sessions, and inclusive participation of all teachers and school leaders.
- Reorganizing program schedules to avoid content overload and fatigue—e.g., separating literacy and math into different sessions.
- Allocating dedicated time for student assessment within the weekly timetable.
- Adapting materials and models to better reflect classroom realities such as overcrowding and multigrade settings.
- Ensuring logistical support, including infrastructure, instructional tools, adequate compensation, and community involvement.
- Embedding peer collaboration, such as teacher learning communities and WhatsApp groups, into the training ecosystem.
- Strengthening practical training on technology use, alongside providing basic digital infrastructure to align with evolving curricular demands.

These teacher-driven insights underscore the need for training that is context-aware, sustained, and responsive to the lived realities of classrooms.

5. DISCUSSION

This discussion brings together the core findings from the KAPB Study to explore how remedial structured pedagogy programs—My Village in Tanzania and Ndaw Wune in Senegal—have shaped teachers’ knowledge, attitudes, practices, and beliefs (KAPB), and to examine the enabling factors and constraints that influence whether these changes lead to meaningful instructional improvements. While each of the four KAPB domains was analyzed separately through distinct research tools, the discussion focuses on how these domains interact and the contextual conditions that facilitate—or hinder—their translation into classroom practice.

We also consider how national, institutional, and programmatic contexts mediate these effects, offering broader insights into what makes pedagogical transformation both possible and sustainable.

- Section 6.1 reviews the theoretical framework linking KAPB shifts to changes in classroom outcomes.
- Section 6.2 explores the extent to which structured pedagogy training influenced teacher development across the KAPB domains.
- Section 6.3 examines the broader systemic context in which teachers operate—including policy priorities, institutional culture,

and leadership structures—which shape how training is received and enacted.

- Section 6.4 applies the BelieftoPractice Funnel, a five-stage interpretive model that helps explain where and why change in teacher behavior either succeeds or stalls. This framework traces the journey from new knowledge and beliefs through perceived feasibility and motivational intent, culminating in (or falling short of) observable shifts in classroom practice.

By synthesizing evidence across focus group discussions, teacher surveys, and classroom observations, this discussion aims to reveal not only the depth of pedagogical change but also the critical bottlenecks that must be addressed to unlock its full potential.

6.1. FROM TRAINING TO TRANSFORMATION: HOW KAPB ELEMENTS INTERACT

A substantial body of research in teacher professional development (TPD) posits a linear progression from increased teacher knowledge and improved attitudes to changes in instructional practice, and ultimately, student learning gains (Guskey, 2002; Opfer & Pedder, 2011). This foundational theory underpins much of the global investment in structured pedagogy reforms. However, findings from the My Village and Ndaw Wune programs suggest a more complex—and at times disjointed—trajectory of teacher transformation. While the study documented notable gains in teacher knowledge and shifts in attitudes, these internal changes did not consistently manifest as statistically significant improvements in classroom

practice, particularly in the observed domains.

This disjunction challenges the assumption of automatic causality between cognitive-affective change and behavioral outcomes. It aligns with a growing body of scholarship on the “implementation dip” or “knowledge-practice gap,” where TPD programs succeed in transmitting knowledge but fail to overcome the adaptive, institutional, and logistical barriers necessary for translating that knowledge into practice (Desimone, 2009; Fullan, 2007; Darling-Hammond et al., 2017). Teachers may internalize new ideas without necessarily possessing the enabling conditions—time, confidence, materials, peer support, or leadership reinforcement—to act on them.

The divergence between internal change and observed practice in this study is not merely a question of program fidelity. Rather, it underscores the nonlinear and conditional nature of pedagogical transformation. To explore these dynamics, we employ the BelieftoPractice Funnel, an interpretive framework that traces the multistage journey from teacher cognition to observable behavior. This model posits that change progresses across five interrelated stages: Knowledge, Attitudes, and Beliefs (KAB) – What teachers report knowing and believing. Perceived Feasibility – Whether teachers feel capable of applying the knowledge in their own context.

Motivated Intent – Whether teachers feel empowered and willing to implement new methods.

Enabling Conditions – Whether institutional and material conditions support implementation.



Observed Practice – What ultimately materializes in the classroom.

Our findings suggest that for many teachers in both countries, transformation stalled at the feasibility or motivation stages. Teachers often agreed with the principles of levelbased instruction, expressed a desire to implement them, and even reported modified planning approaches in FGDs. Yet classroom observations showed limited uptake of specific strategies such as differentiated grouping, peer instruction, or adaptive feedback. This gap is further magnified in Senegal, where training was more recent and contextual constraints more pronounced.

Moreover, it is essential to consider that not all “gains” may be immediately observable within conventional classroom assessments. Teacherreported changes in planning, framing of student errors, or emotional reengagement with their profession—especially among volunteer teachers—represent important latent outcomes of structured pedagogy that may precede or outpace observable behaviors.

6.2 STRUCTURED PEDAGOGY AS AN ENABLING FRAMEWORK

Across both Tanzania and Senegal, the structured pedagogy programs—My Village and Ndaw Wune—produced measurable differences in teacher knowledge, attitudes, and practices, even if changes in beliefs were less discernible. In terms of Knowledge (Section 5.1.1), Tanzania showed a clear and statistically significant difference between treatment and control groups, with treatment

teachers scoring notably higher. This positive effect persisted even after accounting for background variables in regression analyses, though other factors like the number of languages spoken and class grade taught were strongly negatively correlated with scores. In Senegal, the knowledge gains were weaker and more localized. While the overall effect of the intervention was only marginally significant, a districtlevel analysis showed that Saint Louis—where the control group performed notably poorly—drove the only significant difference, suggesting that the impact of training was geographically uneven.

For Attitude (Section 5.1.2), both countries demonstrated statistically significant differences between treatment and control groups on aggregate cognitiveaffective and behavioral scores. Across both nations, treatment teachers scored higher on the cognitiveaffective scale and were more likely to exhibit active behavioral responses. In Tanzania, regressions confirmed positive and significant intervention coefficients for both attitude components, indicating an overall positive shift. Similarly, in Senegal, Ttests and regressions confirmed significant differences in aggregate attitude scores, highlighting the intervention's strong impact on attitudes, with treatment teachers significantly more likely to adopt an active role and score higher on the cognitiveaffective scale.

In contrast, the study found no significant differences in Beliefs (Section 5.1.3) between treatment and control groups in either country. Aggregate belief scores hovered around neutral to slightly positive for both groups, suggesting that core convictions about student learning potential—especially in underperforming

resistant to shortterm shifts. Still, focus groups revealed that many trained teachers reframed learning difficulties as instructional challenges rather than innate student deficits—a critical first step in belief transformation not fully captured by the survey tool. Additionally, in Senegal, belief scores were negatively correlated with the number of languages spoken in some districts, echoing patterns seen in Tanzania’s knowledge data and pointing to complex interactions between teacher identity, community context, and instructional confidence.

While survey tools captured changes in discrete domains, the focus groups highlighted the integrative power of structured pedagogy as a decisionmaking lens. Teachers repeatedly emphasized that the training gave them not just new tools, but a systematic way to make sense of their classrooms. Several described the programs as “opening their eyes,” providing them with a coherent plan to organize instruction, group students, assess progress, and adapt lessons. In this way, the programs functioned not just as training, but as a professional scaffold that reduced ambiguity, restored agency, and boosted confidence—especially in environments where teachers often feel unsupported and overwhelmed by rigid curricula or inconsistent policy signals. .

The classroom observation tool did not capture this aspect, as it pertains to the preclass decisions teachers make—particularly their strategic planning and instructional choices. However, other findings indicate that teachers in the treatment group showed notable improvements compared to the control group. These included better alignment of

instructional methods with students’ learning levels and more effective use of teaching materials, at least before structural constraints (like time and overcrowding) limited their efforts. This enabling function of structured pedagogy is especially valuable in underresourced environments, where teachers often face ambiguity, curriculum overload, and professional isolation. When pedagogy offers clear guidance and structure, it enhances teachers’ sense of control and boosts their confidence in reaching every learner.

6.3. SYTTE

While training programs like My Village and Ndaw Wune equip teachers with foundational pedagogical tools, the extent to which these are translated into daily practice is largely mediated by the broader systemic environment. The findings underscore that teachers’ intentions and capabilities alone are insufficient to drive transformation unless aligned with institutional leadership, coherent programmatic support, and an enabling community climate. This section explores how education leadership, competing initiatives, and the homeschool interface shape or constrain pedagogical change.

6.3.1 EDUCATION LEADERSHIP

Across both countries, teachers consistently described working within a centralized and topdown education system, where the state—through the Ministry of Education—sets curriculum mandates and



supervises training. While external actors such as USAID, JICA, World Vision, ARED, and LARTES play a prominent role in financing and designing interventions, the national government remains the ultimate authority. Teachers generally equate compliance with state-issued syllabi as evidence of good teaching, but also express frustration with the disconnect between policy directives and classroom realities.

A significant point of tension is the national curriculum itself, which is described as "heavy," "cumbersome," and overloaded. Teachers argue that foundational grades (CI/CP/Grade 1/Grade 2/Grade 3) are burdened with too many subjects beyond the crucial basics of reading, writing, and mathematics, like history and geography, which they believe are unnecessary for such young children. Teachers believe that they have not consulted in curriculum development and that disconnection leads to unrealistic burden for their students. A teacher in Senegal says:

"We need to put students at ease. But we also need to cut back on the Early Stage program. During this period, pupils only need to know how to read, write and count.. We also need to let teachers teach their classes properly, without imposing a particular approach. We're asked to follow the syllabus to the letter, but sometimes we need to dwell on certain aspects for the students to understand." (SNCFG2, R5)

Additionally, frequent curriculum changes, often introduced without sufficient consultation or preparation, have created confusion and limited teacher agency. In Tanzania, teachers voiced concerns about unrealistic expectations—such as using

digital tools for instruction—when neither the equipment nor the training was available. A teacher in Tanzania says,

"The teaching of all these topics now says the teacher should focus more on using technology. But when you look at the technology we're told to use in the classroom, there's no equipment in schools, and even the teachers don't have the skills." (TZTFG1, R3)

6.3.2 COMPETING INITIATIVES

Within the education sector, teachers are encountering and learning to implement a multiplicity of new methods and programs, many introduced by external partners. Programs such as RELIT, PAAME/PAM, Ndaw Wune, LPT, JICA, Boost, Tusome Pamoja, and Jifunze/My Village are actively changing teaching practices. These initiatives often target specific areas like reading and numeracy, sometimes focusing on foundational grades (CI/CP/Grade 1/Grade 2). A significant pedagogical shift is being promoted, moving away from traditional, teacher-centered lecturing towards participatory approaches that emphasize student engagement, group work, peer learning, and the use of teaching aids. Teachers are learning techniques like using concrete objects, varied exercises, and structured grouping to address different learning levels. While some programs, like RELIT, are described as having quality training and providing tools, others, like PAAME, have provided documents, but training hasn't reached all teachers.

These programs are primarily funded and supported by external partners like USAID, World Vision, LARTES, JICA, and ARED, working in conjunction with the state Ministry. The Ministry is perceived as the main source of legitimacy for curriculum and organizing training, while partners bring the necessary funding and resources. However, the sources reveal a complex interaction between these programs. While some complementarity is acknowledged, teachers also report frequent, sometimes rapid, and occasionally inconsistent or contradictory approaches, particularly in reading interventions over a short period. A teacher in Senegal says:

“In a single decade, we’ve seen many actors intervene in the education system, each with their own approach. If they worked in different areas, that might be beneficial. But for example, in reading alone, we’ve seen multiple interventions in less than five years, and their approaches aren’t always consistent. They’re not completely contradictory, and there is some complementarity, but it would be better to allow each method time to prove itself before introducing a new one... In short, the education system needs stability and thorough evaluations before implementing new changes..” (SNTFG2, R3)

Language is a multifaceted aspect of the systematic climate, particularly with the push to use local languages alongside national ones. While using the mother tongue is recognized as beneficial for student comprehension and participation, its implementation faces challenges. Language policies promoted by programs like RELIT, which encourage the use of local languages, face implementation difficulties due to teachers' lack of proficiency in specific

dialects and sometimes conflict with parental preferences for the national language.

“I wonder how a Wolofspeaking teacher can be expected to teach in Seereer. It would be better to generalize the RELIT language content by using only Wolof. It’s impossible to teach a language you don’t understand. The approach needs to be revised.” (SNCFG1, R7)

Despite these challenges, teachers recognize that the trainings and newer methods offered by these programs are often valuable. They report that these approaches help improve teaching practices, make learning more engaging for students, and contribute to their own professional growth and confidence. Some programs, like Jifunze/My Village and Ndaw Wune, are specifically appreciated for their focus on identifying and supporting struggling students and helping them catch up. However, the key challenges that hinder effective implementation persist, including insufficient training (especially in areas like remediation, ICT, specific difficult topics, or inclusive education), a critical lack of essential resources and materials such as student textbooks and teaching aids, and significantly, overcrowded classrooms. These practical constraints often make it difficult or impossible to fully implement the participatory, differentiated, and timeintensive strategies advocated by the new pedagogies.



6.3.3. COMMUNITY AND PARENTAL SUPPORT

The household and community climate surrounding education presents a mixed, though often challenging, picture for teachers. A significant issue is the lack of parental support and engagement. Some parents are perceived as not prioritizing school education, sending children "just to grow" because the government requires it, rather than valuing learning itself. This can lead to children arriving late or being absent without parental concern. Teachers note that parents often don't help with homework or supervise children's studies at home, sometimes due to lack of time, resources like textbooks, or their own limited education. Parental financial hardship is a prevalent problem, meaning many students lack basic supplies like notebooks, pens, and textbooks, sometimes requiring teachers to purchase these themselves. Home environments marked by factors like parental conflict, lack of food, or insufficient sleep can also severely impact a child's ability to focus.

Community attitudes can also create difficulties. In some areas, there's a negative perception that subjects like mathematics are inherently difficult, a belief that is transferred to children. Similarly, there can be a perception that learning the national language (like Kiswahili or French) is "not for rural folk," sometimes leading to negative reactions or teasing towards students who speak it well. The integration of local languages, while potentially beneficial for comprehension, has faced challenges, with some parents expressing a preference for their children to learn only

the national language. Teachers report difficulty with parental responsiveness to requests for meetings or involvement. In some communities, teaching is not highly valued, and teachers can face ungrateful parents or even feel unsafe, experiencing verbal attacks and a lack of community support or security. Despite these challenges, some teachers make efforts to build relationships with parents through meetings, home visits, and phone calls to encourage support for learning and address student absences.

6.4. TRACING CHANGE THROUGH THE BELIEFTOPRACTICE FUNNEL

Not all changes in teacher mindset or training exposure result in visible classroom transformation. To understand the mechanisms of change, and where they stall, this section applies the BelieftoPractice Funnel, a fivelevel framework that traces how teacher knowledge, attitudes, and beliefs are activated, acted upon, or blocked in practice. The model, outlines how beliefs translate into actions and helps interpret findings across the three data sources: Teacher surveys (which capture selfreported change), focus group discussions (which reveal contextual and emotional dimensions), and classroom observations (which show what actually happens). Together, they offer a composite picture of how structured pedagogy moves, or fails to move, from theory to practice.

6.4.1 KNOWLEDGE, ATTITUDES, AND BELIEFS

Treatment group teachers have significant advantage over control groups in knowledge and attitude dimensions. While survey data indicates training can improve knowledge scores, teachers' qualitative feedback reveals persistent areas needing further knowledge development related to these specific challenges. Knowledge gaps are evident in teachers' struggles with teaching specific difficult concepts like phonemic awareness, consonant blends, place value, multiplication, division, and word problems. They also highlight difficulties stemming from the curriculum and materials, including the mismatch between standardized language in texts and local dialects. A teacher in Senegal says:

"We face the same difficulties in storytelling and mathematics, through reading difficult texts and complicated exercises." (SNTFG, R3)

Teachers feel their training is inadequate in duration and depth, particularly for integrating crosscutting issues and using technology as required by the curriculum.

Similar to its impact on knowledge, the training led to significant improvements in teachers' attitudes toward instructional change. However, notable gaps remain in their openness to new methods, pedagogical innovation, and problemsolving approaches. These attitudinal gaps often surface not as resistance to the pedagogies themselves, but as expressions of frustration with the broader systemic

environment in which teachers operate. In many cases, skepticism or hesitation reflects the constraints of curriculum overload, lack of support, or insufficient resources, rather than a rejection of the core instructional principles introduced during training. While training positively influenced teachers' attitudes toward structured pedagogy—boosting their confidence and reducing feelings of burden related to instructional methods—persistent frustrations with systemlevel constraints reveal an unresolved attitude gap. This gap is less about resistance to pedagogy and more about skepticism toward the broader operational environment, including inadequate support, rigid curricula, and insufficient resources.

However, beliefs—especially about student potential—remained relatively unchanged, as shown in both survey scores and focus group responses. Teachers, especially in control groups, continued to attribute learning difficulties to home backgrounds, ability, or language barriers, rather than instructional gaps. While training introduced a shift in perception of instructional responsibility, deeply held beliefs about who can learn and why proved more resistant to change—particularly where teachers themselves were marginally trained or lacked community support.

Teachers generally express a belief in the potential of all students to succeed, particularly when supported by appropriate instructional methods. However, this belief is frequently tempered by the realities of their teaching environments—namely, large class sizes, limited resources, and curriculum constraints—which they perceive as significant barriers to enabling every child to learn effectively. While there is a strong



conviction among teachers that student participation is critical for learning and development, their belief in the system's ability to support such engagement remains weak. Many view the current education system as misaligned with the practical needs of teachers and learners, leading to a perceived disconnect between policy expectations and classroom realities.

Survey data reinforces this dynamic: both trained and untrained teachers scored similarly on belief-related items, indicating that the structured pedagogy training did not fundamentally reshape teachers' core beliefs about student capacity. Rather, the training appeared to equip teachers with a clearer pedagogical framework that allowed them to act on these beliefs more deliberately. Trained teachers were more likely to articulate how they translated their beliefs into practice, suggesting that the intervention enhanced the activation of existing beliefs, rather than altering their content.

However, the report offers a crucial interpretation of this finding: while similar beliefs may exist across both groups, these beliefs "have not been activated through an effective framework" in the control group. This distinction becomes clearer in the qualitative discussions. While a teacher in a control group expressed a belief that student abilities are not the same and some students "will still never understand"[SNCFG1, R8], implying a limitation in their capacity, teachers in the treatment groups narrated how their training helped them address student struggles. Specifically, trained teachers stated that the methods learned allowed them to see that children from certain families weren't inherently unable to succeed, but rather their

difficulties stemmed from the teaching methods previously used or the lack of close support. They reported feeling confident and motivated, believing the methods "simplified things" and could "eliminate biased views about children who struggle". This suggests that while the potential for belief in student capacity might be similar (as the survey implies), the intervention provided the treatment teachers with the tools and experience needed to see students succeed, thereby activating and reinforcing a more optimistic belief in students' ability to learn when given the right support and methods. Both groups also share implicit beliefs about the challenges posed by external factors like crowded classrooms, lack of materials, and difficult curriculum content, which influence their perception of what is possible within the existing system.

6.4.2 PERCEIVED FEASIBILITY

Based on the sources, teachers in both Tanzania and Senegal generally hold a positive view regarding the perceived feasibility of the accelerated learning methods they were trained on, such as My Village and Ndaw Wune. In Tanzania, teachers explicitly state that the training provided methods that "simplified things", made their job "easier", and were "not a heavy burden"(see TZTFG1). They feel "confident" using the strategies learned, describing teaching with them as "very relaxed" and noting that these participatory methods are "very easy" and "Extremely easy" to implement. They see the methods as effective for helping students (TZTFG2) and improving their own classroom practices. This indicates a strong belief in their personal ability to apply the learned

techniques, particularly when comparing them to older, lecturebased approaches. Teachers are actively applying these methods not just in the targeted programs but also in their regular classes.

Similarly, in Senegal, teachers view the accelerated learning methods, including Ndaw Wune, as valuable and beneficial, enabling them to adopt differentiated methodologies and improve classroom management and organization. They report that reproducing these techniques in their regular classes works well and is very interesting. Teachers believe the training helps raise the students' level and improves their own practices. They even recommend the approach to colleagues, suggesting a positive belief in its efficacy and usability.

Despite this positive view, teachers in both countries understand the significant practical barriers that challenge the actual feasibility of full implementation in their specific classroom contexts. These external challenges, such as “large class sizes” [TZTFG2], a severe “lack of teaching materials and resources” [TZTFG2 and SNTFG2], insufficient time, issues with curriculum content and the “linguistic mismatch” in Senegal [SNTFG3], along with broader systemic deficiencies, are consistently highlighted as major impediments. Thus, while teachers generally believe in their ability to use the methods and their effectiveness in principle, the prevailing operational conditions in their schools significantly constrain the extent to which they can realistically apply these practices on a daily basis for all students.

Teacher in control groups, although being open to try these new methods, view the practical feasibility of implementing these

new methods effectively for all students is significantly hampered by widespread systemic and contextual challenges identified across the sources. Teachers repeatedly highlight issues such as severely overcrowded classrooms with 60-75 or even 85 students, making it difficult to apply methods (e.g. circular formats) designed for smaller groups [SNCFG1, SNCFG2, TZCFG2]. A critical lack of necessary teaching materials, student textbooks, and adequate infrastructure like desks and even functional blackboards forces teachers to resort to less effective practices, like writing everything on the board or making photocopies themselves, which hinders hands-on and interactive learning approaches promoted in training [SNCFG1, SNCFG2, TZCFG1, TZCFG2].

Furthermore, the heavy and extensive curriculum creates significant time constraints, forcing teachers to rush, skip content, or prioritize new lessons over necessary remediation, making it hard to dedicate sufficient time to implement detailed methods or support struggling learners as intended by some programs [SNCFG1, SNCFG2, TZCFG1]. While training is appreciated, teachers note it can be insufficient in depth or duration for certain topics like remediation, or it may not align perfectly with the realities of their classroom or the current curriculum, requiring reliance on experienced colleagues or personal adaptation [SNCFG1, TZCFG1, TZCFG2]. These barriers collectively make it very difficult to apply the learned methods consistently and effectively for every student [SNCFG1, SNCFG2, TZCFG2].



6.4.3 MOTIVATED INTENT

Teachers exhibit a strong "motivated intent" to use new teaching methods from programs like My Village, and Ndaw Wune. They express a desire to apply these methods, feeling a responsibility to benefit students and improve their teaching practice.

As a teacher in Senegal says:

"I believe there are a lot of strengths. Personally, I use ARED techniques in my own classroom, for both reading and math. These methods are very valuable. From the parents' side too, it's important—they'd normally have to pay for tutoring, but here we have a project that covers it. That's really something to be appreciated." (SNTFG2, R2)

Teachers perceive the new methods as "valuable tools" that enhance effectiveness, providing "very appropriate methods that enable the child to understand quickly", giving them "baggage", being "very helpful", and providing "strength and the ability to love teaching". They find teaching "easier" and "much easier" [TZTFG1, R1], describing the methods as "very valuable". The methods simplify previously disliked topics [TZTFG2, R5] and help students learn effectively fueling implementation desire.

Confidence in using the strategies is high stemming from their effectiveness and manageability, being "not a heavy burden" but rather "simplified things" and teaching them "how to do their work well".

Teachers proactively apply these techniques in both remedial and regular classes. They adapt strategies by grouping students,

incorporating teaching aids, changing the environment, and involving peers and parents. They strongly believe in student participation and active learning and address disengaged students, showing responsibility for each child's learning. Their "motivated intent" is further evidenced by their willingness to recommend the methods to colleagues and other schools. Some even desire to "go teach them" and "spread out" to "raise the teaching profession" [TZTFG1, R2] and eliminate biased views about struggling children. Despite practical challenges such as large class sizes, lack of materials, or language barriers, teachers overwhelmingly express a strong commitment to utilizing the methods and focus on suggesting improvements rather than rejecting them.

6.4.3.1. Emotional Climate

Perhaps the most striking insight across both countries is the emotional dimension of teacher transformation. Teachers in treatment groups often described feeling energized, hopeful, or validated. They spoke of professional pride, renewed purpose, and even joy.

"For me, I can say I walk proudly, for taking children from one stage to another. For example, I always think of my boy Shadrack, whom I moved from not knowing how to read to knowing how. Because of that, I can walk confidently, and you find someone telling you, 'Teacher, thank you very much, you took my child from one stage to another.' So, I can say I've been very successful in taking a child from darkness to light, and the community has accepted and rejoiced." (TZTFG, R2)

We observed a stronger emotional climate of confidence, pride, and renewed purpose among Tanzanian treatment teachers, many of whom had tested, refined, and internalized the structured pedagogy over time. Having seen tangible results, their reflections conveyed not only satisfaction but also ownership of the approach. In contrast, while Senegalese teachers in the treatment groups expressed gratitude toward the Ndaw Wune training and acknowledged its positive effects on both teaching and student learning, their tone reflected a phase of active adaptation. They were still in the midst of integrating new methods, navigating challenges, and building confidence in the approach, a process marked by hopefulness, but also ongoing adjustment.

“Thanks to the Ndaw Wuné training, my classroom management improved through the integration of songs and educational games. I now use them, and they work effectively.” (SNTFG3, R1)

The quantitative results of teacher survey also support this theme. Where improved cognitive, affective and behavioral attitude toward changes induced by training program were strong and persistent among treatment teachers in both countries. In Tanzania, 73% of treatment teachers are embracing of changes induced by accelerated learning pedagogies. While among the control teachers, the ratio stands at 53%. The same numbers for Senegal are 52% and 24% respectively.

By contrast, control group teachers were more likely to express resignation or caution about the amount of time it would take for students to learn the content. This was not because they cared less, but because they had fewer tools and less support to act on

their intentions. In this sense, structured pedagogy did not just change what teachers knew, it redefined what they thought was possible.

6.4.4 ENATITIONS

Even highly motivated teachers face substantial structural barriers, effectively narrowing the funnel of pedagogical change. These “structural walls” include overcrowded classrooms, a severe lack of resources, and intense time and curriculum pressures. Observation results consistently confirm this challenge. For example, while treatment classes in Tanzania showed improvements in areas like grouping and material use, practices such as differentiated instruction or providing student feedback remained rare. Similarly, in Senegal, where training was more recent, even the basic application of new methods was uneven, not due to a lack of teacher intent but rather a systemic readiness deficit. As one Senegalese teacher succinctly put it, “We want to use the games, but there is no space and time” [M1, Treatment, Senegal]. This highlights that teacher intent is often “blocked at the institutional level” unless policies, resources, and leadership are aligned with the vision for pedagogical change.

6.4.4.1. Overcrowded Classrooms

The sheer number of students profoundly limits the ability to apply new teaching methods. Teachers commonly report classes of 60, 70, or even 85 students [SNCFG1, R6]. Implementing core components of many programs, such as group work, becomes challenging due to noise and control issues (“it gets too noisy,



individually with struggling students, as some methods require [TZTFG1, R1, R6; TZTFG2, R2, R1]. One teacher noted that combining reading and math remediation periods can lead to student fatigue and loss of concentration [TZTFG2, R3].

6.4.4.3. Critical Lack of Resources

A consistent and pervasive theme is the critical lack of necessary resources, which directly undermines the effective application of trained methods. Teachers frequently lament the absence or insufficiency of teaching aids and materials, forcing them to improvise [TZCFG1, R6; TZTFG1, R2; TZTFG2, R2, R1; SNCFG1, R6]. As one teacher emphasized, "instead of just writing 'ba' on the board, using cards would help children understand better. So, I think having teaching aids is crucial" [TZTFG2, R2]. There is also a significant deficit in student textbooks [SNCFG1, R8; SNTFG2, R2, R5], with teachers sometimes needing to make photocopies themselves because pupils lack books [SNTFG2, R5].

Inadequate infrastructure presents a major barrier. Teachers report not having enough desks or benches, leading to students sometimes sitting on the floor [SNCFG1, R6; SNTFG2, R2]. This makes flexible seating arrangements for grouping difficult or impossible [SNTFG2, R5]. One teacher described a class where students sit "5 or 6 to a bench, many without desk surfaces. Others sit on the floor to write" [SNTFG2, R2]. Furthermore, specific measurement tools required for subjects like math are simply unavailable in schools [SNTFG2, R2].

6.4.4.4. Integration of My Village and Ndaw Wune in Schools

Programs like My Village and Ndaw Wune are separate classes in the after school

period as targeted interventions, primarily for students in foundational grades (such as CI, CP, CE1, Grade 1, and Grade 2). These are not presented as the main curriculum for all students nor as mere extracurricular activities. Their primary focus is on improving foundational literacy and numeracy skills by identifying and supporting students with learning challenges, grouping them based on their specific needs. For instance, Ndaw Wune often forms dedicated "ARED classes" or "Ndaw Wune classes" with specific student numbers, and Jifunze/My Village has its own designated "Jifunze class." While teachers adapt methods from these programs into their regular teaching, the programs themselves involve working with these designated student groups.

These programs introduce specific teaching methods, including participatory learning, group work, peer learning, and differentiated instruction. Teachers apply these methods, learned through program trainings, both within the program's dedicated time and in their general classroom instruction. While exact timings are not always specified, there are indications of dedicated time slots; for example, a Ndaw Wune teacher mentioned meeting with underperforming students on Tuesday and Thursday afternoons, and another sets aside 15 minutes after school for student evaluations. Jifunze/My Village also operates within a fixed timeframe, such as 30 days, for its activities. Teachers have noted the difficulty of fitting these programs into an already demanding national curriculum, suggesting they are added requirements rather than replacements for existing time slots.

Both programs are explicitly focused on remediation, helping students who have

fallen behind catch up. Jifunze/My Village also supports inclusive education by helping teachers identify and support children with special needs through assessment and grouping. Finally, programs like RELIT and Jifunze/My Village provide specific tools and materials, such as teacher guides and student resources. The absence of these materials can significantly hinder effective implementation.

In essence, Jifunze/My Village and Ndaw Wune function as structured interventions within or immediately following the school day, targeting specific younger students who require additional support in reading and math. They involve forming special groups and equipping teachers with specialized methods and materials to address learning gaps. While these programs integrate new methods into general classroom practice, significant challenges persist in balancing their requirements with the existing curriculum and pervasive resource limitations.

6.4.5 OBSERVED PRACTICE

The treatment intervention showed its strongest impact in Tanzania, particularly in areas related to classroom management, instructional structure, and resource utilization. Teachers in the treatment group demonstrated significantly better classroom management practices, more effective formation of skillbased groups, and greater use of appropriate teaching materials and aids. Teachers in the FGDs described how the training helped improve classroom management, and the organization of the classroom layout and groups. These are important building blocks for structured

pedagogy and likely reflect the visible, procedural components of training that teachers could adopt more readily. In Senegal, the only outcome that remained significant after controls was the use of teaching aids, indicating a more limited instructional shift attributable to the intervention.

However, across both countries, the treatment failed to significantly improve deeper instructional practices, those that demand more nuanced pedagogical judgment and ongoing support. There were no significant gains in teachers' ability to provide feedback, implement adaptive teaching, or conduct assessments aligned to students' learning needs, core elements of studentcentered learning. Likewise, efforts to promote student autonomy or foster peer learning environments were either nonsignificant or, in Senegal's case, even negatively associated with treatment after controlling for variables. This suggests that while the intervention succeeded in changing some surfacelevel behaviors, it struggled to bring about transformational shifts in teaching practice, which may require more intensive coaching, longer implementation timelines, or systemic support.

Treatment teachers, specifically those involved in programs like Jifunze/My Village or Ndaw Wuné, demonstrate an understanding of core concepts promoted by these interventions, including the importance of grouping students based on their different performance levels (e.g., by letters, syllables, words, or understanding levels in math) [SNTFG2], the need for differentiated instruction and adapting teaching based on student understanding [TZTFG1; TZTFG2; SNTFG2], and to a lesser



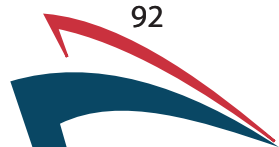
extent, utilizing participatory methods, including peer learning and using teaching aids, rather than just lecturing [TZTFG1; TZTFG2; SNTFG2]. Some teachers explicitly mention applying techniques like grouping [SNTFG2] and using teaching aids [TZTFG1; TZTFG2] as direct outcomes of their training. This interpretation of the intervention leads to teachers focus on observable outcomes rather than substantive and nuanced outcomes such as peer learning and feedbacks to help students in their individual learning path.

The negative association between school conditions and several instructional outcomes in Tanzania may reflect a greater uptake and visible effect in more resourceconstrained settings. In schools with poorer infrastructure or fewer materials, teachers may have leaned more heavily on the structured practices promoted by the intervention, such as forming skillbased groups or using simple teaching aids, as these offered practical solutions in otherwise challenging environments. Conversely, betterequipped schools may have either relied on existing routines or integrated the intervention more selectively, leading to weaker observable effects. In this light, the negative coefficients should be interpreted as a compensatory dynamic, where the intervention's added value was strongest in classrooms that needed it most, highlighting its potential as a proequity tool in lowresource contexts.

Classroom seating emerged as a consistently positive predictor of collaborative learning outcomes, especially in Senegal. Circular seating arrangements were significantly associated with improved peer learning environments and more effective group formation, aligning with well-established literature showing how

physical layout shapes participation and communication. These findings suggest that even simple changes in classroom organization can support more interactive teaching methods and should be intentionally incorporated into pedagogical planning. It also reinforces the idea that structural enablers, like space and layout, can powerfully shape social learning when paired with appropriate instructional practices.

Class size emerged as a complex and contextdependent factor in shaping observed outcomes, underscoring its nuanced influence on classroom dynamics. In Tanzania, larger class sizes were unexpectedly associated with increased student participation and greater use of teaching aids, possibly reflecting a need for more visible, wholeclass engagement strategies in highenrollment settings. Similarly, in Senegal, higherenrollment classrooms showed more frequent use of teaching aids, suggesting that resourcedependent teaching practices may become more prominent when managing larger groups. However, in stark contrast, larger class sizes in Senegal were negatively correlated with the quality of peer learning and group formation. This points to the challenges teachers face in sustaining structured, collaborative activities as classrooms become more crowded—often reverting to centralized or lecturebased instruction. These findings highlight a familiar tension between scale and individualization: while larger classes may foster more collective energy or pressure to engage, they also reduce the feasibility of differentiated, studentcentered methods. As a result, the very instructional strategies emphasized in the interventions—like



targeted grouping and peer learning—may be most difficult to implement where they are needed most.

6.4.6 CLOSING REFLECTION

The BelieftoPractice Funnel helps clarify why structured pedagogy training produces meaningful but incomplete transformation. In both Tanzania and Senegal, teachers are beginning to think differently, experiment with new methods, and increasingly believe in every child's potential to learn. However, what teachers are able to do differently is deeply shaped by the conditions in which they work. Training provides an essential foundation, but lasting change depends on reinforcement through supportive coaching, access to materials, responsive school leadership, and flexibility in instructional expectations. Without these enabling conditions, belief often remains aspirational, and practice remains constrained.

This study underscores that while training fosters notable gains in teacher knowledge, attitudes, and belief in student capacity, these internal shifts did not consistently translate into improved classroom practices—particularly in areas like peer learning and adaptive instruction. The gap can be attributed to multiple systemic and contextual barriers reported by teachers, including curriculum rigidity, overcrowded classrooms, insufficient materials, and inconsistent institutional support. These findings suggest that improving teacher practice requires not just individual capacitybuilding but a broader ecosystem of support to unlock the full potential of professional development.

6.4.6.1. Competing Methods

One significant factor was the presence of competing teaching methods, and the difficulty teachers faced in consistently applying new approaches. Teachers often sought guidance from veteran colleagues for established programs like PAAME which were seen as the standard "evaluation method" [SNCFG1]. In Senegal, RELIT program offers some similarity to Ndaw Wune, such as the focus of foundational learning, assessment. New methodologies boost belief of the teachers in student capacity and eroding the differences between treatment and control groups.

6.4.6.2. Remedial Focus & Unrepresentative Target Group

Furthermore, programs like Jifunze and Ndaw Wune were often applied primarily as remedial interventions targeting the hardest to reach or struggling students, a group potentially not representative of the overall student body [TZTFG2]. Teachers stated these programs aimed to help "those who don't know how to read" [TZTFG2] or students with "KKK (reading, writing, and arithmetic) challenges" [TZTFG2]. Ndaw Wune involved creating needsbased groups for students "struggling the most" [SNTFG2]. Applying complex pedagogical strategies to a small, challenging subset, rather than integrating them into general teaching, could limit their visibility in overall classroom observations, diluting observed differences. Programs reportedly helped raise targeted students' levels, "allowing them to reintegrate with the rest of the class" [SNTFG2], reinforcing their initial remedial use.

6.4.6.3. Lack of Program Integration

Relatedly, My Village and Ndaw Wune were



often perceived and implemented as separate projects or additions rather than being fully integrated into main school programs and the daily curriculum, with sessions sometimes held in "extra time" [TZTFG2]. This suggests the programs were siloed, not altering the entire teaching approach. Concerns about project "disappear[ance]" also pointed to a lack of longterm systemic integration. While teachers valued the methods [TZTFG2], their application might have remained confined to specific remedial sessions, explaining why general classroom observations didn't show significant differences.

6.4.6.4. Pervasive Resource Constraints

Finally, pervasive resource constraints, including lack of materials, insufficient time, overcrowded classes, and poor infrastructure, created significant barriers to largescale implementation [TZTFG1, TZTFG2]. Teachers repeatedly cited lack of essential materials and textbooks [SNTFG2, SNTFG3, TZTFG1, TZTFG2]. Implementing interactive activities was difficult with "overcrowded classes" of 60290 students [TZCFG2 TZTFG2], often lacking desks or space. Insufficient time, stemming from curriculum overload and student numbers, prevented adequate remediation or full program implementation [SNTFG2; TZTFG2]. Poor infrastructure and lack of modern equipment [TZTFG1] further hampered teaching. Observation data showed external factors like school condition and class size often outweighed the intervention's impact. These practical barriers made consistent application of trained methods extremely difficult, regardless of acquired knowledge or belief.

6.5. Implications for Scale and Sustainability

6.5.1. Why These Findings Matter

This study aimed at understanding whether and how the targeted structured pedagogies transform teachers, what they know, believe, do, and become. The findings reveal that structured pedagogy programs such as My Village in Tanzania and Ndaw Wune in Senegal did far more than introduce tools or routines. They offered a new mental model of teaching: one that shifted teachers from content delivery to learnercentered design, from routine compliance to instructional judgment, and from passive acceptance of failure to an active belief in student potential.

These programs reshaped professional identity. Many teachers described not only learning new techniques but rediscovering what it means to be a teacher, feeling more confident, more connected to students, and more hopeful about what is possible.

These insights are not abstract. They come directly from what teachers say they can do, want to do, and struggle to do. Their narratives are grounded in daily classroom realities, from improvising with no materials to reorganizing 90 students into learning groups, to going doortodoor to reduce absenteeism. The data reflects not only aspirations, but tensions: between belief and burnout, change and constraint, hope and hesitation.

In Tanzania, teachers had been trained under My Village program more than a year back to

this KAPB study, and some of them had already embedded elements of the trainings into regular school routines and are looking to sustain and deepen those gains. In Senegal, teachers at this phase of Ndaw Wune pilot were still in the early stages of adoption, showing motivation and creativity but requiring more support to turn experimentation into enduring practice.

Scaling structured pedagogy is not a onesizefitsall effort, it must evolve alongside where teachers are in their journey. The following countryspecific implications offer practical guidance for how to do just that.

6.5.2. TANZANIA: CONSOLIDATING AND SCALING WHAT WORKS

6.5.2.1 From Experimentation to Internalization

For many of the teachers in the Tanzania treatment groups some elements of the pedagogical methods introduced through the My Village program have become a regular part of how they teach. Rather than describing Jifunze/My Village as a standalone or temporary intervention, several teachers spoke of assessment, grouping, and participatory learning activities as practices they now carry into their everyday classrooms. This shift suggests that structured pedagogy has moved beyond experimentation to become internalized as professional habit for some. This is clearly supported by regression results of the class observations in Tanzania, where level matching of training, use of material and group formation is scored significantly higher in treatment classes. And class participation is higher.

However, this integration varied. Some teachers still described moments of reverting to wholeclass instruction under pressure, and others noted that not all colleagues had adopted the practices completely. Still, the results from knowledge section of teacher survey in Tanzania demonstrates that the teachers are equipped with the necessary knowledge, and the overall trend in the focus groups pointed to a meaningful transition from “trying out” the approach to owning and adapting it. To support this continued internalization, there is an opportunity to align the Jifunze model more deliberately with the national curriculum, teacher training colleges, and CPD frameworks, embedding it within formal systems rather than treating it as an add-on.

In the shortterm, to build on the progress of teachers internalizing My Village practices, immediate steps should focus on reinforcing their current efforts. Schools should provide regular peer observation sessions and mentorship programs to support teachers transitioning from experimentation to habit. These sessions can encourage sharing of best practices, such as effective group formation or assessment techniques, and address challenges like reverting to wholeclass instruction under pressure. Additionally, providing supplementary materials, such as additional learning cards or lowcost teaching aids, can alleviate immediate resource constraints and sustain teacher momentum. Local education authorities should prioritize quickwin solutions, like flexible scheduling to accommodate participatory activities, to ensure teachers feel supported in embedding these practices.

To ensure the longevity of My Village’s impact, longterm efforts should focus on



integrating its pedagogical approaches into Tanzania's national education framework. This includes aligning Jifunze methods with the national curriculum, teacher training colleges, and continuous professional development (CPD) programs to institutionalize learnercentered practices. Establishing formal certification pathways for volunteer teachers and incorporating their contributions into national teacher frameworks will secure their role in scaling these approaches. Additionally, addressing structural barriers, such as reducing class sizes and ensuring consistent material supply through policy reforms, will create an enabling environment for sustained pedagogical transformation.

6.5.2.2 Sustain Momentum and Address Fragility

Even where My Village practices had taken root, their implementation remained vulnerable to broader system pressures. Teachers across both treatment groups noted persistent challenges related to large class sizes, material shortages (e.g., insufficient learning cards), and student hunger, particularly in the afternoon sessions. In one group, teachers explained that children who had not eaten often left before the session began, reducing participation dramatically. These realities reveal that the sustainability of innovation still rests heavily on teacher perseverance and improvisation. While the trainingbuilt capacity and this is supported by teacher survey results in Tanzania, the system around the teacher has not yet fully adapted to enable the consistent use of these practices. Structural barriers such as overcrowded classrooms and rigid syllabus expectations continue to create tension between what teachers know is effective

and what they are required to do. Going forward, policy and program support should aim to reinforce, not rely on, teacher innovation, by addressing these structural constraints directly.

To mitigate the fragility of My Village's implementation, immediate actions should target key structural constraints. Schools should implement temporary measures, such as prioritizing morning sessions to address student hungerrelated absenteeism or redistributing existing materials to ensure equitable access across classrooms. Local education offices can support teachers by providing clear guidelines on adapting My Village practices under resource constraints, such as using locally sourced materials for learning aids. Additionally, shortterm training refreshers should focus on strategies for managing large class sizes, helping teachers maintain learnercentered approaches despite systemic pressures.

Longterm sustainability requires systemic changes to address the structural barriers hindering My Village's implementation. National education policies should prioritize investments in infrastructure to reduce class sizes and ensure consistent material availability. Integrating flexible syllabus pacing into teacher performance frameworks will allow educators to prioritize learnercentered methods without fear of noncompliance. Furthermore, establishing a national support system for ongoing teacher coaching and resource allocation will reduce reliance on teacher improvisation, ensuring that innovative practices are consistently supported by the broader education system.

6.5.2.3 Recognize and Retain Volunteer Teachers

Communitybased volunteer teachers played a vital role in the implementation of the My Village program in Tanzania, particularly in facilitating before and afterschool learning camps. In both treatment group discussions, these volunteers described the training as a form of recognition and empowerment—many spoke with pride about their contributions in supporting struggling learners. However, their reflections also revealed uncertainty about their future and concerns about the lack of formal acknowledgment for their efforts.

Despite their close connection to learners and deep commitment to their communities, volunteer teachers remain on the margins of the education system. Without formal recognition—whether through pathways to certification, structured incentives, or opportunities for professional advancement—their contributions risk being undervalued and unsustainable. As Tanzania considers scaling learnercentered approaches like My Village, it will be essential to develop policies that recognize, retain, and integrate this critical workforce into the broader education system.

6.5.2.4 Institutionalize Practices through Policy Alignment

Many of the techniques introduced through My Village—including continuous formative assessment, grouping by learning level, and the use of lowcost, participatory activities—were widely appreciated by teachers as both effective and feasible. However, these practices often remain peripheral to the official expectations embedded in the national curriculum and teacher performance frameworks. While

some governmentemployed teachers reported integrating these methods into regular school hours, others described resistance from school leadership when deviating from prescribed lesson plans or textbook pacing.

To move beyond pilot implementation and toward broader institutional adoption, it is essential to align teacher training, classroom expectations, and supervision systems. Practices such as peer learning, datadriven instruction, and reflective teaching should be formally embedded in teacher standards and accountability structures. By reinforcing what teachers already do well and recognizing it within the formal system, Tanzania can shift from fragmented innovations to a coherent, systemwide transformation in foundational learning.



6.5.3 SENEGAL: SUPPORTING DEEP ADOPTION AND SYSTEM READINESS

6.5.3.1 Teachers Are Willing, But Systems Must Catch Up

Across all Senegalese treatment focus groups, teachers expressed strong appreciation for the Ndaw Wune training. Many described it as a welcome shift from routine instruction, offering new tools, a clearer instructional sequence, and strategies to engage students who had previously struggled. Several teachers shared examples of how they were already adapting lessons, reorganizing groups, or introducing peer learning, even in the face of large classes and limited materials.

However, this enthusiasm was often accompanied by visible strain. Teachers described improvising with limited resources—photocopying workbook pages, rotating three student groups singlehandedly, or creating their own materials when none were provided. These accounts highlight a critical disconnect between teacher readiness and system readiness. The consequences of this gap are reflected in the quantitative findings from Senegal’s teacher surveys and classroom observations, where gains in knowledge and attitude did not consistently translate into improved classroom practice. For structured pedagogy to be implemented sustainably and at scale, essential supports—such as adequate materials, ongoing mentoring, and adaptable planning tools—must be treated not as optional add-ons, but as foundational elements of program design.

To support Senegalese teachers in the early

stages of Ndaw Wune adoption, immediate actions should focus on building confidence and addressing resource gaps. Schools should provide additional training workshops to reinforce key skills, such as group management and formative assessment, with practical demonstrations tailored to large class sizes. Distributing readily available materials, such as photocopied workbooks or locally produced teaching aids, can alleviate immediate shortages. Additionally, establishing peer support groups within schools can foster collaboration, allowing teachers to share strategies for adapting Ndaw Wune methods to low-resource settings and reducing implementation anxiety.

To ensure Ndaw Wune’s longterm success, Senegal’s education system must align its infrastructure and policies with teacher readiness. This includes investing in material production and distribution systems to ensure consistent access to workbooks and teaching aids. Developing a national framework for continuous teacher support, including regular coaching and mentorship programs, will help teachers move from experimentation to deep adoption. Additionally, integrating Ndaw Wune’s learner-centered principles into preservice teacher training and national curriculum standards will normalize these practices, creating a cohesive system that supports sustainable implementation.

6.5.3.2 Don’t Rush Implementation Without Reinforcement

While most teachers in the treatment group found the training clear and relevant, many felt it was too brief and followed too quickly by implementation, leaving little time for reflection, preparation, or adaptation to their classroom contexts. Several teachers,

especially those newer to remedial instruction, described feeling unprepared when asked to launch sessions days after the training. This is also evident in relatively lower knowledge scores of Senegalese teachers as well as the fact that the effect size of treatment on knowledge score came out to be weak and barely significant.

This compressed timeline resulted in uneven levels of confidence among teachers. While some adapted quickly and began experimenting with the new methods, others expressed hesitation and adhered rigidly to the guide, unsure of how to adjust it to their context. Across the board, teachers consistently called for structured followup—such as regular checkins, refresher sessions, coaching visits, or peer learning groups. A well-designed posttraining support ecosystem could play a critical role in consolidating teacher gains, building confidence, and reducing implementation anxiety.

To address the compressed training timeline of Ndaw Wune, immediate posttraining support is critical. Schools should implement regular checkin sessions and coaching visits within the first six months of training to help teachers process and apply new methods. These sessions can include troubleshooting common challenges, such as adapting lessons for large classes or managing time constraints. Providing clear, practical guides on implementing Ndaw Wune in resource-scarce settings will empower teachers to experiment confidently. Additionally, involving school leaders in orientation sessions can align expectations and reduce friction with untrained colleagues.

Longterm success in Senegal requires

institutional coordination to support Ndaw Wune's adoption. Education authorities should develop a national strategy to train school leaders, inspectors, and pedagogical advisors in Ndaw Wune's principles, ensuring a shared vision across all school actors. Creating formal mechanisms for teacher feedback in program design will enhance ownership and relevance. Additionally, embedding flexible implementation guidelines into national education policies will allow teachers to adapt Ndaw Wune to diverse classroom contexts, ensuring scalability without sacrificing quality.

6.5.3.3 Strengthen Institutional Coordination

In several focus groups, teachers described experiencing friction with colleagues or school leaders who had not participated in the Ndaw Wune training. A few teachers mentioned resistance to grouping or peer learning strategies, with colleagues calling them a waste of time or a distraction from curriculum coverage [See SNTFG3, R3]. The quantitative results from class observations also supports the assertion that there is no significant differences between treatment and control classes on mentioned strategies after controlling for background information.

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This disconnect not only isolates trained teachers, but undermines consistency for students. It also reveals a broader institutional challenge: implementation cannot rest on the trained teacher alone. Without shared understanding and aligned expectations among all school actors, including headteachers, inspectors, and pedagogical advisors, even well-intentioned efforts can become fragmented. Future iterations of Ndaw Wune should prioritize orientation sessions for school leadership, to foster a common language and avoid mixed signals about instructional expectations.

6.5.3.4 Design for Scale with Flexibility

While teachers saw clear value in the materials and methods introduced by Ndaw Wune, they also raised practical concerns about how to adapt the program in lowresource, highenrollment classrooms. Several mentioned not having enough workbooks or space to rotate groups, while others flagged time pressures created by balancing regular and remedial instruction. A few teachers described adjusting on the fly, using chalkboard activities instead of booklets, or condensing sessions to fit afternoon slots.

These adjustments demonstrate teacher agency and adaptability. Classroom observation data further supports this, showing that trained teachers consistently made greater use of teaching aids than their untrained counterparts. However, this also underscores the need for more intentionally designed flexibility within the program. Teachers are asking for clear, practical guidance on how to proceed when ideal conditions—such as adequate space, time, and materials—are not available. As Ndaw Wune continues to evolve, its design should incorporate these realities. Including modules focused on lowcost alternatives, managing multiple groups simultaneously, and adapting lessons under time constraints would equip teachers to apply the program’s core principles more effectively in resourcelimited settings.

6.5.4 CROSSCUTTING LESSONS

The findings from Tanzania and Senegal

offer important insights not just into the outcomes of structured pedagogy programs, but into the conditions that shape their sustainability and impact. While each country’s experience was shaped by different program phases, timelines, and contexts, several crosscutting lessons emerged that can inform future design and implementation.

6.5.4.1 Belief Change Is a Powerful Lever, But It Must Be Supported Structurally to Endure

One of the most striking shifts observed among many teachers in the treatment groups was a transformation in their beliefs about student potential. Teachers who once felt resigned to the idea that some children “just can’t learn” described how structured pedagogy helped them see struggling students in a new light. These belief changes were often rooted in experience, seeing a previously quiet or lowperforming student begin to read, engage, or lead a group.

But belief alone wasn’t enough. In both countries, teachers expressed frustration when structural constraints, class size, hunger, material shortages, curriculum pressure, made it difficult to act on what they had come to believe. To sustain beliefdriven pedagogical change, systems must reinforce it with the tools, flexibility, and support required to follow through.

To sustain the observed shifts in teacher beliefs about student potential, immediate actions should provide teachers with practical tools to act on their newfound perspectives. Schools can introduce lowcost, highimpact resources, such as reusable assessment templates or group activity guides, to help teachers translate



beliefs into classroom practice. Shortterm professional development workshops should focus on building skills in adaptive teaching and student engagement, reinforcing beliefdriven changes. Encouraging peer learning networks within schools can also provide immediate support, allowing teachers to share successes and address challenges collaboratively.

6.5.4.2 Pedagogical Transformation Is a Process, Not a Single Event

Teachers consistently highlight that while training provides new methods and skills, it is only the beginning of integrating these into daily practice effectively. Many feel that their initial college training did not fully prepare them for current classroom realities and changing curricula, necessitating continuous learning and updated training. The real challenges and nuances of implementation become apparent on the job.

In Tanzania, where programs like Jifunze and Tusome Pamoja had been implemented for over a year, teachers described how specific methods—particularly those targeting reading and numeracy—had become integral to their teaching repertoire. They spoke of using specific techniques like stepbystep teaching with aids, incorporating games and songs, and implementing group work. A key aspect mentioned was the use of assessment to group students by need and track their progress, moving them between levels like syllables to words. While they found these methods beneficial and felt confident using them, they also identified challenges that emerged during implementation, such as overcrowded classrooms, insufficient materials, and the strict time limits of the program (like the 30day target), suggesting a need for more flexibility and extended implementation time.

The need for continuous training was also mentioned to refresh and update methods.

In Senegal, teachers discussed programs like Ndaw Wune and RELIT, with some having been involved since 2021 or 2022. While they praised the value of these programs, such as Ndaw Wune's differentiated instruction model and RELIT's support for reading and language transfer, they voiced significant challenges during implementation. These included severe time constraints due to curriculum overload and competing demands, making it difficult to find time for remediation and planning. They also faced logistical burdens like managing group work with large class sizes and inadequate infrastructure, a lack of necessary teaching materials and textbooks, and difficulties with the specific content or language approach used in some programs, like teaching mathematics in a nonlocal Pulaar dialect in Ndaw Wune. Teachers reported feeling tired or stressed due to the heavy workload. Their comments reflect the ongoing process of grappling with these methods in challenging realworld conditions.

Class observations in the study, while not explicitly providing a comparative timeline between countries in the provided text, generally indicate that while treatment teachers show significant improvements in areas like fostering student participation and managing classrooms compared to control teachers, there were no significant differences observed in areas such as providing feedback, conducting assessments, promoting peer learning, or implementing adaptive teaching. This suggests that integrating certain complex pedagogical practices is more challenging than others. The observations also highlight that external factors like school condition,

availability of equipment, and class size significantly influence the implementation of practices like teaching material utilization and group formation. These findings underscore that the context in which new methods are applied heavily impacts the extent of pedagogical change achieved.

These observations, combined with teacher narratives, strongly support the idea that pedagogical transformation is an ongoing process that unfolds over time, influenced by practical application, systemic support, and the resolution of realworld challenges. A short initial training, even if highquality, followed by immediate rollout without adequate resources, dedicated time, and ongoing support places significant pressure on teachers.

To effectively support the depth of instructional change expected, training models must be accompanied by sufficient time for practice and implementation, adequate materials and resources, and sustained support through followup, refresher courses, and potentially peer learning mechanisms, rather than just initial sessions.

“We wait too long between trainings. Since we received that training years have passed. So training should be ongoing, or at least updated. New things come up now.”
(TZTFG1, R2)

Longterm pedagogical transformation requires sustained systemic investment. Education systems should develop comprehensive professional development frameworks that include regular training, coaching, and peer learning opportunities to support teachers throughout their careers. Integrating structured pedagogy into national education standards and teacher

evaluation criteria will normalize these practices. Additionally, addressing contextual challenges, such as infrastructure limitations and curriculum overload, through policy reforms will create a supportive environment for sustained transformation, ensuring teachers have the resources and flexibility to implement new methods effectively.

6.5.4.3 Strengthen teacher network

Teachers participate in various forms of collaboration and networking that contribute to their professional development. Teachers frequently discuss the challenges they face and share potential solutions with colleagues. These interactions extend beyond informal conversations, with references to more structured professional groups like “animation cells” or gatherings where teachers can discuss exercises and ensure a shared understanding, and areas where they “share these practices internally” within their groups or schools.

“We try to review the exercises that are to be offered independently a few hours before the lesson to try to understand them. For this, it can be useful to call on the supervisor or colleagues. This enables us to discuss the exercises and understand how they have perceived them, so that we have the same level of understanding.”(SNTFG3, R4)

In Tanzania, specific initiatives also foster teacher networks, such as “teacher learning communities” referred to as JZK and MEWAKA. These communities serve as structured spaces designed for teachers to come together, address difficult topics, and collaboratively figure out how to support students who are struggling, sometimes involving teachers presenting specific concepts or methods.



These teacher networks and collaborative opportunities have a tangible impact on professional practice and teacher motivation. Engaging with colleagues in discussions and learning communities provides teachers with new insights and techniques that they can then apply in their own classrooms, helping them to "figure out how to support" students facing difficulties. Participation in these forums and meeting other teachers through initiatives like Uwezo is seen as a source of continuous learning, helping teachers build capacity throughout their careers. Beyond acquiring new methods, these interactions can be highly motivational, helping teachers overcome initial reluctance with new approaches and feel more confident in their teaching abilities. This peer learning and sharing environment is also noted when teachers who receive specific training share those methods with untrained colleagues, effectively disseminating knowledge within the teaching community.

6.5.4.4 TeacherLed Adaptation Is Real, Systems Must Shift from Compliance to TrustBased Enablement

Across both countries, many teachers demonstrated a willingness to adapt and problemsolve, even in the absence of ideal conditions. A few described modifying lesson timing, improvising materials, or adjusting grouping strategies to make the method work.

Teachers demonstrate significant agency and adaptive practices in their classrooms, modifying their teaching methods to meet student needs despite systemic limitations, even when discouraged or in the presence of supervisors [See "mother tongue" in SNCFG1,R3]. Some even feel creative with flexible grouping, forming "mixed" groups

after assessments with students of different levels, and giving advanced students tasks to help peers. A teacher in control group says:

" There are students who are afraid to speak in class but get good grades on tests and assignments. Others understand things very quickly....However, we must not isolate them for the entire year." (SNCFG1, R7)

Teachers report learning from these adjustments, evaluating if their methods helped students achieve objectives. They use assessments like summative evaluations, daily questions, written exercises, and observations to diagnose learning gaps and inform these grouping and reteaching strategies. Within programs like Ndaw Wune, assessment determines student progression between learning levels. This shows teachers are actively tailoring the path through learning, even if overall objectives are mandated. Furthermore, teachers feel a lack of involvement in curriculum and program design, expressing that new initiatives are sometimes imposed without considering classroom realities or teacher input, undermining their professional judgment.

These examples highlight that teachers are not passive implementers. When given autonomy and encouragement, they can be agents of innovation. But too often, systemic expectations, from rigid inspection protocols to pressure for syllabus completion, signal that deviation is risky, even when it serves learning. Shifting from a compliencedriven culture to one of trust and professional judgment is key to enabling meaningful adaptation and scale.

To truly enable teacher agency and move

towards a trustbased system, focus groups suggest several systemic shifts are necessary. This includes providing adequate and appropriate resources and improving infrastructure. Teachers need relevant, sustained professional development that is responsive to their expressed needs and delivered under supportive conditions. The system must allow for greater flexibility in curriculum pacing and allocate dedicated time for assessment and remediation. Including teachers in curriculum and program development would ensure policies are better aligned with classroom realities and build ownership. Supporting teacher collaboration and peer learning is also crucial. Ultimately, addressing these systemic issues would shift the focus from rigid compliance to empowering teachers with the necessary tools, time, and trust to adapt their practice effectively, leveraging their expertise to improve student learning outcomes.

6.5.4.5 Context Matters, ScaleUp Must Match Where Teachers Are in Their Journey

Finally, the study reinforces that implementation context must shape program design and expectations. In Tanzania, focus group teachers had already navigated the learning curve of structured pedagogy and were focused on deepening and sustaining practices, including calls for alignment with national systems and recognition of volunteer teachers. In Senegal, teachers were still actively exploring how to use the approach and requested clearer strategies for lowresource classrooms and collaborative learning opportunities.

Scaling efforts must therefore begin not with a fixed model, but with a clear understanding

of where teachers are in their journey, and what they need next. For some, it may be their first exposure to grouping or formative assessment; for others, it may be support to institutionalize what they've already made their own. A responsive scaleup strategy recognizes that transformation doesn't look the same in every classroom, and that's not a weakness, but a starting point for tailored support.

6.CONSTRAINS

This section examines limitations in interpreting the quantitative section results, focusing on the reliability of measurement tools and contextual factors that may have influenced outcomes in Tanzania and Senegal.



7.1. RETILITY

Internal consistency evaluates how well items measuring the same construct correlate, with Cronbach's Alpha as a common metric to assess the reliability of a scale. A Cronbach's Alpha of 0.70 or higher is generally considered satisfactory in social science research, indicating that the items collectively measure an underlying construct. However, Classical Test Theory, which underpins Cronbach's Alpha, assumes unidimensionality, a single latent variable. While unidimensionality is not a direct assumption of the statistic, it is implicit in the underlying tau-equivalent model. The knowledge and belief sections of our survey tools are inherently multidimensional, which may limit their performance in Cronbach's Alpha assessments. In practice, purely unidimensional tests are rare, as most constructs involve some complexity.

Alpha Statistics for Attituded Section of Teacher's Survey		
Item	Tanzania	Senegal
Q11	0.7801	0.7192
Q12	0.8143	0.7543
Q13	0.7975	0.7249
Q14	0.8286	0.7582
Q15	0.8240	0.7284
Q16	0.8173	0.7134
Q17	0.8036	0.7476
Q18	0.8041	0.7476
Q19	0.7826	0.7133
Total	0.8243	0.7570

Table 9: Cronbach's Alpha for Measure Items

Alpha Statistics for Knowledge Section of Teacher's Survey		
Item	Tanzania	Senegal
Q1	0.3918	0.3093
Q2	0.3962	0.1317
Q3	0.3186	0.2816
Q4	0.3283	0.2693
Q5	0.2841	0.3090
Q6	0.3386	0.3171
Q7	0.3577	0.2285
Q8	0.1538	0.3077
Q9	0.1507	0.2699
Q10	0.3295	0.2738
Total	0.3374	0.2962

Alpha Statistics for Belief Section of Teacher's Survey		
Item	Tanzania	Senegal
Q20	0.3973	0.5639
Q21	0.4022	0.6019
Q22	0.4496	0.5667
Q23	0.3673	0.5445
Q24	0.3744	0.5720
Q25	0.4322	0.6120
Q26	0.4460	0.5460
Q27	0.4050	0.5595
Q28	0.3872	0.5485
Q29	0.3488	0.5535
Q30	0.3918	0.5724
Q31	0.4951	0.6151
Q32	0.3860	0.5752
Total	0.4271	0.5719

Across both Tanzania and Senegal, Cronbach's Alpha results for the knowledge section of the teacher survey fell below the 0.70 threshold, an expected outcome given the multidimensional nature of the construct and resource constraints limiting question scope. To mitigate this, the team adapted tools from partners working in similar accelerated learning contexts, aligning with the exploratory phase of instrument development where lower reliability is common. These results contribute to a broader knowledge base, serving as a foundation for refining measurement tools in future studies of accelerated learning pedagogies.

The attitude section of the teacher survey achieved a high Cronbach's Alpha, reflecting strong unidimensionality and internal consistency. This was anticipated, as the section was adapted from a validated tool designed to measure teachers' responses to change. The data confirms its reliable application to changes introduced by accelerated learning pedagogies.

The beliefs section, newly developed to capture values critical to accelerated learning outcomes, is also multidimensional. Removing three items (questions 25, 26, and 31) improved the Cronbach's Alpha to an acceptable range for a firsttime measure. Like the knowledge section, the beliefs tool is a starting point, with future iterations expected to enhance internal consistency.

7.2 SPILLOVER AND CONTAMINATION

The findings presented in this study should be interpreted as conservative estimates of

program effects, given the high likelihood of spillover and contamination across both treatment and control groups.

In Tanzania, widespread training occurred in both treatment and control areas postMy Village implementation. In Gairo, the USAIDfunded Jifunze Ulewi program, and in Kisarawe, the UKfunded Shule Bora program, provided teacher training, householdlevel learning camps, and teaching aids focused on foundational learning. Additionally, a national competencybased curriculum reform, accompanied by training for all primary teachers, and a localized teacher development mechanism, weekly meetings of teachers from nearby schools, likely facilitated knowledge sharing, increasing spillover from treatment to control groups. The research team lacks tools to fully assess these complex contamination scenarios.

In Senegal, the USAIDfunded RELIT program, ending in 2021 in Saint Louis and Kaolack, trained over 10,000 teachers in phonicsbased reading methods in local languages (Wolof, Pulaar, Serer), achieving a 20% improvement in reading fluency. The World Bank's PAQEEB project, active in Matam and Diourbel, supported remedial classes and school grants, emphasizing girls and rural learners. UNESCO's 2022 Spotlight Report highlights community engagement in Saint Louis and Kaolack but notes persistent challenges like poverty and infrastructure deficits. UNled radiobased learning initiatives, though less prevalent contributed further to the complex educational landscape.. These concurrent programs likely influenced teacher practices even in control schools, thereby diluting the observable impact attributable solely to Ndaw Wune.



7. CONCLUSION

This report set out to explore the transformative potential of structured pedagogy programs, examining not only their impact on teachers' technical skills and instructional strategies but also their influence on the deeper dimensions of professional knowledge, attitudes, classroom practices, and beliefs about student learning. Through a comparative analysis of focus group discussions in Tanzania's My Village program and Senegal's Ndaw Wune initiative, a teacher-led narrative of change has emerged, one that is as emotional and relational as it is pedagogical. The findings demonstrate that when teachers engage with a clear, structured, and student-responsive methodology, one that acknowledges learners' starting points and equips educators with practical tools, the effects ripple across KAPB.. Quantitative analysis supports these qualitative insights, revealing significant improvements in specific areas, though tempered by contextual constraints.

The study's quantitative results highlight the varied impact of structured pedagogy across Tanzania and Senegal. In Tanzania, treatment teachers scored 0.73 points higher on knowledge assessments than control teachers, with less variation, particularly in Gairo, where scores were 0.6 points higher than in Kisarawe. Classroom observations confirmed that treatment teachers excelled in fostering student participation and classroom management, with significant Likert-scale items like group

formation (0.5 points) and teaching material use (0.0.53 points) showing nearly one-point

improvements. In Senegal, knowledge scores showed no overall difference, except in Saint Louis, where treatment teachers outperformed controls (3.6 vs. 2.7). Attitude scores indicated treatment teachers in Tanzania were 13% more likely to exhibit active behaviors, while in Senegal, they were 22% more likely, with a 0.48-point higher cognitive-affective score. However, belief scores remained statistically similar across groups in both countries, averaging 3.7, between neutral and slightly positive. This apparent contradiction—where teachers express belief in their students' potential yet do not show measurable differences in belief scores—points to a critical insight: the training did not fundamentally alter belief content, but rather activated latent beliefs by offering practical tools and frameworks. We call this a belief activation gap: teachers already believed learning was possible, but lacked the means to act on that belief. Structured pedagogy helped bridge that distance—not by changing hearts, but by unlocking hands.

Qualitative findings reinforce this interpretation. Teachers reported transformative shifts in their practices and perspectives. They began to view assessment as a formative tool rather than a compliance task, embracing grouping and games as serious pedagogical strategies. With increased confidence, they adapted content flexibly, moving away from rigid pacing, and reframed students' struggles as instructional challenges rather than personal shortcomings. Most notably, many teachers rediscovered a sense of agency and belief, in their students' potential, their own capabilities, and the possibility of equitable learning despite resource constraints. These changes were most pronounced in treatment groups, though teachers expressed them

with nuance, acknowledging that transformation hinges on supportive systems. In both countries, focus groups revealed a shift in teaching's default setting, from content delivery to responsive engagement, and from doubt to conviction, though these shifts were neither uniform nor universal.

Despite these gains, both quantitative and qualitative findings underscore that training alone is not enough. Classroom observations showed no significant differences in feedback, assessments, or adaptive teaching, with regressions indicating that external barriers, such as school conditions or staffing policies, often outweighed intervention effects. Teachers remain constrained by overcrowded classrooms, misaligned curriculum expectations, and a lack of materials and followup support. Institutional cultures prioritizing coverage over care, coupled with student absenteeism due to hunger or family responsibilities, further hinder progress. In Tanzania, spillover from programs like Jifunze Ulewi and Shule Bora, alongside a national curriculum reform, likely diluted intervention effects. In Senegal, USAID's RELIT and the World Bank's PAQEEB introduced similar influences. Where these pressures persist, even motivated teachers revert to traditional routines, exhausted by the effort to sustain change without systemic support.

If structured pedagogy is to move from promise to scale, policymakers must address these root conditions. Teacher preparation must extend beyond oneoff training to include practicebased simulations, coaching, and peer support. Leadership alignment is essential to ensure that school heads, inspectors, and

curriculum planners reinforce—rather than contradict—the pedagogy's core goals. Training content must reflect classroom realities, including multigrade teaching and lowresource environments, while also integrating teacher wellbeing and reflective practice as legitimate components of quality. Without this scaffolding, belief will remain aspirational, and practice constrained.

Ultimately, this study reaffirms a simple truth: teachers are not the problem—they are the pathway to the solution. Quantitative data, supported by Cronbach's Alpha analysis, confirmed the reliability of the attitude survey tool, though multidimensional knowledge and belief sections require further refinement. Focus group discussions illuminated teachers' reflective reasoning, improvisation, and professional ethics, revealing insights beyond surveys or test scores. Listening to teachers not only uncovers what works but also clarifies what matters: teaching children in ways that meet them where they are and propel them forward. By providing relevant tools, space to adapt, and trust in their judgment, structured pedagogy programs can unlock teachers' deep commitment to their students. For these programs to succeed at scale, policymakers must amplify teacher voices, address systemic barriers, and foster conditions where transformation is not just possible but enduring.



APPENDIX I

Below are the tools leveraged in the research:

Teacher Survey

Interview and Location Details:

Automatically collected data

- A. Interviewer Name
- B. Time Started.
- C. Time Ended
- D. Geolocaition
- E. Date
- F. The devise will prompt you the record school name and code
- G. The device will prompt you to record respondent Name and tracking number.

Section 1. DEMOGRAPHIC INFORMATION

1. The devise will prompt you the record school name, code, and village/city.
2. The device will prompt you to record respondent Name, Gender and phone number/email .
3. Record highest education certificate by the teacher and their years of experience.
4. Record the number of languages, and name of language they can speak, and interact.
5. Record current ranks, and the subject taught at the school
6. Record the number of professional development courses they have completed.

SECTION 2: Knowledge

The following question are asking about certain elements of remediation approaches such as Ndaw Wune by ARED Senegal, Accelerated learning by UWEZO Tanzania, and Teaching at the Right Level (TaRL) . Please answer the questions to the best of your knowledge. You may choose only one option.

1. Identify the most important factor in designing a lesson for students with diverse learning needs?

- (A) By Grade
- (B) By Age
- (C) By Current Learning**
- (D) By Curriculum Standards

2. Which of the following are the key elements in addressing students' individualized learning needs?

- (A). Assessment Grouping Data Recording
- (B). Teaching Learning Material Activities Session Plans
- (C). Mentoring & support
- (D). All of the above**

3. To assist with classroom management, the teacher may group children of certain levels together

True False

4. In student grouping, one facilitator is in charge of just one level/group of children.

True False

5. The teacher does not need to wait for a formal assessment to move a child to the next level, when teach students based on their learning levels

True False

6. How are activities conducted in a class that addresses students' individualized learning gaps?

- (A). The teacher ask children to practice an activity Individually.
- (B). Children demonstrate the activity to the whole class and then do it Individually.
- (C). The teacher demonstrates the activity to the whole class, children then practice in small groups and Individually.**
- (D). The teacher just asks the children to practice the activities in small groups.

7. What is the best recommended strategy in dividing time between groups:

- (A). Focus on facilitating the worst performing group
- (B). Focus on facilitating the best performing group
- (C). Rotate between the groups to facilitate in set intervals**
- (D). Avoid interrupting independent peer leave learning

8. Which of the following statements is incorrect in remediation approach:

- (A). Involve each child while demonstrating an activity.
- (B). Don't discourage children who take more time than others to grasp concepts.
- (C). Don't force the children to participate in the activities.
- (D). The group leader of small groups should not be changed periodically.**

9. what is a remediation approach in teaching?

- (A). It creates a learning trajectory fixed for each child to learn at a certain pace
- (B). Children are able to learn basic reading and math skills in a short period of time at their own pace.**
- (C). None of the above.



10. Which grades do remediation approaches typically focus on?

- (A). 3 to 5
- (B). 1 to 5
- (C). 2 to 4
- (D). 3 to 7

SECTION 3: Attitude

Prompt the teacher to choose the option most accurately reflecting your opinion about the item being proposed:

11. Most changes by remediation approaches (Ndaw Wune, Accelerated learning, TaRL) are pleasing

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

12. Most students benefit from new remediation approaches focused on teaching according to the level of their understanding

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

13. Remediation approaches (Ndaw Wune, Accelerated learning, TaRL programs) and teaching according to students' understanding, often help teachers perform better

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

14. Most changes proposed by remediation approaches (Ndaw Wune, Accelerated learning, TaRL programs) and teaching according to students' understanding are irritating

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

15. I don't like changes by Remediation approaches (Ndaw Wune, Accelerated learning, TaRL programs) and teaching according to students' understanding

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

16. Remediation approaches (Ndaw Wune, Accelerated learning, TaRL programs) and teaching according to students' understanding, changes frustrate me

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

17. I look forward to Remediation approaches (Ndaw Wune, Accelerated learning, TaRL programs) and teaching according to students' understanding at my school

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

18. I have proposed Remediation approaches (Ndaw Wune, Accelerated learning, TaRL programs) and teaching according to students' understanding for my school

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

19. Remediation approaches (Ndaw Wune, Accelerated learning, TaRL programs) and teaching according to students' understanding changes benefit me at school

- a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

SECTION 4: Belief

Prompt the teacher to choose the option most accurately reflecting your opinion about the item being proposed:

20. Students in my class have diverse learning styles that need different methods.

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

21. Students' outcomes are by in large determined by parent education and income status

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

22. It is fair to spend more time with students showing more aptitude and interest

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

23. Good education is the cornerstone of future life achievements

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

24. Individuals can make a difference in outcomes of the system

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

25. Education system in this country is efficient

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

26. Sharing and discussing implementation challenges with other teachers is detrimental to system strength

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

27. I regularly ask for help and consultation from my fellow teacher colleagues

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

28. Teacher training programs I have received have offer practical insights about dealing with students with different learning levels and styles.

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

29. Teaching must be inclusive of all learning levels

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

30. Teachers' perceptions on students' capabilities to learn could lead to differences in students' learning outcomes

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

31. Classroom should be quiet and students should listen to their teachers all the time

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

32. My role as the teacher is to improve students' learning, regardless of their behavior

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

33. Students' learning depend on their background knowledge

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree

34. Students learn better by working independently on the topic before teacher shows them answers

a.Strongly Disagree b.Disagree c. Neutral d. Agree e. Strongly Agree



Focus Group Discussion Guide

Country:							District:			
Number of teachers in the focus group:							Date:			
Have these teachers received TaRL, Accelerated learning, or other remediation training? (yes/No)										
Teachers' Information										
N o.	Na me	Sex (Female/ male)	Scho ol nam e	Scho ol type	Grade (s) teachi ng	#of years teachi ng	Level of educat ion (diplo ma, bachel or, master s)	Field of educat ion	Subject area (if applica ble)	Silent or domin ant speak er (1 to 5)
1										
2										
3										
4										
5										
6										
...										



To moderators:

Take note of your observations of:

- How do teachers talk about the teacher training programs they have received, do you see passion/excitement/interest when they speak? Are they engaged in the conversation? Are they eager to share their experiences? Are they disengaged and you should try hard to get them to speak? Did they show frustration or hostility or irritability towards the approach and its requirements?
- Which teacher training program does each teacher talk about?

Background (all the participants need to respond). If they do not feel comfortable to share their responses in the group, they can write their responses.

- How long have you been a teacher?
- What grade(s) are you teaching?
- What kind of teacher training program have you received so far? When did you receive that training? How long did the program last? Which entity/institution did offer the training?
- Why did you participate in the training program? Were there any criteria to join the training?

Knowledge

- What are the common misconceptions students have in foundational literacy and numeracy? What concepts are difficult for them to understand?
- What concepts are difficult for you to teach in your classes?
- How do you know if students have learned a concept? How do you assess children's learning in literacy and math?

(The development of the assessment, implementation of the assessment, analysis of the assessments)

- Were the teacher trainings that you have received helped you in teaching the concepts that are difficult for you to teach and for students to learn? Please name the training that was helpful.

Practice

- How do you adapt your teaching based on students' performance? (How do you deal with students' different level in your classroom? For example, how do you deal with the students who seem not to know the basics of math or literacy? How do you keep students with higher level skills engaged?)
- How do you adapt your teaching strategies to accommodate different learning styles and abilities?
- (In the focus groups with teachers who have not received remediation training) What would you need to have a more effective learning environment in your classrooms?
- (In the focus groups with teachers who have received remediation training) What challenges you have been facing in implementing the requirements of the remediation pedagogical training (TaRL, ARED, Accelerated learning) you have received?
- (In the focus groups with teachers who have received remediation training) What are the changes and improvements you like to see in the training you have received?



Attitude

- What do you think about the teacher training programs you have received (e.g., TaRL, ARED, ALP, other nonremediation and regular trainings)? Has it been useful for your classrooms and enhancing students' learnings?
- Do you feel comfortable implementing the approach you have learned in the training program?
- Do you think that the teacher training you have received adequately have prepared you for your classrooms?
- Have you recommended/ would you recommend this approach to your colleagues or other schools?
- (In the focus groups with teachers who have not received remediation training) Do you believe the remediation pedagogical approach puts higher burden on teachers and makes their life harder?

Belief

- Do you believe all students in your classrooms can learn literacy and math at the foundational level? Do you think some of the students are not able to learn regardless of the teaching approach?
- What do you do with the students that are disengaged and do not do their homework?
- Do you think students should actively participate in their learning process or you prefer them listen quietly to your instruction and do their homework?
- Do you believe the education system in this country support you enough in your teaching practices?

Classroom Observation Protocol

PreObservation Procedures

Preparation:

Ensure you have all the necessary materials (observation forms, writing tools, consent forms, etc.) ready before entering the classroom.

Introduction to Teacher:

Arrive 10 minutes before the class starts to introduce yourself to the teacher. Clearly explain that the observation is nonevaluative and confidential.

Inform the teacher that the focus is on understanding teaching practices and student engagement, not on assessing their performance.

If the teacher declines to participate, respect their decision but remind them of the confidentiality and nonevaluative nature of the observation.

Consent Handling:

Confirm that consent forms have been properly collected if required.

Observation Guidelines

Seating and Setup:

Position yourself in an unobtrusive location, preferably toward the back of the classroom, where you can observe both the teacher and students without interfering with classroom dynamics.

Do not interact with the students or teacher during the lesson. If approached by a student or teacher with questions, politely redirect them to focus on the lesson.

Neutrality and NonInterference:

Maintain complete neutrality during the observation. Do not engage in conversations, participate in class activities, or check student work.

Avoid influencing the lesson in any way by remaining quiet and as inconspicuous as possible.

Observation Process

TimeBased Snapshots:

Throughout the observation, conduct 10 second snapshots at regular intervals (every 5 minutes) to assess the number of students ontask and actively engaged in learning activities.

Use these snapshots to collect data on student engagement across different points in the lesson, ensuring a more structured and quantitative approach to engagement assessment.

Distinguishing Learning and NonLearning Activities:

Record the time the teacher spends on learning activities (e.g., instruction, group work, individual tasks) versus nonlearning activities (e.g., administrative tasks, classroom management, idle time).

Behavioral Quality Scoring:

Assign a rating (e.g., 0 = Very Poor, 4 = Excellent) for each observation criterion based on specific behavioral indicators. Use concrete examples provided in the protocol to guide your rating and ensure consistency. Pay close attention to how the teacher adapts instruction, engages students, and manages the classroom environment to support learning outcomes.

NoteTaking and Documentation

Structured NoteTaking:

Use a combination of scripting (writing down specific teacher or student quotes), tallying (counting repeated behaviors), and anecdotal summaries to document key moments during the lesson.

Take detailed notes on teacherstudent interactions, student behaviors, and the overall classroom atmosphere to support your scoring decisions.

Tally of Engagement and Feedback:

Keep a tally of student engagement patterns and teacher feedback moments to ensure comprehensive data collection on classroom dynamics.



PostObservation Procedures

Completion of Scoring:

Immediately after the lesson ends, exit the classroom to complete the observation form in a separate, quiet location. This helps avoid distractions and maintains objectivity in your scoring.

Do not discuss the observation results or scores with the teacher or anyone else.

Gratitude and Professional Conduct:

Thank the teacher for their participation and maintain a respectful, professional attitude throughout. Do not make casual comments or jokes about the observation or the teacher's performance.

Observer Training and Reliability

Training:

Observers must complete a training program on the Classroom Observation Protocol to ensure they understand how to evaluate teacher practices and student engagement objectively and consistently.

Observer training will include practice observations, interrater reliability checks, and clear explanations of the rating scales and behavioral descriptors used.

InterRater Reliability:

Observers will periodically undergo reliability checks to ensure that multiple observers score the same lesson consistently, improving the accuracy and validity of the collected data.

By following these protocols, observers can contribute to a reliable and meaningful assessment of classroom practices, focusing on instructional strategies and student learning outcomes, particularly in lowresource contexts.

Classroom Observation Questionnaire

This section provides detailed instructions on how to objectively assess and rate various teaching practices and classroom dynamics observed during the lesson. The observation questionnaire includes three categories of questions. The first category includes questions about the teacher, school, and facilities in the classroom and should be filled before and when entered in the classroom. The second category includes questions that needs to be answered every 5 minutes. The third category of questions use a structured rating scale (0 = Very Poor, 4 = Excellent), where observers evaluate specific aspects of instruction, classroom management, student engagement, and assessment practices. To ensure consistency and reliability, each rating is accompanied by clear behavioral descriptors and examples, allowing observers to make informed, evidencebased judgments. The guidelines aim to standardize the scoring process, reduce subjectivity, and provide actionable insights into the effectiveness of teaching strategies.

Category 1

Enumerator name:	Date:
Region:	School name:
School population:	School type (public, private, ...):
School level, with grade range: (for example, primary, grades 1 to 6)	Does the school look Old or New: Does the school seem well quipped or poorly equipped (for example in terms of water, toilets, yard, library)
Grade(s) of the observed classroom:	Teacher Name and Gender:
Teacher's age estimation (under 25, 2540, 4055, 55+ years old)	Teacher training sessions that the teacher has received (Name of the trainings, when, for how long)
Number of students in the classroom:	Students' sitting arrangement (e.g., in rows, in circles, ...)
Classroom size (for example, do students sit comfortably or squeezed into benches?)	Do you see a whiteboard or blackboard in the class? How is its condition (poor or well)?
What do you see on the classroom walls?	How is the ventilation in the classroom (too hot, too cold, too humid, just right)
Number of teaching aids present (even if not in use)., such as projector, flashcards, ...	

Category 2

Please set up your timer to notify you every 5 minutes. Every 5 minutes look around and respond to these questions:

1. How many students seem to be listening to the teacher?
2. How many students are offtask (e.g., not engaged in the assigned activity, distracted)?
3. Is the class noisy and interrupted for reasons UNrelated to the lesson (for example, many students are all talking together about unrelated topics and making noise): Yes/No
4. How many students are actively participating in a class activity?
5. How many students are interacting with peers as part of a group or pair activity?
6. How many groups are engaged in levelappropriate tasks or activities?
7. How many students in lowerlevel groups receive support from higherlevel peers (peer tutoring)?
8. How many students demonstrate visible understanding of the lesson (e.g., raising hands, correctly answering questions)?
9. How many teaching aids (e.g., flashcards, posters, manipulatives, projector, ...) did the teacher use in the last 5 minutes? name them:



10. How many times did the teacher ask students questions to assess their understanding in the last 5 minutes?
11. How many students received individual or groupspecific feedback from the teacher in the last 5 minutes?
12. How many specific foundational skills activities (e.g., phonics, addition) were observed during the 5minute interval?

Category 3

Please tick one of the five categories (0,1,2,3, and 4) on the following items per category below:

0 = very poor, 1 = Poor, 2 = Average, 3 = Good, 4 = Excellent

1. Teacher conducts students' assessments to inform instructions based on students' levels. Details: ...

0 (Very Poor)	No assessment (oral or written) is conducted. For example, the teacher lectures without asking any questions to check students' understanding.
1 (Poor)	Minimal or ineffective assessments are conducted. For example, the teacher asks closed questions like "Do you understand?" without checking if students actually grasp the content.
2 (Average)	Some assessment is conducted, but they are not systematic. For example, the teacher asks a few students questions, but the feedback doesn't lead to changes in instruction.
3 (Good)	Assessments are regularly conducted. For example, the teacher frequently asks the class questions and adjusts the lesson based on their answers, but misses some students.
4 (Excellent)	Assessments are frequent and effective. For example, the teacher asks targeted questions to different groups, using their responses to immediately adapt the lesson.

2. Teacher uses valid and reliable assessments that align with learning objective. Details: ...

0 (VeryPoor)	No assessment is aligned with the lesson. For example, the teacher gives a quiz on spelling when the lesson is focused on comprehension skills.
1 (Poor)	Assessments are loosely connected to learning objectives. For example, the teacher gives a quiz on vocabulary, but it doesn't match the key learning goal of reading fluency.
2 (Average)	Some assessments are aligned. For example, the teacher provides a worksheet on comprehension, but the questions are too basic to really assess students' understanding, or the questions are too difficult for most of the students.
3 (Good)	Assessments are mostly valid. For example, the teacher gives a quiz that covers the main points of the lesson, and students' results are generally reflective of their understanding.
4 (Excellent)	Assessments are highly valid and reliable. For example, the teacher gives a comprehension quiz that accurately measures each student's understanding, and feedback is used to improve instruction.

3.Class activities match the level of all students in the class. Details: ...

0 (VeryPoor)	Activities do not match students' levels at all. For example, a teacher gives complex multiplication problems to a class where many students are still struggling with basic addition.
1 (Poor)	Activities are mostly unsuitable. For example, a teacher reads from a textbook with little adaptation, leading to disengagement from advanced or struggling students.
2 (Average)	Activities are somewhat suitable, but not all students are engaged. For example, an activity on basic reading comprehension is too easy for half the class but too hard for others.
3 (Good)	Activities are mostly suitable. For example, a teacher gives different reading exercises to students at different levels, but a few advanced students finish too early.
4 (Excellent)	Activities are highly suitable. For example, the teacher has created custom reading exercises for each group, ensuring every student is challenged at their appropriate level.

4.Variety of activities are implemented to facilitate engagement of different learners in the class. Details: ...



0 (VeryPoor)	No variety in activities. For example, the teacher uses a single format (such as lecture) for the entire lesson, causing many students to lose interest and disengage.
1 (Poor)	Minimal variety. For example, the teacher uses only two types of activities (for example lecture and reading) throughout the lesson, and several students show signs of disengagement.
2 (Average)	Some variety. For example, the teacher alternates between lecture and group work, but some students are not fully engaged, as the activities do not cater to all learning styles.
3 (Good)	Good variety of activities. For example, the teacher uses group work, individual tasks, and interactive activities, engaging most students with different learning preferences.
4 (Excellent)	Excellent variety. For example, the teacher includes discussions, hands-on activities, visual aids, and group work, ensuring all students are engaged and learning effectively.

5. Teacher arrives to the class on time and sticks to the class schedule.

Details: ...

0 (VeryPoor)	The teacher arrives very late and does not follow the class schedule, causing significant disruptions. For example, the lesson starts 15 minutes late, or finishes very early (more than 15 min), or leaves the students to do an activity for a long time while the teacher sits on the chair or leaves the classroom (not engaging with students while students do the activity) for more than 15 min.
1 (Poor)	The teacher is late (1015 min), or finishes the class early (1015min), or leaves the students to do an activity while the teacher sits on the chair or leaves the classroom (not engaging with students while students do the activity) for 1015 min.
2 (Average)	The teacher starts the lesson late for less than 10 min or finishes the lesson early for less than 10 min, or leaves the students to do an activity while the teacher sits on the chair or leaves the classroom (not engaging with students while students do the activity) for maximum 10 min.
3 (Good)	The teacher adheres to the schedule with minor lapses. For example, the lesson starts on time, but the teacher slightly overruns or rushes through a few activities.
4 (Excellent)	The teacher is punctual and follows the class schedule perfectly. For example, the lesson starts and ends on time, with all planned activities covered smoothly.

6. The classroom is organized in a way that is conducive to peer learning and engagement

Details: ...

0 (VeryPoor)	There is no interaction among students. For example, students are seated individually or in rows, with no opportunities for interaction and peer learning or group activities. Or the classroom is chaotic and disorganized, making peer learning impossible.
1 (Poor)	The classroom is poorly organized, limiting peer learning. For example, students are seated in a way that discourages interaction (such as rows), or the teacher only occasionally encourages group work, and few students engage with one another.
2 (Average)	The classroom is somewhat organized but not fully conducive for interactive learning. For example, students are seated in groups, but in some groups students do not engage with each other and only a portion of the class actively engages in peer learning.
3 (Good)	The classroom is wellorganized for peer learning. For example, students are grouped in a way that facilitates collaboration, though some groups are less engaged than others. Students regularly engage in group activities or discussions, with most participating in peer learning effectively.
4 (Excellent)	The classroom is perfectly organized for peer learning and engagement. For example, seating arrangements are optimized for group work, and students are frequently encouraged to collaborate, and all students engage in meaningful discussions or group activities.

7. Teacher is well able to manage the class.

Details: ...

0 (VeryPoor)	The teacher relies on punitive measures, not positive reinforcement. For example, students are frequently punished verbally or physically or they are ignored for misbehavior.
1 (Poor)	The teacher uses very little positive reinforcement. For example, the teacher occasionally praises a student, but mostly corrects behavior using negative feedback or criticism.
2 (Average)	The teacher uses positive reinforcement inconsistently. For example, the teacher praises some students but does not use it regularly to manage the whole class, or occasionally uses punitive approaches to manage students.
3 (Good)	The teacher regularly uses positive reinforcement. For example, the teacher praises students frequently, encouraging good behavior and engagement in most situations.



4 (Excellent)	The teacher consistently and effectively uses positive reinforcement. For example, students are praised and encouraged throughout the lesson, leading to a positive and supportive classroom climate. Teacher does not use punitive approach at all.
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8. Teacher forms manageable groups based on skills level with clear roles in the group.

Details: ...

0 (VeryPoor)	No groups are formed. For example, students do not collaborate together in the class.
1 (Poor)	Groups are formed, but skill levels are not considered. For example, students of mixed abilities are grouped together without clear roles and effective collaboration.
2 (Average)	Groups are formed based on skill levels. For example, students are placed in abilitybased groups, but roles are not clear in the groups and students do not collaborate effectively and learning is not happening in their groups.
3 (Good)	Groups are wellformed based on skill levels, with clear roles. But some of the students in some of the groups are confused about what to do.
4 (Excellent)	Groups are expertly formed based on skill levels, with clear roles. For example, students are grouped according to ability, and group leaders actively support and guide their peers and everyone seems to be clear on the activity.

9. Teacher encourages students' participation and interacts with students throughout the session. Details: ...

0 (VeryPoor)	There is minimal or no interaction between the teacher and students. Teacher does not allow students to participate (ask questions, provide their view points). For example students seem fearful of participating, do not ask any question, when they want to talk about the lesson, the teacher shuts them down and quiets them. The teacher lectures the entire time without asking questions or engaging with students.
1 (Poor)	Interaction is limited or superficial. For example, the teacher asks questions, but they are closedended or only directed at a few students, resulting in minimal engagement.

2 (Average)	The teacher encourages participation and Interaction is somewhat effective. For example, the teacher asks students if they have any questions or point to share, but she/he does not leave any time for students' participation or struggles to create an inclusive environment and only a few students participate.
3 (Good)	Interaction is effective and involves most students. The teacher creates a positive and respectful atmosphere where most students feel comfortable participating and engaging. For example, the teacher asks open ended questions and regularly invites students to share their viewpoints or ask questions.
4 (Excellent)	Interaction is highly effective and inclusive. The teacher creates a highly supportive and inclusive classroom. For example, all students feel encouraged, respected, and confident in participating and sharing ideas.

10. Teacher uses teaching materials and equipment compatible with students' level.

Details: ...

0 (VeryPoor)	No materials are used, or the materials are entirely inappropriate for the lesson and students' levels.
1 (Poor)	Materials are rarely used, or they are only loosely relevant. For example, the teacher uses outdated or irrelevant materials that do not support learning objectives.
2 (Average)	Materials are somewhat appropriate, but not fully aligned with the lesson or students' levels. For example, the teacher uses materials that are suitable for some of the students and not for others.
3 (Good)	Materials are mostly appropriate and relevant. For example, the teacher provides relevant materials for most of the lesson and students' levels, though some learners may not find them fully engaging.
4 (Excellent)	Materials are perfectly appropriate and engaging for all learners. For example, the teacher uses materials that are wellaligned with the lesson and fully engage every student.



11. Teacher adapts teaching strategies to accommodate different learning styles and abilities.
Details: ...

0 (VeryPoor)	The teacher does not adapt teaching strategies to different learning styles. For example, all students are given the same activity or the same lesson, with no variation in approach or support.
1 (Poor)	The teacher makes minimal adaptations. For example, some students receive extra help, but overall, the lesson is delivered in a onesizefitsall manner.
2 (Average)	The teacher makes some adaptations for different learning styles, but inconsistently. For example, a few students are given differentiated activities, but most are not fully accommodated.
3 (Good)	The teacher adapts teaching strategies for most learning styles. For example, students are provided with a mix of visual, auditory, and handson activities, accommodating most learners.
4 (Excellent)	The teacher consistently adapts strategies to fully meet the needs of all students. For example, activities are differentiated for various learning styles, and all students are engaged and challenged at their level.

12. (Only teachers who have participated in the ARED training program in Senegal or Accelerated Learning by UWEZO Tanzania in Tanzania) Teacher uses the teaching guide and learning materials appropriately. (Enumerators need to get familiar with the training program by ARED Senegal/UWEZO Tanzania). Details: ...

0 (VeryPoor)	Teaching guides and materials are not used or are used incorrectly. For example, the teacher disregards the provided materials and gives students unclear instructions.
1 (Poor)	Teaching guides are used, but inconsistently or incorrectly. For example, the teacher skips parts of the guide, leading to confusion among students.
2 (Average)	Teaching guides are used somewhat correctly, but with minor errors. For example, the teacher follows the guide but misses key elements that would enhance learning.
3 (Good)	Teaching guides are mostly used correctly. For example, the teacher follows the guide, with only minor deviations that do not significantly impact the lesson.

4 (Excellent)	Teaching guides are used perfectly. For example, the teacher follows the guide accurately and effectively, making the lesson clear and wellstructured for all students.
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13. Teacher communicates clear expectations and agenda of the day, and commit to it.

Details: ...

0 (VeryPoor)	The teacher does not communicate expectations and the plan for the day at all. For example, the teacher starts the session without any mention of what the last session was about and what is expected for today's session and what students are supposed to learn today.
1 (Poor)	The teacher communicates expectations and the plan for the day not in a clear way. For example, the teacher mentions what they learned last session or what the focus of the today's session is about, but it is not clear or coherent. The teacher also does not commit to the goal.
2 (Average)	The teacher communicates expectations and the plan for the day, but does not commit to it and does not follow the agenda or meet the set goals..
3 (Good)	The teacher communicates expectations and the plan for the day clearly. For example, the teacher clearly explains what they learned last session or what the focus of the today's session is about, and follows the agenda. But not all the items in the agenda are met or all the items in the agenda do not flow smoothly.
4 (Excellent)	The teacher communicates expectations and the plan for the day clearly. For example, the teacher clearly explains what they learned last session or what the focus of the today's session is about, and follows the agenda. All the items in the agenda are met and all the items in the agenda flow smoothly.

14. Teacher actively promotes students' autonomy in learning.

Details: ...

0 (VeryPoor)	The teacher does not promote students' autonomy. For example, the teacher lectures all the time, does not ask students any questions, provides all the answers without allowing students to think or work independently, or does not give students any choice.
1 (Poor)	The teacher promotes minimal students' autonomy. For example, the teacher asks quotations, but quickly moves to the next topic, or does not encourage students to make their own decisions or take responsibility or express their opinions.



2 (Average)	The teacher promotes some autonomy. For example, students are given opportunities to work independently, but with significant teacher oversight and control.
3 (Good)	The teacher promotes autonomy well. For example, students are encouraged to think critically and work independently on tasks, with the teacher providing guidance as needed. Or the teacher implements peer tutoring in the session where students in pair or small groups work together.
4 (Excellent)	The teacher consistently promotes high levels of autonomy. For example, students take ownership of their learning, working independently and collaborating with peers to solve problems, with minimal teacher intervention.

15. Teacher provides timely and constructive feedback to the learners.

Details: ...

0 (VeryPoor)	The teacher provides no feedback, or the feedback is irrelevant. For example, students receive no guidance on their work or performance during or after the lesson.
1 (Poor)	Feedback is minimal or not timely. For example, the teacher provides feedback after tasks are completed but does not offer constructive guidance during the lesson.
2 (Average)	Feedback is somewhat timely but not fully constructive. For example, the teacher provides feedback during and after tasks, but it is vague and not fully helpful to students.
3 (Good)	Feedback is timely and constructive. For example, the teacher provides clear and helpful feedback during activities, allowing most students to improve their understanding.
4 (Excellent)	Feedback is consistently timely and highly constructive. For example, the teacher provides immediate, specific feedback throughout the lesson, helping all students refine their learning and understanding.

APPENDIX II

Consent Form for Completing Survey Questionnaire

Title of Study: Teachers' Knowledge, Attitudes, Practices, and Beliefs (KAPB) Study in Tanzania

Organizations: People's Action for Learning (PAL) Network, Uwezo Tanzania/ LARTES_IFAN Senegal

Purpose of the Study

The purpose of this study is to gather insights into the experiences, perspectives, and practices related to remediation approaches such as Ndaw Wune by ARED Senegal, Accelerated learning by UWEZO Tanzania. We seek to understand the systemic facilitators and barriers to adopting these methods and explore ways to enhance the effectiveness of foundational learning approaches in Senegal and Tanzania.

Why You Are Being Invited

You have been selected for this survey because of your expertise and role in education in Tanzania. Your insights will contribute significantly to understanding the broader systemic factors that influence the implementation of pedagogical approaches aimed at improving foundational learning outcomes.

Voluntary Participation

Your participation in this study is entirely voluntary. You may choose not to participate, skip any questions you do not wish to answer, or withdraw from the survey at any time without any consequence.

What You Will Be Asked to Do

You will be asked to complete a survey questionnaire that will take approximately 2040 minutes. The survey will include questions about your perspectives on structured training programs for teachers and your experiences with their adoption and implementation at various levels of the education system.

Confidentiality

The information you provide will be kept strictly confidential. Your identity will not be disclosed in any reports or publications resulting from this study. All identifying information will be removed from transcripts, and any personal details will not be shared without your explicit permission.

Possible Risks and Benefits

There are no significant risks involved in this study. However, you may decline to answer any question that makes you uncomfortable. While there is no direct benefit to you, your participation will provide valuable information that may influence the development and improvement of teacher training programs, and children's foundational learning in Tanzania.

Contact Information

If you have any questions or concerns regarding this study or your participation, you may contact the principal investigator, Uwezo Tanzania, LARTES_IFAN Senegal or PAL Network:



Consent Statement

By signing below, you confirm that you have read and understood the information provided above and that you voluntarily agree to participate in this survey.

Participant Name (Print):

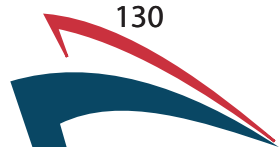
Participant Signature:

Date: _____

Researcher Name (Print):

Researcher Signature:

Date: _____



Consent Form for Focus Group Sessions

Title of Study: Teachers' Knowledge, Attitudes, Practices, and Beliefs (KAPB) Study in Tanzania

Organizations: People's Action for Learning (PAL) Network, Uwezo Tanzania/LARTES_IFAN Senegal

Purpose of the Study

The purpose of this study is to understand teachers' experiences, knowledge, attitudes, practices, and beliefs regarding remediation approaches such as Ndaw Wune by ARED Senegal, Accelerated learning by UWEZO Tanzania. We aim to explore the facilitators and barriers affecting the successful implementation of these methods, how teachers' KAPB is informed by these training programs, and how the teacher training programs could be improved to more effectively contribute to students' foundational learning enhancement.

Why You Are Being Invited

You are being invited to participate in this focus group because you are a Grade 24 teacher, and your insights are valuable in understanding the impact of different training approaches on teaching practices and student learning outcomes.

Voluntary Participation

Your participation in this study is completely voluntary. You have the right to withdraw at any time without any consequence, and you may choose not to answer any question that you are uncomfortable with.

What You Will Be Asked to Do

You will be asked to participate in a group

discussion that will last approximately 7590 minutes. We will discuss topics related to your teaching practices, training experiences, and your beliefs about student learning. The discussion will be recorded to ensure that we accurately capture all the information shared.

Confidentiality

The information you provide will be treated with strict confidentiality. Your identity will not be disclosed in any reports or publications resulting from this study. We will remove any identifying information from the transcripts, and all data will be securely stored and accessible only to the research team.

Possible Risks and Benefits

There are no direct risks associated with your participation. However, some topics may be sensitive, and if you feel uncomfortable, you may choose to skip a question or stop participating. There are no direct benefits to you, but your participation will help us gain insights that could improve teacher training programs and support student learning.

Contact Information

If you have any questions or concerns regarding this study or your participation, you may contact the principal investigator, Uwezo Tanzania, LARTES_IFAN Senegal or PAL Network:



Consent Statement

By signing below, you confirm that you have read and understood the information provided above and that you voluntarily agree to participate in this survey.

Participant Name (Print):

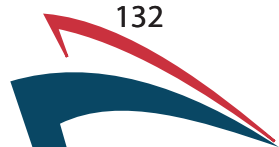
Participant Signature:

Date: _____

Researcher Name (Print):

Researcher Signature:

Date: _____



Consent Form for Classroom Observation

Title of Study: Teachers' Knowledge, Attitudes, Practices, and Beliefs (KAPB) Study in Tanzania

Organizations: People's Action for Learning (PAL) Network, Uwezo Tanzania / LARTES_IFAN Senegal

Purpose of the Study

The purpose of this study is to understand how teachers deliver lessons in early grade classrooms and how different instructional strategies are implemented in practice. This will help us explore how structured pedagogy approaches—such as those introduced through the My Village or Ndaw Wune programs—are applied in real classroom settings.

Why You Are Being Invited

You have been selected for classroom observation because you are currently teaching early grade students in a school involved in this study. Your participation will help us better understand the relationship between teacher training, classroom practices, and student learning.

Voluntary Participation

Your participation in this study is completely voluntary. You may choose not to participate or to withdraw your consent at any time. Choosing not to participate will not affect your role at the school or your relationship with the program in any way.

What You Will Be Asked to Do

A trained observer will visit your classroom to observe one of your classes during your regular teaching schedule. The observer will

not interrupt your teaching or interact with students. They will simply take notes on classroom organization, teaching methods, and student participation. The observation will take approximately 45 to 60 minutes, for the whole duration of the class.

Confidentiality

All information gathered will be kept strictly confidential. No individual teacher names or student identities will appear in any report or publication. Observation notes will not be used for evaluation or disciplinary purposes. The goal is to understand broader trends and practices—not to assess individual performance.

Possible Risks and Benefits

There are no anticipated risks from this observation. While there is no direct benefit to you, your participation will contribute to improving teacher support systems and enhancing foundational learning for students in Tanzania and Senegal.

Contact Information

If you have any questions about this study or your participation, please contact the research leads at Uwezo Tanzania, LARTES_IFAN Senegal, or PAL Network.

Consent Statement

By signing below, you confirm that you have read and understood the information provided above and that you voluntarily agree to allow an observer to attend and document your classroom teaching session as part of this study.



Consent Statement

By signing below, you confirm that you have read and understood the information provided above and that you voluntarily agree to participate in this survey.

Participant Name (Print):

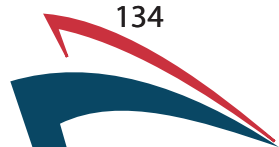
Participant Signature:

Date: _____

Researcher Name (Print):

Researcher Signature:

Date: _____





PAL NETWORK
People's Action for Learning