Teachers engage in an activity that teaches the value of a trusting relationship. Photo Credit: Elizabeth Randolph, RTI International, Tusome Pamoja Program

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USAID TUSOME PAMOJA

Social and Emotional Learning and School Climate Activity Report: Iringa and Zanzibar Regions

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ACRONYMS

COL Community of Learning
COVID-19 coronavirus 2019
GOT Government of the United Republic of Tanzania
LMS Learning Management System
MoEST Ministry of Education, Science and Technology
MoEVT Ministry of Education and Vocational Training
PO-RALG President’s Office—Regional Administration and Local Government
PO-RALGSD President’s Office—Regional Administration and Local Government and Special Departments
SEL social and emotional learning
USAID United States Agency for International Development
WEO Ward Education Officer
ZIE Zanzibar Institute of Education
1. BACKGROUND

The findings from decades of research suggest that the school and classroom environments play a central role in a child’s social and academic performance, retention, and social and emotional learning (SEL) (Allensworth et al., 2018; Berg et al., 2017; Kibriya et al., 2016 and 2018; Thapa et al., 2013). Schools and classrooms in which children feel physically and emotionally safe, are engaged and feel supported, and are encouraged by their teachers and peers are considered to be key attributes of a positive school climate (Schweig et al., 2019). Although most data that describes the inter-relationships between school climate, SEL, and achievement are sourced from high-income countries such as the United States, there is growing interest in establishing safe and positive learning environments all over the world. However, most of the SEL programming in low- and middle-income countries is based on evidence from higher income countries such as the United States (Jukes, et al., 2018). In 2018, the Tusome Pamoja Program, which is funded by the United States Agency for International Development (USAID), conducted an Operational Research Study to understand SEL competencies from the perspectives of Tanzanian parents and teachers in rural and urban school settings and then to identify locally relevant areas of SEL support. The findings showed that teachers viewed confidence and curiosity as important to learning, but these were not as important to parents, particularly those who had less formal education and who lived in rural areas. Based on the responses, the teachers view confidence and curiosity as important because they improve classroom participation. Participatory activities, such as songs and learning games, have been shown to improve pupils’ participation in Tanzania (EQUIP-T, 2017). The findings of the Tusome Pamoja research showed that Tanzanian teachers’ pedagogical choices were motivated by social factors and by the goal of improving learning. These social factors and goals included a desire to maintain a sense of unity among pupils and to maintain positive emotions among pupils (e.g., by avoiding singling them out or embarrassing them). After analyzing the study’s findings, Tusome Pamoja concluded that this sense of unity is something that can be built upon while working to improve specific aspects of instruction. For example, teaching activities (e.g., group work) could be carefully designed to ensure the preservation of unity in the classroom and to develop some of the SEL competencies that are considered to be a priority in the Tanzanian context (e.g., confidence and active participation in the classroom, sense of belonging, curiosity).

Based on this research, Tusome Pamoja proposed a nine-month SEL and School Climate Activity that sought to: (1) to improve student learning through a focus on the social and
emotional climate of the classroom (2) encourage reflection on existing classroom management and pedagogical practices and on activities that foster positive classroom climate and SEL, (3) foster dialogue about the goal of these activities and practices and the potential barriers to implementing them in classroom, and (4) co-construct activities that achieve the goals and help address the barriers. Though this SEL and School Climate Activity did, in part, operationalize the 2018 Research Study, its primary aim was to build on what teachers already do well and encourage them to reflect on certain classroom values that are important to them that may be potential barriers to implementing new activities. The Activity monitored both how teachers engaged with two different methods of facilitating reflection and co-creation as well as how their attitudes and behaviors changed throughout the process. The aim of this report was to monitor and document the experience of implementing this activity to guide future practice.

2. DESIGN AND RATIONALE

This section of the report presents a more detailed description of the approach and the Theory of Change for this activity.

2.1 Overview of Program Design

Tusome Pamoja originally designed this research as a proof of concept to be determined based on data from the following activities across five regions (Iringa, Mtwara, Ruvuma, Zanzibar and Morogoro) in Tanzania:

- Teacher co-creation of strategies and activities for promoting safe and supportive classroom climates that promote pupils’ social and emotional development
- Field testing in classrooms of co-created activities
- Teacher co-adaptation of field-tested activities
- Training on finalized activities
- Rollout of activities to schools
- Implementation monitoring.

Tusome Pamoja began this series of regional activities in the Iringa Region with an In-Person, Co-creation Workshop. Following the workshop, the Government of the United Republic of Tanzania (GOT) closed schools because of the coronavirus 2019 (COVID-19) pandemic. As a result, the Program continued to engage the Iringa teachers in a participatory learning process based on discussions during the co-creation workshop and teachers’ initial experience trying out activities- via a mobile platform for 10 weeks (referred to in this report as the “mobile learning activity”); a subsequent co-adaptation in the Iringa Region, as originally planned, was not possible. After classes resumed, Tusome Pamoja had the opportunity to try the co-creation, testing, and co-adaptation process in Zanzibar, but with a shortened timeline.

2.2 Research Design

We used a theory of change to guide both implementation and monitoring of the activity. Figure 1 presents the Theory of Change for this activity and the hypothesized pathway to improving learning, which is supported by an improved classroom climate and reduced violence. The pathway begins with the co-creation of classroom strategies—a process that is described in Section 2.3 of this report—presented in gray boxes in Figure 1.
After experiencing the Co-creation Workshop and series of mobile activities, Tusome Pamoja expected specific teacher psycho-social outcomes: teachers understand benefits of, know strategies for building, have confidence that they can implement, and have the intention to establish safe and social classrooms. As a result of these intermediate psycho-social outcomes, the Program expected to see specific improvements in the classroom climate: more group work and individual practice, increases in positive interactions and cooperation among peers, increases in positive interactions and relationships between teachers and pupils, an enhanced sense of class community, and improved pupil confidence, agency, and participation.

Together, the aim of these changes in the classroom is that the children perceive classroom life to be positive and engaging, have an improved sense of safety¹, and experience improved learning outcomes. We used monitoring data to address three research questions that map to different stages of the Theory of Change:

**Research Question 1**: What is Teachers’ level of participation and engagement with activities (co-created strategies)?

**Research Question 2**: How confident and willing are teachers to carry out these activities (intermediate psycho-social outcomes)?

**Research Question 3**: How have teachers changed their behavior and practices in the classroom (intermediate outcomes in the classroom)?

It was beyond the scope of this activity to assess its impact on school climate and learning outcomes.

The primary use of these findings is to inform the relative value of specific elements (or “small kernels of practice”) that could be considered for future designs that support teachers

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¹ A sense of “safety” in the classroom consists of the following: (1) academic safety (i.e., feeling safe to speak up and having a voice or to make mistakes without fear of punishment), (2) physical safety (i.e., freedom from harm), and (3) emotional safety (i.e., feeling of acceptance and belonging, freedom from intimidation by peers).
with establishing a classroom climate where pupils’ feel safe, connected, and confident, while experiencing enhanced social-emotional and academic learning.

3 METHODS OF TEACHER ENGAGEMENT

Tusome Pamoja interacted with teachers, Head Teachers, and other education officials through two modalities: an In-Person Co-Creation Workshop and through an online platform.

1. In-Person Workshop

The first engagement with participants was through an In-Person Co-Creation Workshop (referred to throughout this report as “the Workshop”), which lasted for five days.

A key strategy to achieve teacher behavior change during the Workshop was the concept of co-creation. During the Workshop, participants were actively involved in designing a variety of teacher and pupil activities through a co-creation process. Teachers and administrators are normally asked to collaborate in designing new curricula or adapting promising practices that have known benefits of professional development and successful implementation of curriculum changes (Voogt et al., 2016). However, co-creation is used less often for helping teachers to problem solve daily challenges or to co-create learning conditions aside from subject matter instruction, such as a positive instructional culture. Given the collaborative nature of co-creation, Tusome Pamoja decided to exploit the potential of this approach to engage teachers directly in designing their own classroom activities. This section of the report describes the theoretical and practical elements of the Workshop and the reasons why Tusome Pamoja selected the learning and idea generation modality of co-creation.

In addition to directly engaging teachers in the design of strategies, the approach that Tusome Pamoja adopted for The Workshop was based on the premise that teachers understand the benefits of having a positive and engaging classroom and the strategies under consideration (e.g., group work, positive relationships, alternatives to harsh discipline). However, teachers have rarely had opportunities to discuss the real practicalities of implementing these strategies, to provide their personal reservations about such strategies, or to understand the linkage between safe and social classrooms and learning outcomes.

Tusome Pamoja’s assumption was that the desired improvements in school and classroom climate can only be realized when teachers’ knowledge and personal feelings about the strategies are given the chance to surface and inspire dialogue among peers. This process can deepen teachers’ understanding of and at once, address their concerns about these strategies. The methods to achieve these goals are interactive social tools such as guided reflection, interactive games and art, and dialogue.

The activities that participants co-created during The Workshop were not only used by the participants themselves, but also formed a prototype for a set of activities that could be...
introduced during subsequent workshops in other regions of Tanzania.

Teachers and administrators attended the Co-creation Workshops in the Iringa Region on March 2–6, 2020, and in the Zanzibar Region on November 9–13, 2020. The workshops were organized based on the following four strategy areas:

1. Establishing safe schools and classrooms
2. Incorporating group work and pair work into lessons
3. Building positive peer relationships and pupils’ sense of belonging, personal identity, and confidence
4. Helping teachers build positive relationships with their pupils.

Following on findings from the previous SEL study (Jukes, et al., 2018), The Workshop engaged teachers in discussions about the challenges they have experienced or might experience when implementing some of the strategies for building a positive classroom climate. For example, the Workshop included dedicated sessions in which teachers identified and discussed ways to address barriers to successful group work (Figure 2) and pair work. Some of the barriers discussed during the Workshop included the risk of compromising class unity, the possibility of leaving slower learners behind, and logistical challenges of managing groups in large classrooms. In addition, the teachers discussed the benefits of group work and pair work, the characteristics of a caring classroom, and concerns teachers may have about friendliness in the classroom and building positive relationships with their pupils. The teachers also discussed whether they had experienced violence when they were in school, and if so, how this experience has reinforced their own use of harsh punishment, as well as other forms of violence that children in their schools experienced such as bullying, sexual harassment, and/or abuse and the negative impacts of these experiences on learning.

2. Virtual Co-Creation: Mobile Learning Activity

After the Workshop, the Iringa Municipality teachers, with support from the Ward Education Officers (WEOs), began using the Workshop activities in their classrooms. After the first week of the planned five-week “trying out” period, Tanzania’s schools closed because of the COVID-19 pandemic. During this first week and throughout the Workshop, however, the teachers learned about activities that could be easily implemented in their classrooms, and they discovered some implementation challenges. To continue working through these challenges and points and to brainstorm ideas for classroom activities, Tusome Pamoja engaged Cell-Ed, a mobile learning platform, to continue the planned activities via a virtual
method referred to as the Mobile Learning Activity. The Cell-Ed combines audio recordings, video messages, and interactions through the WhatsApp platform to deliver mobile content. Although content is delivered in the form of a mobile learning course consisting of several lessons, the focus of the Mobile Learning Activity was not in “teaching” participants, but in allowing them to continue the dialogue and idea generation birthed during the Workshop where they were engaged in co-creating classroom activities.

During the Mobile Learning Activity, each week, participants received a message via WhatsApp saying they had a new lesson ready. At any point during the week, the participants could access the lesson through WhatsApp. Lessons consisted of audio files, videos, and interactive games that could be accessed virtually. Cell-Ed hosts an online data warehouse called a Learning Management System (LMS) that compiles teacher response and activity data sent via WhatsApp. This allowed for Tusome Pamoja to check on teacher progress (i.e., engagement and completion of the lessons, understanding of content; confidence in employing new strategies discussed in their classrooms, and shifts in attitudes). Throughout each mobile lesson, the participants were asked a series of questions via WhatsApp to which they would respond. All questions and answers from WhatsApp were automatically logged in the LMS; Tusome Pamoja could then download the data from the LMS for analysis. Having near-instant access to teacher feedback on a weekly basis allowed the Program to adapt content and learnings in real time. This information became particularly useful when teachers returned to in-person teaching while continuing to engage in mobile learning because they could “test” these co-created strategies in class and provide feedback through WhatsApp.

The mobile learning activities, administered through the WhatsApp platform, built on the Workshop discussions and addressed participants’ concerns about the safe and social classroom strategies. Tusome Pamoja developed 10 weeks’ worth of lessons that were specifically designed to address teachers’ concerns from co-creation. Table 1 illustrates the weekly lessons and their main content areas.

Table 1. Topics of Mobile Learning Lessons.

<table>
<thead>
<tr>
<th>Lesson Topics</th>
<th>Content Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening game</td>
<td>• Behaviors of a good listener</td>
</tr>
<tr>
<td></td>
<td>• Value of good listening for successful group work</td>
</tr>
<tr>
<td>Strategies for group work and pair work</td>
<td>• Management of noise and distractions</td>
</tr>
<tr>
<td></td>
<td>• Task simplification</td>
</tr>
<tr>
<td></td>
<td>• Group formation strategies</td>
</tr>
<tr>
<td>Managing groups in large classrooms</td>
<td>• Encouraging pupils to work together and listen to one another</td>
</tr>
<tr>
<td></td>
<td>• Group work song</td>
</tr>
<tr>
<td></td>
<td>• Classroom organization</td>
</tr>
<tr>
<td>Group work for all types of learners</td>
<td>• Blending strategies to reach all pupils</td>
</tr>
<tr>
<td></td>
<td>• Promoting a sense of togetherness and unity (“umoja”)</td>
</tr>
<tr>
<td></td>
<td>• Strategies for pupils helping pupils</td>
</tr>
<tr>
<td>Review: Group work ideas and challenges</td>
<td>• Giving all learners a chance to speak in groups</td>
</tr>
<tr>
<td></td>
<td>• Group warm-up activities</td>
</tr>
<tr>
<td></td>
<td>• Good listening for group work</td>
</tr>
<tr>
<td>Positive relationships in the classroom</td>
<td>• Reflecting on the meaning of positive relationships in the classroom</td>
</tr>
<tr>
<td></td>
<td>• Building positive relationships through good listening</td>
</tr>
<tr>
<td>Lesson Topics</td>
<td>Content Covered</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Building positive teacher–pupil and pupil–pupil</td>
<td>• Building positive relationships through soliciting and giving feedback to pupils</td>
</tr>
<tr>
<td>relationships</td>
<td>• Building positive relationships through cooperation</td>
</tr>
<tr>
<td>Using positive relations in the classroom to build</td>
<td>• How pupils develop social and emotional skills</td>
</tr>
<tr>
<td>pupils’ social and emotional skills</td>
<td>• Modeling social and emotional skills in all interactions with pupils</td>
</tr>
<tr>
<td></td>
<td>• Positive relationships to help pupils succeed in their work</td>
</tr>
<tr>
<td>Helping pupils learn self-discipline</td>
<td>• Defining “self-discipline”</td>
</tr>
<tr>
<td></td>
<td>• Understanding how a teacher applies and models self-learning</td>
</tr>
<tr>
<td></td>
<td>• How to guide pupils in using self-discipline</td>
</tr>
<tr>
<td>Collaborative problem solving as a form of positive</td>
<td>• Teaching the essentials of positive discipline through an example of collaborative problem solving:</td>
</tr>
<tr>
<td>discipline</td>
<td>− Showing respect for pupils</td>
</tr>
<tr>
<td></td>
<td>− Finding a safe and private place to talk</td>
</tr>
<tr>
<td></td>
<td>− Listening to pupils without blame</td>
</tr>
<tr>
<td></td>
<td>− Respectfully expressing your view</td>
</tr>
<tr>
<td></td>
<td>− Brainstorming solutions together</td>
</tr>
</tbody>
</table>

The mobile learning program (**Figure 3**) provided the opportunity to slowly introduce small illustrative examples of safe and social classroom strategies through videos and classroom scenarios. The mobile learning program also allowed the opportunity to follow-up on content with guided questions, polls, and discussions with breakout groups of peers to ensure that the participants could interact with the content for a more extended period of time required for participants to more fully grasp the concepts and strategies presented.

Unlike the Workshop, the mobile learning activities administered through the Cell-Ed, provided the opportunity to obtain regular feedback from participants. Tusome Pamoja used this feedback to make modifications as new mobile content was developed and rolled out. Additional important aspects of the mobile activities were the opportunities to provide more close monitoring of the uptake of the lessons, evaluate the confidence levels of teachers when implementing strategies in the classroom (when teachers returned to the classrooms), and obtain feedback about ways to improve the lessons. The gradual content delivery characteristic of mobile learning allowed teachers to inform small kernels of practice related to group work, teacher–pupil relationships, and positive discipline.
4. RESULTS AND FINDINGS

4.1 Mobile Learning—Participant Engagement with the Cell-Ed Platform and Learnings

The first research question concerned teachers’ participation in the mobile learning courses, their engagement with the content, and their evaluation of their experience.

1a. Participants in the Co-creation Workshops and the Mobile Learning Course (Research Question 1)

Although the mobile learning activities were designed for teachers, the Co-creation Workshops in the Iringa and Zanzibar Regions welcomed additional education officials. Specifically, those who attended the workshop in the Iringa Region were WEOs and officials from the President’s Office—Regional Administration and Local Government (PO-RALG) and from the Ministry of Education, Science and Technology (MoEST). The Zanzibar Co-creation Workshop also welcomed Directors from the President’s Office—Regional Administration and Local Government and Special Departments (PO-RALGSD), the Ministry of Education and Vocational Training (MoEVT), and the Zanzibar Institute of Education (ZIE). To provide continuous support to teachers, WEOs participated in the mobile learning activities alongside teachers from their respective ward. WEOs also monitored teachers’ progress and assisted with organizing teachers virtually when mobile learning activities called for teachers to interact—which they did through the WhatsApp platform. A complete list of workshop attendees, grouped by their education role, per region appears as Table 2.

Table 2. Stakeholder Participation in the Co-Creation Workshop and Mobile Learning Activities by Region.

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Co-Creation Workshop</th>
<th>Mobile Learning Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Iringa Region</td>
<td>Zanzibar Region</td>
</tr>
<tr>
<td>Head Teachers</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Teachers</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>Subject Advisor</td>
<td>—</td>
<td>6</td>
</tr>
<tr>
<td>School Inspector</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>WEO</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>PO-RALG</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>PO-RALGSD</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>MoEST</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>MoEVT</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>ZIE</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

1b. Mobile Learning Course Completion and Engagement (Research Question 1)

In the Iringa Region, Tusome Pamoja delivered a total of 25 lessons to 32 participants over the course of 10 weeks. In Zanzibar, the Program delivered a total of 13 lessons to 30 participants over the course of three weeks. In both regions, approximately 63% of participants completed all delivered mobile learning lessons. In the Iringa Region, 10 out of the 32 participants skipped at least one lesson during the program but then returned during later lessons. Out of these 10 participants, six skipped more than five lessons in between. In the Zanzibar Region, 9 out of the 30 participants skipped at least one lesson in between, but then continued on during later lessons. A breakdown of overall course completion is
provided in Figure 4. Lessons varied in length, but most took between 20 to 30 minutes to complete. On average, each Iringa participant spent a total of 8.3 hours on mobile learning lessons, whereas each Zanzibar participant spent 5.5 hours. This difference is largely accounted by the difference in the number of lessons delivered to each group (25 lessons in Iringa and 13 lessons in Zanzibar).

![Figure 4. Completion Rates for Mobile Learning Lessons in Both Regions.](image)

1c. Evaluation of Experiences

Halfway through the 10-week series of mobile learning sessions, Tusome Pamoja asked the participants evaluation questions about the content of mobile learning activity and their experience. Table 3 is a summary of the responses from Iringa participants. The responses showed a preference for the co-creation of strategies during the week-long Co-creation Workshop. On average, the ratings were higher for the workshop compared with the ratings for the mobile learning sessions. On average, sessions focusing on group work and pair work, positive relationships, and positive discipline received similar ratings (i.e., a rating of 3.8 out of 5 for group work and pair work; 3.9 out of 5 for positive relationships; and 4.1 for positive discipline). The participants rated the Co-creation Workshop in Iringa 4.2 out of 5 and rated the mobile learning sessions 3.7 out of 5. The Program also asked the participants in the Iringa Region about which approach they preferred: co-creating strategies or receiving advice. Approximately 72% of the respondents said that they preferred co-creating strategies, 20% said that they preferred receiving advice, and 8% said both. Clearly, there was a strong preference for working with their peers and having a voice in the process.

Table 3. Iringa Participants’ Evaluation of the Mobile Learning Activity at Midline.

<table>
<thead>
<tr>
<th>Overall, how did you rate the course?</th>
<th>Midline (%) (n=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>40</td>
</tr>
<tr>
<td>Very good</td>
<td>28</td>
</tr>
<tr>
<td>Good</td>
<td>32</td>
</tr>
</tbody>
</table>
Tusome Pamoja requested feedback from participants in the Iringa and Zanzibar Regions regarding the mobile learning sessions at several points in time. Participants reported that they enjoyed the immediate feedback and illustrative examples of concepts and classroom strategies presented during the mobile learning sessions. The participants also reported that they appreciated the fact that the lessons were self-paced, and they said that, over time, they became more confident in carrying out the strategies learned from Mobile Learning Activity (Table 4). They also noted a few areas of improvement, including the length of instructions (i.e., the sessions were too long) and the number of questions (i.e., there were too many questions) during the sessions. The participants expressed a preference for videos to be in Kiswahili rather than in English and recommended more time for discussion among their groups.

Table 4. Participants’ Feedback About the Course and Their Recommendations for Improvement.

<table>
<thead>
<tr>
<th>One Thing You Like About the Course</th>
<th>One Thing That Could Be Improved</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Receiving immediate feedback on responses</td>
<td>• Need more training on how to manage a large class</td>
</tr>
<tr>
<td>• Lessons are self-paced</td>
<td>• Instructions are too long (too many questions)</td>
</tr>
<tr>
<td>• Being given illustrative examples of each concept</td>
<td>• Some questions are repetitive</td>
</tr>
<tr>
<td>• Discussing strategies to engage all pupils</td>
<td>• The videos should be in Kiswahili</td>
</tr>
<tr>
<td>• Learning how to encourage pupils to be curious</td>
<td>• Provide more strategies on being creative with teaching</td>
</tr>
<tr>
<td>• Learning about teacher–pupil relationships</td>
<td>• Provide more time for discussion</td>
</tr>
<tr>
<td>• Learning strategies for group work and pair work</td>
<td>• Provide more frequent exercises</td>
</tr>
<tr>
<td>• Gaining an increased confidence in carrying out these strategies</td>
<td>• More encouragement of teachers to treat both fast learners and slow learners equally</td>
</tr>
<tr>
<td></td>
<td>• Provide strategies to prepare before class</td>
</tr>
<tr>
<td></td>
<td>• Provide guidance on how teachers can collaborate by exchanging group work methods that work well for large classes</td>
</tr>
<tr>
<td></td>
<td>• More videos on how to form and manage groups</td>
</tr>
</tbody>
</table>

When asked about the usefulness of content presented in the mobile learning lessons, participants in both regions said that the mobile learning sessions were largely “very useful.” In the Iringa Region, the percentages of participants stating that the sessions were “very useful” went from 85% during the third week of mobile learning programming to 96% during the seventh week. In the Zanzibar Region, 96% of respondents said that the mobile sessions were “very useful” just halfway through the mobile learning programming.

4.2. Mobile Learning—Changes in Teacher Confidence, Intentions, and Attitudes Engagement with Mobile Learning

The second question related to changes in teacher psycho-social variables. The findings pertaining to this research question focused on teacher confidence and willingness to apply new strategies and activities in the classroom, and how teacher attitudes towards these strategies changed.

2a. Confidence and Willingness to Apply the Strategies in the Classroom (Research Question 2)

Tusome Pamoja assessed teachers’ confidence in and perceived likelihood of implementing strategies in the classroom through the mobile learning platform. These assessments
allowed the Program to collect teachers’ responses over time and between regions. However, Tusome Pamoja cannot compare participant responses directly between the two regions because the number of activities and timelines differed in the Iringa and Zanzibar Regions. Although data are presented in this report regarding how teachers’ practices and attitudes have changed as a result of exposure to the Program in both contexts, readers should keep in mind that the report is not an impact evaluation and the contexts are not comparable. For example, after three weeks of mobile learning plus co-creation, Zanzibar teachers reported higher levels (from baseline to endline) of confidence and likelihood of applying group work and pair work in their classrooms after completing the series of activities in the Program (Table 5). In the Iringa Region, a midline measure was taken, in which 56% of teacher reported feeling “very confident” in their ability to use group work in class.

Table 5. Percentages of Teachers from Both Regions Reporting Their Likelihood and Confidence of Implementing Group Work and Pair Work Strategies During Classes.

<table>
<thead>
<tr>
<th>Questions and Response Options</th>
<th>Iringa Region (%) (n=25)</th>
<th>Zanzibar Region Baseline (%) (n=25)</th>
<th>Zanzibar Region Endline (%) (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How likely are you to use <strong>group work</strong> regularly during your class for the remainder of this term?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without doubt</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likely</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not likely</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How confident are you in your ability to use <strong>group work</strong> during your class?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very confident</td>
<td>56</td>
<td>68</td>
<td>79</td>
</tr>
<tr>
<td>Confident</td>
<td>44</td>
<td>28</td>
<td>21</td>
</tr>
<tr>
<td>Not confident</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>How likely are you to use <strong>pair work</strong> regularly in your class for the remainder of this term?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without doubt</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likely</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not likely</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How confident are you in your ability to use <strong>pair work</strong> during your class?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very confident</td>
<td>68</td>
<td>60</td>
<td>86</td>
</tr>
<tr>
<td>Confident</td>
<td>32</td>
<td>36</td>
<td>14</td>
</tr>
<tr>
<td>Not confident</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

When Tusome Pamoja asked teachers in the Iringa Region about their confidence with implementing group work activities *once schools had reopened*2 (not included in Table 5), a similar improvement in confidence was recorded among the teachers. Approximately 78% of those teachers responded that they were “very confident” in implementing group work strategies before completing the mobile learning sessions on group work. These feelings of confidence increased among participants as 93% of teachers in the Iringa Region reported being “very confident” after completing the sessions on group activities.

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2 The mobile learning activity in the Iringa Region began in May 2020 for 10 weeks during the middle of which the GOT announced that teachers and pupils would return to classrooms at the end of June 2020. Despite the return to in-person instruction, teachers continued their engagement with the mobile learning platform until August 2020, providing Tusome Pamoja with an opportunity to collect feedback from teachers as they applied their co-created strategies and activities to real-time instruction with the pupils.
Similarly, after having completed mobile learning sessions about building positive relationships with children in the classroom, 60% of participants in the Iringa Region reported feeling “very confident,” and the remaining 40% reported feeling “confident.” Approximately 36% of participants in the Iringa Region said they would “without a doubt” develop positive relationships with pupils in their classrooms for the remainder of the term, and the remaining 64% said they were “likely” to do this. Approximately 80% of participants from the Iringa and Zanzibar Regions said they were “very confident” that they would be able to try some of the methods learned through this program in their classrooms. The remaining 20% said they were “somewhat confident” in trying some of the methods.

During the last week of mobile learning programming in the Iringa Region, Tusome Pamoja asked the participants whether they believe that they will try out some of the SEL and school climate activities during Community of Learning (COL) meetings. Based on the responses collected, 83% of respondents said “yes, definitely,” 9% said that they were “not sure,” and 9% said “not likely this year.”

2b. Attitudes Towards Classroom Management Strategies (Research Question 2)

Tusome Pamoja asked questions to the participants that focused on attitudes toward concepts discussed during the In-Person Co-creation Workshop and mobile learning activity. In the Iringa Region, the Program asked these questions during the fifth week of lessons (the midpoint for mobile learning sessions) and during the tenth week of lessons (the endpoint for mobile learning sessions). In the Zanzibar Region, Tusome Pamoja asked the same questions on the first day of the Co-creation Workshop (a baseline measure) and 30 days later on the last day of co-adaptation (an endline measure). Responses from both Iringa and Zanzibar Regions showed the expected shift toward more positive attitudes regarding pupils’ participation in the classroom, conducting group work and pair work, and using positive discipline. According to the responses, participants in the Zanzibar Region mostly believed that teachers should have control over the class at all times; in contrast, participants in the Iringa Region mostly believed that a good teacher can allow small groups to work independently without direct supervision. Table 6 presents the responses to some of these questions.

Table 6. Percentages of Responses from Teachers About Their Attitudes Toward Classroom Management and Pupils’ Curiosity.

<table>
<thead>
<tr>
<th>Forced Choice Questions About Attitudes Respondents had to select one statement out of two provided that best reflects their beliefs</th>
<th>Iringa Region</th>
<th>Zanzibar Region</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Midline (%) (n=27)</td>
<td>Endline (%) (n=21)</td>
</tr>
<tr>
<td>1. It is a problem when pupils express their ideas too much.</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>2. It is a problem when pupils rarely express themselves during a lesson.</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>1. Pupils’ curiosity should be balanced with respect for the teacher.</td>
<td>41</td>
<td>48</td>
</tr>
<tr>
<td>2. Pupils in class should be as curious as possible.</td>
<td>59</td>
<td>52</td>
</tr>
</tbody>
</table>
Forced Choice Questions About Attitudes
Respondents had to select one statement out of two provided that best reflects their beliefs

<table>
<thead>
<tr>
<th>Forced Choice Questions</th>
<th>Iringa Region</th>
<th>Zanzibar Region</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Midline (%)</td>
<td>Endline (%)</td>
</tr>
<tr>
<td></td>
<td>(n=27)</td>
<td>(n=21)</td>
</tr>
<tr>
<td>1. In a well-managed classroom, a good teacher has control over all pupils at all times.</td>
<td>43</td>
<td>17</td>
</tr>
<tr>
<td>2. A good teacher can allow small groups of pupils to work without direct supervision.</td>
<td>57</td>
<td>73</td>
</tr>
</tbody>
</table>

Tusome Pamoja also asked questions to participants about their attitudes toward group work and helping pupils develop SEL skills. Based on the responses in the Zanzibar Region, the attitudes toward using group work during classes shifted to be slightly more positive: 79% of the participants agreed at baseline that “small group activities can help create a sense of togetherness”; that percentage increased to 97% at endline. In addition, 54% of the participants agreed at baseline that “struggling pupils can be supported in a group activity”; that percentage increased to 93% at endline. These shifts in attitudes occurred over a four-and-a-half week period—from the first day of co-creation to the last day of co-adaptation. However, attitudes toward pupils learning from one another did not change over time among participants in the Zanzibar region. Approximately 68% of participants agreed at baseline that “pupils can learn some things in class best from other pupils,” but that percentage decreased to 61% at endline. When Tusome Pamoja asked the participants about using punishment or encouragement to improve learners’ marks, 61% of respondents from the Zanzibar Region agreed at baseline that “punishment works best for getting pupils to try hard and make high marks,” but that percentage decreased to 14% at endline. Tusome Pamoja asked these questions only at the midpoint mark for participants in the Iringa Region; therefore, the Program is unable to measure any changes over time, though most participants already identified with the “more positive” attitudes by the midpoint of mobile learning programming. Responses to questions about teacher attitudes regarding group work and helping pupils build SEL skills are presented in Table 7.

Table 7. Percentages of Responses to Questions to Teachers About Their Attitudes Regarding Group Work and SEL.

<table>
<thead>
<tr>
<th>Which Answer Do You Agree with Most: 1 or 2?</th>
<th>Iringa Region</th>
<th>Zanzibar Region</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Midline (%)</td>
<td>Endline (%)</td>
</tr>
<tr>
<td></td>
<td>(n=28)</td>
<td>(n=24)</td>
</tr>
<tr>
<td>1. Pupils can learn some things in class best from other pupils.</td>
<td>75</td>
<td>68</td>
</tr>
<tr>
<td>2. Pupils learn best from the teacher.</td>
<td>25</td>
<td>32</td>
</tr>
<tr>
<td>1. It will be too disruptive if pupils are free to ask questions all the time.</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>2. Children should be encouraged to ask questions in class whenever they want.</td>
<td>86</td>
<td>79</td>
</tr>
<tr>
<td>1. Small-group activities can help create a sense of togetherness (<em>umoja</em>).</td>
<td>93</td>
<td>79</td>
</tr>
<tr>
<td>2. Whole-class activities create a sense of togetherness (<em>umoja</em>).</td>
<td>7</td>
<td>21</td>
</tr>
</tbody>
</table>
Which Answer Do You Agree with Most: 1 or 2?

<table>
<thead>
<tr>
<th>1. I can support struggling pupils only when I teach them directly.</th>
<th>Iringa Region Midline (%) (n=28)</th>
<th>Zanzibar Region Baseline (%) (n=24)</th>
<th>Zanzibar Region Endline (%) (n=28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>46</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2. Struggling pupils can be supported in a group activity.</td>
<td>96</td>
<td>54</td>
<td>93</td>
</tr>
</tbody>
</table>

| 1. If children answer each other’s questions, then they will be more likely to understand. | 79 | 75 | 69 |
| 2. If the teacher answers pupils’ questions, then they will be more likely to understand. | 21 | 25 | 31 |

| 1. Children learn best when they solve problems for themselves. | 68 | 46 | 48 |
| 2. Children learn best through explanations from someone who knows more than they do. | 32 | 54 | 52 |

| 1. Group work is important, but it will add to the burden of teaching. | 4 | 12 | 0 |
| 2. Group work is important, and it will reduce the burden of teaching. | 96 | 88 | 100 |

| 1. It is important that pupils think the teacher has all of the answers. | 36 | 25 | 39 |
| 2. It is important that pupils think the teacher is humble. | 64 | 75 | 61 |

| 1. Having fun with learners will cause them to lose respect for their teachers. | 4 | 17 | 4 |
| 2. Having fun with learners will cause them to have more respect for their teachers. | 96 | 83 | 96 |

| 1. Encouragement is the most powerful way of helping learners to try hard and make high marks. | 93 | 39 | 86 |
| 2. Encouragement is important, but sometimes punishment works best for getting pupils to try hard and make high marks. | 7 | 61 | 14 |

Tusome Pamoja asked participants in the Zanzibar Region additional questions about their attitudes toward the use of corporal punishment (Table 8). Similar to the positive shifts in attitudes about group work and student participation, a positive shift was observed in attitudes toward corporal punishment. At baseline, 63% of the respondents agreed with “corporal punishment improves learning,” but this percentage decreased to 4% at endline. Even so it is important to note that approximately 30% of teachers still feel that they need to learn more about alternatives to corporal punishment. More respondents also agreed at endline than at baseline with the statement: “It is my responsibility as a teacher to help pupils develop social and emotional skills.”
Table 8. Questions to Teachers in the Zanzibar Region About Their Attitudes Regarding Corporal Punishment.
(Note: The questions about attitudes regarding corporal punishment were not asked in the Iringa Region.)

<table>
<thead>
<tr>
<th>Which Answer Do You Agree with Most: 1 or 2?</th>
<th>Baseline (%) (n=24)</th>
<th>Endline (%) (n=28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Corporal punishment improves learning.</td>
<td>63</td>
<td>4</td>
</tr>
<tr>
<td>2. Corporal punishment is not related to learning.</td>
<td>37</td>
<td>96</td>
</tr>
<tr>
<td>1. Punishment is necessary to maintain respect from pupils.</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>2. Talking through disciplinary issues is the best way to obtain respect from pupils.</td>
<td>79</td>
<td>100</td>
</tr>
<tr>
<td>1. I use corporal punishment because I do not know alternatives for managing discipline.</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>2. I use corporal punishment because it is sometimes necessary.</td>
<td>88</td>
<td>71</td>
</tr>
<tr>
<td>1. It is my responsibility as a teacher to help pupils develop social and emotional skills.</td>
<td>71</td>
<td>93</td>
</tr>
<tr>
<td>2. My responsibility as a teacher is solely to help pupils learn academic skills, not social skills.</td>
<td>29</td>
<td>7</td>
</tr>
<tr>
<td>1. It is important for me that pupils can talk to me about their problems.</td>
<td>91</td>
<td>93</td>
</tr>
<tr>
<td>2. I believe that being too friendly in the classroom is inappropriate.</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

During the final week (endline) of the Mobile Learning Activity, Tusome Pamoja asked participants in the Iringa Region about their attitudes regarding positive relationships and positive discipline. Table 9 summarizes their responses. Overall, almost 100% of the participants agreed with positive statements about these topics.

Table 9. Questions to Teachers in the Iringa Region About Their Attitudes Regarding Positive Relationships and Positive Discipline.

<table>
<thead>
<tr>
<th>Which Answer Do You Agree with Most: 1 or 2?</th>
<th>Endline (%) (n=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Having positive relationships with pupils is always good.</td>
<td>100</td>
</tr>
<tr>
<td>2. Having positive relationships with pupils can be viewed as inappropriate.</td>
<td>0</td>
</tr>
<tr>
<td>1. Corporal punishment helps pupils learn better.</td>
<td>5</td>
</tr>
<tr>
<td>2. Corporal punishment hinders learning.</td>
<td>95</td>
</tr>
<tr>
<td>1. Positive discipline is too difficult to regularly use in the classroom.</td>
<td>0</td>
</tr>
<tr>
<td>2. Positive discipline can be used regularly instead of corporal punishment.</td>
<td>100</td>
</tr>
</tbody>
</table>

Participants in the Zanzibar Region evaluated their own success in developing positive relationships with their pupils and reported being more successful after the co-creation and mobile learning activities. Specifically, 58% of the participants reported being “very successful” in developing positive relationships with pupils in class at baseline; that percentage increased to 83% at endline (Table 10). The respondents also reported that they were more confident in handling disciplinary problems by using positive approaches rather
than corporal punishment—every respondent reported feeling at least “confident” if not “very confident.”

Table 10. Attitudes, Success, and Confidence of Teachers in the Zanzibar Region Regarding Developing Positive Relationships.

<table>
<thead>
<tr>
<th>Questions About Developing Positive Relationships</th>
<th>Baseline (%) (n=26)</th>
<th>Endline (%) (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How important do you believe it is to develop a positive relationship with the pupils in your classroom:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very important</td>
<td>92</td>
<td>100</td>
</tr>
<tr>
<td>Somewhat important</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>How successful have you been in developing positive relationships with pupils in your class?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very successful</td>
<td>58</td>
<td>83</td>
</tr>
<tr>
<td>Somewhat successful</td>
<td>38</td>
<td>17</td>
</tr>
<tr>
<td>Not successful/challenged</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>How confident are you in handling disciplinary problems by using positive approaches versus punishment?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very confident</td>
<td>56</td>
<td>72</td>
</tr>
<tr>
<td>Confident</td>
<td>36</td>
<td>28</td>
</tr>
<tr>
<td>Not confident</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

3. Application of the Strategies in the Classroom (Research Question 3)

On the first day of the In-Person Co-Creation Workshop (a baseline measure) and the last day of co-adaptation (30 days later [an endline measure]), Tusome Pamoja asked questions to teachers in the Zanzibar Region about the frequency of conducting pair work and group work and listening to pupils. There were some changes in participants’ responses from baseline to endline. Specifically, more teachers reported that they increased their engagement of pupils in fun and interactive games at the end of the mobile learning activity than at baseline. Teacher responses also reflected that they listened to pupils more after completing the mobile learning activity and talked with pupils when they made mistakes or misbehaved. Interestingly, the reported frequency regarding using pair work and group work decreased after the mobile learning activity but the frequency of engaging pupils in fun games in the classroom and listening to pupils increased after the mobile learning activity. These findings could be because the teachers approached group work and pair work more thoughtfully, but less frequently. It is also possible that participating in the program changed their view of what constituted pair work and group work. Table 11 summarizes the teacher’s responses to questions about the application of the co-created strategies related to group work and pair work, fun and interactive pupil activities, and listening behavior.

Table 11. Percentages of Teachers in the Zanzibar Region Reporting the Frequency of Using Pair and Group Work Strategies in the Classroom.

<table>
<thead>
<tr>
<th>Questions and Response Options</th>
<th>Baseline (%) (n=25)</th>
<th>Endline (%) (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you use pair work during your class?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often, every day</td>
<td>85</td>
<td>41</td>
</tr>
<tr>
<td>Sometimes (e.g., once or twice a week)</td>
<td>11</td>
<td>59</td>
</tr>
<tr>
<td>Infrequently (less that once a week)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>How often do you use group work during your class?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often, every day</td>
<td>65</td>
<td>45</td>
</tr>
<tr>
<td>Sometimes (e.g., once or twice a week)</td>
<td>27</td>
<td>55</td>
</tr>
<tr>
<td>Questions and Response Options</td>
<td>Baseline (%) (n=25)</td>
<td>Endline (%) (n=29)</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Infrequently (less than once a week)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Never</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

How often do you engage your pupils in fun interactive games or activities during regular classroom hours?

<table>
<thead>
<tr>
<th>Questions and Responses</th>
<th>Baseline (%) (n=25)</th>
<th>Endline (%) (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often, every day</td>
<td>24</td>
<td>83</td>
</tr>
<tr>
<td>Sometimes (e.g., once or twice a week)</td>
<td>44</td>
<td>17</td>
</tr>
<tr>
<td>Infrequently (less than once a week)</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td>Never</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

How often do you listen and talk through solutions with pupils when they make mistakes or misbehave?

<table>
<thead>
<tr>
<th>Questions and Responses</th>
<th>Baseline (%) (n=25)</th>
<th>Endline (%) (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often, every day</td>
<td>56</td>
<td>86</td>
</tr>
<tr>
<td>Sometimes (e.g., once or twice a week)</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>Infrequently (less than once a week)</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Never</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

Out of 25 respondents from the Iringa Region, 16 reported that they were trying to develop positive relationships with their pupils on a daily basis after eight weeks of mobile learning programming (Table 12).

### Table 12. Percentages of Teachers Reporting How Often They Use Strategies Learned from This Program.

<table>
<thead>
<tr>
<th>Questions and Responses</th>
<th>Irinka Region (%) (n=25)</th>
<th>Zanzibar Region (%) (n=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often have you used what you learned in these lessons (on building positive relationships)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have applied the lessons in more than 5 classes.</td>
<td>45</td>
<td>63</td>
</tr>
<tr>
<td>I have applied lessons in 1 to 4 classes.</td>
<td>55</td>
<td>37</td>
</tr>
</tbody>
</table>

An unexpected outcome regarding teachers’ application of strategies to help them build positive relationships was that teachers were creative in the way in which they developed positive relationships with their pupils. Table 13 presents some ideas from the teachers in the Zanzibar Region.

### Table 13. Teachers’ Ideas for Building Positive Relationships in Their Classrooms.

**“Please give an example of something you did this past week to create a more positive relationship with one or more pupils in your class.”**

**An example of blindfold game led to many pupils building positive relationships in the classroom.**

*Mfano kutembea ukiwa umafungwa kitambaa machoni mchezo huu uwiwajenga wanafunzani wengi kuwa mahusiano chanya katika darasa.*

**An example of building a positive relationship is that of finding a friend and my life at school, I role played as a child and actively participated to allow pupils to feel that we are the same by giving an example of my life at school; the children really enjoyed.**

*Mfano wa kujenga mahusiano chanya ni ule mchezo wa kutafuta rafiki na maisha yangu skuli niliigiza kama mtoto na kushiriiki kikamiliifu ili wajishie wanafunzani tupo sawa nakuwapa mfano wa kutoa maelezo ya maish yangu skuli watoto walifurahia sana.*

**When I created small groups, I mixed fast learners and slow learners; I used positive language so the fast learners can help slow learners.**

*Nlipogawakvukindaraarasaniaiilivachanganyawanafunzihodarinawalawazoletanikanatumialughachanyaili walehodarivaweweze kwiasaidiawenzao, Mimi ni Miza Hamimu Issa.*
5. CONCLUSION

The SEL and School Climate Activity sought to co-create, with teachers, new SEL and School Climate classroom activities and pedagogical practices that are rooted in Tanzanian priorities regarding pupil SEL competencies and that reflect local values that guide teachers’ instructional culture. As a result, Tusome Pamoja has a series of activities designed and tested by teachers themselves that value and promote group work, address positive discipline, promote social and emotional learning, and encourage and nourish positive relationships among pupils and teachers in the classroom. This activity also tested methods for co-creating and developing activities via both an in-person workshop and a mobile learning activity.

The first research question focused on teachers’ engagement with the online content. Through self-reported data via the Learner Management System, Tusome Pamoja found that teachers engaged seriously with the online content. Virtual methods for teacher engagement certainly hold promise. With real-time data updates provided via the LMS, this virtual component allowed for rapid iteration of activities so that teachers’ feedback regarding implementation challenges and concerns with levels of confidence were addressed. And teachers, when given the opportunity, were forthcoming with the challenges they faced in co-creating and testing new activities and pedagogical practices. These challenges centered on time restrictions to plan and carry out activities and their ability to manage large and noisy classrooms. However, the data also shows that when given the choice, teachers preferred in-person engagement. Therefore, similar programs should consider a mixture of in-person and virtual methods for teacher engagement.

The second research question sought to understand how confident and willing teachers were in implementing the new activities and strategies in their classrooms. Through teacher self-reported changes in their attitudes and behaviors Tusome Pamoja found that attitudes towards positive discipline did change. Though teacher attitudes towards group work and pupil relationships did change, they maintained varying degrees of confidence with regards to implementing new strategies pertaining to this in their classrooms.

The third research question focused on teacher change in behavior and classroom practices. The data showed a noticed a shift in willingness and actual implementation of positive discipline. Teachers were even able to derive their own, unique ways for employing positive discipline over corporal punishment. This is promising for the potential of positive discipline as a classroom management technique in Tanzania. It also suggests that a combination of in-person and virtual teacher professional development has the potential to change behavior and attitudes. To assess whether this potential is realized requires an impact evaluation with observations of teacher and student behaviors.

However, data regarding confidence in and willingness to use group work showed mixed results. Teachers reported perceived logistical challenges with group work – particularly that it took a long time. The process of co-creation did not manage to surface convincing solutions to this challenge.
As with any activity, there were limitations. The timeline for co-creation was different in Iringa and Zanzibar. And, since Iringa in-person co-creation was conducted first, Zanzibar's co-creation could build on lessons learned from Iringa. Thus, there is no regional comparison available. Additionally, there was no control group against which to compare data, thus Tusome Pamoja cannot draw conclusions about the two method's (in-person co-creation versus virtual) as causal factors of teacher change in attitudes and behaviors. Rather, Tusome Pamoja can only say these modalities of teacher engagement have potential for teacher engagement in both Iringa and Zanzibar—extrapolation to other contexts cannot be made. Finally, data collected was all self-reported. While these were reports of levels of confidence, they can be considered as true levels of confidence as teachers were reporting how they felt. There is the chance, that teachers were reporting what the Tusome Pamoja wanted to hear. This again, only allows Tusome Pamoja to state that the modalities used have potential and are not driving causes of behavior change, but it does provide some evidence for further investigation and assessment.

Nonetheless, this activity represents a learning process about teacher attitudes and behaviors regarding pedagogical practices. Tusome Pamoja learned that virtual methods for engaging teachers can be effective and that teachers are willing to deal with issues of school climate and culture, but attitude and behavior change takes time. Importantly, teachers' confidence in grappling with new content—like SEL and school climate—and their willingness to implement activities and pedagogy are worth exploring in future trainings.

**WORK CITED**


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