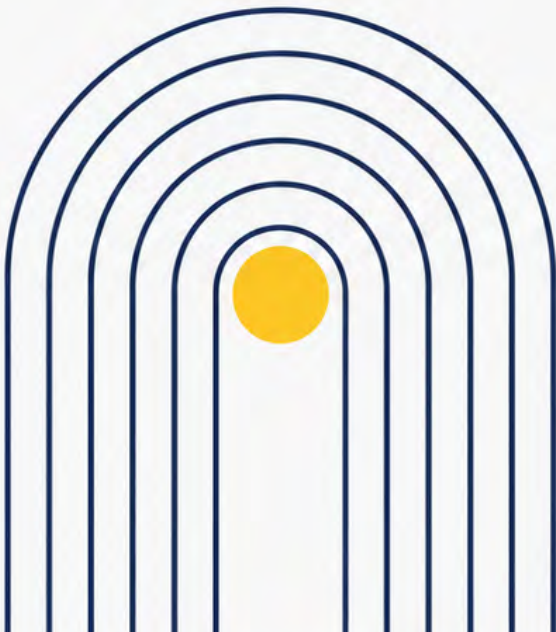


Report Project

Multigrade Teaching Support Programme: Scale up in Punjab



Multigrade Teaching Support Programme

Scale-Up in Punjab

October 2024

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List of Abbreviations

AEOs	Assistant Education Officers
B-TAG	Bridging Technical Assistance for Governments
CPD	Continuous Professional Development
COT	Classroom Observation Tool
ECCE	Early Childhood Care Education
FGD	Focus Group Discussions
HT	Headteacher
LP	Lesson Plan
MGT	Multigrade Teaching
MT	Master Trainer
PCTB	Punjab Curriculum and Textbook Board
PEC	Punjab Examination Commission
PESP	Punjab Education Sector Programme
PMIU	Programme Monitoring & Implementation Unit
SAHE	Society for the Advancement of Education
SED	School Education Department
SLO	Student Learning Outcome
T&L	Teaching and Learning
TFM	Teacher Forum Meeting
QAED	Quaid-e-Azam Academy for Educational Development

1. Multigrade Teaching (MGT)

Multigrade Teaching (MGT) refers to a pedagogical practice where a single teacher instructs students from multiple grade levels within the same classroom. Unlike the monograde system, where each grade level has its own dedicated teacher and classroom, MGT combines two or more grade levels due to various logistical and resource constraints. This approach is prevalent in areas with low population density, widely scattered schools, or limited educational resources.

MGT presents several challenges for teachers, including managing different grades simultaneously in one classroom, preparing teaching materials for multiple classes, providing individual attention, catering to students with varying needs, implementing and supervising activity-based learning strategies, identifying individual student problems, and allocating sufficient time for completing curriculum objectives and assessing all students.

However, MGT also presents opportunities, such as increasing access to education in sparsely populated areas, improving learning outcomes through differentiated learning practices, and providing opportunities for younger learners to model behaviour from older peers.¹ MGT settings have also been found to result in better non-cognitive outcomes, including improved attitudes towards self, peers, and school compared to monograde settings.^{2,3} Additional benefits include an enhanced learning process through problem-solving and collaborative learning, refined communication skills, increased confidence as students help each other, better student-teacher relationships, and continuous reinforcement and revisitation of topics.⁴

MGT is a common educational practice in many countries around the world, especially in rural and remote areas. Countries like Finland, Australia, and Canada have well-established MGT systems that have been refined over the years to address the unique challenges associated with teaching multiple grade levels simultaneously. Global successful MGT practices typically involve well-trained teachers who are skilled in managing diverse classrooms, use customised teaching-learning materials that cater to different grade levels, use effective classroom management strategies to maintain an organised and productive learning environment. Additionally, teachers get to participate in CPD opportunities to keep abreast of best practices and new methodologies.

2. Multigrade Teaching in Punjab

In Pakistan, multigrade teaching is practiced across all provinces, including Punjab. The high prevalence of multigrade classrooms in primary schools of Punjab, especially in rural areas,

¹ Ballesteros, M., & Ocampo, R. O. (2016). Best practices of multigrade teaching in Luna, Apayao, Philippines. *International Journal of Novel Research in Education and Learning*, 3(6), 61-73. P.64

² See McEwan, P. J. (2008). Evaluating multigrade school reform in Latin America. *Comparative. Education*, 44(4), 465-483.

³ Mulkeen, A. G., & Higgins, C. (2009). *Multigrade Teaching in Sub-Saharan Africa Lessons from Uganda, Senegal, and the Gambia*. The World Bank

⁴ <https://www.mona.uwi.edu/cop/sites/default/files/resource/files/Multigrade%20teaching%20-%20strategies.pdf>

is due to several factors, including limited resources, a shortage of teachers, insufficient classrooms, and low student enrolment. These conditions make the principle of "one teacher-one classroom" impractical and financially unfeasible, particularly when considering the student-teacher ratio (STR). In Punjab, the number of teachers in government primary schools falls significantly short of what is needed to assign a teacher to each classroom, leading to the widespread adoption of MGT.

According to the Punjab School Census 2023-24, approximately 90% of primary schools in Punjab have fewer than six teachers, meaning that at least one grade in these schools is combined with one or more others. Around 38% of primary schools operate with only one or two teachers, while the majority have three to four teachers per school. Most of these multigrade classrooms are located in rural rather than urban areas. Only a small percentage (less than 10%) of schools have four or more teachers. Figure 1 illustrates the distribution of schools by teacher count as per Annual Census 2023-24, underscoring the extensive prevalence of multigrade teaching in the province.

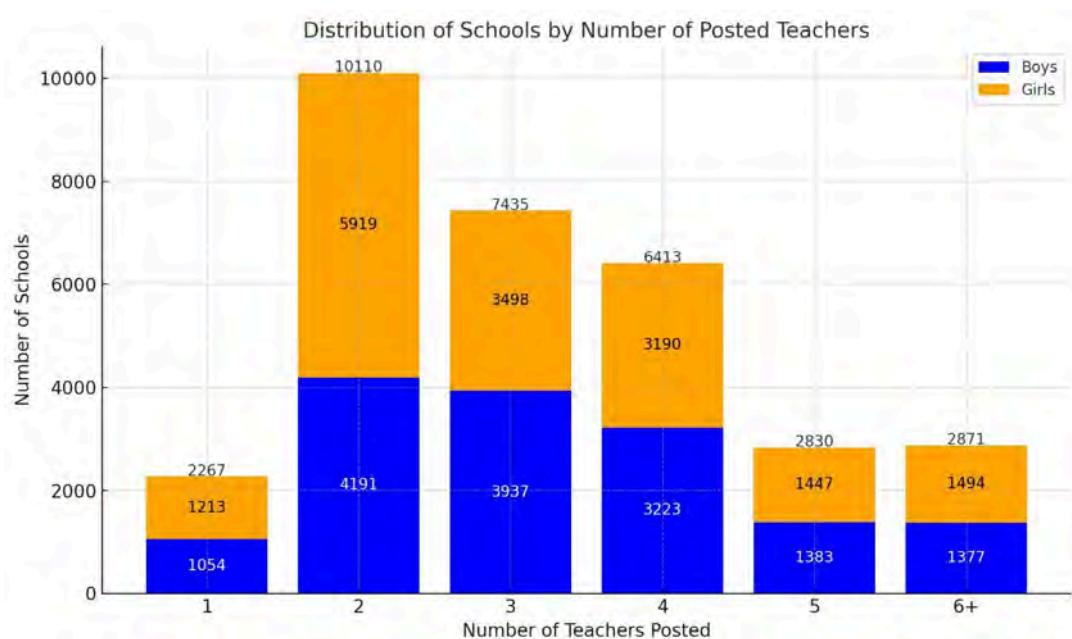


Figure 1: Prevalence of Multigrade Teaching in Punjab (Annual School Census 2023-24)

Key Challenges of Multigrade Teaching

Research indicates that without tailored teaching and learning (T&L) materials and specialised training, T&L practices in multigrade settings often become disorganised. Teachers tend to focus on one grade level at a time, leaving students in other grades idle, which disrupts the overall learning process. This challenge was highlighted in the Situation Analysis Report by Bridging Technical Assistance for Governments (BTAG) in May 2024.

Despite the high prevalence of MGT in Pakistan, many teachers lack the skills and knowledge necessary to manage multigrade classes effectively, as their training has been primarily

geared toward single-grade teaching. Both pre-service and in-service training institutions have made minimal progress in developing age- and grade-specific content and strategies that could better support teachers in multigrade classrooms. Furthermore, inadequate multigrade practices, irregular teacher attendance, and overcrowded classrooms contribute to lower learning outcomes and increased dropout rates in these schools.⁵

3. Enhancing Multigrade Teaching Practices in Punjab

The Government of Punjab recognises the importance of enhancing the effectiveness of multigrade teaching to improve student learning outcomes. Several targeted interventions have been implemented to support teachers and optimise multigrade classroom practices.

1. While the School Education Department (SED) is committed to providing six teachers and six classrooms in each school (one teacher for each grade) across the province, the persistent teacher shortage remains a significant challenge, leading to the prevalence of MGT. The SED acknowledges that teaching and learning practices in a multigrade setup differ from those in monograde classrooms. To address this, a **"Multigrade Teaching and Learning Strategy"** was developed in 2021 with support from the Punjab Education Sector Programme-II (Extended) following consultations with key stakeholders. This strategy outlines five broad goals aimed at collectively achieving the SED's vision for MGT and enhancing learning throughout the province. It emphasises the need to focus on specific areas, such as curriculum development, assessment, teacher training, and other processes essential for the effective implementation of MGT approaches.
2. A **Multigrade Teacher Training Pilot Programme** was implemented in 2021-22 in 3,000 three-teacher schools, reaching 9,000 teachers and providing training in effective MGT strategies. Teachers received teaching and learning materials, including an academic calendar, lesson plans, worksheets, and formative assessment strategies specifically designed for MGT. The programme successfully imparted useful techniques to teachers, guiding them on how to group different grades, teach similar SLOs keep students engaged, and use formative assessment strategies to inform their practices.
 - i. An **evaluation of the programme conducted by the Society for the Advancement of Education (SAHE)** with 51 male and female teachers across three districts in Punjab found high levels of satisfaction with the multigrade teacher training. Most teachers reported actively using the T&L resources developed specifically for MGT, applying the lessons learned in their classrooms. The findings highlighted increased student engagement, participation in activities, and interaction with teachers as a result of the training. To assess the relevance and effectiveness of the pilot MGT training programme, SAHE used a combination of key informant interviews, classroom observations, and interviews with teachers and parents.

⁵ Asian Development Bank (2019) School Education in Pakistan, A Sector Assessment.

- ii. A **teachers' survey conducted by BTAG in January 2024** with 22 participants from seven districts revealed high satisfaction rates, with 82% of teachers completely satisfied with the MGT training and 18% partially satisfied. Teachers reported effectively implementing various MGT strategies in their classrooms, such as activity-based teaching, combining common topics for adjacent grades, arranging the classroom layout to foster a conducive learning environment, using low-cost materials, and conducting formative assessments to enhance their teaching practices.
- iii. An **Impact Evaluation of the MGT pilot 2021-22** conducted by the BTAG in October 2024, reveals that the teachers trained for MGT have higher scores on multigrade teaching practices compared to the control group. Overall, the average score for teachers who were trained on multigrade teaching was found to be 2.422 (out of 3) which is higher than the overall average (combining treatment and control) as well as the control group (only) which stood at 2.417 and 2.403 respectively.

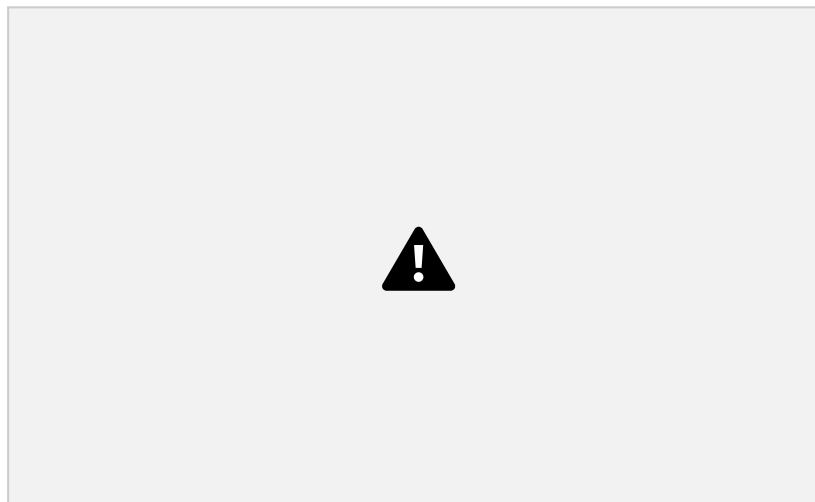


Figure 2: Effectiveness of MGT pilot training programme

Similarly, the practice wise comparison across treatment and control showed that the teachers who had received trainings are implementing better management and teaching practices for multigrading than the teachers from the control group. Specifically, the teachers from the treatment group have gotten higher scores for 9 out of 13 practices observed for multigrade teaching than the control group, based on a specifically designed classroom observation tool for MGT. The graph below shows comparison of treatment and control by 13 practices observed for multigrade management and teaching.



The impact evaluation results indicate that the positive effects of the MGT training, delivered nearly three years prior, are sustained and continue to influence classroom practices favourably. This suggests a promising initial impact, reinforcing the importance of scaling up the programme. Furthermore, the findings highlight the need for periodic refresher trainings to reinforce effective MGT practices and address any gaps.

To maintain and strengthen these positive outcomes, it is essential to implement more robust monitoring and evaluation processes alongside ongoing, on-the-job support. This aspect, absent following the pilot, can be addressed through the Assistant Education Officers (AEOs), providing teachers with the guidance needed to consistently apply best practices in multigrade teaching.

4. Multigrade Teaching Punjab Scale-up

Building on the success of the 2021-22 pilot programme and informed by the findings and recommendations of BTAG's Situation Analysis Report (May 2024) and the pilot's Impact Evaluation (November 2024), BTAG has designed and implemented the MGT Scale-Up Programme.

MGT Scale-Up Design

To address content dilution in traditional cascade training models and manage cost constraints, a blended approach was adopted within Punjab's education framework. The training includes digital modules with video lectures, classroom demonstrations, lesson plans, and self-assessment tools, focusing on subject-specific pedagogy and multigrade teaching strategies. These modules are accessible through a Learning Management System (LMS) on Android devices, ensuring standardised content and allowing for flexible, self-paced learning.

Face-to-face support complements the digital modules at the school level, delivered by Assistant Education Officers. In Punjab, over 3,000 AEOs provide this support, conducting

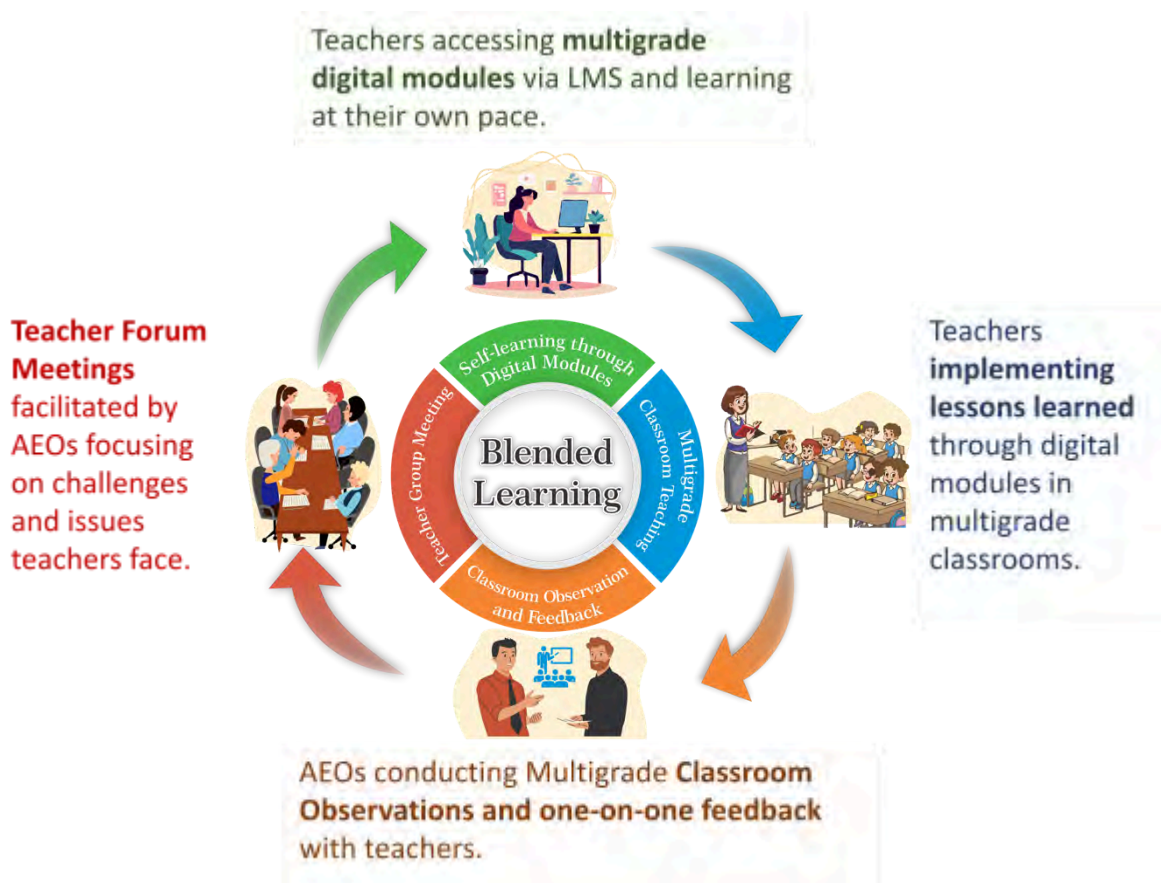
classroom observations and mentoring teachers through regular visits. As teachers complete their digital training, they implement the learned strategies in their classrooms. The existing Classroom Observation Tool (COT) has been adapted to better capture multigrade-specific practices. AEOs support teachers by offering on-the-job training and coaching through:

- i. **Multigrade Classroom Observations** and personalised feedback provided at the school level.
- ii. **Monthly Teacher Forum Meetings** at the markaz level to reinforce multigrade strategies and address challenges in implementing training lessons.

To ensure effective support, a dedicated training programme for AEOs will cover COT practices specific to MGT and equip them with multigrade teaching strategies. Structured sessions are being developed to enhance AEOs' capacity to support teachers in practical, effective ways.

This approach provides teachers with practical classroom applications, reflective opportunities, and sustained feedback and mentoring from AEOs, creating a supportive environment that promotes the ongoing application and refinement of MGT strategies.

Figure 4 shows the design of MGT scale-up Programme.



Development of Digital Content

The MGT training content was carefully reviewed, modified, and refined based on feedback from participants of the 2021-22 MGT pilot programme, evaluation studies, and field insights. This feedback shaped the design and delivery of the training content, leading to the development of T&L materials tailored to equip teachers for the diverse challenges they face in multigrade classrooms. Efforts were made to align the content with real classroom contexts, emphasising MGT strategies and addressing practical challenges such as classroom management, supporting students with diverse abilities and socio-economic backgrounds, and managing large class sizes.

The digital modules are structured to provide foundational knowledge on multigrade teaching, with an emphasis on subject-specific pedagogy and teaching strategies tailored for multigrade settings. These modules aim to help primary school teachers gain a deeper understanding of core concepts and multigrade classroom best practices effectively bridging the gap between theory and practice.

The primary objectives of these digital modules are to:

- Provide standardised content to ensure consistent training quality across regions.
- Offer wide access, including for teachers in remote areas who may have limited opportunities for in-person training.
- Enable teachers to revisit and reuse the content over time, reducing the need for frequent, cost-ineffective in-person training sessions, especially considering the high costs of transport allowances.

These modules provide a flexible, self-paced learning experience where teachers can progress at their own pace and complete end-of-module assessments to gauge their understanding.

Course Overview

The course consists of seven comprehensive modules aimed at equipping teachers with the skills and knowledge necessary for effective multigrade instruction. These modules cover key topics such as the fundamentals of multigrade teaching, developing an academic calendar, lesson planning, managing diverse learning environments, and implementing effective teaching and assessment strategies. Each module includes assessments to ensure practical understanding and application of the concepts covered. The development process for each digital module included script writing, video creation featuring classroom demonstrations, and the design of end-of-module assessments.

The course was designed with the following learning objectives:

- Explain and identify different aspects of the need for multigrade teaching.
- Articulate the key principles of successful multigrade teaching.

- Understand classroom environments and layouts according to students' intelligences and learning styles.
- Discuss the role of the teacher in a multigrade classroom.
- Create an academic calendar for multigrade teaching.
- Recognise the importance of planning and classroom routines.
- Plan lessons for a multigrade class.

Below we give an overview of developed modules:

Module 1 - Introduction to Multigrade Teaching

Module 1 provides an introduction to multigrade teaching, its importance, and distinguishes it from monograde teaching. It covers the challenges educators face in multigrade settings and suggests effective solutions for successful implementation. Key aspects of effective multigrade teaching are also discussed.

Module 2 - Learning Styles and Learning Environment

Module 2 focuses on understanding various learning styles and the significance of a supportive learning environment. It also explores multiple intelligences and effective classroom layouts that cater to different learning needs.

Module 3 - Role of a teacher and basic principles of multigrade teaching

In Module 3, educators learn about the critical role of teachers in a multigrade setting and the fundamental principles of multigrade teaching. The module also emphasises student participation and engagement strategies.

Module 4 - Academic Calendar

This module highlights the importance of an academic calendar specifically designed for multigrade teaching. It guides educators on developing a calendar that incorporates various themes, sub-themes, and activities suitable for a multigrade classroom.

Module 5 - Effective teaching strategies for Multigrade Classrooms

Module 5 introduces educators to essential planning techniques and lesson-planning components for multigrade classrooms. It covers daily routines, group work, and different teaching strategies tailored to multigrade settings.

Module 6 - Assessment strategies

Module 6 focuses on various assessment types, including formative assessments, and explores how feedback can be used to improve teaching effectiveness. Educators also learn about using a lesson plan checklist for self-assessment.

Table 1 provides a breakdown of the content covered in each module.

Table 1: MGT Module Content Breakdown

Sr. no.	Modules	Key Topics Covered	Expected time to complete the module
1.	Module 1: Introduction to Multigrade Teaching	- o Unit 1.1: Introduction to Multigrade Teaching & its Importance - o Unit 1.3: Challenges in Multigrade Teaching and Their Solutions - o Unit 1.4: Effective Multigrade Teaching	1 hour 10 minutes
2.	Module 2: Learning Styles & Environment	- o Unit 2.1: Learning Styles - o Unit 2.2: Multiple Intelligence - o Unit 2.3: Learning Environment - o Unit 2.4: Multigrade Class Organisation & Layout	1 hour 50 minutes
3.	Module 3: The teacher's Role and the Basic Principles of Multigrade Classroom	- o Unit 3.1: Understanding the Importance of the Teacher's Role in a Multigrade Classroom - o Unit 3.2: Fundamental Principles of Multigrade Teaching - o Unit 3.3: Student Participation in a Multigrade Classroom	1 hour 40 minutes
4.	Module 4: Academic Calendar for Multigrade Teaching	- o Unit 4.1: Introduction and Importance of the Academic Calendar - o Unit 4.2: The need for an Academic in Multigrade Teaching - o Unit 4.3: Creating an Academic Calendar for Multigrade Teaching	1 hour

5.	Module 5: Effective Teaching and Planning Strategies for Multigrade Classrooms	- o Unit 5.1.1: Importance of Planning - o Unit 5.1.2: Lesson Planning for Multigrades - o Unit 5.1.3: Key Aspects of Lesson Planning - o Unit 5.2: Daily Routines in a Multigrade Classroom - o Unit 5.3: Group Work	3 hours 10 minutes
6.	Module 6: Assessment in a Multigrade Classroom	- o Unit 6.1: Assessments in a Multigrade Classroom - o Unit 6.2: Giving Feedback - o Unit 6.3: Self-Assessing Lesson Plans	2 hours 20 minutes

Academic Calendar

To address the specific needs of multigrade classrooms, a sample academic calendar for three months has been developed, tailored to the requirements of MGT classrooms.

The development process involved aligning the calendar with the National Curriculum. And adding essential information, including Student Learning Outcomes (SLOs), teaching strategies, formative assessment techniques, and corresponding textbook page numbers.

The process began by collecting curricula for various grades, arranged in adjacent grade combinations, such as ECCE & Grade 1, Grade 2 & Grade 3, and Grade 4 & Grade 5. This arrangement was designed to provide teachers with a practical roadmap for multigrade teaching.

The following academic calendars have been developed as samples to support teachers in ensuring effective teaching and learning in MGT classrooms:

1. English Academic Calendar (ECCE & Grade 1, Grade 2 & 3 and Grade 4 & 5)
2. Maths Academic Calendar (ECCE & Grade 1, Grade 2 & 3 and Grade 4 & 5)
3. Science Academic Calendar (Grade 4 & 5)
4. Urdu Academic Calendar (ECCE & Grade 1, Grade 2 & 3 and Grade 4 & 5)

The key features of the developed academic calendars are as follows:

- The calendar is carefully aligned with curriculum standards and learning objectives for each grade, ensuring the identification of key concepts, skills, and cognitive milestones to be mastered.
- The calendars are designed by combining the SLOs of the same subject across adjacent grades. The shared key concepts, skills, and themes have been thoughtfully combined, allowing teachers to teach both grades simultaneously.

- The calendars are presented in a table format, organised by month, and include the following details: total number of periods, grade names, lesson titles, topic/subtopics, study methods/proposed formative assessment strategies, and textbook page numbers.
- Instructions are adjusted to guide students from foundational concepts to more advanced understanding, such as integrating ECCE and Grade 1 Urdu learning outcomes within a single class.



Academic Calendar		Multigrade			
Month: 1 (December - 2021)		Number of Periods			
Grade	Chapter/Unit Name	Topic/Sub-topic	SOs	Proposed Formative Assessment Strategies	Curriculum/ Textbook Page #
ECCE	Unit 41: Professions	Oral Communication Skills (Listening and Speaking)	Extend their ideas or accounts by providing some detail about their topic and daily routine.	Discussions	SNC ECCE page # 27
	Unit 39: Letter Oo		- Talk about their experiences and feelings with peers and adults by using complete sentences. - Wait for their turn to speak and not interrupt when others are talking.	Discussions	SNC ECCE page # 25
Grade 1	Unit 7: Classroom Manners	Oral Communication Skills (Listening and Speaking)	Understand that words and pictures carry meaning.	Discussions	SNC ECCE page # 26
	Unit 44: Letter Rr		- Articulate, recognize and use some formulaic expressions to: - offer and respond to basic routine greetings - express and offer a few basic social courtesies	Show of hands	SNC ECCE page # 31
ECCE	Unit 45: Responsible Citizen	Oral Communication Skills (Listening and Speaking)	Name things in their environment.	Role Play	SNC ECCE page # 27
	Unit 50:		Describe and talk about pictures, drama, animated video etc.	Choral Response	SNC ECCE page # 80
			Describe a picture by using appropriate	Quizzing	SNC ECCE page # 27

Figure 6: Title page of sample academic calendar

Lesson Plans

To effectively manage multigrade classrooms—where students from two adjacent grade levels learn together—specialized lesson plans are essential. These plans facilitate differentiated education, supporting each grade level without overwhelming the teacher. By addressing the diverse needs and abilities of students, specialized lesson plans promote more effective teaching and better learning outcomes.

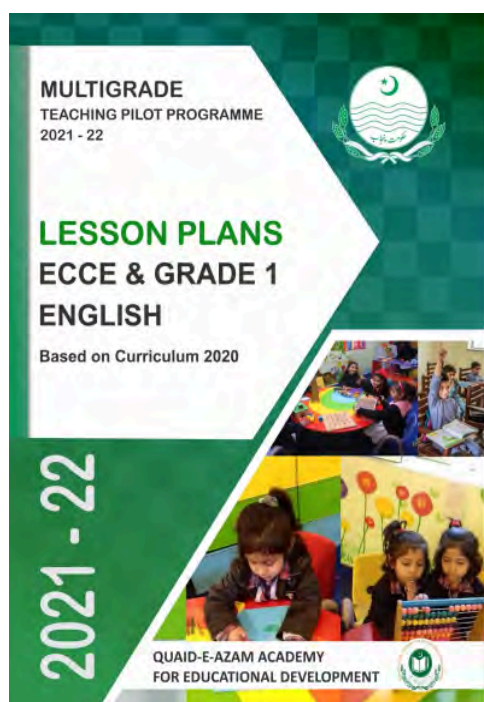
With this goal in mind, sample lesson plans were developed for multigrade teachers in English, Mathematics, Science, and Urdu. These plans allow educators to incorporate engaging shared activities while efficiently balancing attention across grades and optimising resources and time. The sample lesson plans are designed for the following grade combinations:

1. ECCE & Grade 1
2. Grade 2 & Grade 3
3. Grade 4 & Grade 5

Each lesson plan follows a structured approach, beginning with a common introduction to the topic for both grades. This is followed by differentiated activities, prompts, and questions tailored to each grade level. Where applicable, references to textbooks are included. The sample plans provide teachers with a variety of adaptable activities that can be used to create additional lessons.

The developed lesson plans have the following characteristics:

- Lesson plans connect concepts across grade levels, helping students develop a more comprehensive understanding of topics through shared themes and projects in alignment with the academic calendar. References to textbooks are included where possible.
- Each lesson plan is designed to address the varying skill levels and learning needs of students in both grades.
- Lesson plans include a common introduction, followed by differentiated activities and formative assessments designed for both grade levels.
- Activities promote peer learning, fostering teamwork, communication, and collaboration skills.
- Resources and activities are designed to be adaptable, allowing teachers to modify them according to their classroom dynamics.
- The lesson plans accommodate different learning styles and intelligences, fostering a student-centered learning environment.
- The lesson plans optimise resource usage and time management, helping teachers effectively manage their classrooms.
- Each lesson plan includes a homework assignment to reinforce the concepts taught in class



ENGLISH		LESSON PLAN		MULTIGRADE		
Lesson Plan 37		In accordance with SNC (Single National Curriculum)		Multigrade Planner		
Month: February – March 2022		SLOs		Unit / Chapter	Topic	
Grade /Class	ECCE	☐ Wait for their turn to speak and not interrupt when others are talking.		Unit 9	A Greeting Card	
	Grade 1	☐ Demonstrate common conventions and dynamics of oral interactions in group to: ○ express needs				
Resources Required		ECCE Primer Textbook, English Textbook Grade 1, chart papers, colour pencils, stickers, 4 to 5 pre-prepared greeting cards				
Essential Points		☐ Predict what the picture shows.				
Time Duration		40 minutes				
TEACHING ACTIVITIES					DAY 1	
Activity 1: Introduction (5 min)					Multigrade – ECCE & G 1	
☐ Greet the students and ask them how they are doing. ☐ Make sure to tell students to greet each other politely when they meet for the day and to take turns asking after each other. ☐ Instruct the students to sit in multigrade groups: two students of ECCE and two students of Grade 1 in each group. You can also ask them to have a small greeting session when they sit in multigrade pairs: the older student should be the first to greet the younger ones. The number of group members can vary depending upon the class strength. ☐ Once the students have settled into their groups, distribute a pre-prepared greeting card to each group.						
☐ Ask the students to open the card and see what is inside. ☐ Wait for student response. Encourage choral response. Expected Answer: a card/greeting card ☐ Ask students to tell how they feel. ☐ Ask the students to think of a time when they gave a card or received one. What was the occasion? Expected response: Eid, birthday, anniversary						

Formative Assessment Strategies

Formative assessment is essential for improving student learning and teacher effectiveness, especially in multigrade classrooms. To support teachers, the content development team created a set of formative assessment strategies tailored to three core subjects—English, Urdu, and Mathematics—for the recommended grade combinations. These strategies enable teachers to assess student progress effectively across different levels, with practical classroom examples to guide implementation.

Each strategy is linked to specific SLOs allowing teachers to determine the appropriate level for application and aligning assessment methods with the desired outcomes for maximum impact. References to these strategies are integrated into the academic calendar, ensuring easy access and seamless integration into daily lessons.

In addition, each document provides suggestions for employing effective feedback techniques to complement formative assessments. These suggestions emphasise the importance of timely, high-quality feedback in diverse classrooms. Strategies include using various feedback modes, maintaining a supportive tone, and offering clear, specific guidance tailored to individual student needs. This approach fosters a positive learning environment, supporting student growth and success.

Classroom Observation Tool (COT) for Multigrade Teaching

In Punjab primary schools, teaching practices are observed using the Classroom Observation Tool (COT), which is employed by the AEOs to monitor teaching practices and provide feedback to teachers. The COT currently includes 11 practices, and corresponding training modules have been developed and delivered to ensure that teachers, headteachers, and AEOs understand and can effectively implement these practices. However, the COT was originally designed for monograde classrooms and does not address the unique dynamics of multigrade classrooms. This creates a need for the tool's review and adaptation.

To address this gap, a specialised MGT classroom observation tool has been developed. The revised tool includes 13 key practices specifically tailored for multigrade settings. This adaptation ensures better alignment with desirable outcomes, enhances teacher effectiveness, and ultimately improves student learning in multigrade classrooms.

The 13 essential practices for the MGT classroom observation tool are:

1. **Combining Grades Logically:** The teacher groups grades based on developmental stages or curriculum overlap, such as ECCE-G1, G2-G3, and G4-G5.
2. **Utilising Classroom Space Effectively:** The teacher uses flexible seating plans and subject-specific corners to accommodate both grades and promote interaction.
3. **Developing a Specialized Academic Calendar:** The teacher creates an academic calendar that covers overlapping content across the combined grades.
4. **Designing Multigrade-Specific Lesson Plans:** Lesson plans are tailored to cater to both grades for the same subjects, with differentiation aligned to the academic calendar.

5. **Articulating Lesson Objectives Clearly:** The teacher explicitly communicates the objectives for each grade level.
6. **Providing Clear and Correct Content Explanations:** The teacher explains the content in a way that is accurate and easily understandable.
7. **Time Management:** The teacher manages time effectively to balance instructional attention between grades.
8. **Aligning Content with Objectives:** The content taught matches the lesson objectives for each grade.
9. **Ensuring Appropriate Content for Each Grade:** The lesson content is suitable for different grade levels, with differentiated activities.
10. **Implementing Flexible Grouping Strategies:** The teacher organises students into groups across grades based on needs and abilities.
11. **Encouraging Peer Learning:** Older students support the younger ones, fostering collaboration.
12. **Monitoring Student Progress Continuously:** The teacher conducts ongoing assessments for students across grades.
13. **Providing Individualised Feedback:** Feedback is tailored according to the grade level and specific student needs.

A comprehensive rubric and detailed examples were developed for each indicator to provide clear criteria for assessment and guidance for implementation. The rubric outlines three performance level: Emerging (1), Developing (2), and Proficient (3), defining what constitutes excellent, satisfactory, and needs improvement in relation to each indicator. This structured approach allows teachers and evaluators to consistently assess practices and identify areas for growth.

A comprehensive rubric, along with detailed examples, was developed for each indicator to provide clear criteria for assessment and practical guidance for implementation. The rubric defines three performance levels: **Emerging (1)**, **Developing (2)**, and **Proficient (3)**, specifying what constitutes excellent, satisfactory, and needs improvement performance for each indicator. This structured approach enables both teachers and observers to consistently assess practices and identify areas for growth.

In addition to the rubric, practical examples were created to demonstrate how each indicator can be effectively applied in a multigrade classroom setting. These real-world examples offer educators concrete references, helping them visualise expectations and implement strategies aligned with the indicators. Together, the rubric and illustrative examples aim to enhance understanding and facilitate the successful adoption of best practices, ultimately supporting continuous improvement in teaching and learning outcomes in multigrade schools.

The data collected from the MGT-specific COT will be analysed and used to inform future training sessions, ensuring a continuous improvement cycle based on real-time insights.

The MGT-specific COT, along with its rubric and practical examples, was incorporated into the MGT digital content as a separate module, **Module 7 - Classroom Observation Tool**.

Review at QAED

After developing the content, it was presented to the Review Committee of QAED Punjab for an intensive evaluation under the supervision of ADG QAED. The purpose was to ensure the alignment of the content with the School Education Department's learning policy, Government of Punjab. This policy emphasises that the curriculum, and materials, including the study scheme, timetable, and educational calendar for multigrade teaching, should be specifically tailored to support teachers effectively in such settings.

The review process involved three days of in-depth sessions where each module underwent a rigorous examination. The modules were assessed for their quality and their effectiveness in training teachers to handle multigrade classrooms. Special attention was given to ensuring that the modules provided practical guidance aligned with the needs of multigrade teaching.

The reviewers also evaluated additional components, such as classroom demonstration video scripts, handouts, and all supporting materials associated with the digital modules. This comprehensive review ensured that the resources offered clear, practical strategies for teachers, aiming to improve classroom management and instructional practices in multigrade settings.

Following the review, all suggested modifications from the committee were incorporated by the content development team into the digital modules to enhance their quality and relevance. The final versions of the modules were thus refined to meet the educational requirements and policy standards, ensuring that they effectively support teachers in delivering high-quality multigrade instruction.

The MGT-specific COT was reviewed in a consultative workshop that included representatives from the Punjab Education Commission (PEC), the Programme Monitoring and Implementation Unit (PMIU), and the SED. Suggestions from the workshop focused on simplifying the language for better readability and incorporating examples from the same subject and grade to illustrate the progression of improved practices, among other recommendations. Feedback was incorporated, and the necessary revisions were made accordingly.



Figure 9: MGT Content Review Workshop at QAED

Digital Content Uploading

To ensure uninterrupted content management and timely training delivery, BTAG engaged a private firm through a competitive process.⁶ Quotations were solicited based on the Terms of Reference (TORs), and the selection was made accordingly. The TORs included:

1. Host digital content on an LMS and ensure its availability to 20,000 users in Punjab within a 60-day timeframe.
2. Upload training content and assessments provided by the I-SAPS team.
3. Set up user accounts in bulk and deliver content directly through the LMS.
4. Provide prompt technical support and resolve any issues to ensure a seamless user experience throughout the contractual period.

The digital modules were uploaded on LMS and disseminated to 23,708 primary school teachers including 13,388 females, 10,320 males for self-paced learning, notification attached as Annexure-I. PSTs were asked to access the MGT digital modules by following the steps mentioned below:

Step 1: Go to Website: <https://mtsp.nearpeer.org/>

Step 2: Click on “Multigrade Teaching (MGT) Support Programme”

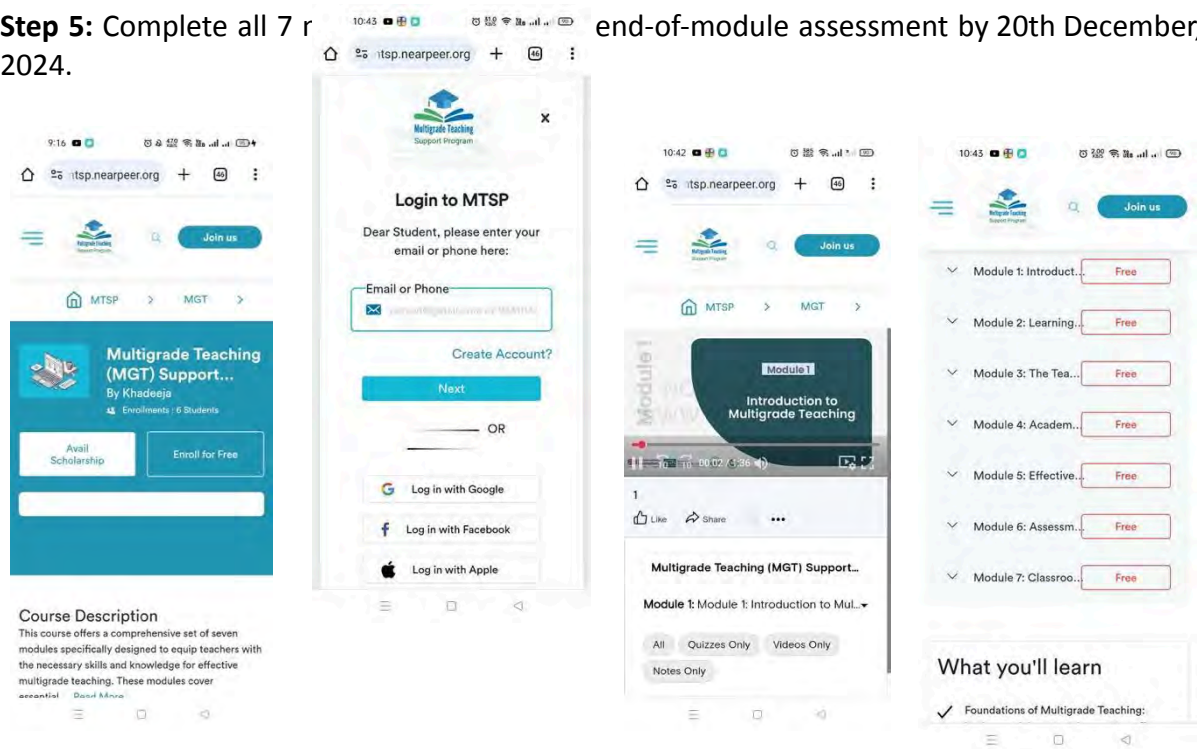
⁶ Initially, in consultations with QAED, it was planned to utilise QAED’s Training Management System (TMS), developed by the Punjab Information Technology Board (PITB), for uploading the MGT training content. However, during execution, it became clear that the contract between QAED and PITB for TMS services had not been renewed due to an outstanding payment from QAED.

Step 3: Click on “Enrol For Free”. Log into your account by providing your valid CNIC number (without any dashes), along with your email address or phone, and then entering this password MTSP_@890.

Once logged in, make sure to change the password.

Step-4: Start your MGT course by clicking on module 1 and viewing all units. Once done, attempt end-of-module assessment.

Step 5: Complete all 7 r end-of-module assessment by 20th December, 2024.



5. Next Steps

Continuing the implementation of the MGT scale-up, with teachers accessing the digital content and applying the lessons learned in classrooms, key next steps include the following:

Training of the AEOs

Given the crucial role that AEOs play in providing support and mentoring for teachers, it is imperative to equip them with comprehensive training on MGT strategies and best practices. This training will focus on enhancing their skills and providing them with effective tools to support multigrade teachers as part of their ongoing professional development. The school-based support facilitated by AEOs can significantly assist teachers in addressing challenges, reflecting on their instructional practices, and fostering continuous improvement in their teaching methodologies.

To this end, BTAG will plan, design, and deliver two-day training sessions for approximately 3,258 AEOs (including 1,724 females and 1,534 males) across Punjab in **December 2024**.

These sessions will concentrate on equipping AEOs with the knowledge and techniques necessary to mentor and coach teachers effectively, specifically addressing the unique issues and challenges associated with multigrade teaching. By focusing on the practical application of MGT strategies, this approach aims to establish a robust support system that will enhance the overall effectiveness of multigrade teaching in schools.

On-the-Job Teachers' Support

Following their training, AEOs will provide on-the-job support to teachers through classroom observations, feedback and structured teacher forum meetings continuing till March 2025, benefitting 9,000 teachers from 3,000 three-teacher schools trained in 2021-22 and more than 20,000 teachers currently being trained through digital modules. This support will involve regular visits to classrooms where AEOs will observe teaching practices, offering constructive feedback and guidance tailored to the specific needs of each teacher. These observations will allow AEOs to identify areas for improvement, celebrate successful strategies, and provide immediate assistance where challenges arise.

Additionally, monthly teacher forum meetings will be organised by the AEOs at the markaz level to create a collaborative environment where teachers can share their experiences, discuss common challenges, and brainstorm solutions together. These gatherings will also serve as a platform for ongoing professional development, allowing teachers to refine their skills in implementing MGT practices and engage in meaningful dialogue about their experiences in multigrade classrooms.

These targeted training and support initiatives, aim to strengthen the capacity of AEOs and enhance the instructional effectiveness of multigrade teachers, ultimately leading to improved learning outcomes for students in Punjab.

Evaluation of the Scale-Up

Given the novelty of the intervention and lack of extensive evidence on multigrade teaching practices in Punjab, a comprehensive evaluation methodology for the MGT scale-up programme has been designed. This approach combines the quantitative and qualitative methods to provide holistic understanding of the impact of the programme on improving teaching practices in multigrade settings across Punjab. Specifically, the evaluation will focus on following four key areas:

1. Uptake of the digital modules by teachers,
2. Classroom observations of teachers on adapted COT for multigrade teaching,
3. Perception surveys and Focus Group Discussions (FGDs) with teachers, and
4. Observations of the Teacher Forum Meetings (TFMs).

Sample Selection

To ensure representativeness while accounting for contextual and geographical variance, two-stage purposive sampling will be done. First, 6 districts have been selected to represent different geographical areas of the province. Specifically, two districts from each of the three geographical regions of Punjab (north, centre, and south) are selected. These districts include Attock and Sargodha from northern zone, Gujranwala and Faisalabad from centre, and Muzaffargarh and Rahimyar Khan from south.



Figure 10: Sample districts

At second stage, the schools from these districts are identified and divided based on predetermined criteria of possibility and likelihood of multigrade teaching due to fewer than the total required teachers at primary level.

Data Collection

For holistic evaluation, a mixed-method approach will be employed to gather information on key areas of the MGT scale-up in Punjab. Specifically, it will include analytics of digital modules, classroom observations using adapted COT for MGT, teachers' perception survey and focus groups, records of teacher forum meetings, structured interviews with AEOs, and feedback from relevant headteachers.

The details on these aspects are as below:

- Data on uptake and module completion rates, time spent on each module, and assessment scores will be extracted from the LMS.
- Quantitative scores and qualitative notes from the adapted MGT - specific COT will be collected during pre- and post-training observations.
- Quantitative (Likert-scale) and qualitative (open-ended) responses from the online teacher perception survey will provide a deeper understanding on the process, effectiveness, impact, and potential areas for improvement.
- TFM records, notes and structured interviews from AEO-led TFMs will provide information on continuous support and improvement in teaching practices with the lens of MGT.

Note: A team of trained evaluators/observers will ensure consistent and accurate data collection across all methods/tools.

In addition to continuous monitoring and data collection through classroom observations, there will be four key stages in the evaluation cycle of MGT scale-up in Punjab. Figure 11 presents a summary of the four stages in evaluation cycle that will help robust monitoring, allow for mid-term course correction if required, and impact assessment of the intervention.

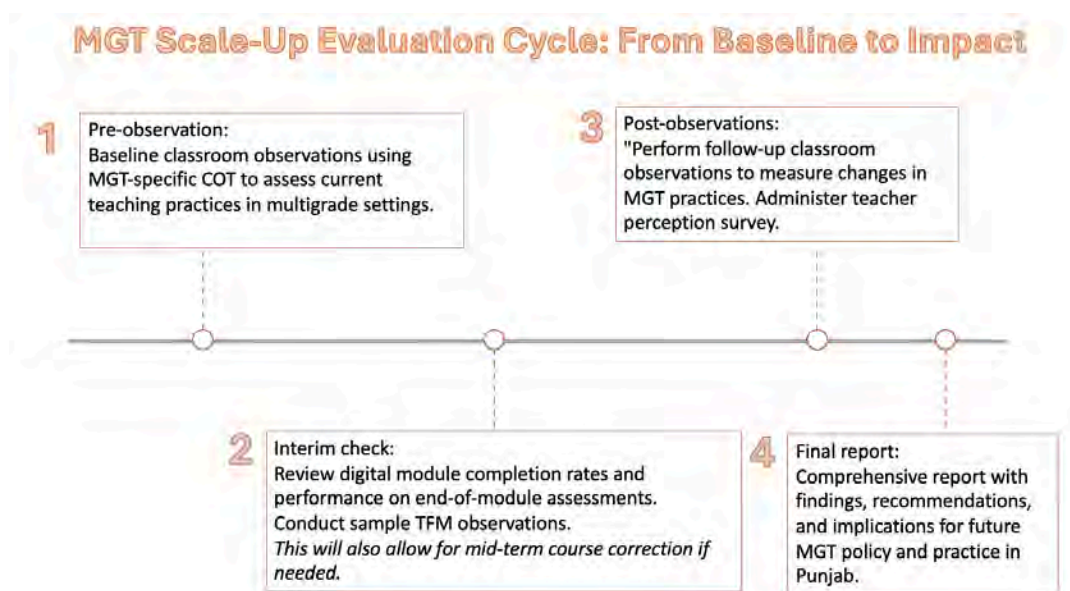


Figure 11: MGT Scale up Evaluation Cycle

To account for the unique aspects and challenges of the multigrade teaching, a specialised MGT classroom observation tool was developed. This adapted tool aims to better align with the dynamics of multigrade settings and accurately capture teacher effectiveness in these environments.

The MGT-specific COT includes 13 practices tailored for multigrade classrooms. These practices include (i) Logical grade combination, (ii) Effective classroom space use, (iii) Implementation of multigrade calendar, (iv) Usage of multigrade lesson plan, (v) Clear learning objectives, (vi) Content alignment with objectives, (vii) Clear, accurate explanations, (viii) Relevant, differentiated content, (ix) Effective time management, (x) Flexible student

grouping, (xi) Encouragement of peer learning, (xii) Formative assessments, and (xiii) Provision of individualised feedback.

Data Analysis

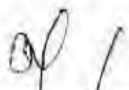
To evaluate the impact of intervention, a rigorous statistical analysis will be conducted using classroom observations data for teachers from both groups, treatment and control. Specifically,

1. **T-Test for Differences Over Time:** Within the treatment group, a paired t-test will be applied to evaluate differences in scores before and after the training intervention. This test will help determine whether the training has led to statistically significant improvements in teachers' multigrade teaching practices or not.

These quantitative findings will be triangulated with qualitative data collected from classroom observations, teacher perception surveys, and Teacher Forum meeting notes.

Annexures

Annexure – I: Training Notification by the SED

D.SO(Trg)Work/Letters/Letter 2024		NO.SO(TRG)1-52/2023	
		GOVERNMENT OF THE PUNJAB	
<u>sotraining.sed@gmail.com</u>		SCHOOL EDUCATION DEPARTMENT	
		Dated Lahore the 5 th December 2024	
To	- 091224		
	All the Chief Executive Officers (DEAs), in Punjab.		
Subject:	<u>MULTIGRADE TEACHING (MGT) SUPPORT PROGRAM PRIMARY SCHOOL TEACHERS (PSTS) IN PUNJAB</u>		
I am directed to enclose herewith letter dated 07.11.2024 regarding CPD and Multigrade Expert, Technical Assistance for Government (BTAG) enclosures on the subject cited above and to state that to address the unique multigrade classrooms in Punjab, Bridging Technical Assistance for Government (BTAG) in consultations with Quaid-e-Azam Academy for Educational Development (QAED), Punjab developed Multigrade Teaching Support Programme. The programme adopts a blended approach that combines digital & face-to-face methods. Therefore, you are requested to facilitate the B-TAG team to ensure smooth subject activity under intimation to this Department.			
CC:		 SECTION OFFICER (TRAINING)	
1. The Director General, QAED, Punjab. 2. PS to Secretary, School Education Department. 3. PS to Special Secretary, School Education Department. 4. PS to Additional Secretary (ER), School Education Department. 5. Ms. Rabia Aslam, CPD and Multigrade Expert BTAG, Institute of Policy Sciences (I-SAPS) with the request to coordinate with CEOs Punjab for proposed activity.			
			

Annexure – II: Classroom Observation Tool for Multigrade Teaching

Part B: MGT CLASSROOM OBSERVATION TOOL					
No.	Indicator	Score			Observation
		Emerging (1)	Developing (2)	Proficient (3)	
Multigrade Classroom Management					
1.	The teacher combines grades logically (e.g., ECCE-G1, G2-G3, and G4-G5).				
2.	The teacher uses classroom space effectively to accommodate both grades and encourage interaction (e.g., flexible seating, subject-specific corners).				
Academic Calendar & Lesson Planning					
3.	The teacher implements multigrade academic calendar.				
4.	The teacher uses a multigrade lesson plan.				
Instructional Strategies					
5.	The teacher explicitly articulates the learning objectives for each grade level.				
6.	The teacher's explanation of the content aligns with the stated learning objectives for each grade level.				
7.	The teacher's explanation of the content is clear and accurate catering to students of both grades.				

8.	The content presented in the lesson is appropriate, relevant, and differentiated for each grade level.				
9.	The teacher manages time effectively to balance instructional attention between grades.				
Student Engagement					
10.	The teacher uses flexible grouping strategies to enable students from both grades to collaborate based on their needs and abilities.				
11.	The teacher promotes peer learning by encouraging students to actively support each other, creating a collaborative learning environment.				
Assessment & Feedback					
12.	The teacher uses a variety of formative assessment techniques, including peer and self-assessment, to monitor and support student progress across both grades.				
13.	The teacher provides individualised feedback to students, tailored to their grade level and specific needs.				