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# Data Driven Mentoring and Coaching

## for Multigrade Settings in Public Schools

Punjab

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## Punjab

*Bridging Technical Assistance for Governments (B-TAG)*

# Contents

# 1. Executive Summary

Punjab has a high prevalence of multigrade teaching, with more than 80% of government primary schools operating in multigrade settings where a single teacher teaches two or more grades simultaneously. To strengthen multigrade teaching practices, the Bridging Technical Assistance for Governments (B-TAG) programme has been working closely with the Punjab Education Curriculum, Training and Assessment Authority (PECTAA) and School Education Department (SED) to support teachers through professional development, instructional resources, and data-driven academic support mechanisms. A key component of this support has been strengthening the capacity of Assistant Education Officers (AEOs) to provide evidence-based mentoring and coaching using classroom observation data collected through a specialised Multigrade Classroom Observation Tool (MG-COT).

As part of this support, B-TAG designed and delivered a training programme for AEOs on data-driven mentoring and coaching for Multigrade Settings in Government Schools in Punjab using specialised Multigrade Classroom Observation Tool (MG-COT). The programme was piloted with 224 AEOs (148 male, 76 female) across nine districts of Punjab in two phases. Phase I was conducted in Attock, Jhang, Lahore, Multan, Sargodha, and Vehari on 29–30 December 2025, reaching 134 AEOs (85 male, 49 female). Phase II was conducted in Chakwal, Lodhran, and Sheikhupura on 30–31 January 2026, reaching an additional 90 AEOs (63 male, 27 female). The intervention focused on improving AEOs' ability to provide structured, evidence-based academic support to teachers through enhanced classroom observation, mentoring, feedback, and coaching practices using the Multigrade Classroom Observation Tool (MG-COT).

An evaluation of the programme was conducted to assess whether the intervention contributed to improvements in multigrade teaching practices in government primary schools across selected districts of Punjab. The evaluation employed a quasi-experimental pre- and post-intervention design using treatment and control groups of schools. Baseline and endline classroom observations were conducted using the MG-COT framework, which assesses 13 core multigrade teaching practices related to classroom organisation, lesson planning, differentiated instruction, peer learning, formative assessment, and individualised feedback.

Overall, the evaluation covered **761** schools (500 treatment, 261 control) across selected districts of Punjab, including 400 girls' schools and 361 boys' schools. A total of 1,301 classroom observations were conducted during the evaluation, including 733 observations in girls' schools and 568 in boys' schools.

The findings indicate substantial improvements in multigrade teaching practices between baseline and endline across both treatment and control schools; however, improvements were consistently greater in treatment schools linked with the trained AEOs.

The overall average MG-COT score in treatment schools increased from 2.33 at baseline to 3.51 (out of 5) at endline, representing an improvement of 1.18 points. In comparison, control schools improved from 2.39 to 3.30 (out of 5), representing an increase of 0.91 points.

Practice-wise analysis also showed stronger gains across treatment schools for all **13** MG-COT teaching practices. The largest improvements in treatment schools were observed in:

- individualised student feedback;

- promotion of peer learning;
- use of multigrade academic calendar;
- balanced instructional time across grades; and
- flexible student grouping.

The findings suggest that teachers in treatment schools adopted stronger student-centred and differentiated instructional practices over the intervention period relative to teachers in control schools. Gender-wise analysis similarly demonstrated stronger improvement in treatment schools for both female and male schools. Female treatment schools improved by 1.20 points compared with 0.82 points in female control schools. Male treatment schools improved by 1.16 points compared with 1.04 points in male control schools.

To estimate the causal impact of the intervention, the evaluation applied an Analysis of Covariance (ANCOVA) framework controlling for baseline MG-COT scores. The ANCOVA results confirm that the intervention had a positive and statistically significant impact on multigrade teaching practices.

The analysis shows that:

- **treatment schools scored 0.225 points higher at endline** compared with control schools after controlling for baseline scores;
    - **female treatment schools scored 0.177 points higher** than female control schools; and
    - **male treatment schools scored 0.275 points higher** than male control schools.
- Out of the 13 indicators included in the MG-COT, the two indicators that correspond to **student engagement**[1] show a treatment effect of 0.3 and 0.36 respectively.
- The impact of the intervention on student learning could not be assessed due to significant limitations in the (School-Based Assessment) SBA dataset provided by the PECTAA, including missing, incomplete, and unreliable data.

The findings provide evidence that strengthening the mentoring and coaching capacity of AEOs contributed to measurable improvements in classroom instructional practices within multigrade government primary schools in Punjab.

The evaluation further highlights the importance of structured mentoring systems, classroom observation frameworks, and continuous professional support mechanisms for teachers working in multigrade classroom settings. The findings suggest that strengthening academic

[1] Indicator 10: The teacher uses flexible grouping strategies to enable students from both grades to collaborate based on their needs and abilities.
Indicator 11: The teacher promotes peer learning by encouraging students to actively support each other, creating a collaborative learning environment.

support systems through trained field-based education managers can improve instructional quality even within resource-constrained school environments.

**Scope and Reach:**

**Districts targeted:** 9

**Total Treatment Schools**: 500 four-teacher schools (231 male, 269 female)

**Total AEOs trained:** 224 (148 males, 76 females)

**Total teachers benefitted:** Approximately 2,000

**Total students reached:** Approximately 50,000

**Selected control schools:** 261 (130 male, 131 female)

# 2. Introduction

## 2.1 Background and Context

Improving the quality of teaching and learning in multigrade classrooms remains a significant challenge within Punjab's government primary education system, particularly in schools operating with limited teaching staff. Such settings require effective classroom organisation, differentiated instruction, lesson planning, time management, and continuous formative assessment to ensure meaningful student engagement and learning.

While the Government of Punjab continues to address teacher shortages and infrastructure gaps through teacher recruitment and classroom expansion, complementary efforts are also being undertaken to strengthen teaching practices and quality of instruction in multigrade settings. Strengthening academic mentoring and coaching systems for teachers has emerged as an important strategy for improving classroom practices and supporting teachers working in resource-constrained school environments.

Under the FCDO-funded B-TAG programme, technical assistance has been provided to the PECTAA to strengthen multigrade teaching practices across the province. One of the key initiatives was the Multigrade Teacher Support Programme (MTSP), which aimed to improve teacher capacity and strengthen school-based academic support systems. Under this programme, teachers were trained on effective multigrade teaching strategies including logical grade combinations, multigrade-specific academic calendars and lesson plans, subject-based learning corners, flexible grouping strategies, and classroom-based assessment approaches tailored to multigrade environments. The programme reached more than 20,000 teachers and approximately 2,000 Assistant Education Officers (AEOs) across Punjab. As part of the programme, a specialised MG-COT was developed to assess 13 core multigrade teaching practices and to support evidence-based classroom observation, feedback, and mentoring.

Building on these efforts, the current intervention focused on strengthening the mentoring and coaching capacity of AEOs using data-driven evidence-informed practices in multigrade classroom settings.

## 2.2 Data-driven Coaching and Mentoring

In Punjab, AEOs serve as the critical link between education policy and classroom practice and play a central role in providing academic support to teachers through school visits, classroom observations, and professional feedback. To enhance this role, a training programme was designed for AEOs to equip them with necessary skills to use MG-COT data, give targeted feedback to the teachers and keep a track of actions taken.

The intervention specifically focused on strengthening AEOs' understanding and application of the MG-COT framework, as well as their ability to support teachers in key areas of multigrade pedagogy, including instructional planning, classroom management, differentiated instruction, peer learning, formative assessment, and student engagement. Through regular

school visits AEOs were expected to mentor teachers in adopting and sustaining effective multigrade teaching practices.

### 2.3 Pilot Implementation and Evaluation

The intervention was implemented in selected four-teacher government primary schools across nine districts of Punjab using a treatment and control group design. The primary objective of the evaluation was to assess whether strengthening the mentoring and coaching capacity of AEOs contributes to improvements in multigrade teaching practices.

Specifically, the evaluation sought to:

- Assess the status of multigrade teaching practices in treatment schools at baseline and endline, to be compared with a control sample;
- Examine changes in MG-COT scores over the intervention period;
- Estimate the impact of the intervention on overall multigrade teaching practices;
- Assess intervention effects across individual MG-COT teaching practices and by school gender category.

With regular observation and feedback using the MG-COT framework, the intervention sought to establish a continuous cycle of professional support and improvement for teachers. Enhanced classroom practices were ultimately expected to contribute to improved teaching quality and more effective learning experiences for students in multigrade government primary schools.

This report presents the implementation details as well as the baseline and endline findings of the evaluation and examines the extent to which the intervention influenced multigrade teaching practices in treatment schools relative to control schools. The Analysis of Covariance (ANCOVA) framework was used to estimate intervention effects while controlling for baseline differences in classroom practices.

# 3. Methodology

## 3.1 Evaluation Design

The evaluation employed a quasi-experimental pre- and post-intervention design to assess the effectiveness of the training for AEOs on data-driven mentoring and coaching for multigrade settings in government schools of Punjab. The design included treatment and control groups of schools to enable comparison of multigrade teaching practices between schools exposed to the intervention and those not receiving the intervention during the study period.

Baseline data were collected prior to the implementation of the intervention, while endline data were collected following the completion of the intervention period. Classroom observations at both stages were conducted using the MG-COT to assess changes in teaching practices across multigrade classrooms.

The evaluation primarily focused on estimating the extent to which the intervention contributed to improvements in multigrade teaching practices in treatment schools relative to control schools.

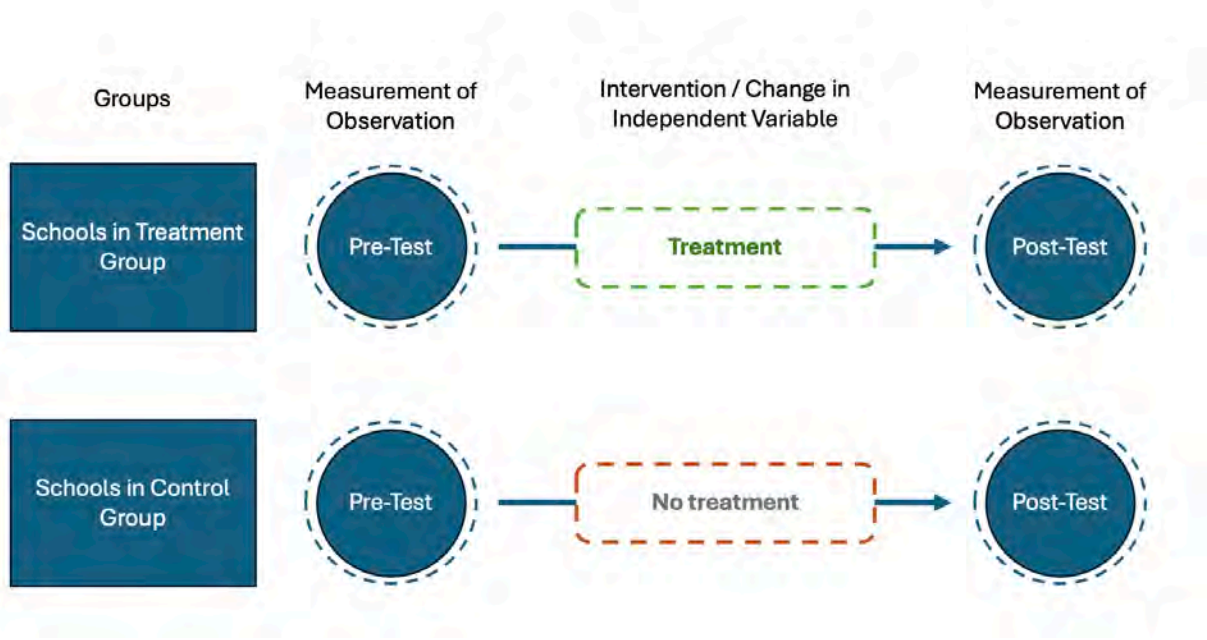


*Figure 1: Evaluation Design of Baseline to Endline*

## 3.2 Treatment and Control Groups

The evaluation sample consisted of 761 four-teacher government primary schools selected from nine districts of Punjab. Schools included in the sample were randomly assigned into treatment and control groups.

Schools assigned to the treatment group were linked with AEOs who received training on data-driven mentoring and coaching for multigrade classroom settings. These AEOs were trained on the use of the MG-COT framework and were expected to provide structured classroom observation, mentoring, coaching, and feedback support to teachers during routine school visits.

Schools assigned to the control group continued with regular academic monitoring mechanisms and did not receive the intervention during the evaluation period. The use of treatment and control groups allowed the evaluation to compare differences in classroom teaching practices while controlling for pre-existing baseline variations across schools.

*Table 1: Total Number of Beneficiaries*

| District | Total number of 4-teachers primary schools in the districts | Treatment Schools | Control Schools | AEOs (Treatment) | AEOs (Control) |
|---|---|---|---|---|---|
| Attock | 116 | 41 | 21 | 18 | 12 |
| Jhang | 267 | 88 | 45 | 30 | 15 |
| Lahore | 76 | 28 | 14 | 15 | 7 |
| Multan | 162 | 55 | 27 | 16 | 12 |
| Sargodha | 184 | 61 | 34 | 23 | 15 |
| Vehari | 183 | 71 | 33 | 32 | 15 |
| Chakwal | 88 | 45 | 23 | 30 | 10 |
| Lodhran | 121 | 62 | 35 | 30 | 10 |
| Sheikhupura | 120 | 49 | 29 | 30 | 10 |
| **TOTAL** | **1317** | **500** | **261** | **224** | **106** |

### 3.3 Data Collection Approach

The evaluation relied primarily on classroom observations conducted using the MG-COT. Data collection was carried out at both baseline and endline stages across treatment and control schools.

Independent observers conducted classroom observations in sampled multigrade classrooms and assigned scores across 13 predefined teaching practices included within the MG-COT framework. Each practice was scored on a five-point scale, where a score of one represented the lowest level of implementation and a score of five represented the highest level of implementation.

The classroom observations focused on assessing practices related to classroom organisation, lesson planning, instructional delivery, differentiated instruction, time management, peer learning, formative assessment, and individualised feedback. Standardised observation protocols and data collection procedures were followed to ensure consistency and reliability across districts and school types.

### 3.4 Classroom Observation Framework

The MG-COT was specifically designed to assess the quality and implementation of teaching practices within multigrade classroom settings. The framework captures the following 13 core teaching practices considered essential for effective multigrade instruction:

***i.*** *logical grade grouping;*

***ii.*** *classroom space management;*

***iii.*** *implementation of multigrade academic calendars;*

***iv.*** *lesson planning practices;*

***v.*** *articulation of learning objectives;*

***vi.*** *alignment of instructional delivery with learning objectives;*

***vii.*** *clarity and accuracy of content delivery;*

***viii.*** *differentiated instruction;*

***ix.*** *classroom time management;*

***x.*** *flexible student grouping;*

***xi.*** *promotion of peer learning;*

***xii.*** *formative assessment practices; and*

***xiii.*** *provision of individualised feedback.*

The use of a structured classroom observation framework enabled systematic assessment of teaching practices across schools and facilitated quantitative comparison between treatment and control groups.

### 3.5 Student Learning Data

While the SED, Punjab has initiated the collection of SBA data, the system is still in the early stages of implementation, and the available dataset is not yet suitable for robust analysis of student learning outcomes.

Currently, only aggregate student-level scores by subject are available, with no item-level or Student Learning Outcome (SLO)-level data. As a result, the dataset does not provide information on student performance against specific competencies, learning domains, or assessment items. This limits the ability to identify learning gaps, analyse performance across different SLOs, or undertake more detailed assessments of learning outcomes.

Additionally, the available SBA data contains significant coverage gaps. For instance, the dataset received in December 2025 contained records for less than 60 percent of schools. Furthermore, reporting was often incomplete at the student level, with many schools uploading scores for only a small subset of enrolled students. Analysis of the uploaded records showed that 50% of reporting schools had submitted marks for nine students or fewer, while more than 30% schools had submitted marks for fewer than five students out of total enrolled students the class. Hence, the evaluation could not include learning assessment data.

### 3.6 Data Analysis Strategy

The analysis focused on assessing changes in multigrade teaching practices and estimating the impact of the intervention on MG-COT scores at endline.

Descriptive analysis was conducted to compare baseline and endline MG-COT scores across treatment and control groups, including overall scores, practice-wise scores, and school gender-wise comparisons.

To estimate the causal impact of the intervention, the evaluation employed ANCOVA framework. The ANCOVA approach estimates differences in endline outcomes between treatment and control groups while controlling for baseline MG-COT scores. This approach improves the precision of treatment effect estimates and accounts for any pre-existing differences between groups.

#### *3.6.1 ANCOVA Analytical Framework*

The ANCOVA model estimated the impact of the intervention on endline MG-COT scores while controlling for baseline classroom practice scores. The primary outcome variable was the endline MG-COT score, measured either as an overall index or as individual practice-level scores.

The key explanatory variable was treatment assignment, indicating whether a school belonged to the intervention or control group. Baseline MG-COT scores were included in the model as covariates to adjust for pre-intervention differences across schools and classrooms.

#### *3.6.2 Regression Specification*

The following regression specification was used to estimate intervention effects:

$$\text{Endline Score}_i = \beta_0 + \beta_1(\text{Treatment}_i) + \beta_2\ (\text{Baseline Score}_i) + \epsilon i$$

Where,

- Endline Score$_i$ is the MG-COT score recorded for school *i* after the intervention, serving as the outcome variable.
- $\beta_0$ is the intercept; the predicted endline score for a control school with a baseline score of zero.
- $\beta_1$ is the ANCOVA treatment effect; the estimated difference in endline scores between treatment and control schools, after adjusting for baseline performance.
- Treatment$_i$ is a binary indicator equal to 1 if school *i* was assigned to the treatment group, and 0 if control.
- $\beta_2$ is the coefficient on the baseline score; captures the relationship between prior performance and endline outcomes, controlling for regression to the mean.
- Baseline Score$_i$ is the pre-intervention MG-COT score for school *i*, included as a covariate to improve precision and reduce residual variance.
- $\epsilon_i$ is the error term; represents unexplained variation in endline scores not accounted for by treatment status or baseline performance.

### *3.6.3 Interpretation of Effect Sizes*

The estimated treatment coefficient from the ANCOVA models represents the adjusted difference in endline MG-COT scores between treatment and control groups after accounting for baseline scores. Positive and statistically significant coefficients indicate that the intervention contributed to improvements in multigrade teaching practices in treatment schools relative to control schools. The magnitude of the coefficients reflects the extent of improvement associated with the intervention across overall and practice-level MG-COT scores.

## 3.7. Sampling Strategy and Endline Coverage

### *3.7.1 Sample Selection*

The sampling strategy for the evaluation was designed to ensure representation across selected districts of Punjab while focusing specifically on four-teacher government primary schools operating in multigrade settings. Schools included in the evaluation were selected from districts representing different geographical regions of the province.

The evaluation sample consisted of treatment and control schools identified through a random assignment process. The intervention targeted schools linked with AEOs who received training on data-driven mentoring and coaching for multigrade classroom settings.

Both baseline and endline classroom observations were conducted within the sampled schools using the MG-COT.

### *3.7.2 School Coverage at Endline*

Overall, classroom observations were conducted across 726 government primary schools included in the evaluation sample. Of these, 384 schools (**53%**) were female schools, while 342 schools (**47%**) were male schools.

Figure 2 presents the overall gender-wise distribution of schools covered under the evaluation.

*Figure 2: School Coverage by Gender*

District-wise distribution of schools covered in the evaluation is presented in Figure **3**. The highest number of schools were covered in Jhang (133), followed by Vehari (104) and Lodhran (97). Comparatively fewer schools were covered in Lahore (42) and Chakwal (50).

Female school coverage was comparatively higher in districts such as Jhang, Lodhran, and Chakwal, while male school coverage was relatively higher in districts including Vehari and Sheikhupura.

*Figure 3: District-wise School Coverage by Gender*

### *3.7.3 Observation Coverage at Endline*

A total of 1,301 teacher classroom observations were conducted across sampled schools using the MG-COT framework. Of these observations, 733 observations (**56%**) were conducted in female schools, while 568 observations (**44%**) were conducted in male schools.

The teacher observations refer to classroom sessions observed during data collection and represent teachers observed within male and female government primary schools included in the evaluation.

Figure 4 presents the overall distribution of teacher observations by school gender.

*Figure 4: Teachers Observed by School Gender*

District-wise distribution of teacher observations is presented in Figure 5. The highest number of teacher observations were conducted in Jhang (218), followed by Vehari (198) and Lodhran (154). Comparatively fewer observations were conducted in Lahore (69) and Sargodha (102).

Female school observations were comparatively higher in districts such as Jhang, Chakwal, and Lodhran, while observations in male schools were relatively higher in Vehari and Sheikhupura.

*Figure 5: District-wise Teachers Observed by School Gender*

# 4. Implementation Steps

## 4.1 Content Development and Review

A comprehensive set of training materials was developed to support data-driven coaching and mentoring using MG-COT. The material draws on the 13-indicator MG-COT framework and builds on the foundational AEO training previously delivered, translating abstract coaching principles into practical simulation-based routines. The MG-COT application demonstration was a part of the training module. A repository of the instructional content mapped against all 13 MG-COT practices, including lesson plans, videos, and reading material was also developed. The training package included trainers' module, trainees' manuals, and repository of resources.

The materials were reviewed and validated through a PECTAA-led technical workshop from 17-21 November, 2025, reinforcing institutional ownership of the training material. Reviewers assessed technical accuracy, instructional coherence, and feasibility for implementation within existing supervisory systems. Feedback from the reviewers informed targeted refinements, resulting in a finalised, field-ready training package prepared for phased rollout.

*Figure 6: Review Workshop in Progress*

**Key Revisions Made During Review**

Some key revisions made during review process are given below:

- Durations and timings for some sessions were reviewed for practical time management in field settings. Minor adjustments ensured adequate time for discussion, MG-COT simulations, and coaching practice.

- Instructions across multiple sessions were revised for greater clarity, especially for multi-step reflective and group tasks. Sequencing was improved, and gallery walk/coaching simulation directions were made explicit.

- Page numbers and cross-references were added throughout the module to enable quick retrieval during live sessions.

- The 5-point rubric developed for MG-COT was examined for alignment with observable practice levels, validated, and formally approved for use in subsequent observation, feedback, and coaching procedures.

All recommendations from the review were incorporated into the module during the review week. The PECTAA Review Committee formally endorsed the updated draft, submitted to B-TAG (FCDO) on 24 November 2025.

### 4.2 Training of Trainers

To enable systematic rollout of MG-COT–informed coaching, a Training of Trainers (ToT) programme was conducted to establish a district-level cadre of master trainers. 12 Master Trainers (06 female, 06 male), nominated by the PECTAA Quality Assurance team, were trained, with representation from six districts (*Vehari, Attock, Lahore, Jhang, Multan, and Sargodha*). The ToT focused on strengthening coaching and mentoring competencies for multigrade instruction, with a deliberate shift from compliance-based monitoring towards growth-oriented, evidence-based instructional support. Participants translated the AEO Terms of Reference into practical coaching behaviours, applied MG-COT during classroom observations, and practised structured feedback aligned with the 13 core practices for effective coaching.

The ToT demonstrated strong learning outcomes, with average assessment scores increasing from 71.7% (pre-test) to 95.2% (post-test), and an overall effectiveness rating of 4.77 out of 5. Participants rated the respectful and supportive learning environment, practical MG-COT simulations, and the role-play-based coaching practice as the most valued elements. A consistent participant suggestion was to extend the training duration to allow more comprehensive engagement with MG-COT materials.

*Figure 7: Training of the Trainers - PECTAA*

### 4.3 AEOs Training

Following the ToT, district-level cascade training sessions for AEOs were conducted through PECTAA field offices.

In Phase I, a total of 134 AEOs (85 male and 49 female) were trained across six districts: Attock, Jhang, Lahore, Multan, Sargodha, and Vehari. The training focused on the practical application of the MG-COT tool for structured classroom observation, feedback provision, and instructional coaching. Particular emphasis was placed on interpreting observation data and leveraging insights to support teacher development in multigrade classroom settings, in alignment with the supervisory and mentoring roles of AEOs.

The training yielded a significant improvement in participant knowledge, with average scores increasing from 70.07% in the pre-assessment to 90.85% in the post-assessment, reflecting a gain of 20.78 %. Participant feedback indicated a high level of satisfaction, with 95.66% of respondents expressing positive views across training quality indicators.

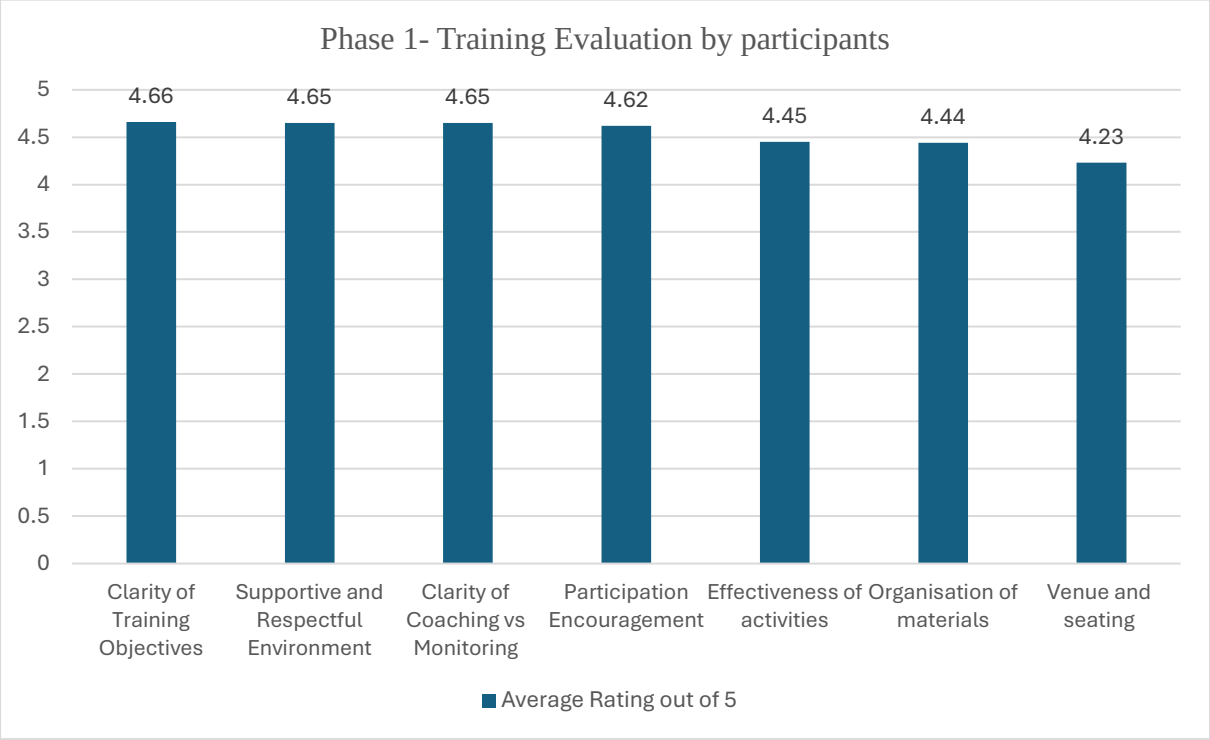


*Figure 8: Training Evaluation by the participants – Phase I*

In Phase II, an additional 90 AEOs (63 male and 27 female) were trained from Sheikhupura, Chakwal, and Lodhran. Similar to Phase I, the training focused on strengthening AEO capacity to use the MG-COT tool for structured classroom observation, feedback, and coaching, with a strong emphasis on data interpretation and its application in supporting teacher improvement in multigrade contexts.

Phase II demonstrated continued positive outcomes, with a cumulative knowledge gain of 16.56 % as average scores improved from 76.67% pre-training to 93.22% post-training. Participant evaluations were highly favourable, with an overall mean satisfaction score of 4.65 out of 5.00 and a 98.3% positive response rate (combining ‘Agree’ and ‘Strongly Agree’) across all 26 evaluation indicators.

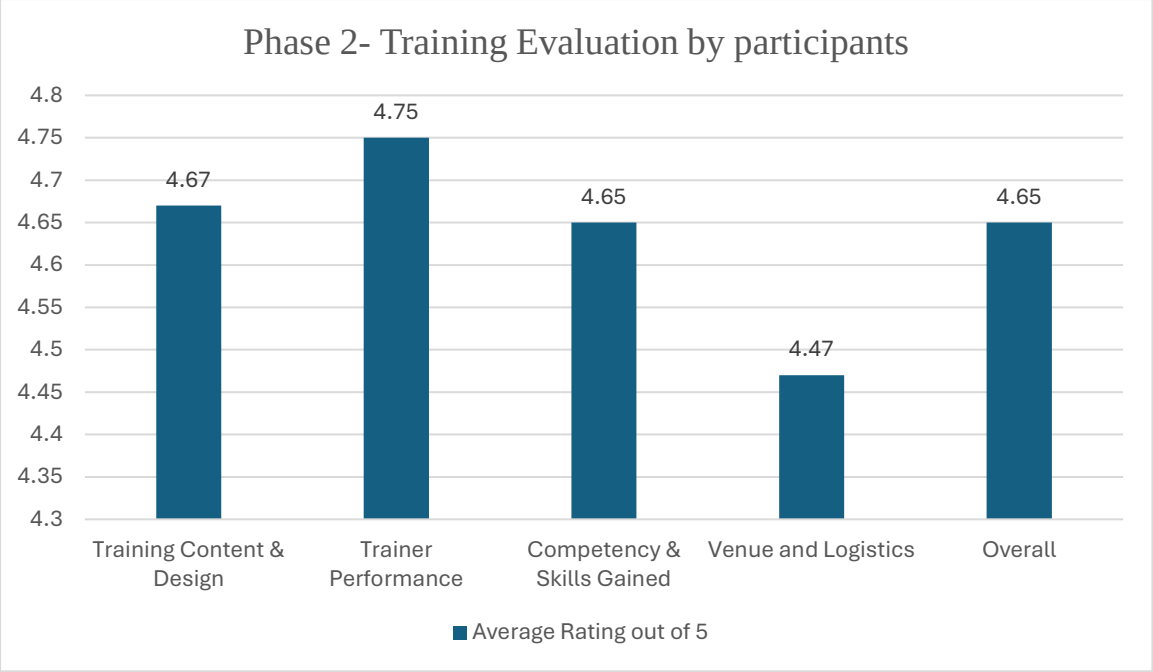


*Figure 9: Training Evaluation by the participants – Phase II*

Trainees rated trainer performance highest, acknowledging the trainer's ability to foster open, participatory, and respectful learning environments.

*Table 2: Gender disaggregated data of AEOs*

| | **District** | **AEOs Trained** | **Male** | **Female** | **Venue** |
|---|---|---|---|---|---|
| **Phase I** | Attock | 18 | 8 | 10 | Pilot Secondary School |
| | Jhang | 30 | 22 | 8 | GHS Islamia Jhang |
| | Lahore | 15 | 9 | 6 | PECTAA Kot Lakhpat |
| | Multan | 16 | 14 | 2 | PECTAA Bosan Road |
| | Sargodha | 23 | 13 | 10 | PECTAA Sargodha |
| | Vehari | 32 | 19 | 13 | Govt. Model HSS |
| **Phase II** | Chakwal | 30 | 16 | 14 | District PECTAA Talagang |
| | Lodhran | 30 | 23 | 7 | GHSS Lodhran |
| | Sheikhupura | 30 | 24 | 6 | PECTAA(W) Sharaqpur |
| TOTAL | | 224 | 148 | 76 | |

*Figure 10: Training session of the AEOs in progress – Phase II (Chakwal, Lodhran, Sheikhupura)*

**Training Feedback by Observers**

All nine districts were monitored on both training days by PECTAA-appointed provincial officers. Across all districts, training material, AV aids, stationery, and generator backup were confirmed as available. Refreshment and logistical arrangements were rated satisfactory to excellent. Training objectives and norms were posted in all rooms. Observer feedback noted no major gaps in training delivery, with MTs demonstrating strong subject knowledge, presentation skills, and ability to handle participant queries.

The two-day training duration was the most frequently cited limitation in participant feedback across both phases. A longer training format, with additional time for MG-COT app practice and development of individual coaching plans, was consistently recommended for future cohorts. This would enable deeper engagement with MG-COT practice, coaching simulation exercises, and structured capacity-building planning.

# 5. Digital Classroom Observation Tool

## 5.1 MG-COT Application

Technical Assistance was provided to the Programme Monitoring and Implementation Unit (PMIU) to customise the existing COT application to include MG-COT. The application enables users (AEOs) to select between monograde and multigrade classroom observations. For multigrade settings, it includes 13 specific instructional practices for observation.

The system generates real-time analysis, tracks teacher performance trends across practices, and identifies targeted areas for improvement. It also integrates aligned instructional content to support coaches and mentors in delivering structured feedback. Additionally, the application captures data on feedback sessions and records agreed action points between coaches and teachers, strengthening accountability and continuous professional development.

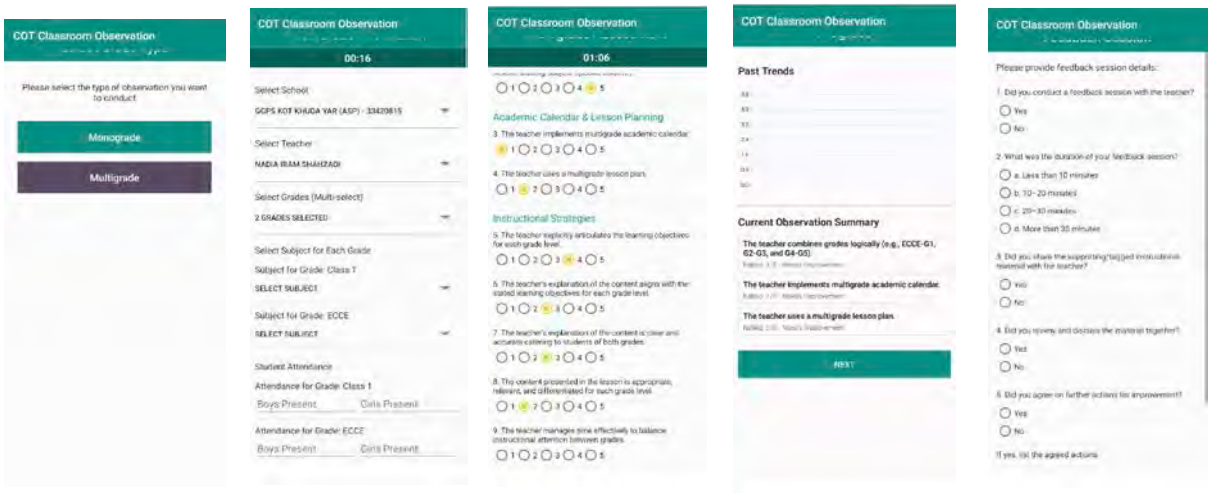


*Figure 10: Training session of the AEOs in progress – Phase II (Chakwal, Lodhran, Sheikhupura)*

A dissemination and policy engagement event on the Monitoring, Evaluation and Learning (MEL) framework for the MG-COT was held in Punjab on 17 March, bringing together 28 key stakeholders (22 males and 6 females) from the SED, PECTAA, PMIU, and district leadership. The session presented the MEL framework, the MG-COT application, and its role in strengthening data-driven coaching and mentoring practices.

AEOs shared their experiences of conducting classroom observations and providing feedback using MG-COT. Participants engaged in constructive discussions, offering feedback on data use, dashboard functionality, integration with existing systems, and linkages with Continuous Professional Development (CPD) and teacher appraisal processes.

The event helped strengthen alignment among stakeholders and generated actionable recommendations to refine the tool and support its effective institutionalisation within the system.

*Figure 11: Discussion on MG-COT Application, Avari Hotel, Lahore, Punjab*

### 5.2 Development of MG-COT Dashboard

The MG-COT dashboard was designed as a comprehensive platform to support decision-making, monitoring, and instructional improvement across multiple levels of the education system.

Access to the dashboard is structured to ensure both transparency and relevance of data use. At the provincial level, the SED, PECTAA, and PMIU have access, enabling them to monitor system-wide trends, track implementation progress, and inform policy and planning decisions. At the field level, access is tiered: District Education Officers (DEOs) can view district-specific data, AEOs have access to markaz-level data, and headteachers can view school-level information. This ensures that each user engages with data that is directly relevant to their role and responsibilities.

The dashboard tracks observation coverage, enabling stakeholders to assess the extent and frequency of classroom observations. Time metrics capture the duration of both observation and feedback sessions. To support instructional improvement, the dashboard offers practice-level trend analysis and teacher performance profiles, allowing users to identify strengths and gaps in specific teaching practices. These insights feed directly into training identification for PECTAA, enabling targeted professional development based on evidence rather than assumptions.

# 6. Baseline and Endline Status of MG-COT Teaching Practices

## 6.1 Overall MG-COT Index: Baseline vs Endline

The classroom observations conducted using the MG-COT indicate substantial improvement in multigrade teaching practices between baseline and endline across both treatment and control schools. However, the magnitude of improvement was consistently higher in treatment schools compared to control schools.

At baseline, the overall average MG-COT score in treatment schools was 2.33, compared to 2.39 in control schools, indicating that both groups started from broadly comparable levels of classroom practice. At endline, the average MG-COT score increased to 3.51 in treatment schools and 3.30 in control schools.

The findings show that:

- treatment schools improved by 1.18 points between baseline and endline; while
- control schools improved by 0.91 points during the same period.

Figure 13 presents the comparison of overall baseline and endline MG-COT scores across treatment and control schools.

*Figure 13: Baseline vs Endline Comparison for Treatment and Control – Overall Scores*

Figure 14 presents the overall change in MG-COT scores between baseline and endline across treatment and control groups.

*Figure 14: Change in Scores Pre vs Post – Treatment and Control*

The larger improvement observed in treatment schools suggests that schools linked with trained AEOs experienced greater strengthening in multigrade teaching practices over the intervention period.

It is important to note that the intervention was implemented within the regular academic cycle; therefore, it is expected that teachers in both groups would improve their classroom practices through regular teaching experience, school-based support, supervision and mentorship by AEOs, and other professional development opportunities, such as trainings.

Consequently, the improvements observed in the control group do not imply the absence of programme impact. Rather, they reflect the changes in teaching practices that would be expected even without the intervention as teachers continue to gain experience and benefit from routine support mechanisms available within the education system.

The purpose of the impact evaluation is therefore not to determine whether teaching practices improved over time, but rather whether the intervention produced **additional improvements beyond those that would have occurred in its absence**. The analysis is therefore designed to isolate the incremental effect of the intervention after accounting for the improvements that would be expected under normal conditions.

Figure 14 represents unadjusted changes over time and do not account for any differences in baseline teaching practice scores between the two groups. To estimate the intervention's independent contribution, an Analysis of Covariance (ANCOVA) was conducted using endline teaching practice scores as the outcome variable while controlling for baseline scores and clustering standard errors at the school level.

```
. reg SCORE treat school_baseline if time==1 & PROVINCE=="Punjab", vce(cluster EMIS)

Linear regression                               Number of obs     =        767
                                                F(2, 621)         =      45.75
                                                Prob > F          =     0.0000
                                                R-squared         =     0.1246
                                                Root MSE          =     .64512

                                    (Std. Err. adjusted for 622 clusters in EMIS)
------------------------------------------------------------------------------
             |               Robust
       SCORE |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       treat |   .2249071   .0600381     3.75   0.000     .1070048    .3428094
school_base~e |   .2672963    .029647     9.02   0.000     .2090758    .3255168
       _cons |   2.687132   .0872834    30.79   0.000     2.515725    2.858538
------------------------------------------------------------------------------
```

The ANCOVA results indicate that, after adjusting for baseline performance, the intervention had a positive and statistically significant effect on endline teaching practice scores ($\beta = 0.225$, $p < 0.001$). This indicates that teachers in treatment schools achieved endline teaching practice scores that were, on average, 0.225 points higher than those in comparable control schools after accounting for their initial performance.

To complement the statistical significance of the findings, the magnitude of the intervention effect was assessed using Cohen's d, calculated as the adjusted treatment effect divided by the pooled standard deviation from the ANCOVA model. The estimated effect size was approximately 0.35, indicating a small-to-moderate effect. This suggests that, although teaching practices improved in both groups over time, the intervention generated a meaningful additional improvement beyond that expected under normal school conditions.

```
. reg SCORE treat school_baseline if time==1 & PROVINCE=="Punjab", vce(cluster EMIS)

Linear regression                               Number of obs     =        767
                                                F(2, 621)         =      45.75
                                                Prob > F          =     0.0000
                                                R-squared         =     0.1246
                                                Root MSE          =     .64512

                                   (Std. Err. adjusted for 622 clusters in EMIS)
------------------------------------------------------------------------------
             |               Robust
       SCORE |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       treat |   .2249071   .0600381     3.75   0.000     .1070048    .3428094
school_base~e |   .2672963    .029647     9.02   0.000     .2090758    .3255168
       _cons |   2.687132   .0872834    30.79   0.000     2.515725    2.858538
------------------------------------------------------------------------------

. display "Cohen's d = " _b[treat]/e(rmse)
Cohen's d = .34862895
```

To facilitate interpretation, predictive margins were estimated following the ANCOVA model.

```
. margins treat

Predictive margins                              Number of obs     =        767
Model VCE    : Robust

Expression   : Linear prediction, predict()

------------------------------------------------------------------------------
             |            Delta-method
             |     Margin   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       treat |
          0  |   3.287043   .0515013    63.82   0.000     3.185905    3.388181
          1  |    3.51195    .030821   113.95   0.000     3.451424    3.572476
------------------------------------------------------------------------------
```

The predictive margins show that, after adjusting for baseline performance, the expected endline teaching practice score was **3.287043** for the control group and **3.51195** for the treatment group, representing an adjusted difference of approx**. 0.225** points.

The margins plot illustrates that the treatment group consistently achieved higher predicted endline teaching practice scores than the control group after accounting for baseline differences.

The observed improvement in the control group is therefore consistent with the natural strengthening of teaching practices that can occur during an academic year through routine teaching experience, ongoing school support, supervisory feedback, and other contextual influences.

The combined evidence from the ANCOVA, the effect size analysis, and the predictive margins demonstrates that the intervention produced additional improvements beyond those that would have occurred in its absence. While both groups exhibited improvements in teaching practices over the study period, participation in the intervention resulted in a statistically significant additional improvement in teaching practices.

### 6.2 Practice-wise MG-COT Scores: Baseline vs Endline

Practice-wise analysis further shows improvement across all 13 MG-COT teaching practices for both treatment and control schools between baseline and endline. However, the magnitude of improvement was consistently higher in treatment schools across nearly all practices.

Among treatment schools, the largest improvements were observed in:

- individualised student feedback (1.26 points)
- promotion of peer learning (1.24 points)

- use of multigrade academic calendar (1.24 points)
- balanced instructional time across grades (1.21 points), and
- flexible student grouping (1.20 points)

Comparatively, improvements in control schools ranged between 0.81 and 1.08 points across the 13 practices.

The analysis indicates that teachers in treatment schools demonstrated stronger improvement in practices related to classroom interaction, peer learning, differentiated instruction, and feedback mechanisms relative to teachers in control schools.

Figure 15 presents the baseline and endline comparison of practice-wise MG-COT scores across treatment and control schools.

*Figure 15: Practice-wise Baseline vs Endline Comparison for Treatment and Control*

Figure 16 presents the change in practice-wise scores between baseline and endline for treatment and control schools.

*Figure 16: Practice-wise Change in Scores Pre vs Post – Treatment and Control*

## 6.3 School Gender-wise MG-COT Scores: Baseline vs Endline

### *6.3.1 Female Schools*

The comparison of MG-COT scores for female schools shows substantial improvement in classroom teaching practices between baseline and endline for both treatment and control schools. However, improvements in treatment female schools were notably larger.

At baseline, the average MG-COT score for female treatment schools was 2.25, compared with 2.49 for female control schools. At endline, the average score increased to 3.45 in treatment schools and 3.31 in control schools.

The overall improvement observed was:

- 1.20 points in female treatment schools, and
- 0.82 points in female control schools

The findings suggest that female schools linked with trained AEOs experienced considerably greater improvement in multigrade classroom practices compared with female schools in the control group.

Figure 17 presents the comparison of baseline and endline MG-COT scores across female treatment and control schools.

*Figure 17: Baseline vs Endline Comparison for Treatment and Control – Female Schools*

Figure 18 presents the change in scores between baseline and endline for female treatment and control schools.

*Figure 18: Change in Scores Pre vs Post – Treatment and Control for Female Schools*

Practice-wise analysis for female schools also shows stronger gains across treatment schools relative to control schools. Particularly notable improvements were observed in peer learning, classroom explanation, differentiated instruction, and individualised student feedback.

### *6.3.2 Male Schools*

Similar patterns were observed across male schools. Both treatment and control male schools demonstrated improvement in MG-COT scores between baseline and endline, although the magnitude of improvement remained higher among treatment schools.

At baseline, the average MG-COT score for male treatment schools was 2.41, while male control schools recorded an average score of 2.25. At endline, the scores increased to 3.57 in treatment schools and 3.29 in control schools.

The observed improvement was:

- 1.16 points in male treatment schools, and
- 1.04 points in male control schools

The findings indicate that male treatment schools also experienced greater strengthening in multigrade classroom practices relative to male control schools, although the difference in improvement between treatment and control schools was comparatively smaller than that observed among female schools.

Figure 19 presents the comparison of baseline and endline MG-COT scores across male treatment and control schools.

*Figure 19: Baseline vs Endline Comparison for Treatment and Control – Male Schools*

Figure 20 presents the change in scores between baseline and endline for male treatment and control schools.

*Figure 20: Change in Scores Pre vs Post – Treatment and Control for Male Schools*

Practice-wise findings for male schools similarly indicate improvements across all MG-COT teaching practices, with treatment schools generally demonstrating stronger gains in classroom interaction, student grouping, peer learning, and individualised feedback practices compared with control schools.

# 7. Impact of the Intervention: ANCOVA Results

## 7.1 Analytical Approach

To estimate the impact of the intervention on multigrade teaching practices, the evaluation employed the ANCOVA framework. The ANCOVA model estimated differences in endline MG-COT scores between treatment and control schools while controlling for baseline classroom practice scores.

The analysis focused on:

- the overall MG-COT index (average score), and
- subgroup analysis by school gender

Standard errors were clustered at the school level using EMIS codes to account for correlation among classroom observations conducted within the same schools.

## 7.2 Impact on Overall MG-COT Index

The ANCOVA results show that the intervention had a positive and statistically significant impact on overall MG-COT scores in treatment schools.

After controlling for baseline scores, treatment schools scored, on average, 0.225 points higher at endline compared with control schools. The estimated treatment effect was statistically significant at the 1% level ($p < 0.001$).

The results indicate that schools linked with AEOs who received training on data-driven mentoring and coaching demonstrated significantly stronger multigrade teaching practices at endline relative to schools in the control group.

The baseline MG-COT score was also found to be a strong and statistically significant predictor of endline classroom practice scores, indicating persistence in classroom teaching quality over time.

*Table 3: ANCOVA Results – Overall MG-COT Index*

```
. reg SCORE treat school_baseline if time==1 & PROVINCE=="Punjab", vce(cluster EMIS)

Linear regression                               Number of obs     =        767
                                                F(2, 621)         =      45.75
                                                Prob > F          =     0.0000
                                                R-squared         =     0.1246
                                                Root MSE          =     .64512

                                   (Std. Err. adjusted for 622 clusters in EMIS)
------------------------------------------------------------------------------
             |               Robust
       SCORE |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       treat |   .2249071   .0600381     3.75   0.000     .1070048    .3428094
school_base~e |   .2672963    .029647     9.02   0.000     .2090758    .3255168
       _cons |   2.687132   .0872834    30.79   0.000     2.515725    2.858538
------------------------------------------------------------------------------
```

The findings suggest that the intervention contributed positively towards strengthening multigrade classroom practices beyond improvements observed under regular academic monitoring systems.

### 7.3 Gender-wise Impact Analysis

#### *7.3.1 Female Schools*

The ANCOVA analysis for female schools shows that the intervention had a positive and statistically significant effect on MG-COT scores among female schools.

After adjusting for baseline scores, female treatment schools scored 0.177 points higher at endline compared with female control schools. The estimated treatment effect was statistically significant at the **5%** level (p = 0.028).

The findings indicate that mentoring and coaching support provided through trained AEOs contributed to measurable improvements in multigrade classroom practices within female schools.

The baseline MG-COT score remained a statistically significant predictor of endline performance among female schools, suggesting continuity in classroom instructional quality over time.

*Table 4: ANCOVA Results – Female Schools*

-> SCHOOL_TYPE = Female

Linear regression

| | |
|---|---|
| Number of obs | = 434 |
| F(2, 342) | = 13.42 |
| Prob > F | = 0.0000 |
| R-squared | = 0.0748 |
| Root MSE | = .63967 |

(Std. Err. adjusted for 343 clusters in EMIS)

| SCORE | Coef. | Robust Std. Err. | t | P>\|t\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| treat | .1769737 | .0803893 | 2.20 | 0.028 | .0188539 | .3350934 |
| school_baseline | .2194052 | .0438816 | 5.00 | 0.000 | .1330935 | .305717 |
| _cons | 2.814365 | .1257244 | 22.39 | 0.000 | 2.567075 | 3.061656 |

The results suggest that the intervention was effective in improving multigrade teaching practices within female schools, particularly in areas related to instructional organisation, peer learning, differentiated instruction, and student feedback mechanisms.

#### *7.3.2 Male Schools*

The ANCOVA findings for male schools also show a positive and statistically significant impact of the intervention on MG-COT scores.

After controlling for baseline scores, male treatment schools scored 0.275 points higher at endline compared with male control schools. The treatment effect was statistically significant at the 1% level (p = 0.003).

The magnitude of the treatment effect among male schools was comparatively larger than that observed among female schools, indicating stronger adjusted gains in multigrade classroom practices among male treatment schools.

The baseline MG-COT score was again found to be highly significant, confirming the importance of baseline instructional quality in predicting endline classroom performance.

*Table 5: ANCOVA Results – Male Schools*

```
-> SCHOOL_TYPE = Male

Linear regression                               Number of obs     =        333
                                                F(2, 278)         =      33.27
                                                Prob > F          =     0.0000
                                                R-squared         =     0.1844
                                                Root MSE          =     .65169

                                   (Std. Err. adjusted for 279 clusters in EMIS)
------------------------------------------------------------------------------
             |               Robust
       SCORE |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       treat |   .2745343   .0900418     3.05   0.003     .0972838    .4517847
school_base~e |   .3078495   .0415519     7.41   0.000     .2260533    .3896458
       _cons |   2.570064   .1233756    20.83   0.000     2.327195    2.812933
------------------------------------------------------------------------------
```

Overall, the ANCOVA findings across both female and male schools consistently demonstrate that the intervention contributed positively towards strengthening multigrade teaching practices in treatment schools relative to control schools. The statistically significant treatment effects provide evidence that training AEOs on data-driven mentoring and coaching generated measurable improvements in classroom instructional practices within multigrade government primary school settings in Punjab.

### 7.4 Limitations of the Evaluation

Although the evaluation provides robust evidence on the effectiveness of data-driven mentoring and coaching for strengthening multigrade teaching practices, several limitations should be considered when interpreting the findings.

First, the evaluation measured changes in classroom instructional practices over a relatively short implementation period. The findings therefore demonstrate improvements in teaching practice following the intervention but do not indicate whether these improvements will be sustained over longer periods. Continued classroom observations would be required to assess the durability of the observed changes.

Second, the evaluation focused primarily on classroom teaching practices as measured through the MG-COT. Although improvements in instructional quality are widely recognised as an important precursor to improved student learning, the evaluation could not directly examine the impact of the intervention on student learning outcomes because the available SBA dataset was incomplete, inconsistent, and insufficiently reliable for rigorous analysis. Consequently, no conclusions can be drawn regarding the effect of the intervention on student achievement.

Third, implementation fidelity may have varied across districts because of differences in local contexts, school conditions, and the frequency and quality of mentoring visits conducted by individual AEOs. While common training materials, standardised observation tools, and structured coaching processes were used across all participating districts, some variation in implementation is expected under field conditions.

Finally, the evaluation was conducted in four-teacher government primary schools, which represent a substantial proportion of Punjab's multigrade schools. Although many of the findings are likely to be relevant to other multigrade settings, caution should be exercised when generalising the results to schools with markedly different staffing patterns or organisational contexts.

Despite these limitations, the consistency of the findings across descriptive analyses, practice-level comparisons, gender-disaggregated analyses, and ANCOVA estimates provides strong evidence that strengthening the mentoring and coaching capacity of AEOs contributed to measurable improvements in multigrade teaching practices.

# 8. Discussion

## 8.1 Implications for Multigrade Teaching

The evaluation provides evidence that strengthening the mentoring and coaching capacity of AEOs can improve the quality of instructional practices in multigrade classrooms. While teaching practices improved in both treatment and control schools over the intervention period, the consistently greater gains observed in treatment schools indicate that structured academic support contributed to improvements beyond those achieved through routine monitoring alone.

The findings are particularly significant in the context of Punjab's government primary schools, where multigrade teaching is common because of teacher shortages and uneven deployment of staff. In such environments, improving classroom practice depends not only on providing teachers with instructional resources but also on sustained professional support that helps them apply those resources effectively. The observed improvements in differentiated instruction, peer learning, formative assessment, classroom organisation, and individualised feedback suggest that regular coaching encouraged teachers to adopt more learner-centred approaches suited to multigrade classrooms.

The strongest gains were observed in practices that require continuous reflection and instructional decision-making rather than one-time procedural changes. This suggests that coaching and feedback may be particularly effective in supporting complex pedagogical practices that develop gradually through repeated observation, discussion, and classroom application.

## 8.2 Implications for Mentoring and Coaching Systems

The evaluation demonstrates the value of shifting instructional supervision from a compliance-oriented monitoring function towards a developmental coaching model. Rather than focusing primarily on reporting and inspection, trained AEOs were able to use classroom observation evidence to identify instructional gaps, provide structured feedback, and support teachers in improving specific classroom practices.

The MG-COT framework appears to have played an important enabling role in this process by providing a common language for classroom observation and feedback. Its structured indicators allowed coaching discussions to focus on observable teaching practices, thereby improving the consistency and quality of academic support across schools.

The integration of MG-COT within the existing classroom observation application and dashboard further strengthens the potential for institutionalisation. By embedding classroom observation, feedback, and performance tracking within routine supervision systems, Punjab has an opportunity to establish a continuous evidence-based professional development mechanism rather than relying solely on periodic training programmes.

The evaluation findings highlight the potential effectiveness of strengthening academic mentoring and coaching systems through capacity building of field-based education managers such as AEOs.

### 8.3 Lessons for Scale-up

Several lessons emerge from the pilot that are relevant for future scale-up.

First, strengthening the capacity of instructional supervisors can be an effective strategy for improving classroom practice at scale. Since each AEO supports multiple schools, investments in coaching capacity have the potential to generate system-wide improvements while making efficient use of existing supervisory structures.

Second, structured classroom observation tools are most effective when accompanied by regular mentoring and follow-up support. Observation alone is unlikely to improve classroom practice unless it is linked with constructive feedback, action planning, and subsequent coaching visits.

Third, the successful integration of MG-COT into the existing digital monitoring system demonstrates that instructional quality can be monitored systematically without creating parallel reporting structures. This increases the likelihood that the approach can be sustained within government systems after external technical assistance concludes.

Finally, the inability to assess student learning outcomes highlights the need to strengthen Punjab's School-Based Assessment system. Future evaluations should combine classroom observation data with reliable student learning measures to establish whether improvements in teaching practice translate into measurable gains in student achievement. Such evidence would provide an even stronger basis for province-wide scale-up of the mentoring and coaching model.

## 9. Conclusion

This evaluation demonstrates that strengthening the mentoring and coaching capacity of AEOs can contribute to measurable improvements in multigrade teaching practices in Punjab's government primary schools. Across all analyses, treatment schools consistently demonstrated greater improvements than control schools in overall MG-COT scores as well as across the core instructional practices assessed by the classroom observation framework. The ANCOVA analysis further confirms that these improvements remained statistically significant after controlling for baseline differences.

The intervention was particularly effective in strengthening practices associated with learner-centred pedagogy, including differentiated instruction, peer learning, formative assessment, flexible student grouping, and individualised feedback. These improvements are especially relevant in multigrade classrooms, where effective classroom organisation and instructional adaptation are essential for ensuring meaningful learning opportunities for students across multiple grade levels.

Beyond improving classroom practice, the evaluation demonstrates the potential of a system-based approach to instructional improvement. By equipping AEOs with structured observation tools, practical coaching skills, and digital monitoring systems, the intervention strengthened the quality of academic support available to teachers while building institutional capacity within existing government structures.

Although student learning outcomes could not be assessed because of limitations in the available SBA data, the evidence provides a strong basis for expanding data-driven mentoring and coaching across multigrade schools in Punjab. Continued institutionalisation of MG-COT within routine supervision systems, together with strengthened assessment data and ongoing professional support, offers a practical pathway for improving instructional quality at scale.

## 10. Recommendations

Based on the evaluation findings, the following recommendations are proposed, covering policy as well as implementation level:

### 10.1 Immediate Priorities (Next 12 Months)

1. Institutionalise the MG-COT within Punjab's routine academic supervision system by fully integrating it into the existing PMIU classroom observation application and AEO reporting processes.

2. Ensure that all AEOs responsible for multigrade schools receive standardised training on evidence-based mentoring and coaching, supported by annual refresher programmes and practical coaching simulations.

3. Operationalise the MG-COT dashboard at provincial, district, and markaz levels to enable regular monitoring of classroom practices, coaching coverage, and follow-up actions, with routine use of dashboard evidence in academic review meetings.

4. Develop and disseminate a comprehensive package of multigrade teaching resources, including lesson plans, academic calendars, classroom organisation strategies, differentiated learning activities, and formative assessment tools aligned with the MG-COT framework.

### 10.2 Medium-Term Priorities (1–3 Years)

1. Implement a phased expansion of the mentoring and coaching model to additional districts, prioritising schools with high levels of multigrade teaching and teacher shortages.

2. Strengthen the role of AEOs as instructional coaches by ensuring regular school visits, structured coaching conversations, documented action plans, and follow-up support rather than compliance-focused monitoring.

3. Integrate multigrade pedagogy, coaching methodologies, and classroom observation practices into both pre-service teacher education and CPD programmes delivered through PECTAA.

4. Use MG-COT data routinely to identify provincial and district training priorities, enabling teacher professional development programmes to respond directly to observed classroom needs.

### 10.3 Long-Term System Strengthening

1. Strengthen Punjab's SBA system by improving data quality, completeness, and reporting at student and learning-outcome levels so that future evaluations can examine the relationship between improved teaching practices and student learning.

2. Conduct a follow-up evaluation to assess the sustainability of classroom practice improvements and examine whether regular mentoring produces lasting changes in instructional quality.

3. Undertake a cost-effectiveness and scalability analysis of the mentoring and coaching model to inform province-wide implementation and long-term resource allocation.

4. Establish a continuous monitoring and learning framework that combines classroom observation, coaching records, teacher professional development, and student assessment data to support evidence-based decision-making across the education system.

## Annexure – Multigrade Classroom Observation Tool (MG-COT)

| **Part A: General Information** | | | | |
|---|---|---|---|---|
| School name | | EMIS code | | |
| Teacher name (drop down) | | CNIC (fetched by the system) | | |
| Designation (Select one) | STI[2] | Permanent Teacher | | |
| Observation number (fetched by the system) | | | | |
| Name of observer (fetched by the system) | | Observation Date (fetched by the system) | | |
| Observer designation (fetched by the system)<br><br>Punjab app | AEO | Headteacher | | |
| Observer designation (fetched by the system)<br><br>KP app | SL | ASDEO | Headteacher | |
| **About the lesson you observe** | | | | |
| Grades Combined | <u>Select Grade:</u> ECCE, Grade 1, Grade 2, Grade 3, Grade 4, Grade 5 | Number of children in each Grade | | |
| Subject | | | | |
| Topic | | | | |
| Main SLO | | | | |

2 Headteachers to enter STIs data annually in HRMIS

| Part B: MGT CLASSROOM OBSERVATION TOOL | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **No.** | **Indicator** | **Score** | | | | | **Observation** | **Rank** |
| | | **Low (1)** | **Medium Low (2)** | **Medium (3)** | **Medium High (4)** | **High (5)** | | |
| **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. | | | | | | | |

**Scoring Rubric for the Classroom Observation Tool with Examples**

**The rubric describes the practice at five levels, low, medium low, medium, medium high, and high. Note that the rating scale in the classroom observation tool allows observers to rate the practice from 1 (low), 2 (medium low), 3 (medium), 4 (medium high), and 5 (high).**

| **Score** | | | | | | |
|---|---|---|---|---|---|---|
| No. | Indicator | **Low (1)** | **Medium Low (2)** | **Medium (3)** | **Medium High (4)** | **High (5)** |
| **Multigrade Classroom Management** | | | | | | |
| 1. | **The teacher combines grades logically (e.g., ECCE-G1, G2-G3, and G4-G5).** | The teacher does not combine grades logically, leading to confusion and frustration.<br><br>***Example****: The teacher combines ECCE and Grade 2 students for the same literacy activity. ECCE students struggle with basic letter recognition, while Grade 2 students find the material too easy and unchallenging. This misalignment* | The teacher attempts to combine grades logically but often overlooks learning level differences, resulting in uneven engagement.<br><br>***Example:*** *The teacher combines Grade 2 and Grade 3 for a literacy lesson but assigns nearly identical reading tasks, causing some Grade 2 students to struggle and Grade 3 students to lose* | The teacher combines grades logically but does not fully consider the different learning needs, leading to partial effectiveness.<br><br>***Example****: The teacher combines Grade 2 and Grade 3 students for a literacy lesson. While both groups read the same passage, Grade 3 students require more advanced comprehension tasks, while Grade 2 students find the* | The teacher combines grades mostly effectively, showing awareness of differing learning levels but with minor inconsistencies in differentiation.<br><br>***Example:*** *The teacher combines Grade 2 and Grade 3 students for a reading activity, assigning easier comprehension tasks to Grade 2 and moderate ones to* | The teacher consistently combines grades logically, addressing the learning needs of each group and ensuring differentiated instruction.<br><br>***Example****: The teacher combines ECCE and Grade 1 students for a literacy lesson. ECCE students work on letter recognition, while Grade 1 students focus on forming simple sentences. The teacher provides tasks* |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | *results in both groups feeling disengaged and confused.* | *interest.* | *content too challenging. This leads to uneven progress and engagement.* | *Grade 3, though timing and feedback could be more balanced.* | *appropriate to each grade level, ensuring an organised and engaging learning environment for all students.* |
| 2. | **The teacher uses classroom space effectively to accommodate both grades and encourage interaction (e.g., flexible seating, subject-specific corners).** | The teacher does not use classroom space effectively to accommodate both grades and encourage interaction.<br><br>***Example****: The teacher arranges desks in rows without creating flexible seating or subject-specific corners for Grade 2 and Grade 3 students. There is no space for collaborative work, and students from both grades struggle to engage* | The teacher makes some effort to organise classroom space but inconsistently supports both grades' learning needs.<br><br>***Example:*** *The teacher sets up a reading corner but it primarily serves one grade, while the other lacks a dedicated workspace.* | The teacher makes some effort to use the classroom space, but it does not fully accommodate both grades and encourage effective interaction.<br><br>***Example****: The classroom includes a reading corner and some flexible seating, but it is not well-suited to both Grade 2 and Grade 3 needs. While Grade 3 students use the space for independent work, Grade 2 students are less engaged, and* | The teacher generally organises classroom space effectively, creating areas for both grades, but with some inefficiencies.<br><br>***Example:*** *The teacher sets up subject-specific corners for each grade, but the shared collaboration space is occasionally overcrowded or underused.* | The teacher organises classroom space effectively, accommodating both grades and encouraging smooth interaction.<br><br>***Example****: The teacher designs subject-specific corners, such as a phonics area for Grade 2 and a maths station for Grade 3, while shared spaces like a collaborative project table allow for interaction. Flexible seating options encourage movement between independent work and group* |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | *with the lesson, leading to confusion and lack of interaction.* | | *interaction between the grades is limited.* | | *activities, fostering an organised and interactive environment for both grades.* |
| **Academic Calendar & Lesson Planning** | | | | | | |
| 3. | **The teacher implements multigrade academic calendar.** | The teacher implements a monograde academic calendar, resulting in confusion and misalignment for the combined grades.<br><br>***Example****: The teacher follows a Grade 3 academic calendar without adjustments for Grade 2 students. Both grades are given the same "Measurement" tasks, which are too advanced for Grade 2 students,* | The teacher refers to the multigrade calendar but inconsistently follows it, leading to partial alignment with lesson timing.<br><br>***Example:*** *Lessons are sometimes based on the correct term's themes but deviate mid-term, causing mild confusion.* | The teacher partially implements the multigrade academic calendar. Some activities do not fully integrate overlapping content or align with the term-wise plan.<br><br>***Example****: The academic calendar schedules "Measurement" for both Grade 2 and Grade 3 in the first term. The teacher plans lessons where Grade 2 students measure objects using rulers, while Grade 3 students calculate area and* | The teacher follows the multigrade calendar consistently but occasionally misses opportunities to link overlapping content across grades.<br><br>***Example:*** *The teacher teaches similar units for both grades but doesn't always integrate shared activities.* | The teacher consistently implements the multigrade academic calendar, effectively integrating overlapping content and following the term-wise plan.<br><br>***Example****: The academic calendar schedules "Measurement" for both Grade 2 and Grade 3 during the first term. The teacher plans lessons where Grade 2 students measure objects with non-standard units (e.g., paperclips),* |

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| | | *leaving them confused and unable to keep up, while Grade 3 students proceed without difficulty. This leads to disorganised lessons and gaps in learning for the younger students.* | | *perimeter. However, the teacher sometimes introduces unrelated topics like "Time," which disrupts the flow and causes confusion for the students.* | | *while Grade 3 students work on calculating area and perimeter. Both grades collaborate, with Grade 3 students helping Grade 2 students, ensuring every lesson follows the academic calendar and creating a structured and engaging learning experience.* |
| 4. | **The teacher uses a multigrade lesson plan.** | The teacher uses two separate monograde lesson plans, resulting in a lack of integration and alignment across the combined grades.<br><br>***Example:*** *The teacher prepares one lesson plan for Grade 2 focused on "Addition" with* | The teacher uses partially integrated lesson plans but differentiation between grades is limited.<br><br>***Example:*** *A single lesson plan is used for both grades, with occasional reference to separate objectives.* | The teacher uses a multigrade lesson plan aligned with the academic calendar but with partial differentiation between grades, resulting in inconsistencies.<br><br>***Example****: The teacher plans a lesson on "Addition and Subtraction" for* | The teacher creates aligned multigrade lesson plans with clear differentiation, though execution may lack balance.<br><br>***Example:*** *Lessons are well-structured for both grades, but transitions between grade-specific tasks are sometimes slow.* | The teacher prepares and implements a well-structured multigrade lesson plan that is fully differentiated for each grade and aligned with the academic calendar.<br><br>***Example****: The teacher plans a lesson on "Addition and Subtraction" where* |

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| | | *basic two-digit problems (e.g., 25 + 13) and another for Grade 3 with more advanced three-digit subtraction problems (e.g., 456 - 123). Because these plans are not aligned, there is no opportunity for collaboration or shared learning between the grades. As a result, both grades work on different topics simultaneously, creating confusion and making it difficult for the teacher to manage the class effectively.* | | *both Grade 2 and Grade 3. Grade 2 students work on two-digit problems without regrouping (e.g., 34 + 12), while Grade 3 students solve three-digit problems with regrouping (e.g., 235 + 178). However, when they work together on mixed problems, the younger students get confused by the more advanced material. The lesson somewhat follows the academic calendar, but the lack of clear differentiation causes confusion during group work.* | | *Grade 2 students practise two-digit problems without regrouping (e.g., 48 + 21), while Grade 3 students tackle multi-digit problems with regrouping (e.g., 235 + 178) and real-world applications. During group work, Grade 3 students assist Grade 2 students in understanding regrouping. The lesson is perfectly aligned with the academic calendar, ensuring both grades are appropriately challenged and engaged.* |
| **Instructional Strategies** | | | | | | |
| 5. | **The teacher explicitly** | The teacher does not state the | The teacher states learning objectives | The teacher states a general objective for | The teacher usually articulates clear | The teacher clearly articulates the |

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| | **articulates the learning objectives for each grade level.** | learning objectives for both grades, and the activities do not clarify the objectives.<br><br>***Example:*** *The teacher begins the lesson by having both Grade 4 and Grade 5 students read a story but fails to explain the learning objectives. Grade 4 students focus on identifying key details, and Grade 5 students are tasked with writing a summary. Since the teacher does not clarify the purpose behind these tasks or connect them to the learning objectives, students are left confused* | vaguely for both grades without full clarity or differentiation.<br><br>***Example:*** *The teacher says, 'We are learning about reading skills,' without specifying the distinct objectives for each grade.* | both grades but does not clearly differentiate or explain the specific objectives for each grade.<br><br>***Example****: The teacher says, "Today we are working on reading comprehension," but does not specify distinct objectives for Grade 4 and Grade 5. While Grade 4 students work on identifying details and Grade 5 students write a summary, the teacher does not clearly explain the specific goals for each grade, leading to some confusion about the lesson's expectations.* | learning objectives for both grades, though some may lack specificity.<br><br>***Example:*** *The teacher explains objectives separately but doesn't always connect them to activities.* | differentiated learning objectives for each grade, and the activities align with these objectives.<br><br>***Example****: The teacher begins the lesson by saying, "Grade 4 will focus on identifying key details from the text, while Grade 5 will work on summarising the story." The teacher explains how the activities are designed to meet these objectives, ensuring that Grade 4 students concentrate on details and Grade 5 students focus on writing summaries, with both tasks clearly aligned to their respective learning objectives.* |

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| | | *about the lesson's focus.* | | | | |
| 6. | **The teacher's explanation of the content aligns with the stated learning objectives for each grade level.** | The teacher's explanation does not align with the stated lesson objectives, and the content does not support the learning goals for either grade.<br><br>***Example**: The stated objective is for ECCE students to listen to letter sounds and for Grade 1 students to practise saying the letters. However, the teacher spends the lesson talking about animal names and showing pictures of animals. This has nothing to do with the alphabet* | The teacher's explanation partially supports objectives but includes unrelated content.<br><br>***Example:** The teacher briefly reviews relevant topics but digresses into off-topic examples.* | The teacher's explanation partially aligns with the stated learning objectives, but there are significant distractions or gaps.<br><br>***Example**: The teacher's objective is for ECCE students to listen to the alphabet sounds and for Grade 1 students to practise saying the letters. The teacher starts by introducing some letter sounds, but then spends too much time playing unrelated phonics games. While students are exposed to some relevant content, they don't spend enough time* | The teacher's explanation aligns with most objectives but lacks consistent depth.<br><br>***Example:** The content is appropriate but occasionally omits key concepts for one grade.* | The teacher's explanation fully aligns with the stated learning objectives, and the content clearly supports the goals for each grade.<br><br>***Example**: The teacher clearly explains that ECCE students will listen to the alphabet sounds, and Grade 1 students will practise saying the letters. The teacher uses a song to help ECCE students hear the letter sounds, then asks Grade 1 students to say each sound aloud. The activities are well-matched to the objectives, and both groups are focused on* |

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| | | *sounds, and students are left confused, without practising their listening or speaking skills.* | | *focusing on the actual objectives, reducing the lesson's effectiveness.* | | *learning their specific skills.* |
| 7. | **The teacher's explanation of the content is clear and accurate catering to students of both grades.** | The teacher's explanation is unclear or incorrect, leaving students confused or with misconceptions.<br><br>***Example**: The teacher attempts to explain multiplication to both Grade 4 and Grade 5 but inaccurately describes it as "adding numbers together." This confuses both grades, and when the teacher incorrectly states* | The teacher provides mostly accurate explanations but sometimes confuses or oversimplifies key concepts.<br><br>***Example:** The teacher correctly defines subtraction but applies it inconsistently across grades.* | The teacher's explanation is mostly correct but unclear or too simple for one or both grades.<br><br>***Example**: The teacher gives a correct explanation of multiplication but only addresses basic two-digit multiplication. This explanation proves too challenging for some Grade 4 students and too simplistic for udents, who are ready for more advanced concepts. Although the explanation is* | The teacher delivers clear explanations for both grades, occasionally adjusting complexity unevenly.<br><br>***Example:** The teacher explains subtraction well for both grades but doesn't always pace explanations effectively.* | The teacher provides a clear and correct explanation for both grades, adjusting the explanation to each grade's level.<br><br>***Example**: The teacher explains multiplication clearly for both Grade 4 and Grade 5. For Grade 4, the teacher uses simple examples like "3 groups of 4" and draws arrays to show basic multiplication. For Grade 5, the teacher explains more complex multiplication, like three-digit by two-* |

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| | | *that multiplying by "zero" is the same as multiplying by "one," it leads to further misconceptions. As a result, neither grade understands multiplication properly, causing frustration among students.* | | *accurate, it does not adequately cater to the varying levels of both grades, leading to only partial understanding.* | | *digit problems, and introduces regrouping. Each grade receives a tailored explanation that helps them understand the concept fully.* |
| 8. | **The content presented in the lesson is appropriate, relevant, and differentiated for each grade level.** | The content is not appropriate for the grade level(s), either too advanced or too simple, and does not support students' learning needs.<br><br>***Example****: The teacher presents both Grade 2 and Grade 3 students with difficult words like "unbelievable" and "complicated"* | The teacher uses somewhat appropriate content but differentiation is minimal.<br><br>***Example:*** *Both grades are given similar vocabulary lists with only slight variation in complexity.* | The content is somewhat appropriate but lacks sufficient differentiation for each grade, limiting its effectiveness.<br><br>***Example****: The teacher introduces "cat" for Grade 2 and "elephant" for Grade 3, but then asks both groups to practise with "butterfly." While* | *The teacher presents well-chosen, mostly differentiated content that fits both grades' learning levels.*<br><br>***Example:*** *Vocabulary or examples are tailored to each grade, though a few overlaps cause mild imbalance.* | The content is fully appropriate and well-differentiated for each grade, supporting the learning objectives effectively.<br><br>***Example****: The teacher presents Grade 2 students with words like "rabbit" and "sunset" (two-syllable words) and gives Grade 3 students more complex words like "elephant" and* |

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| | | *without first teaching simpler words. This is too hard for Grade 2 students, who are still learning basic words, and does not challenge Grade 3 students appropriately. The lack of differentiation confuses and disengages both groups.* | | *"butterfly" is a good word for Grade 3, it is a bit difficult for Grade 2 students, who need simpler words. The content is partially relevant, but the lack of differentiation causes some students to struggle and others to be under-challenged.* | | *"butterfly" (three-syllable words). Each grade works on their level, with Grade 2 mastering basic syllables and Grade 3 tackling more challenging words. The content is well-matched to each grade, engaging all students appropriately.* |
| 9. | **The teacher manages time effectively to balance instructional attention between grades.** | The teacher does not manage time effectively, causing disorganisation and loss of instructional flow.<br><br>***Example:*** *During a math lesson, the teacher spends too long on direct instruction for* | The teacher alternates between grades but time use is inconsistent, leaving one group idle.<br><br>***Example:*** *The teacher spends more time explaining to one grade, causing delays for the other.* | The teacher manages time somewhat effectively but struggles to maintain a smooth instructional pace.<br><br>***Example:*** *The teacher alternates between helping Grade 2 students with basic subtraction and* | The teacher manages instructional time efficiently but transitions can still improve.<br><br>***Example:*** *Both grades receive adequate attention, though switchovers between tasks are occasionally abrupt.* | The teacher manages time effectively, ensuring smooth transitions and lesson flow for both grades.<br><br>***Example:*** *The teacher starts with a focused explanation for Grade 2 students and sets them up with an independent task while providing more* |

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| | | *Grade 2, leaving little time for Grade 3 students to complete their tasks. As a result, the lesson runs overtime, and neither grade finishes the planned activities.* | | *Grade 3 students with more advanced problems. However, the teacher spends too much time with Grade 2, causing Grade 3 students to wait and run out of time to complete their tasks, resulting in a rushed and uneven lesson.* | | *complex instruction to Grade 3. The teacher tracks the time carefully, ensuring that both grades have sufficient time to work on their assignments and complete the activities before transitioning to the next part of the lesson.* |
| **Student Engagement** | | | | | | |
| 10 | **The teacher uses flexible grouping strategies that enables students to collaborate with peers from both their own or other grades, based on needs and abilities.** | The teacher does not use flexible grouping strategies, and students are grouped strictly by grade or randomly, without considering their needs or abilities.<br><br>***Example****: The teacher puts all Grade 2 students in one group and all* | The teacher uses grouping strategies irregularly; collaboration is sometimes grade-bound.<br><br>***Example:*** *Mixed-grade groups are formed occasionally, but not based on ability or learning need.* | The teacher uses some flexible grouping strategies, considering either grade level or abilities, but not both. Some collaboration occurs across grades, but grouping is not fully based on individual needs.<br><br>***Example****: The teacher allows a few* | The teacher uses purposeful grouping strategies across grades, though adjustments may be needed.<br><br>***Example:*** *Groups are mixed and based on ability, but rotation between groups is infrequent.* | The teacher effectively uses flexible grouping strategies that allow collaboration across grades, based on students' needs and abilities. Groups are dynamic and change during the lesson to maximise learning.<br><br>***Example****: The teacher groups students for reading based on* |

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| | | *Grade 3 students in another for a reading comprehension activity. There is no attention to different reading levels or specific needs. As a result, stronger students are underchallenged, and struggling students are not supported. There is no collaboration between the grades, and the groups don't reflect students' abilities, leading to limited engagement.* | | *strong Grade 2 readers to work with Grade 3 students who need support during a reading activity. However, most students remain in grade-based groups. While some cross-grade collaboration occurs, the teacher doesn't consistently use abilities to form groups, leading to mixed results, where only some students benefit from the collaboration.* | | *their skills, not grade. A strong Grade 2 reader is paired with a Grade 3 student to read a more advanced text, while a struggling Grade 3 student joins Grade 2 students to work on simpler texts. As the lesson progresses, the teacher adjusts the groups to meet changing needs, ensuring all students are challenged and supported through peer collaboration, enhancing learning for everyone.* |
| 11 | **The teacher promotes peer learning by encouraging students to** | The teacher does not encourage peer learning or collaboration between older and | The teacher occasionally promotes peer | The teacher occasionally encourages peer learning, but the collaboration | The teacher often encourages structured peer learning between grades, though | The teacher actively promotes and structures peer learning, with older students consistently |

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| | **actively support each other, creating a collaborative learning environment.** | younger students. Each grade works independently.<br><br>***Example****: The teacher separates Grade 2 and Grade 3 students into different groups and teaches them separately. There is no interaction or collaboration between the two grades, and older Grade 3 students do not help the younger Grade 2 students. This isolation limits opportunities for peer learning and collaboration.* | learning but without structured support.<br><br>***Example:*** *Older students assist peers sporadically without clear guidance.* | between older and younger students is limited. Older students may help younger students, but it is informal and lacks structure.<br><br>***Example****: The teacher allows Grade 3 students to help Grade 2 students if they finish their work early, but this happens without structure. While some Grade 3 students assist their younger peers, it is not planned, and the support is inconsistent. Peer learning happens randomly, and younger students don't always get the help they need.* | follow-up may be limited.<br><br>***Example:*** *Older students help younger ones with guided tasks, but monitoring is inconsistent.* | supporting younger students in a collaborative environment.<br><br>***Example****: The teacher pairs Grade 3 students with Grade 2 students during a reading activity. Grade 3 students are given clear roles to help their younger peers understand the reading and answer questions. The teacher structures the tasks so that Grade 3 students explain the material, reinforcing their own learning while supporting Grade 2 students. This approach is consistently used to create a collaborative learning environment.* |
| **Assessment & Feedback** | | | | | | |

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| 12 | **The teacher uses a variety of formative assessment techniques, including peer and self-assessment, to monitor and support student progress across both grades.** | The teacher does not use a variety of formative assessment techniques or incorporate peer or self-assessment, resulting in missed opportunities for monitoring progress.<br><br>***Example****: The teacher gives both Grade 2 and Grade 3 students the same worksheet on subtraction without adapting it to their level. There are no opportunities for peer or self-assessment, and students complete the task independently. The teacher does not know how well students from* | The teacher applies a few formative techniques but inconsistently engages students in reflection.<br><br>***Example:***<br>*Occasional questioning is used, but peer-assessment is rare.* | The teacher uses some formative assessment techniques but does not fully incorporate peer or self-assessment, leading to uneven monitoring of student progress.<br><br>***Example****: During a subtraction lesson, the teacher uses questioning to assess Grade 3 students but does not provide sufficient assessment for Grade 2 students. The teacher briefly mentions peer-assessment but does not structure it properly. As a result, Grade 2 students do not have a clear understanding of their progress, and peer-assessment is inconsistent.* | The teacher regularly uses multiple formative techniques with moderate peer involvement.<br><br>***Example:*** *Both grades participate in self-assessment, though criteria may not be clearly defined.* | The teacher consistently uses a variety of formative assessment techniques, including peer and self-assessment, to monitor progress across both grades.<br><br>***Example****: During the subtraction lesson, the teacher uses tailored worksheets: Grade 2 students practice basic subtraction while Grade 3 students solve more complex problems. The teacher integrates peer-assessment by having Grade 3 students review the work of Grade 2 students, and Grade 2 students use a self-assessment checklist to reflect on their performance.* |

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| | | *either grade are progressing.* | | | | *These varied assessment techniques allow the teacher to effectively monitor the progress of both grades.* |
| 13 | **The teacher provides individualised feedback to students, tailored to their grade level and specific needs.** | The teacher provides generic or minimal feedback that does not address individual grade levels or student needs.<br><br>***Example****: After a writing assignment, the teacher tells both Grade 4 and Grade 5 students general comments like "Good effort" or "Try harder next time," without pointing out specific strengths or areas for improvement. The* | The teacher gives feedback occasionally but focuses more on the group than individuals.<br><br>***Example:*** *General comments are offered to both grades without detailed guidance.* | The teacher provides some individualized feedback, but it is not fully tailored to both grade level and individual student needs.<br><br>***Example****: After a reading comprehension activity, the teacher gives feedback focused on main ideas for both Grade 4 and Grade 5 students. While this feedback is relevant for Grade 4 students, Grade 5 students, who need more advanced feedback* | The teacher provides targeted feedback for most students, though some may receive generic advice.<br><br>***Example:*** *Feedback is differentiated by grade but lacks full personalisation.* | The teacher provides individualized feedback consistently, tailored to both grade level and specific student needs.<br><br>***Example****: After a creative writing activity, the teacher gives Grade 4 students feedback on sentence structure and descriptive language, while Grade 5 students receive feedback on organizing paragraphs and developing stronger arguments. Additionally,* |

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| | | *feedback does not help students understand what they did well or what they need to work on, leaving them without clear guidance.* | | *on analysing themes, only receive general comments. As a result, some students benefit, but others do not get the specific feedback they need for their grade level.* | | *individual needs are considered: a Grade 4 student struggling with grammar gets tips on improving punctuation, while a high-achieving Grade 5 student is encouraged to use more advanced vocabulary. This feedback helps each student improve according to their grade level and abilities.* |