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BRIDGING TEACHERS' GROWTH MINDSET BELIEFS AND PRACTICES THROUGH TEACHER EXPERIMENTAL TRAINING AND COLLABORATIVE INQUIRY

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Abstrak. This descriptive exploratory case study examines teachers' growth-oriented beliefs and documented instructional practices in the local Teacher Experimental Training (TET) program. We analyzed six survey indicators, staged T0–T2 records, and interview-labeled excerpts/codes in one integrated workbook containing 29 distinct participant codes. The highest survey mean concerned the belief that teaching ability can develop (M = 4.48), followed by viewing failure as an opportunity for learning (M = 4.28) and discussing instructional problems with colleagues (M = 4.03). The mean for using learning evidence was 3.97, while evidence-based decisions about retaining or changing strategies averaged 3.48. Perceived support for time and workload was lowest (M = 3.14). The records describe four T0–T2 patterns, and source-assigned interview codes represent reflection, collegial inquiry, and organizational constraints. Participant codes align the survey, staged record, and interview-labeled fields within rows, but the workbook supplies no dates for T0–T2. Findings are descriptive and do not establish change over time or a causal effect of TET.

Keywords: **Teacher Growth Mindset, Teacher Experimental Training, Collaborative Inquiry.**

A. Introduction

Teaching requires continuous adaptation to students' needs, curriculum changes, and evidence about learning. Teacher professional development therefore needs to extend beyond adding knowledge or mastering instructional techniques. Teachers also need opportunities to identify learning difficulties, examine the consequences of their strategies, use feedback, and decide whether a practice should be sustained, revised, or discontinued.

A growth mindset refers to the belief that abilities can develop through learning, appropriate strategies, practice, feedback, and support. Dweck and Leggett (1988) situated beliefs about the nature of ability within a social-cognitive account of motivation and behavior. In education, this perspective can help explain how teachers interpret errors, respond to difficulty, and recognize opportunities for student development. However, growth mindset should not be treated as a permanent label for an individual teacher or as direct evidence that the teacher's instruction is effective.

Teachers' stated beliefs do not necessarily align consistently with their classroom practices. Zhang and He (2024), for example, examined the congruence between teachers' self-reported growth mindset and their feedback practices. A meta-analysis by Bardach et al. (2024) also indicates that relationships between teachers' growth mindset and educational outcomes are complex rather than uniformly positive. Laine and Tirri (2023) likewise review how teachers' mindsets relate to growth-oriented practices. These findings suggest that positive beliefs alone should not be assumed to produce improved instruction or higher student achievement. Research needs to consider the relationship among beliefs, pedagogical choices, enacted practices, evidence use, and organizational conditions.

In this study, Teacher Experimental Training (TET) refers to the five-stage framework described in the internal TET concept document: (1) identification of a learning or instructional

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problem, (2) design of a response or strategy, (3) implementation of that strategy, (4) observation and reflection on students' responses and available learning evidence, and (5) sharing good practices. This operational account reflects the framework used in the present program; it does not establish TET as a standardized, independently validated, or widely established professional-development model. TET shares broad features with experiential learning, reflective practice, and inquiry because teachers act, examine evidence, and reconsider practice. Those conceptual overlaps do not make it interchangeable with lesson study or with teacher inquiry cycles. In particular, the available TET description does not specify a lesson-study research lesson or a formal, recurring inquiry protocol with defined roles and procedures. The five stages are therefore reported as the locally documented TET framework, rather than relabelled as either established approach. Collaborative inquiry can provide a collective dimension when teachers investigate a shared problem, examine evidence, compare interpretations, and consider next steps (Butler & Schnellert, 2012; DeLuca et al., 2017).

This study addresses three questions: (1) What patterns of reported growth mindset beliefs, learning-evidence use, pedagogical decision-making, and collegial discussion appear in the survey of 29 teachers across seven Al Azhar BSD school units or levels? (2) How do staged instructional records and interview-labeled excerpts and codes add context to teachers' learning problems, tested strategies, student responses, collaboration, and follow-up? (3) What can and cannot be concluded about sustained practice and TET based on the available data? The aim is not to establish the causal effectiveness of TET, but to examine how teachers' reported beliefs relate to practices and conditions documented in the available records.

B. Research Method

1. Research design and data sources

We conducted a descriptive exploratory case study of the local TET implementation within the Guru Induksi dan Pemula program at Sekolah Islam Al Azhar BSD and Al Azhar BSD @ Cileungsi; research data were collected at Sekolah Islam Al Azhar BSD, Al Azhar BSD @ Cileungsi, and Al Azhar BSD @ Cibitung. A case-study approach examines a contemporary program in its institutional context using multiple sources of evidence (Yin, 2018). The integrated workbook contains 29 distinct participant codes; each row includes six survey indicators, T0–T2 narrative fields, and interview-labeled excerpts and source-assigned codes. Survey and interview collection dates are documented below; T0–T2 chronology is not dated, so those records do not establish a longitudinal sequence.

The workbook contains 29 distinct participant codes, each represented across the survey, staged-record, and interview-labeled fields. It reports six numeric survey indicators, but the original survey questionnaire, exact item wording, response anchors, source or adaptation history, and validity/reliability evidence were not included. The interview guide had been validated before use, and ethical-approval documentation was available for survey and interview data collection at the three participating school locations. Interview-labeled excerpts and assigned codes are present for the participant rows; the workbook does not itself contain the original interview transcripts or identify the procedures used to validate the guide. The spreadsheet permits row-level linkage across its fields, although it does not verify the underlying identity or provenance of each record.

2. Research context and Teacher Experimental Training

TET was implemented at Sekolah Islam Al Azhar BSD and Al Azhar BSD @ Cileungsi as part of the Guru Induksi dan Pemula (Induction and Beginning Teachers) program during July–September. The internal concept document describes five connected stages: identifying a learning problem; designing an instructional response; implementing the planned strategy; observing students' responses and reflecting on available evidence; and sharing good practices.

In this study, the stages provide a framework for describing the instructional experimentation represented in the records. They do not establish that every teacher completed a full cycle or that both school sites followed identical procedures. The program documentation reviewed for this study does not identify the organizer or facilitators, exact dates within July–September, total duration or number of sessions, training materials, mentoring arrangements, or participant attendance. These details therefore cannot be specified from the data analyzed.

The integrated workbook contains 29 distinct participant codes (PART-001 through PART-029, with gaps in the identifier sequence), six survey-indicator fields, and narrative fields labeled T0, T1, and T2. T0 records the initial learning problem; T1 records the tested strategy and reported student response; T2 records continuation or follow-up. The same participant code aligns these fields with interview-labeled excerpts and assigned codes in the workbook. No calendar dates or intervals are supplied for T0–T2, and the person who entered the fields is not identified; the stages therefore cannot establish a dated longitudinal series.

3. Data collection procedures

Survey data were collected from 1 to 9 October 2026. Interviews were conducted online from 12 to 14 October 2026 by the researcher, with a maximum of five interview sessions per day; the total number of sessions is not specified here. Data collection and ethical approval covered Sekolah Islam Al Azhar BSD, Al Azhar BSD @ Cileungsi, and Al Azhar BSD @ Cibitung. The interview guide had been validated before use, and evidence of ethical approval was available for the survey and interview activities at these locations.

4. Participants

The integrated workbook covers 29 teacher-participant codes across seven units: SMP (n = 10), SD (n = 5), SMP Metland (n = 4), SMA (n = 4), TK (n = 2), SD Metland (n = 2), and SMA Metland (n = 2). Recorded teaching experience comprised 9 teachers with 16 years or more, 8 with 4–7 years, 8 with 0–3 years, and 4 with 8–15 years. The distribution across units was uneven; therefore, the results were not used to compare school units.

5. Analytical procedure

Analysis proceeded in four steps. First, we summarized the six survey indicators using score distributions, descriptive means, sample standard deviations, and medians. Second, we reviewed T0–T2 fields for sequences connecting an initial learning problem, a tested strategy, a reported student response, and follow-up. Third, we tabulated the interview-code labels supplied in the workbook and reviewed the associated excerpts descriptively. The materials did not identify the original coder, provide a formal codebook, or document intercoder agreement, member checking, or another coding-credibility procedure; no independent coding check was conducted for this article. Fourth, we compared linked fields at the participant-code level and summarized the cross-source patterns in Appendix A4. Document analysis follows Bowen (2009), and the code-guided review is informed by Hsieh and Shannon (2005).

6. Methodological and ethical considerations

Several limits constrain interpretation. The workbook contains 29 distinct participant codes and links survey indicators, T0–T2 fields, and interview-labeled excerpts/codes by row. This supports row-level comparison within the workbook but does not independently verify participant identity, source provenance, or interview transcription. T0–T2 are ordered labels without dates, intervals, or separate repeated scale scores; they cannot establish measured change over time. Four narrative patterns occur across 14, 7, 6, and 2 coded rows, respectively; repeated wording appears across rows, so frequencies describe workbook entries rather than independently verified intervention outcomes. The original survey instrument and its

psychometric evidence were unavailable. The first indicator contains only scores of 4 and 5, a possible ceiling tendency; self-report may also be affected by social-desirability bias. The interview guide was reported as validated before use; its validation materials and independent coding-validation records were not included in the workbook. Survey data were collected on 1–9 October 2026, and online interviews took place on 12–14 October 2026, with the researcher conducting the interviews and no more than five sessions scheduled per day. Ethical-approval documentation was available for data collection at the three school locations. The underlying approval record, consent forms, and detailed confidentiality/anonymization procedures are not reproduced in the workbook.

C. Results and Discussion

1. Stage 1. Descriptive survey profile

Descriptive analysis of the six survey indicators showed the highest mean for the belief that teaching ability can develop (M = 4.48, SD = 0.51; median = 4). This was followed by viewing failure as an opportunity for learning or review (M = 4.28, SD = 0.70; median = 4) and discussing instructional problems with colleagues (M = 4.03, SD = 0.87; median = 4). Using student-learning evidence to improve instruction had a mean of 3.97 (SD = 0.82; median = 4). Decisions to retain or change strategies based on evidence had a mean of 3.48 (SD = 0.51; median = 3), while perceived support for time and workload had a mean of 3.14 (SD = 0.74; median = 3). These are item-level descriptive statistics, not scores from a validated scale. The first indicator's distribution includes only ratings of 4 and 5, indicating a possible ceiling tendency. The full questionnaire and its response anchors were not available for reproduction; Appendix A1 reports the available indicator summaries.

Table 1 Descriptive summary of survey indicators

Survey indicator	N	Mean	SD	Median	Score distribution (n)
Belief that teaching ability can develop	29	4.48	0.51	4	4: 15; 5: 14
Viewing failure as an opportunity for learning/review	29	4.28	0.70	4	3: 4; 4: 13; 5: 12
Using learning evidence to improve instruction	29	3.97	0.82	4	3: 10; 4: 10; 5: 9
Retaining/changing strategies based on evidence	29	3.48	0.51	3	3: 15; 4: 14
Discussing instructional problems with colleagues	29	4.03	0.87	4	3: 10; 4: 8; 5: 11
Perceived support for time and workload	29	3.14	0.74	3	2: 6; 3: 13; 4: 10

The descriptive analysis showed a difference between the mean for growth-related belief (4.48) and the mean for evidence-based decisions (3.48). This difference reflects variation across survey indicators; it does not show that individual teachers failed to enact their beliefs. The integrated workbook links survey indicators to staged-record fields and interview-labeled excerpts/codes through 29 participant codes, allowing descriptive row-level comparisons. These linked fields do not establish that beliefs caused particular practices or outcomes. This interpretation is consistent with research showing that self-reported mindsets do not automatically translate into classroom practice (Zhang & He, 2024) and that associations between teacher mindset and educational outcomes are conditional and complex (Bardach et al., 2024).

2. Stage 2. Staged instructional records: reported problems, strategies, responses, and follow-up

Review of the staged instructional records identified four patterns assigned across participant-code rows: guided inquiry and instant quizzes (14 rows), concrete manipulatives for fractions (7), analytic rubrics in mini research projects (6), and short play-based learning stations (2). Each row carries a participant code linking its T0–T2 fields to survey indicators and interview-labeled fields. Repeated wording appears across records, so the grouping may reflect shared or templated text and does not independently verify distinct classroom events or student outcomes. Appendix A2 summarizes the recorded patterns and their interpretive limits.

Table 2 Recurring narrative patterns in staged instructional records

Pattern in the file	Participant-code rows	Summary of recorded T0–T2 sequence
Participation and instant quizzes	14	Initial issue: passive discussion and difficulty answering analytical questions. Strategy: guided inquiry combined with quizzes/gamification. Reported response: higher participation and greater willingness to discuss incorrect answers. Follow-up: instant quizzes continued, while collaborative inquiry was reduced because of curriculum targets.
Fractions and concrete manipulatives	7	Initial issue: understanding basic fractions. Strategy: concrete manipulatives. Reported response: students compared denominators and explained their reasoning in group presentations. Follow-up: manipulatives were retained for decimals and shared with colleagues.
Critical literacy/research projects and rubrics	6	Initial issue: analyzing complex texts or solving higher-order problems. Strategy: adaptive worksheets and mini research projects. Reported response: students revised drafts after receiving rubrics and feedback. Follow-up: analytic rubrics were retained and students began asking for them in advance.
Student focus and play-based stations	2	Initial issue: difficulty sustaining attention for more than ten minutes. Strategy: short kinesthetic stations. Reported response: students completed tasks at three stations with fewer distractions. Follow-up: station rotation continued and materials were adjusted to children's interests.

The records show sequences consistent with the TET framework: teachers identified a learning problem, tested a strategy, observed student responses, and considered whether to continue or adapt the strategy. For example, concrete manipulatives were used to address conceptual difficulty with fractions, and rubric records describe feedback and student revisions. Instant-quiz records indicate that quizzes continued while collaborative inquiry was reportedly reduced under curriculum targets. The workbook assigns each pattern to participant-code rows, but repeated wording and unverified source provenance prevent independent confirmation of distinct classroom events or intervention effects.

3. Coded interviews: reflection, collaboration, and organizational conditions

The workbook contains interview-labeled excerpts and assigned codes for 29 participant-code rows. The RQ1 codes are reflection on scaffolding/feedback (20), concrete approaches (7), and duration/media fit (2); RQ2 codes are joint review of learning evidence (8), sharing references/psychological safety (12), and peer-observation reflection (9); RQ3 codes are administrative workload (12), scheduling/additional duties (11), and preparation-time limits (6). The following short examples reproduce excerpts as recorded in the workbook and show

how the supplied code labels can be connected to the text. They are illustrative because the original interview transcripts and independent coding records were not available for verification.

Workbook excerpt (translated from Indonesian; PART-003): "When class discussion was very passive, I looked for the problem in my scaffolding, rather than only blaming student motivation."

Illustrative coding: reflection on scaffolding and feedback → teacher examines instructional support as a possible source of difficulty.

Workbook excerpt (translated from Indonesian; PART-003): "At first I hesitated to share difficulties teaching a particular topic. But colleagues responded by sharing media references and question banks."

Illustrative coding: sharing references / psychological safety → collegial exchange is described as a resource for addressing instructional difficulty.

Workbook excerpt (translated from Indonesian; PART-006): "Finding time to sit together is the hardest part. Administrative workload sometimes takes time away from designing genuinely new lessons."

Illustrative coding: scheduling / additional duties and administrative workload → organizational constraints may limit joint planning and preparation.

Joint display: survey scores, practice patterns, and interview codes

Reported practice pattern	n	GM1	GM2	PR1	PR4	KO1	OR1	Evidence review	Sharing/safety	Peer reflection
Guided inquiry + instant quizzes	14	4.50	4.29	4.00	3.57	4.00	3.36	3	7	4
Fraction manipulatives	7	4.43	3.86	4.43	3.43	4.00	3.00	2	2	3
Adaptive worksheets + mini research	6	4.50	4.67	3.33	3.33	4.17	3.00	3	2	1
Play-based learning stations	2	4.50	4.50	4.00	3.50	4.00	2.50	0	1	1

Cells = mean survey indicator score (1–5); final three columns = row counts for assigned RQ2 interview-code labels. Group sizes are shown as n.
Workbook rows are linked by participant code; repeated wording and unverified source provenance mean these are descriptive associations, not independently validated interview themes.

Figure 1. Joint display of survey indicators, reported practice patterns, and interview-code counts

Perceived support for time and workload had the lowest survey mean (M = 3.14). In the same coded rows, organizational interview labels include administrative workload (12), scheduling/additional duties (11), and preparation-time limits (6). The integrated file therefore permits a row-level descriptive comparison of survey indicators, T0–T2 patterns, and supplied interview codes. It does not establish that TET caused these responses, and code labels have not been independently validated.

4. Integrating beliefs and practice: an appropriately bounded interpretation

The integrated workbook aligns survey indicators, T0–T2 records, and interview-labeled excerpts/codes under 29 participant codes, allowing descriptive comparison across linked rows. The highest survey mean was for belief in the development of teaching ability (M = 4.48); evidence-based strategy decisions averaged 3.48, and time/workload support averaged 3.14. T0–T2 entries describe quizzes, manipulatives, rubrics, and learning stations. Source-assigned interview codes represent reflection, collegial evidence review, practice sharing, and organizational constraints. Appendix A4 summarizes linked rows by the four T0 patterns. The linkage supports descriptive within-file comparison, but absent dates, verified source provenance, survey-instrument validation evidence, and independent coding checks, it cannot establish individual change, causal effects, or robust construct-level relationships.

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This interpretation aligns with research on collaborative inquiry, which describes the potential of teacher collaboration to support professional learning when inquiry is organized around shared problems and evidence (Butler & Schnellert, 2012; DeLuca et al., 2017). Yet collaboration depends on enabling conditions. When time is constrained or instructional priorities compete, a strategy may be adopted in a limited form or discontinued even when teachers value its potential. Growth mindset is therefore more usefully examined alongside pedagogical knowledge, available resources, collegial routines, leadership expectations, and curriculum demands than as an isolated teacher attribute (Laine & Tirri, 2023; Taveras & Santelices Etchegaray, 2025).

Interpretation of this synthesis is limited in several ways. Although the workbook links fields by participant code, no dated T0–T2 observations or repeated scale scores are provided, so change over time cannot be quantified. The questionnaire and psychometric evidence are absent, and assigned interview codes were not independently validated. Other influences—including additional professional development, leadership guidance, curriculum changes, and teaching experience—are not controlled. The analysis therefore describes aligned records; it does not attribute outcomes to TET.

D. Conclusion

For RQ1, the 29 teachers' survey responses were most positive on the belief that teaching ability can develop (M = 4.48), learning from failure (M = 4.28), and collegial discussion (M = 4.03). Ratings were lower for using evidence to retain or change strategies (M = 3.48) and perceived time/workload support (M = 3.14). These are descriptive item-level results, not scores from a validated scale. For RQ2, the linked records describe four T0–T2 patterns: guided inquiry with instant quizzes (14 participant-code rows), concrete fraction manipulatives (7), adaptive worksheets and mini research projects with rubrics (6), and short play-based stations (2). The workbook's interview-labeled excerpts and source-assigned codes add context about reflection, evidence review, sharing and peer observation, and organizational constraints. These sources align by participant code, enabling descriptive comparison, but repeated wording and unverified provenance limit claims about distinct classroom events or independently confirmed themes.

For RQ3, the available records support the conclusion that teachers' reported beliefs, staged instructional accounts, and interview-labeled material can be described together in this local TET context. They do not establish that practices were sustained, that individual teachers changed over time, or that TET caused the reported responses. The T0–T2 fields have no calendar dates or repeated survey scores; interview excerpts have not been checked against original transcripts, and independent coding checks were not documented. Accordingly, the findings answer the research questions descriptively and identify the need for dated follow-up evidence and verified source records to assess sustained practice.

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APPENDICES

Supplementary tables

Appendix tables summarize the integrated workbook by its 29 participant codes. The interview-labeled excerpts below are reproduced as entered in that workbook; they have not been checked against original recordings or transcripts. Appendix A5 records the interview collection procedures and supporting ethical information provided for this study.

Table A1. Descriptive summary of survey indicators

Survey indicator (single item)	N	Mean	SD	Median	Score distribution (n)
Belief that teaching ability can develop	29	4.48	0.51	4	4: 15; 5: 14
Viewing failure as an opportunity for learning/review	29	4.28	0.70	4	3: 4; 4: 13; 5: 12
Using learning evidence to improve instruction	29	3.97	0.82	4	3: 10; 4: 10; 5: 9
Retaining/changing strategies based on evidence	29	3.48	0.51	3	3: 15; 4: 14
Discussing instructional problems with colleagues	29	4.03	0.87	4	3: 10; 4: 8; 5: 11
Perceived support for time and workload	29	3.14	0.74	3	2: 6; 3: 13; 4: 10

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Table A2. Narrative patterns in staged instructional records

Pattern in record	Participant-code rows	Summary and boundary
Participation and instant quizzes	14	Initial issue: passive discussion and difficulty with analytical questions. Strategy: guided inquiry with quizzes/gamification. Reported response: participation and discussion of incorrect answers increased. Follow-up: quizzes continued; collaborative inquiry was reduced under curriculum targets. Repeated wording; provenance and independent outcomes are unverified.
Fractions and concrete manipulatives	7	Initial issue: difficulty understanding fractions. Strategy: concrete fraction manipulatives. Reported response: students compared denominators and explained reasoning. Follow-up: manipulatives continued for decimals. Repeated wording; independent outcomes are unverified.
Research projects and analytic rubrics	6	Initial issue: difficulty analyzing complex texts/HOTS. Strategy: adaptive worksheets and mini research projects. Reported response: drafts reportedly improved after rubrics and feedback. Follow-up: analytic rubrics continued. Repeated wording; independent outcomes are unverified.
Student focus and play-based stations	2	Initial issue: difficulty sustaining attention. Strategy: short kinesthetic play stations. Reported response: students reportedly completed station tasks without distraction. Follow-up: station content was adapted to student interests. Only two linked rows; independent outcomes are unverified.

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Table A3. Interview-code themes and evidence available

Question	Source-assigned code (rows)	Example excerpt as entered in workbook	Boundary
RQ1	Refleksi Scaffolding & Umpan Balik (n=20)	PART-001: "Ketika kelas diskusi sangat pasif, saya mencari letak kesalahannya pada scaffolding saya, bukan hanya menyalahkan motivasi siswa."	Workbook excerpt; original transcript and coding validation unavailable.
RQ1	Refleksi Pendekatan Konkret (n=7)	PART-004: "Saya mencari penyebab dari sisi strategi saya... saya sadar penjelasan saya kurang menggunakan contoh konkret."	Workbook excerpt; original transcript and coding validation unavailable.
RQ1	Refleksi Durasi & Kesesuaian Media (n=2)	PART-008: "Ternyata dari masalah anak lari-larian itu, saya dituntut mengevaluasi instruksi saya di kelas."	Workbook excerpt; original transcript and coding validation unavailable.
RQ2	Analisis Bukti Belajar Bersama (n=8)	PART-001: "Dalam forum guru, kami rutin membedah hasil asesmen siswa..."	Workbook excerpt; original transcript and coding validation unavailable.
RQ2	Berbagi Referensi & Keamanan Psikologis (n=12)	PART-003: "Awalnya saya ragu membagikan kesulitan mengajar materi tertentu... rekan lain merespons dengan membagikan referensi media dan bank soal."	Workbook excerpt; original transcript and coding validation unavailable.
RQ2	Refleksi Observasi Sebaya (n=9)	PART-007: "Masukan dari rekan saat observasi sebaya membuat saya mengubah porsi ceramah saya."	Workbook excerpt; original transcript and coding validation unavailable.
RQ3	Beban Administratif (n=12)	PART-001: "Beban kerja administratif kadang menyita waktu untuk mendesain pembelajaran yang benar-benar baru."	Workbook excerpt; original transcript and coding validation unavailable.
RQ3	Benturan Jadwal & Tugas Tambahan (n=11)	PART-002: "Kendala utama ada di jadwal padat dan tugas tambahan."	Workbook excerpt; original transcript and coding validation unavailable.
RQ3	Keterbatasan Waktu Persiapan (n=6)	PART-018: "Meskipun punya keyakinan ingin berubah, kadang realita di lapangan memaksa kembali ke cara lama."	Workbook excerpt; original transcript and coding validation unavailable.

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Table A4. Participant-code-linked cross-source display, grouped by T0 pattern

T0/T1 pattern	Linked rows	Mean survey indicators (GM1, PR1, PR4, OR1)	Supplied interview-code counts in same rows
Guided inquiry + instant quizzes	n=14	GM1 4.50; PR1 4.00; PR4 3.57; OR1 3.36	RQ1 scaffold/feedback 14 | RQ2 evidence review 3, sharing 7, peer observation 4 | RQ3 admin 5, scheduling 6, prep 3
Concrete fraction manipulatives	n=7	GM1 4.43; PR1 4.43; PR4 3.43; OR1 3.00	RQ1 concrete approach 7 | RQ2 evidence review 2, sharing 2, peer observation 3 | RQ3 admin 4, scheduling 3
Adaptive worksheets + mini research	n=6	GM1 4.50; PR1 3.33; PR4 3.33; OR1 3.00	RQ1 scaffold/feedback 6 | RQ2 evidence review 3, sharing 2, peer observation 1 | RQ3 admin 2, scheduling 2, prep 2
Short play-based stations	n=2	GM1 4.50; PR1 4.00; PR4 3.50; OR1 2.50	RQ1 duration/media 2 | RQ2 sharing 1, peer observation 1 | RQ3 admin 1, prep 1

Note. Participant codes align the survey, T0–T2, and interview-labeled fields in the integrated workbook. Calendar dates for T0–T2, original interview transcripts, the interview-guide validation materials, and independent coding-validation records were not included in the workbook. Survey and interview dates and interview procedures are summarized in Appendix A5.

Table A5. Interview data-collection procedures and ethics

The interview schedule and procedures below document the information provided for data collection. The number and duration of completed sessions were not specified.

Data-collection stage	Details
Survey	1–9 October 2026; six survey indicators recorded in the integrated workbook.
Interviews	12–14 October 2026; conducted online by the researcher; maximum five sessions per day. The total number and duration of sessions are not specified.
Interview instrument	The interview guide was validated before use; the validation evidence itself is not reproduced in the workbook.
Study locations	Sekolah Islam Al Azhar BSD; Al Azhar BSD @ Cileungsi; Al Azhar BSD @ Cibitung.
Ethics	Evidence of ethical approval was available for survey and interview data collection at the three locations. Approval identifiers and consent records are not reproduced in the workbook.

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