

Microteaching for Developing Pedagogical Competence and Teaching Skills in Pre-Service Islamic Religious Education: A Critical Integrative Review

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Abstract

Microteaching is widely used to help pre-service teachers convert pedagogical knowledge into observable teaching practice. Claims about its effectiveness, however, often combine performance scores, self-reports, and participants' satisfaction without distinguishing what each form of evidence can establish. This critical integrative review examines how microteaching supports the pedagogical competence and teaching skills of pre-service Islamic Religious Education (Pendidikan Agama Islam [PAI]) teachers and identifies conditions required for credible implementation. Targeted searches of Crossref, Google Scholar, ERIC, open-access journal platforms, and publisher websites were conducted through September 14, 2026. Forty accessible journal articles were retained because they addressed microteaching design, teaching performance, pedagogical content knowledge, reflection, feedback, self-efficacy, technology integration, or Islamic teacher education. The evidence indicates that microteaching is most defensibly understood as an approximation of practice rather than a miniature substitute for school teaching. Repeated plan–teach–observe–feedback–reflect–reteach cycles can improve lesson organization, explanation, questioning, instructional variation, formative assessment, and professional noticing. Video-supported self-analysis and criteria-referenced peer and instructor feedback strengthen reflection, while technology can increase access and support technological pedagogical content knowledge. Nevertheless, evidence for durable transfer to authentic classrooms remains less consistent than evidence for immediate improvement within simulated settings. For PAI programs, effective microteaching should assess not only generic delivery skills but also the pedagogical transformation of Qur'an–Hadith, jurisprudential, ethical, and historical content; dialogical handling of religious questions; inclusive classroom interaction; and alignment among cognitive, affective, and behavioral learning goals. A programmatic model is proposed that combines sequenced rehearsals, validated analytic rubrics, trained feedback, video reflection, and subsequent school-based verification. The review offers a cautious evidence base and an implementable curriculum framework without attributing unsupported effect sizes to the literature.

Keywords: *Microteaching, Pedagogical Competence, Pre-Service Teachers, Islamic Religious Education, Feedback, Reflective Practice, TPACK*

INTRODUCTION

Teacher education faces a persistent problem: knowing about instruction does not automatically produce skillful teaching. Pre-service teachers may understand learning theory, curriculum, assessment, and subject matter yet struggle to coordinate these resources while explaining a concept, eliciting student thinking, responding to misconceptions, managing participation, and monitoring learning in real time. Microteaching was developed to reduce this complexity by shortening the lesson, narrowing its instructional focus, limiting the

number of learners, and making performance available for observation and revision. Contemporary scholarship continues to describe it as a valuable bridge between coursework and classroom practice, although implementations vary substantially in duration, audience, feedback, technology, and assessment (Hama & Osam, 2021; Iliasova et al., 2025; O’Flaherty et al., 2024; Sezaki et al., 2023).

This bridge is especially relevant for pre-service teachers of Islamic Religious Education (Pendidikan Agama Islam [PAI]). PAI teaching requires more than accurate transmission of religious information. Teachers must transform disciplinary content—such as Qur’an and Hadith studies, creed and ethics, Islamic jurisprudence, and Islamic history—into age-appropriate learning while cultivating reasoning, moral agency, respectful dialogue, and practices consistent with educational aims. Recent Indonesian research indicates continuing concern about prospective Islamic education teachers’ pedagogical performance during school field practice and points to the value of structured peer assessment and constructive feedback in microteaching (Amrullah et al., 2025; Wahdah & Elfri, 2024). Microteaching in Islamic higher education has likewise been associated with opportunities to rehearse lesson planning, classroom communication, instructional media, and assessment before school placement (Ramang, 2023).

The original version of this manuscript made strong numerical claims about improvements in eight teaching skills and a reduction in teaching anxiety. Those claims could not be traced to a specified dataset or reproducible synthesis. Such precision is methodologically inappropriate when studies differ in participants, instruments, disciplines, comparison conditions, and outcome definitions. A performance rubric, a self-efficacy questionnaire, a reflective journal, and an interview do not measure the same construct. Moreover, improvement between an initial and repeated rehearsal may reflect practice, feedback, greater familiarity with peers, or the assessment instrument itself; it should not automatically be interpreted as proof of general teaching effectiveness.

Accordingly, this article reframes the question. Rather than asking whether microteaching is universally “effective,” it asks: (a) which dimensions of pedagogical competence are most consistently supported; (b) through which learning mechanisms; (c) under what design conditions; and (d) what modifications are necessary for PAI teacher preparation. The review makes three contributions. First, it separates evidence about observable teaching performance from evidence about perceptions, confidence, reflection, and technological knowledge. Second, it treats the microteaching cycle as an approximation of practice whose value depends on task design, feedback, and opportunities to reteach. Third, it proposes a PAI-responsive model that preserves the practice-based strengths of microteaching while addressing religious-content pedagogy, affective learning, ethical dialogue, and transfer to school classrooms.

Conceptual Framework

Microteaching as an approximation of practice

Microteaching is frequently described through the cycle plan, teach, observe, receive feedback, re-plan, and reteach. Its educational value does not arise merely from teaching for a short period. It arises from decomposing complex practice into learnable components,

rehearsing those components under reduced risk, obtaining evidence about performance, and attempting an improved version. Studies across science, mathematics, language, and general teacher education have reported benefits for lesson presentation, pedagogical content knowledge, critical thinking, and professional reflection (Arsal, 2015; Bakır, 2014; Danday, 2021; Kula Ünver et al., 2020). Lesson-study adaptations add collaborative planning and analysis, making the rehearsal a shared inquiry rather than an isolated performance (Bahçivan, 2017; Iksan et al., 2014).

An approximation is necessarily selective. A peer who acts as a compliant learner cannot reproduce the developmental, linguistic, social, and behavioral variability of a school class. Pair microteaching can make rehearsal manageable but may also create interaction that is unlike normal classroom discourse (Yan & He, 2017). Likewise, teachers may perform a targeted skill during a recorded ten-minute lesson without being able to sustain it across a full unit. Microteaching should therefore be judged by the quality of the opportunities it creates for learning to teach, not by how closely its surface features resemble a full classroom.

Pedagogical competence and observable teaching skills

Pedagogical competence is broader than polished delivery. It includes interpreting curriculum, formulating assessable goals, selecting representations and tasks, eliciting prior knowledge, recognizing learners' needs, managing participation, using evidence of learning, and adapting instruction. Microteaching can make some of these practices visible. For example, a rubric can document whether a pre-service teacher frames a purpose, asks questions that reveal thinking, provides wait time, responds to an error, checks understanding, and closes with a meaningful synthesis. Studies using observation and performance assessment tend to offer stronger evidence about enacted competence than studies that rely only on satisfaction or perceived readiness (Adnyana & Citrawathi, 2019; Bakır, 2014; Karçkay & Sanlı, 2009; Wangchuk, 2019).

Pedagogical content knowledge is particularly important because effective instruction depends on how a teacher represents specific content. Mathematics microteaching research shows that rehearsal can reveal the relationship among content knowledge, task selection, anticipated misconceptions, and instructional decisions (Kula Ünver et al., 2020). The same principle applies to PAI. Explaining a jurisprudential difference, interpreting a scriptural passage, teaching ritual practice, or discussing an ethical dilemma requires different representations, questions, and forms of evidence. A generic checklist that rewards eye contact and voice variation but ignores the quality of content transformation is therefore inadequate.

Feedback, reflection, and self-efficacy

Microteaching creates a feedback-rich environment. Yet feedback is productive only when it is linked to explicit goals and observable evidence. Vague praise may increase comfort but offers little direction for revision. Overly judgmental feedback can shift attention from the teaching problem to self-protection. Studies of online feedback videos and peer-reaction video feedback suggest that pre-service teachers value the opportunity to revisit concrete moments and compare external observations with their own interpretations (Murphy Odo, 2022, 2023). Video-mediated microteaching can expose unnoticed patterns in

pacing, questioning, gestures, teacher talk, and participation, thereby providing a stimulus for professional reflection (Kouricos, 2016; Park, 2022).

Reflection is strongest when it moves beyond description (“I was nervous”) toward interpretation (“my question invited a one-word answer”), evidence (“only two peers spoke”), and a testable revision (“I will use a contrasting case and ask for reasons before evaluating responses”). Written reflection, video annotation, peer dialogue, and re-teaching can support this movement. However, reflection should not be assumed simply because a journal or video is present; its quality depends on prompts, criteria, modeling, and the opportunity to apply conclusions.

Self-efficacy is another common outcome. Student-centered microteaching has been associated with stronger teaching self-efficacy beliefs (Karişan, 2017), and participants frequently report greater confidence after repeated practice. These outcomes matter because confidence can support persistence and willingness to experiment. Nevertheless, self-efficacy is not equivalent to competence. A rigorous evaluation should measure both perceived capability and observed performance and should avoid claiming reduced anxiety unless a validated measure and an appropriate design are used.

Technology and TPACK

Technology has altered both the medium and the object of microteaching. Video recording, asynchronous feedback, online conferencing, digital annotation, and virtual environments can expand access and create durable evidence for reflection. Technology-based microteaching studies show both affordances and constraints: online formats can facilitate repeated viewing and distributed participation, yet connectivity, camera framing, reduced non-verbal information, and artificial interaction can impair classroom-management rehearsal (Kokkinos, 2022; Ledger & Fischetti, 2020; Sezaki et al., 2023; Zalavra & Makri, 2022).

Microteaching can also develop technological pedagogical content knowledge (TPACK) when technology selection is evaluated in relation to content and pedagogy rather than visual appeal. Active microteaching lesson study has been used to develop TPACK (Danday, 2019), and Indonesian evidence similarly describes TPACK development through microteaching (Humaera et al., 2024). For PAI, this means assessing whether a Qur'an application, interactive timeline, video, quiz platform, or collaborative document helps learners interpret, practice, compare, or reason—and whether its use is accurate, accessible, ethically appropriate, and pedagogically necessary.

METHODS

Review design and question

This study used a critical integrative review. This design was selected because the evidence base contains heterogeneous quantitative, qualitative, mixed-methods, action-research, and review studies. The purpose was interpretive and design-oriented: to identify convergent findings, important differences in what studies measured, and implications for PAI microteaching. It was not a meta-analysis, and no pooled effect size was calculated. The reporting approach follows the principle that review methods should be sufficiently explicit

for readers to understand how evidence was located, selected, and interpreted (Xiao & Watson, 2019).

The review question was: How, and under what conditions, does microteaching contribute to pedagogical competence and teaching skills among pre-service teachers, and how should these conditions be adapted for pre-service PAI teachers?

Search and selection

Targeted searches were conducted through September 14, 2026, using Crossref metadata, Google Scholar, ERIC, open-access journal platforms, and publisher websites. Search combinations included *microteaching*, *micro-teaching*, *pre-service teacher*, *teaching skill*, *pedagogical competence*, *pedagogical content knowledge*, *feedback*, *video reflection*, *self-efficacy*, *online microteaching*, *TPACK*, *Islamic education*, and *Pendidikan Agama Islam*. Backward searching of recent reviews was used to locate foundational and frequently cited empirical studies.

Articles were included when they: (a) were journal articles with a stable journal page or DOI; (b) examined microteaching in pre-service or closely related teacher education; or (c) directly informed the review's analysis of lesson planning, pedagogical competence, reflection, feedback, self-efficacy, technology, or Islamic teacher education. Articles were excluded when the publication identity could not be verified, the focus was unrelated to teacher learning, or only an unsupported bibliographic mention could be found. Forty journal articles were retained. Sources span older foundational empirical work and recent studies; this broader range was necessary because restricting the review to 2021–2026 would exclude much of the evidence on the microteaching cycle and video-mediated reflection.

Analysis and quality-sensitive interpretation

Each article was coded for context, design, participants, microteaching format, evidence source, reported outcome, and implementation conditions. Evidence was then organized into six analytic domains: (1) lesson design and pedagogical content knowledge; (2) observable teaching performance; (3) feedback and reflection; (4) self-efficacy and emotional readiness; (5) technology and online delivery; and (6) transfer and contextual fit. Interpretation was quality-sensitive rather than vote-counting. Greater weight was given to findings supported by direct observation, repeated performance, transparent procedures, and triangulated data than to single-posttest perception surveys. Because study measures were heterogeneous, findings are reported as patterns and boundary conditions rather than as universal percentages.

FINDINGS

Evidence profile

The literature is diverse in subject area, location, method, and outcome. Science and mathematics studies commonly emphasize performance rubrics, lesson study, pedagogical content knowledge, and critical thinking. Language-teacher education studies contribute detailed evidence on video, peer feedback, reflection, and the contrast between micro- and macro-teaching. Indonesian studies add insight into local teacher-education structures, technology use, lesson planning, and Islamic higher education. Table 1 summarizes how the evidence clusters inform the present review.

Table 1. Evidence domains and their implications for interpreting microteaching

Evidence domain	Representative studies	What the evidence can support	Main interpretive caution
Observed teaching skills	Adnyana and Citrawathi (2019); Bakır (2014); Karçkay and Sanlı (2009); Wangchuk (2019)	Changes in enacted skills under specified rehearsal conditions	Ratings may be context- and rubric-dependent
PCK and lesson design	Kula Ünver et al. (2020); Prabowo et al. (2022); Ramang (2023)	Development of planning, representation, and content-specific instructional reasoning	Planning quality does not guarantee classroom enactment
Feedback and reflection	Kourieos (2016); Murphy Odo (2022, 2023); Park (2022)	How video, peers, and instructors support noticing and revision	Perceived usefulness is not the same as improved performance
Self-efficacy and readiness	Arslan (2021); Karışan (2017); Ögeyik (2009)	Changes in beliefs, attitudes, and felt preparedness	Confidence may rise without equivalent competence
Technology and online formats	Humaera et al. (2024); Kokkinos (2022); Ledger and Fischetti (2020); Sezaki et al. (2023); Zalavra and Makri (2022)	Affordances, constraints, and TPACK-related learning	Online rehearsal weakens some interaction and management cues
Transfer and contextual fit	Çubukçu (2010); Koech and Mwei (2019); Yan and He (2017)	Differences between simulation and school teaching	Longitudinal school-based verification is limited

Development of observable teaching performance

Across the evidence base, the most credible claim is that well-designed microteaching can improve performance within repeated rehearsals. Improvements are reported in organizing explanations, opening and closing lessons, questioning, varying representations, communicating clearly, managing time, and monitoring learner responses (Adnyana & Citrawathi, 2019; Bakır, 2014; Karçkay & Sanlı, 2009; Reddy, 2019; Wangchuk, 2019). These findings are plausible because the cycle makes performance visible and provides an immediate opportunity to revise it.

The pattern should not be reduced to an invented average across “eight basic skills.” Studies use different taxonomies and scoring procedures. A skill such as classroom management is also difficult to assess when peers simulate students. By contrast, lesson structure, clarity of explanation, question formulation, use of representations, and formative checks can be observed reasonably well in short rehearsals. Microteaching is therefore better

at rehearsing bounded practices than at demonstrating comprehensive readiness for independent classroom teaching.

Mixed-method and action-research studies further suggest that participants learn from occupying multiple roles: teacher, learner, observer, and feedback provider (Arslan, 2021; Bahçivan, 2017). Observing peers can broaden the repertoire of possible moves, while articulating feedback requires evaluative judgment. Lesson-study models intensify these benefits by treating a lesson as a collectively designed and investigated object (Iksan et al., 2014). Competitive or showcase formats may motivate careful preparation, but they can also privilege performance polish over responsiveness to learners; decision-making criteria should therefore remain aligned with learning rather than spectacle (Murtafiah et al., 2022).

Lesson planning and pedagogical content knowledge

Microteaching exposes weaknesses in the alignment among objectives, activities, representations, questions, and assessment. Research on prospective teachers' lesson plans indicates that even when formal plan components are present, difficulties can persist in anticipating learning trajectories, selecting tasks, and linking assessment to intended outcomes (Prabowo et al., 2022). Rehearsal makes these design problems consequential: an unclear objective becomes difficult to assess, an overloaded lesson becomes impossible to complete, and an unexplained representation creates confusion.

PCK-focused studies show that microteaching can support the integration of content and pedagogy when observers attend to how subject matter is transformed for learners (Kula Ünver et al., 2020). This is directly relevant to PAI. A lesson on zakat, for example, should not be evaluated only for vocal clarity and classroom presence. The rubric should examine conceptual accuracy, choice of examples, treatment of context and legitimate difference, anticipation of misconceptions, use of evidence, and the degree to which questions invite reasoning rather than recall. Similarly, a lesson on moral conduct should include opportunities for judgment, perspective-taking, and application rather than merely reciting prescribed values.

Ramang's (2023) study in Islamic higher education indicates that microteaching can help prospective teachers develop instructional ability through preparation, implementation, and evaluation. Amrullah et al. (2025) further show the relevance of peer assessment and constructive feedback for pre-service Islamic education teachers' pedagogical competence. Evidence from field-practice evaluation, however, indicates that competence must ultimately be examined in school settings (Wahdah & Elfri, 2024). Together, these studies support a sequence in which campus rehearsal prepares candidates for school practice, and school evidence is then used to evaluate transfer.

Feedback and video-supported reflection

Feedback is the mechanism that turns repetition into deliberate improvement. The strongest designs use an analytic rubric, require observers to cite evidence, prioritize a manageable number of changes, and link comments to a re-teaching opportunity. Peer feedback contributes the learner's perspective and develops observers' evaluative knowledge; instructor feedback contributes disciplinary and pedagogical expertise. The two sources should be complementary rather than interchangeable.

Video strengthens this process by allowing slow, repeated, and selective examination. Video-mediated studies report that pre-service teachers notice features of their instruction that were difficult to perceive while teaching, including pacing, teacher talk, gestures, response distribution, and missed learner cues (Kourieos, 2016; Murphy Odo, 2022). Peer reaction videos can also capture how the lesson was experienced by participants and can make feedback more concrete (Murphy Odo, 2023). Written reflection provides a second layer when candidates must explain why an event occurred and how they will respond in the next rehearsal (Park, 2022; Yeşilbursa, 2011).

The evidence also warns against treating recording as an intervention by itself. Unstructured viewing can produce superficial self-criticism about appearance or fluency. Productive video reflection requires time-stamped evidence, content-specific prompts, and a direct connection to revision. Programs should establish ethical protocols for recording, consent, storage, access, and deletion, particularly when microteaching later involves school pupils.

Self-efficacy, attitudes, and emotional readiness

Participants generally describe microteaching as helpful, despite anxiety about being observed and evaluated. Early studies of student teachers' experiences and attitudes report both developmental value and emotional pressure (Ismail, 2011; Ögeyik, 2009). Student-centered practice has been associated with improved self-efficacy beliefs (Karışan, 2017), and mixed-method evidence suggests that repeated experience can strengthen candidates' perceived readiness (Arslan, 2021).

These psychological outcomes should be interpreted as enabling conditions. A candidate who believes improvement is possible may engage more fully with difficult feedback and persist through revision. At the same time, high-stakes grading, public comparison, and untrained peer criticism can intensify evaluation anxiety. A psychologically safe design does not eliminate standards; it separates formative rehearsal from summative certification, establishes norms for evidence-based critique, and gives candidates meaningful control over revision.

No defensible basis was found for the claim that microteaching reduces teaching anxiety by a universal percentage. Studies vary in instruments and designs, and many discuss nervousness qualitatively. Future research in PAI programs should use validated anxiety and self-efficacy measures alongside blinded or independently moderated performance ratings. This would clarify whether emotional improvement accompanies skill development and whether both predict performance during school placement.

Technology-enhanced and online microteaching

Digital microteaching expanded rapidly during and after the COVID-19 disruption. Reviews and empirical studies show that online formats can preserve important elements of rehearsal, especially lesson planning, presentation, recording, replay, and asynchronous feedback (Kokkinos, 2022; Sezaki et al., 2023; Zalavra & Makri, 2022). Video-based microteaching in Indonesia likewise revealed both performance opportunities and challenges related to technology, interaction, and the authenticity of the teaching situation (Rahayu &

Sulistiyawati, 2022). Distance teacher education research had already shown that microteaching could be adapted beyond a conventional laboratory (Merc, 2015).

Technology is most valuable when it increases the quality of evidence and feedback. Multiple camera views, screen capture, transcript-supported annotation, and time-stamped comments can help candidates analyze instruction. Conversely, sophisticated platforms cannot compensate for vague criteria or absent re-teaching. “Microteaching 2.0” should therefore be understood as a redesigned learning ecology rather than a simple move from a physical room to a video call (Ledger & Fischetti, 2020).

TPACK-oriented microteaching adds another goal: candidates learn to select and use technology for a specific content-learning purpose (Danday, 2019; Humaera et al., 2024). For PAI, this includes evaluating source authenticity, Arabic-script legibility, translation quality, accessibility, privacy, and the risk of reducing religious learning to decontextualized quiz items. Digital tools should enable interpretation, dialogue, visualization, guided practice, or formative evidence—not merely decorate a lesson.

Limits of transfer and evidence quality

Microteaching and full classroom teaching are not congruent. Çubukçu (2010) documented tensions between micro- and macro-teaching, and Yan and He (2017) questioned the realism of pair microteaching. Teachers’ retrospective perceptions also suggest that microteaching and teaching practice make different contributions to preparation (Koech & Mwei, 2019). Peer learners often know the content, understand the assignment, and cooperate with the candidate. School pupils may bring misconceptions, uneven motivation, linguistic diversity, social relationships, and unexpected questions. Classroom management and adaptive teaching are therefore likely to be overestimated in peer simulation.

The evidence base contains several additional limitations. Many studies involve one institution and small convenience samples. Intervention descriptions are sometimes too brief for replication. Instruments differ, reliability is not always reported, and assessors are frequently involved in teaching the course. Follow-up during school placement is uncommon. Positive self-reports are easier to obtain than independent evidence of durable practice. Recent reviews confirm broadly favorable conclusions but also substantial heterogeneity in designs and technologies (Iliasova et al., 2025; Sezaki et al., 2023).

These limitations do not negate microteaching’s value. They define the level of claim that the evidence supports: microteaching offers structured opportunities to learn and improve selected practices; it does not by itself certify comprehensive professional competence or guarantee impact on school students.

DISCUSSION

A design model for PAI microteaching

The synthesis supports a six-stage model for PAI teacher education. The stages are cumulative, and each produces evidence that informs the next.

Table 2. Proposed evidence-centered PAI microteaching sequence

Stage	Candidate task	Feedback evidence	PAI-specific emphasis
1. Diagnose and design	Analyze learners, content, misconceptions, goals, and assessment	Design memo and lesson map	Accuracy, legitimate interpretive difference, cognitive–affective–behavioral alignment
2. Rehearse a core practice	Teach a 10–15-minute segment focused on one or two practices	Analytic observation rubric and recording	Content representation, dialogical questioning, ethical language
3. Examine evidence	Review video and learner responses	Time-stamped self-analysis	Participation equity, source use, treatment of sensitive questions
4. Receive calibrated feedback	Compare self, peer, and instructor judgments	Evidence-based feedback conference	Pedagogical and disciplinary criteria weighted together
5. Revise and reteach	Implement a specified improvement	Matched rubric from the second performance	Responsiveness rather than scripted repetition
6. Verify transfer	Apply the practice in school placement	Mentor observation, pupil work, and candidate reflection	Adaptation to authentic learners and school context

The model replaces a one-off performance with a learning progression. Early rehearsals should focus on bounded practices such as explaining a concept through multiple representations, facilitating respectful discussion, eliciting reasons, or using a formative assessment. Later rehearsals should combine practices and introduce uncertainty. Peers can be given evidence-based learner profiles or common misconceptions rather than being told simply to “act disruptive.” This improves authenticity without pretending to reproduce a school classroom.

PAI-specific assessment should integrate generic and content-responsive criteria. Generic dimensions include clarity, structure, questioning, interaction, inclusion, formative assessment, time use, and responsiveness. Content-responsive dimensions include accuracy of Qur’an–Hadith use, responsible contextualization, treatment of jurisprudential plurality, avoidance of stigmatizing language, connection between belief and ethical reasoning, and alignment of learning activities with the intended religious-education outcome. A strong performance should demonstrate both; charisma cannot compensate for inaccuracy, and content expertise cannot compensate for inaccessible pedagogy.

Curriculum and assessment implications

First, institutions should distribute microteaching across a program instead of confining it to one late-semester course. Short rehearsals can be embedded in curriculum,

assessment, educational technology, and PAI methods courses. This approach creates repeated opportunities to connect theory with enactment and avoids overloading a single course.

Second, programs should calibrate observers. Before rating peers, candidates and instructors should score sample videos, discuss discrepancies, and study rubric anchors. Calibration improves the interpretability of scores and teaches a shared language of practice. At least some summative performances should be independently moderated to reduce instructor expectancy effects.

Third, feedback should be selective and actionable. Candidates cannot productively revise ten unrelated weaknesses at once. A conference should identify one content-pedagogical priority and one interactional priority, document evidence, and specify what success would look like in the next rehearsal. Peer assessment can be powerful in Islamic teacher education when it is constructive, criteria-referenced, and linked to revision (Amrullah et al., 2025).

Fourth, technology decisions should be pedagogically justified. Online and hybrid formats are legitimate when they preserve observation, feedback, reflection, and re-teaching. They should not be used as low-cost substitutes that remove interaction or access. Institutions need loanable devices, stable connectivity, accessible platforms, and clear privacy protocols. Technology integration should be evaluated through TPACK logic: the tool must improve the learning of particular PAI content through an appropriate pedagogy.

Microteaching assessment should connect to school placement. A candidate's strongest campus rehearsal can generate a transfer goal that is observed by a mentor during field practice. Evidence from pupil work, mentor notes, and post-lesson reflection should then return to the university course. This closes the theory–practice loop and prevents the microteaching grade from becoming an isolated performance credential.

Research agenda

Research on PAI microteaching would benefit from stronger designs. Multi-institutional studies could compare conventional microteaching with sequenced video-and-reteaching models. Quasi-experimental studies should report baseline equivalence, attrition, implementation fidelity, assessor training, instrument reliability, effect sizes, and confidence intervals. Performance raters should be independent where feasible. Mixed-methods studies can then explain why some candidates improve and others do not.

Longitudinal research is especially important. Outcomes should be measured at four points: initial rehearsal, revised rehearsal, school placement, and early professional practice. This would distinguish immediate rehearsal gains from durable transfer. Studies should also examine how candidates teach contested or sensitive religious questions, engage learners from varied backgrounds, and integrate affective goals without relying on unobservable claims. Learner evidence (such as explanations, questions, written reasoning, and demonstrated practice) should complement teacher-performance ratings.

Limitations

This review has four limitations. First, it is a critical integrative review rather than a registered systematic review or meta-analysis. Searches were targeted and transparent, but

the heterogeneous evidence was not suitable for a pooled estimate. Second, the literature is concentrated in particular disciplines and national contexts; direct empirical research on PAI microteaching remains comparatively limited. Third, accessibility and metadata were verified through stable journal pages or DOI records, but reporting quality varied across articles. Fourth, the proposed model is evidence-informed rather than experimentally validated as a complete package. Its effectiveness should be tested in PAI programs with school-based follow-up.

Conclusion

Microteaching can make an important contribution to pre-service PAI teacher education when it is designed as deliberate, evidence-rich rehearsal. The literature most consistently supports improvement in selected, observable practices within iterative cycles and the development of reflection, feedback literacy, and perceived readiness. Video and online technologies can extend these processes, and TPACK-focused tasks can improve the pedagogical use of digital tools. The evidence is weaker for universal numerical gains, durable reduction in anxiety, and automatic transfer to real classrooms.

For publication and practice, the defensible conclusion is therefore conditional: microteaching supports pedagogical competence when candidates rehearse clearly defined core practices, receive calibrated evidence-based feedback, analyze recordings, revise and reteach, and later demonstrate transfer during school placement. In PAI programs, evaluation must also address how accurately, responsibly, and inclusively candidates transform religious content into meaningful learning. This approach moves microteaching beyond performance display toward disciplined professional learning.

Declarations

Ethics approval. This review used publicly accessible published literature and did not involve human participants; institutional ethics approval was therefore not required.

Conflict of interest. The authors declare no conflict of interest.

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Data availability. All evidence analyzed in this review is available through the journal and DOI links in the reference list.

Author contributions. All authors contributed to the conceptualization, literature interpretation, critical revision, and approval of the manuscript.

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