



Microteaching in Teacher Education: A Global Narrative Review of Pedagogical Development, Reflective Practice, and Technology-Enhanced Training

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Abstract

Training competent teachers remains a global priority, particularly amid persistent shortages and growing demand for classroom-ready graduates. Microteaching has become an adopted strategy for preservice teachers to practice instructional skills in a structured and supportive environment. However, variations in implementation and the emergence of technology-enhanced approaches have created fragmented evidence on effectiveness. This study synthesizes recent global evidence on microteaching practices in teacher education, with emphasis on pedagogical skill development, reflective learning processes, technology integration, and contextual challenges. A narrative review design was employed. Sixteen peer-reviewed studies between 2016 and 2026 were identified from PubMed, Medline, Scopus, and Google Scholar. The selected studies were analysed thematically to identify patterns across different teacher education settings. Four major themes emerged. First, microteaching enhances professional competence by improving lesson planning, classroom management, instructional clarity, and preservice teachers' self-efficacy. Second, reflective practice—particularly through video analysis, peer feedback, and self-assessment—plays a role in enhancing pedagogical awareness and professional judgement. Third, technology-enhanced microteaching, including online platforms, video-mediated feedback, and simulation environments, expands experimentation and reflective learning. Fourth, psychological and contextual constraints such as performance anxiety, limited time for practice, insufficient supervision, and unequal access to technological resources can moderate microteaching programmes. Microteaching is a critical component of contemporary teacher education. When implemented as a structured and iterative process supported by reflective feedback and digital tools, it significantly contributes to pedagogical competence, professional confidence, and adaptive teaching skills. Institutional support, adequate supervision, and equitable technological infrastructure are essential for maximising its impact.

Keywords: Microteaching, teacher education, pedagogical skills, reflective practice, technology-enhanced learning, preservice teachers.

Introduction

In the whole world, education among teachers plays the most essential role in both reform and development of education, thereby determining the quality and effectiveness of education systems. As the world is more likely to become interconnected, Ramaila (2026) notes that there is an ever-increasing demand for teachers. As a report that was manufactured by United Nations Educational, Scientific and Cultural Organization (UNESCO) states, the issue of teacher shortage is not a national issue in any country; therefore, it is not only common in the developing countries but also in the high-income countries such as North America and Europe (UNESCO, 2024). In addition, it is essential to

mention that, even with properly organised education systems, these areas struggle with hiring and retaining qualified teachers, and it is a major problem that influences the quality and equity of education. Therefore, these issues have led to an interest of numerous nations in enhancing the education programs of teachers through enhancement of their curricular systems, professional teaching training, and learning styles, hence a reflection of the universal importance of good preparation of teachers' education training to the present and future education demands. As explained in Mandyata et al. (2023), there has not been preparation, as in the past, but rather training that is centred on practice, and it provides preservice

teachers with practical classroom skills. According to Riley et al. (2025), in modern teacher education programmes, experiential learning, reflective practice, and skills-based pedagogies are prioritised to ensure that the graduates are ready to go to the classroom. In that way, microteaching is one of the most powerful and widely used training strategies. Microteaching was created in the 1960s at Stanford University and is a scaled-down teaching session, designed to allow trainee teachers to rehearse certain teaching competencies within a supported and controlled setting. With time, it has undergone more development than the kind of model it originated and has been modified in various educational systems in the world, which has acted as a point of interconnection between pedagogical theory and classroom practice.

Although the practice of microteaching has become common in teacher education programmes, the implementation, format, and efficacy of microteaching differ significantly across geographical regions and institutional settings (Mukomana et al., 2021). In this way, single-country experiences or programme outcomes should be considered, which generates disjointed evidence and narrow comparative knowledge. Moreover, there have been quick changes in technology, such as

video-delivered feedback and virtual simulation settings, which have transformed microteaching practices over the past few years, but the innovations have not been synthesised at the global level (Wei et al., 2025). It, therefore, still requires an integrative narrative review that critically looks at the conceptualisation, adaptation, and practice of microteaching in various educational systems. Thus, the proposed study aims to synthesise recent research on microteaching practices in teacher education globally, identifying key models, trends, challenges, and implications for policy and practices.

Methods

For this review, information was obtained from peer-reviewed studies on microteaching in teacher education. Relevant articles were identified through systematic searches on PubMed, Medline, Scopus, and Google Scholar. The review focused on papers published between 2016 and 2026 and had no geographical limitation. All selected studies were analysed thematically to identify recurring patterns and insights, resulting in four main themes: professional competence development, reflective practice and feedback, technology-enhanced microteaching, and psychological and contextual constraints.

Results

This narrative review synthesised 17 papers on microteaching across teacher education and found four themes: professional competence development, reflective practice and feedback processes, technology-enhanced microteaching, and psychological and contextual constraints. In addition, all the themes were supported by multiple subthemes, which illustrate how microteaching functions, its challenges, and its contributions to teachers.

Table 1: Summary of Study Characteristics of Selected Studies

S/N	Author	Year	Country	Methods	Findings
1	Mukuka & Alex	2024	South Africa	Qualitative	Lack of resources, such as video recording equipment. Time constraints and a limited number of supervisors. Anxiety among pre-service teachers, particularly due to fear of criticism and being filmed. Microteaching in artificial lab environments that do not reflect real classroom dynamics. Effective in developing core teaching skills and technological pedagogical content knowledge (TPCK). Microteaching improved pre-service teachers' confidence and lesson delivery. Encouraged self-reflection through video recordings.
2	Ma	2024	China	Qualitative	Training content limitations: Insufficient emphasis on instructional design, textbook

					analysis, and target student analysis, leading to inadequate teaching preparation. Ineffective training models: Gaps between theoretical teaching and practical skill development, especially as foundational courses in the first two years of university do not sufficiently support microteaching. Class management difficulties: Unequal practice opportunities and social loafing during group work led to unbalanced skill development among students. The inclusion of formative and peer assessments, along with guided feedback, improves reflective learning and knowledge retention.
3	d'Alessio	2018	USA	Mixed method	Low initial self-efficacy in science teaching due to limited science content knowledge among elementary teachers. Challenges in translating content mastery into effective teaching strategies in a real classroom setting. Some participants were critical of their own performance and found it hard to incorporate peer feedback effectively. Microteaching significantly boosted self-efficacy through peer assessments, feedback, and reflection. Participants reported feeling more confident in their ability to teach science by the end of the course.
4	Bozkurt & Koyunkaya	2020	Turkey	Qualitative	Limited technological tools and ineffective use of available technology during teaching. Difficulty in reaching the targeted mathematical depth in tasks. Struggles with adapting micro-teaching experiences to actual classroom teaching. Failure to use dynamic technology effectively in the classroom after micro-teaching. Improvement in teaching practices after feedback from micro-teaching. Effective use of dynamic technology like GeoGebra in classroom settings.
5	Göçer	2016	Turkey	Qualitative	Difficulties in classroom management and a lack of prior practical experience. Time management issues result in incomplete lessons or activities. Nervousness and anxiety before teaching in an authentic classroom environment. Micro-teaching helped alleviate students' fears and build their self-confidence. The ability to review teaching recordings helped student teachers reflect and improve. Peer feedback and critiques offered valuable insights for improving teaching strategies.

6	Baştürk et al.	2023	Turkey	Qualitative	Teachers struggled to identify and correct students' misconceptions in real time during lessons The complexity of diagnosing and resolving mathematical misconceptions posed challenges for some teacher candidates Teacher candidates used strategies such as peer discussions, classroom group work, and problem-solving to address student difficulties The use of video recordings allowed candidates to reflect on their teaching and improve their ability to address misconceptions
7	Açıkgül	2020	Turkey	Quantitative	Limited exposure to technological tools before the intervention. Variability in prior knowledge of integrating technology in mathematics teaching. Potential biases in self-reporting during pretest and posttest evaluations. Effective use of the TPACK framework and game-based activities helped preservice teachers design lessons integrating technology. Collaboration and feedback mechanisms enhanced the learning experience.
8	Fischetti et al.	2021	UK	Qualitative	Overcrowded teacher education curriculums have led to the abandonment of traditional microteaching in many programs. Pre-service teachers might face difficulties in adjusting to new forms of technology, such as mixed-reality environments, as a replacement for peer-based or student-based teaching practice. The use of simulation allowed pre-service teachers to “practice before prac,” giving them the opportunity to test their teaching skills in a controlled, low-risk environment.
9	Defis et al.	2022	Wales	Qualitative	Limited opportunities for in-person school experience due to school closures during the pandemic Difficulties in providing real-time feedback and monitoring in an online environment Emotional challenges associated with peer review, such as fear and anxiety when moving from individual reflection to collaborative reflection The use of video technology allowed students to review their teaching, receive peer feedback, and engage in deeper reflective practices Peer collaboration fostered a social-constructivist approach, with students benefiting from shared feedback and reflective discussions
10	Karakas & Yükselir	2020	Turkey	Qualitative	Initially, pre-service teachers were unable to notice key issues in their teaching practices

					until they watched their video-recorded sessions. There may have been discomfort or challenges in critically assessing their performance, especially during peer feedback and group discussions. Peer feedback, along with self-observation, helped the participants identify areas for improvement that were not initially perceived.
11	Marlina et al.	2023	Indonesia	Qualitative	Technical issues such as poor video quality or unfamiliarity with video tools. Resistance from candidates to watching and critiquing their recorded sessions. Video analysis improved reflection and understanding of teaching practices. Rewatching teaching sessions helped candidates identify their weaknesses and improve in subsequent lessons.
12	Gürsoy	2023	Turkey	Qualitative	Limited resources for reflective feedback. Inconsistent practical application of microteaching Limited access to technology to record sessions High anxiety among student teachers due to peer feedback Fostered collaborative learning through peer support Developed critical thinking in teaching practices
13	Tutyandari et al.	2022	Indonesia	Qualitative	Virtual platform limitations: The online format introduced constraints, including difficulties with giving feedback, as students feared that their comments might affect their peers' final scores. Lack of direct interaction: Students expressed that the virtual nature of the peer mentoring process limited their ability to engage as deeply as they would have in a physical classroom. Observing peer teaching through a screen was considered less effective for detailed observation and engagement. Self-evaluation opportunity: Observing their peers allowed students to engage in self-reflection and identify areas for personal improvement in teaching methods.
14	Erdemir & Yeşilçınar	2021	Turkey	Qualitative	Peer feedback was perceived as less useful due to its often-superficial nature and perceived subjectivity. Some PSTs were uncomfortable providing critical peer feedback, leading to hesitance in reflecting on their peers' performances. Teacher feedback and self-reflection were rated as the most useful for improving teaching skills.

					Self-reflection through video recordings allowed PSTs to better understand their own teaching practices.
15	Annur	2021	Indonesia	Qualitative	Technical difficulties such as poor internet connectivity and limited data quotas. Lack of real-time interaction and difficulties in controlling the class environment during online sessions. Students found it hard to receive clear feedback from lecturers due to the virtual format. Despite technical challenges, students showed progress in adapting to e-learning tools and developing their teaching strategies.
16	Ledger & Fischetti	2020	Australia	Mixed method	Variability in the experiences offered in real-life classroom contexts. Difficulties in providing consistent, high-quality feedback to pre-service teachers. Technical and practical issues related to the use of virtual reality simulation. Technology offered a controlled learning environment for practice and feedback. The simulation enabled flexible, safe rehearsals without the risks associated with real classrooms.
17	Hama & Osam	2021	UK	Qualitative	Outdated microteaching methods not accounting for digital advancements. Resistance from teachers to adopt new technologies. Integration of digital tools (like online platforms) fostered greater engagement from students. Blended learning models enhanced learning experiences.

Theme 1: Professional Competence Development

The review found that microteaching has been reported to enhance pedagogical skills and self-efficacy among preservice teachers.

Core Teaching Skills: Five studies included in the review reported that microteaching enhanced the lesson planning, teaching, or instruction and classroom management (Mukuka & Alex, 2024; Ma, 2024; d'Alessio, 2018; Bozkurt & Koyunkaya, 2020; Göçer, 2016). According to the research done by Makuka and Alex (2024), the ability to practice continuously in microteaching improves the lesson sequences and pacing of instruction. Moreover, Ma (2024) found that the feedback provided by both the supervisors and the peers helps the trainees to develop questioning techniques and engage the students. In addition, d'Alessio (2018) and Bozkurt and Koyunkaya (2020) observed improvements in time management and clarity of explanations, particularly for science and mathematics lessons. It is, however,

important to note that limited opportunities to practice in real classrooms mean that skills are not transferred fully. Thus, it is important to integrate microteaching into actual classroom settings and increase supervision in bridging theory-practice gaps.

Addressing Student Learning Needs: Preservice teachers across the included studies reported that the methods helped them not only identify but also correct students' misconceptions. As it has been clarified by Baştürk et al. (2023), peer conversations and problem-solving tasks in groups are effective in dealing with learning problems. However, Bozkurt and Koyunkaya (2020) reported that the re-occurrence of microteaching enabled the candidates to predict what errors the students would make and tailor their instructional plans at the same time. However, it is noted that it is difficult to diagnose misconceptions in real-time, especially regarding complex subjects. Thus, it is important to provide

targeted training on diagnostic skills and scenario-based practice.

Content Knowledge and Pedagogical Mastery:

The integration of content knowledge is facilitated by microteaching. Açıkgül (2020) stated that TPACK-based game activities improved preservice teachers' confidence in integrating technology, pedagogy, and content. While d'Alessio (2018) highlighted that mastery of subject content was a strong predictor of increased self-efficacy. In addition, Bozkurt and Koyunkaya (2020) underscored that practising repeatedly also allowed preservice teachers to explore complex mathematical concepts within a low-risk space. However, insufficient background and uneven content integration were an obstacle to some teachers. Therefore, it is important to make sure that there is a guided scaffolding in the microteaching programs to reinforce the content mastery as well as pedagogical skills.

Self-Efficacy and Confidence: Multiple studies reported that confidence improved with repeated practice, feedback, and reflection (d'Alessio, 2018; Mukuka & Alex, 2024). Self-Efficacy and Confidence: Several studies stated that confidence increased with practice, feedback, and reflection (d'Alessio, 2018; Mukuka & Alex, 2024). Nevertheless, Fischetti et al. (2021) discovered that vicarious experiences and peer feedback were the leading factors that contributed to more self-efficacy. The trainees said that they were more ready to face the challenges of the real classrooms. Besides, it is crucial to mention that the first anxiety and fear of negative evaluation tended to decrease the practice sessions (Göçer, 2016). Therefore, the use of structured, supportive microteaching cycles and safe practice environments (simulations or video-based sessions) can reduce fear and build confidence.

Theme 2: Reflective Practice and Feedback Processes

In this narrative review, reflection and feedback were identified as being important in learning using microteaching.

Video-Based Reflection: It is important to note that video recording enables trainees not only to observe but also to critique their teaching methods. Defis et al. (2022) noted that reviewing recorded lessons allowed preservice teachers to identify instruction errors and non-verbal cues. While Karakas and Yükselir (2020) reported that video discussions help improve critical thinking and self-evaluation. Moreover, Marlina et al. (2023) highlighted that repeated video analysis enabled progressive improvement in the clarity and delivery of lessons. One common challenge noted was anxiety and discomfort in watching oneself on video. Thus, it is important to introduce a supportive

framework for video reflection and combine it with peer discussion.

Peer Feedback and Mentoring: The findings of this review noted that peer mentoring encouraged collaborative learning and shared reflection. The study by Gürsoy (2023) noted that the peer feedback cycle enhances reflective skills; however, the study by Tutyandari et al. (2022) stated that students tend to benefit from alternative teaching approaches. This was further reaffirmed by Erdemir and Yeşilçınar (2021), who found that peer feedback complemented teacher feedback in identifying teaching gaps. As peer feedback can be superficial and anxiety-inducing (Erdemir & Yeşilçınar, 2021; Karakaş & Yükselir, 2020). Thus, the training of preservice teachers should focus on giving constructive feedback and promoting non-evaluative feedback environments.

Assessment Approach: an integral part of reflective learning is formative, self, and peer assessment. According to Ma (2024), all three components of reflective learning should be incorporated to improve skill development. Moreover, d'Alessio (2018) highlighted that self-assessment helps build confidence. Thus, to maximise growth, it is important to have a combination of teacher, peer, and self-assessment, and reflective discussions.

Theme 3: Technology-Enhanced Microteaching

Across all the reviewed studies in this narrative review, digital tools were not used only to sustain instructional activities but also to improve pedagogical experimentation, self-evaluation, and professional skills acquisition. The reviewed studies also noted that the integration of online platforms, simulation technologies, and digital pedagogical frameworks reshapes how preservice teachers engage with practice-based learning.

Video and Online Platforms: During the COVID-19 pandemic, the adoption of digital platforms for microteaching delivery was accelerated. The four reviewed studies reported that teacher preparation continuity was enhanced using platforms such as Zoom, Google Meet, and YouTube because teaching was interrupted due to the pandemic (Annur, 2021; Defis et al., 2022). Such sites helped the preservice educators to teach as well as record lessons to be analysed later. However, it should be mentioned that the significance of video-recorded sessions in enhancing reflective practice can be explained by the fact that the trainees could re-experience the instruction delivery, including voice modulation, explanation comprehensibility, and non-verbal communication (Defis et al., 2022; Karakas & Yükselir, 2020). Asynchronous reflection helped to identify pedagogical gaps that cannot be identified during live teaching. Nonetheless, Annur (2021)

pointed out that the digital delivery, similar to the unstable internet, poor digital devices, and the unawareness of online technology, leads to structural inequalities and technical restrictions.

Simulation and Immersive Learning: Mixed-Reality Learning Environments (MRLEs) and immersive Virtual Reality (iVR) platforms were found to be progressive ways of expanding traditional microteaching (Fischetti et al., 2021; Ledger & Fischetti, 2020; Hama & Osam, 2021). These simulations provided semi-real teaching conditions where preservice teachers were able to engage with simulated learners and practice teaching situations. The microteaching in simulation provided a psychologically secure experimental setup. The trainees could learn to manage the classroom, address false beliefs of students, and vary the pace of their teaching without the stakes of failure in the real classroom (Hama & Osam, 2021). Thus, simulation proved to be the best when incorporated as a preparatory stage before the actual classroom exposure and not as an alternative to practicum experiences.

Digital Challenges and Adaptation: Technological advancements offered more opportunities but also have limitations. Barriers were usually linked to resistance to digital innovation, institutional funding, and unequal access to devices (Mukuka & Alex, 2024; Marlina et al., 2023). In other settings, the preservice teachers were found to be uncomfortable or reluctant when they were expected to incorporate unknown digital tools in their classes. It is important to modernise microteaching frameworks to make a systematic introduction of digital tools, which would allow continuous professional development, and put in place technical support mechanisms to guarantee its sustainability in the long term.

Theme 4: Psychological and Contextual Constraints

Emotional Factors: It was reported in some of the reviewed studies that anxiety, nervousness, and fear of criticism were common among the preservice teachers during the microteaching lessons (Mukuka & Alex, 2024; Göçer, 2016; d'Alessio, 2018; Ledger & Fischetti, 2020). The observation by peers and supervisors tended to increase the pressure imposed on performance, especially when it comes to first-hand teaching. The expectation of assessment minimised teaching spontaneity and trial. Nevertheless, the results indicate that anxiety was decreased due to repeated microteaching cycles, active feedback, and favourable peer conditions, so the teaching confidence increased over time (d'Alessio, 2018; Ledger & Fischetti, 2020). Therefore, emotional discomfort does not seem to be

an enduring obstacle, if the creation of psychological safety is deliberate.

Time and Curriculum Constraints: Structural constraints in the teacher education programme had a very strong impact on the effectiveness of microteaching. The excessive workload and insufficient time to practice and reflect were common in overloaded curricula and fewer hours of instruction (Ma, 2024; Fischetti et al., 2021). Microteaching is also a cyclical process of planning, teaching, getting feedback, revising, and re-teaching. The reflective part was undermined when programmes condensed these phases under time constraints, hence restricting long-term skill consolidation. Lack of time to discuss and engage in critical dialogue decreased the transformative potential of the feedback processes. Thus, microteaching should be added to a course framework, and specific reflection and revision time should also be provided to support developmental outcomes.

Resource and Supervision Limitations: Availability of qualified supervisors, instructional materials, and technological resources had a substantial influence on the quality of the programmes (Mukuka & Alex, 2024; Ledger & Fischetti, 2020). Numerous students in groups and a few mentors tended to provide brief or general feedback and therefore missed the opportunity to refine specific skills. Supervision of high quality was always linked to greater pedagogical development. Where the feedback was elaborate, systematic, and continuous, the preservice teachers showed improved lesson organisation, classroom control, and contemplative skill (Ledger & Fischetti, 2020). Ensuring more supervisor availability, putting in resources to teach, and having very manageable student-to-mentor ratios are paramount in maximising the effectiveness of microteaching.

Discussion

The findings from this review noted that microteaching helps strengthen instructional competencies like lesson planning, classroom management, and lesson delivery. This is similar to Ramaila (2026), who stated that teachers' education needs to prioritise structured pedagogical training in addressing the growing global demand for competent teachers. Therefore, it is crucial to mention that microteaching offers a scalable method in areas where there is a teacher shortage and where skill acquisition prior to exposure to the practicum is utilised. Moreover, Mandyata et al. (2023) emphasised that proper teacher preparation requires purposeful practice experiences, which facilitate a translation of the theory taught in the classroom into

its realities. Additionally, the results of the review in the area of self-efficacy are compatible with Wei et al. (2025), who have found that structured rehearsal, along with guided feedback, can considerably improve the professional confidence of teachers. Microteaching serves not only as a skills-training mechanism but also as a psychological preparation tool that can condition one to be ready to face real challenges in the classroom.

Reflection and feedback became the most prominent means through which microteaching can have its developmental effect. Video-based review, peer critique, and self-assessment are all methods of fostering metacognitive awareness and professional development. This affirms the Riley et al. (2025) who argue that adaptive teaching expertise in modern education systems is based on reflective practice. These findings are also consistent with Mukomana et al. (2021), who found that structured feedback cycles contribute significantly to the responsiveness of instruction and professional judgement. The review suggests that in cases where the feedback is iterative, multi-sourced (peer, supervisor, self), and embedded in conducive environments, the feedback enhances deep pedagogical thought as opposed to only correcting the superficial errors. Nonetheless, shallow peer feedback and anxiety when watching videos indicate the need to train preservice teachers on productive critique. Thus, reflection is not automatic, and it needs scaffolding, modelling, and institutional support.

Technology-enhanced microteaching is a development of practice-based traditional models. The review demonstrates that online platforms, simulation environments, and digital pedagogical frameworks widen the possibilities of experimentation, flexibility, and asynchronous reflection. Similar to the previous study by Riley et al. (2025), where it was stated that digital fluency cannot be separated from professional teaching competence. Wei et al. (2025) believe that performance anxiety can be minimised using immersive and simulation-based environments, and instructional adaptability can be reinforced. Thus, this review's findings show that MRLEs and iVR platforms provide risk-taking and pedagogical refinement in psychologically safe environments. Nonetheless, in line with the article by Mandyata et al. (2023), technological integration is not balanced across settings. The transformative potential of technology-enhanced micro-teaching is limited by structural inequalities, including unstable access to the internet, a lack of sufficient funds, and a lack of digital literacy. Therefore, although digital tools open

opportunities, they can also reproduce disparities in the case of the lack of infrastructural support.

Another point that is highlighted by the review is that the effectiveness of microteaching is defined by the emotional and institutional contexts. During the early teaching attempts, anxiety, the fear of evaluation, and performance pressure were prevalent. However, anxiety gradually changed into confidence after repeated exposure and positive feedback. This is in line with Mukomana et al. (2021), who discovered that structured mentoring diminishes instructional insecurity over time. Others that affect results are structural limitations, such as congested curricula and supervision. As Ramaila (2026) points out, the key to enhancing teacher schooling is systematic investment, as opposed to pedagogical innovation. This stance is supported by the results of the review: the lack of time to reflect, not exceeding optimal student-mentor ratios, and resources make the developmental cycle of microteaching short. Likewise, Wei et al. (2025) contend that professional development is optimised when the rehearsal opportunities are institutionally supported and iterative. Microteaching, therefore, cannot operate effectively as an isolated strategy; it must be embedded within coherent programme design.

Limitation of the Review

This narrative review has a number of limitations, even though it contains some valuable information. First, the review included 16 studies, which might be insufficient to represent different teacher education systems. Even though the studies involved several geographical settings, the differences in institutional settings, technological facilities, and models of supervision have the potential to influence the overall applicability of the results. Second, due to it being a narrative review, not a systematic review or meta-analysis, the synthesis process was based on a thematic interpretation, not statistical aggregation. Although the given method permits serious conceptual research, it can also bring subjective interpretation when developing a theme. Future studies might take a systematic or meta-analytic method to enhance the generalisation of empirical evidence. Third, most of the used studies were based on self-reported perceptions of preservice teachers. Even though these insights are useful in the context of experiential development, they might not be as descriptive of long-term instructional effects in actual classroom contexts. Stronger evidence would be found in longitudinal studies about the transferability of microteaching skills to professional practice.

Conclusion

This narrative review shows that microteaching is a driving and developing part of teacher education. The

16 studies in the reviewed overview showed that microteaching was linked to better professional competence, greater reflective practice, heightened self-efficacy, and increased digital pedagogic ability. Meanwhile, it is moderated by psychological elements like the state of anxiety, structural constraints such as time, supervision, and availability of resources. The results indicate that microteaching has the greatest influence when it is applied as a systematic, iterative, and supported process involving the combination of reflection, feedback, and real practice experience. Technology-based methods also increase their potential, but fair access and institutional preparedness are of key concern. Thus, microteaching cannot be considered a separate practice but a part of coherent teacher education programmes.

Ethical clearance

This study utilized only findings from published articles and did not include primary data collection, human participants, or identifiable personal information. Therefore, the study did not require ethical approval. All the included studies were assumed to have obtained ethical approval, as stated in the various publications.

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Conflict of interest

The authors declare that there were no commercial or financial relationships that can be seen as a potential conflict of interest.

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