Reflection Practice in Microteaching: Evidence from Prospective Science Teachers

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Abstract: Professional education courses such as microteaching are currently placing greater emphasis on reflective activities, particularly in the context of the new paradigm curriculum in Indonesia. The aim of this study is to investigate the ability of prospective teachers to reflect on their microteaching experiences, the common aspects discussed during reflection activities, and the peer feedback provided regarding lesson plan design and implementation within a microteaching setting. The study employs a sequential explanatory mixed-methods design and spans 13 weeks with 122 teacher candidates who participated in a flipped learning setting. Flipped learning was chosen as the instructional model to potentially enhance the level of collaboration in learning activities. Results revealed that flipped learning can indeed foster a collaborative environment among prospective teachers. Further, the most commonly identified aspect appearing in the reflections was the modeling of teaching techniques, outweighing other aspects such as classroom management, learning tools, lesson duration, pedagogical strategies, and student learning processes. These findings offer valuable insights for prospective teachers, particularly regarding feedback and reinforcement practices in microteaching. Moreover, this research suggests that flipped learning could be a promising approach to cultivating these practices. Future studies are recommended to further investigate the potential of different instructional models in enhancing reflection and collaboration among teacher candidates.

INTRODUCTION

The enhancement of teacher professionalism is pivotal to global endeavors aimed at transforming and reinvigorating education (Jovanova-Mitkovska, 2010; Sun & Zhang, 2022). Notably, nations lacking robust teacher-centric policies risk compromising their education quality (Hennessy et al., 2022). Presently, Indonesia has implemented the Education Unit Operational Curriculum (KOSP), alternatively referred to as the Independent Curriculum. This curriculum, with a strong focus on instilling Pancasila in students, is deployed across all education levels from the 2022/2023 academic year, ranging from kindergarten to high school (Baharuddin, 2021). Simultaneously, at the university level, the curriculum is structured to include general courses, expertise courses, extension and deepening courses, free choice courses, and professional courses, embedding reflective practices (Direktorat
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However, studies on reflective practice in education are scarce and fragmented. Few studies have explored the integration of reflective practice in additional ability courses and expertise courses until 2021 (Habók & Oo, 2021; Makinster et al., 2006; Panjaitan, 2016; Powell, 1989; Rivera-Gutierrez et al., 2014; Sumartini, 2018; Gutierrez-Estevez et al., 2019; Kuh, 2016; Kumari & Naik, 2016; Murray, 2015; Ratminingsih et al., 2017; Rivera-Gutierrez et al., 2014). Further, there is a growing concern over the insufficient provision of reflective values to prospective teachers during their higher education (Karlström & Hamza, 2019; Ledger & Fischetti, 2020; Walshe & Driver, 2019). The capability to reflect is considered a crucial skill for teachers to meet the varied demands and adapt to changes in teaching assignments (Karlström & Hamza, 2019). However, the practical implementation of reflective practices in microteaching at both school and higher education levels is sub-optimal (Erdemir & Yeşilçınar, 2021). Moreover, the utilization of reflection in professional courses like microteaching, which lay the foundation for teacher candidates, is still rare.

Notwithstanding, it is believed that consistent and continuous reflections can enhance teacher professionalism (Ayoobiyan & Rashidi, 2021; Karlsson, 2020). Reflection, in an educational context, is related to the assessment or feedback after participating in the teaching and learning process over a specific period. It allows teachers to comprehensively review the teaching-learning process, enabling them to identify their strengths, weaknesses, and solutions to the challenges encountered during teaching. Despite the consensus on the significant potential of reflection in bolstering teachers' professionalism, research exploring how prospective teachers apply reflection to strengthen the teaching-learning process is lacking.

Reflective practice studies conducted globally, including in countries like South Africa, the United States, Hungary, Iran, Nigeria, Pakistan, Turkey, and Spain, have reported the imperative of reflection not merely as a tool to identify shortcomings at the end of a session but also as a means to enhance the quality of teaching post-reflection (Taole, 2012; Gore & Zeichner, 1991; Habók & Oo, 2021; Fat’hi & Behzadpour, 2011; Ogonor & Badmus, 2006; Naseer, 2020; Burhan-Horasanlı & Ortaçtepe, 2016; Romeu et al., 2016). Reflection, as part of a lesson study cycle, allows reviewing what transpired in a lesson, maximizing the potential of each reflective practitioner and facilitating continuous improvement in the subsequent cycles.

Reflective abilities equip prospective teachers to face diverse demands and changes in teaching assignments (Burhan-Horasanlı & Ortaçtepe, 2016; Romeu et al., 2016). Reflective practices within the lesson study framework can help prospective teachers to re-interpret their structured teaching and learning experiences, thereby enhancing their classroom teaching skills (Fernández, 2005; Christie et al., 2015). Moreover, reflective practitioners are open, analytical, and often utilize others' experiences to boost their professionalism. However, the focus on cultivating the ability to reflect is often overshadowed by the mastery of pedagogy, technology, and content (Marlina et al., 2022). As a result, research reports discussing the competency of prospective teachers in providing reinforcement and feedback, especially on the design and implementation of lesson plans in microteaching courses, are scant.

Identifying this research gap, the current study focuses on the reflective abilities of prospective teachers and the perspectives of peer teacher candidates on
prospective teachers' teaching competency in microteaching courses. Therefore, the research questions for this study are: (1) How proficient are prospective teachers in reflecting on microteaching? (2) What aspects are commonly discussed during reflection activities? (3) What is the nature of feedback provided by peer teacher candidates on the design and implementation of lesson plans in microteaching courses?

This study aims to fill the gap in the literature regarding reflective practices, making it a novel contribution to the field. By understanding and improving reflective practices, we can better prepare prospective teachers to meet the challenges of the ever-changing educational landscape.

**METHOD**

This study employed a mixed-methods approach utilizing a sequential explanatory design (Cohen et al., 2018). The data collection was carried out in two phases, beginning with qualitative data, which was subsequently enriched and clarified through quantitative data. This approach was adopted in response to the study's unique modification of the microteaching process. This modification accentuated the principles of collaboration and reflection and incorporated varying modes of implementation, including offline, online, and a blended approach (flipped learning).

The participant selection was done through a convenience sampling method (Creswell & Plano Clark, 2012). The participants comprised prospective teachers enrolled in their sixth semester during the 2021/2022 academic year, undertaking microteaching lectures. These individuals, aged between 18 to 24 years, were all from the Biology Education Study Program at Tanjungpura University, Indonesia, with a total sample size of 122.

Two main instruments were utilized for data collection in this study: an evaluation instrument and a reflection sheet. The evaluation instrument, adapted from Eicher (2021), comprised a questionnaire with 24 statements, designed to gauge prospective teachers' reflective abilities in microteaching courses. The reflection sheet was an open-ended observation sheet, modified from Arsal (2014), consisting of 15 statements. This instrument helped to address the second research question, targeting the aspects discussed during reflection activities, and feedback from prospective teachers concerning the design and implementation of lesson plans in the classroom.

Before deploying these instruments, their validity and reliability were tested rigorously. The validity assessment was based on the evaluation by five expert lecturers and was analyzed using Aiken's V formula. The results of this assessment confirmed that the items were appropriate and relevant to the indicators. Subsequently, the reliability of the instruments was tested using the Cronbach's alpha method. This test involved 52 students who did not participate in the study. The outcomes of this testing validated the reliability of all response statement items in the instruments.

The process of using these instruments - evaluation and reflection sheets - within the context of the microteaching course, is visualized in Figure 1. This figure provides a comprehensive overview of the methodology adopted for this study.
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Figure 1. Evaluation and Reflection Process in Microteaching.

The research procedure comprised seven stages, as depicted in Figure 2. Initially, the researcher provided a designated folder for the collection of lesson plans, each independently designed by the prospective teachers. Within their respective groups, all prospective teachers offered input and suggestions on their peers' lesson plans. Following the necessary corrections made in accordance with the received feedback, the revised lesson plans were then compiled back into the shared drive folder.

Subsequently, each prospective teacher delivered a presentation simulating the learning process, which was intended to be executed online. Each learning design simulation spanned approximately 20 to 45 minutes, divided into distinct sections. This included a 10-minute activity simulation, followed by another 10 minutes dedicated to receiving input and suggestions from both peers and 10 primary school students. The subsequent 15 minutes were allocated for responses from the preservice teacher implementing the lesson plan in the classroom.

The entire research procedure is illustrated in Figure 2, providing a detailed overview of the methodological progression.

Figure 2. Research Stages.

This research spanned over a period of 13 weeks, from February 16 to May 11, 2022. To initiate the process, the supervising lecturer distributed a shared drive link to all prospective teachers enrolled in the microteaching course. The shared drive encompassed video recordings of microteaching materials, observation tools, and sample lesson plans, aimed to aid prospective teachers in designing their own lesson plans.

Meetings were conducted in various modes, including online and a combination of online and offline (flipped learning).

The online mode was primarily used to gather suggestions and feedback on prepared lesson plans and to collect revised lesson plans from each prospective teacher across both Cycle I and Cycle II. Conversely, the combined offline and online mode (flipped learning)
was employed for simulation and implementation activities (open class). Five days prior, the prospective teachers' preferences for online or offline attendance were identified. Prospective teachers acting as observers were required to participate in offline learning, while those partaking online served as students.

The open class activity was conducted at Universitas Tanjungpura, Pontianak, West Kalimantan, attended by prospective teachers, model teachers, and supervisors. The learning session extended for 100 minutes as per the designed lesson plan. Following the session, a reflection phase commenced, initiating with the model teacher's response post open-class implementation. Subsequently, explanations and comments from the observer were provided in relation to the students' learning process.

Regarding the first research question, data on the prospective teachers' ability to reflect on microteaching courses were analyzed qualitatively. The purpose of this qualitative analysis was to identify improvements in the reflection ability of prospective teachers across Cycles I and II. These data served as the foundation for addressing the second research question concerning the tendency of prospective teachers to reflect.

The instrument employed was a reflection sheet, analyzed by 122 prospective teachers to identify the emergence of basic teaching skills in Cycles I and II. Two categories, "Good (TB)" and "Needs Development (PD)" were used for classification. If the cycle exceeded three-fourths of the respondent count in identifying other basic skills, the cycle could progress (Fujii, 2019). Therefore, if 80 or more teacher candidates identified the emergence of each basic teaching skill, they were categorized under TB; if fewer than 80 teacher candidates identified the emergence of each basic teaching skill, they were categorized under PD.

RESULT AND DISCUSSION

Ability of Prospective Teachers to Reflect on Microteaching

Microteaching aims to identify the competencies of prospective teachers in conducting teaching practices (Ning-Yu & Zhe, 2016). The evaluation focuses on measuring the attainment of learning objectives and the implementation of learning procedures. Besides evaluation, the improvement of teaching practices can be achieved by emphasizing strengths that need to be developed for subsequent presentations. Evaluations can also involve identifying weaknesses that need to be addressed in the next stage (Fernández, 2005; Marlina, 2020). Apart from the supervisory lecturer's evaluation, it is deemed necessary for prospective teachers to be evaluated by their peers immediately after classroom teaching practices. This procedure aims to enhance their teaching competence for future practices (Erdemir & Yeşilçınar, 2021; Marlina et al., 2022).

In the first cycle, approximately 59.02% (or 72 teacher candidates) provided reflective statements based on their observations. However, these statements were primarily evaluative. Some participants had not completed their lesson plans independently and, therefore, were unable to provide reflections. The main challenges encountered by prospective teachers in lesson planning involved determining the appropriate strategies and approaches for the teaching material. Despite these challenges, model teachers managed to engage other prospective teachers in providing opinions, feedback, and suggestions related to student learning activities. The supervisory lecturer facilitated prospective teachers' reflective writing through a shared drive, allowing them to provide feedback and suggestions on their peers' lesson plans. The written reflections moved beyond grammar and formatting errors, focusing instead on aspects of the learning process, methods,
and strategies for facilitating active learning in the classroom. Figure 3 provides an example of a prospective teacher's written reflection.

Receiving extensive feedback and suggestions from their peers led to significant improvements in the lesson plan design for subsequent cycles. During the simulation stage, prospective teachers acting as observers showcased their ability to highlight positive elements that could serve as lessons for enhancing their future learning processes. For example, they proposed a broader variety of learning models such as project-based learning, discovery learning, and inquiry. The instruments for measuring learning outcomes also diversified, including quizzes, charades, and matching words. Moreover, observers gleaned valuable lessons from the collaborative activities of students in the observed groups, such as shared responsibility, substantive decision-making, and interdependent working. Other prospective teachers noted that observing students' group activities allowed them to identify various interpretations of collaboration. They analyzed that effective collaboration required students to engage in problem-solving and product creation.

In each open class throughout the cycles, prospective teachers actively responded to their peers' lesson plans, focusing on three critical aspects: content, process, and skills. Reflection on content pertained to the prospective teachers' understanding of the material and its connections to the environment. Process reflection meant planning actions and determining the roles and responsibilities required for the education process. Reflections on skills or competencies aimed to prepare prospective teachers to become professional educators.

Figure 3. Input and Suggestions for Prospective Teachers on the Joint Drive Provided in Cycles I and II.

In the second cycle, all 122 prospective teachers actively reflected on the implementation of open classes, indicating an enhancement in their reflective abilities compared to the first cycle. Learning in the second cycle effectively engaged all prospective teachers in both online and offline modes. By the end of the lesson, all prospective teachers were able to better articulate their reflections. They were also capable of analyzing effective practices that could be
adopted in their future teaching, such as the use of appropriate learning methods, assessment tools, and student grouping strategies. The reflections written by prospective teachers extended beyond their current experiences to future implications. Overall, the reflections improved in quality and conveyed positive values. The second cycle’s learning session encouraged students to analyze the cleanliness of reproductive organs, a sensitive topic that required careful handling. The aim was to imbue positive values and raise awareness about the subject, which could serve as a reference for fostering personal hygiene awareness among students. About 92% of the reflections written by prospective teachers directly related to the learning topic and the prospective teachers’ present and future lives.

As evidenced by the above explanation, the quantity and quality of reflections made by prospective teachers on learning have improved. The reflections written by prospective teachers at the end of the lecture were generally superior to those written on lesson plans in shared drives. Assignments on reflective writing encouraged students to glean insights from observed learning, better preparing them for teaching exercises. The application of reflective learning strategies in learning study cycles promoted mutual learning among prospective teachers and supervisors. Learning was not solely directed towards mastering the material, but also towards analyzing and reflecting on particular topics or problems collaboratively.

The learning strategies applied in each learning study cycle are underpinned by constructivist theory. This theory posits that individuals continuously seek models and build knowledge based on experience. As learners encounter new experiences, they continuously update their knowledge and construct their interpretations of reality (Adams, 2006; Alismaiel et al., 2022; Marlina, 2020).

The implemented learning encourages prospective teachers to construct knowledge and derive meaning from it for a better present and future. Knowledge that prospective teachers construct themselves is more meaningful to them. The blended online-offline strategy (flipped learning) proved successful in cultivating prospective teachers’ reflective abilities on an ongoing basis.

Aspects in Reflection Activities
Reflection activities are conducted at the conclusion of each lesson, initiated by the model teacher elaborating on the dynamics and execution of the learning process. This integral phase involves dissecting the journey of teaching and learning, assessing the effectiveness of the approach adopted, and identifying areas for improvement.

Surprisingly, the model teacher’s self-reflection analysis following each performance revealed almost no negative perceptions from the prospective teachers regarding their self-assessments. This interesting finding echoes the results of previous studies conducted by Sutrisno et al. in 2020 and Syihabuddin & Khalid in 2022. These studies highlight that positive perceptions about one’s teaching performance can be easily nurtured through the practice of self-reflection. This underscores the importance of reflective practices in cultivating a positive self-view, fostering self-confidence, and driving professional growth in the teaching field.

During the reflection period, prospective teachers were given the autonomy to independently identify and evaluate notable aspects of the teaching-learning process. These aspects encompassed a wide range of elements such as classroom management, the effectiveness of learning tools used, the appropriateness of the learning duration, the application of various learning models or strategies, the teaching methodologies
employed, and the different student learning methods.

The reflection process allowed prospective teachers to deepen their understanding of these various facets and their interconnectedness, enabling them to draw insights on what worked well and what could be further optimized. These insights have been systematically compiled and presented in Table 1, offering a clear snapshot of the prevalent themes in prospective teachers' reflections. It not only serves as a roadmap for individual growth but also as a valuable resource for shared learning among the teaching community.

Table 1. Aspects Highlighted in Reflection Activities.

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects of Reflection</th>
<th>Cycle I</th>
<th>Cycle II</th>
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</table>
| 1  | Learning Model/Strategy | 1. The teacher is using an appropriate model.  
2. Collaboration between students and teachers is not clearly visible.  
3. Student presentations are not well recognized by the teacher.  
4. Some students are lagging behind in writing conclusions. | 1. The chosen learning strategy is appropriate.  
2. The discussion method should be carried out after the explanation of the material.  
3. The way students explain the material enhances student understanding.  
4. Student discussions have been effective.  
5. The dominance of students in each group is still evident, and there is still a division of work assignments. |
| 2  | Student Learning Activities | 1. Students are still copying material from PowerPoint.  
2. Students complete assignments or worksheets according to the instructions of one of their group friends.  
3. Students are not accustomed to having discussions.  
4. Student presentations are still lacking in depth. | 1. The media used by the teacher enhances students' enthusiasm for learning.  
2. Students have a habit of nominating high-achieving students for presentations in front of the class.  
3. Students receive a lot of feedback and suggestions from the teacher on how to create good and accurate summaries.  
4. Students are still disconcerted when they realize they are being observed, which disrupts their concentration for discussions when they are trying to answer worksheets. |
| 3  | Model Teacher Activities | 1. The teacher has managed the students well.  
2. The teacher forgot to communicate the learning objectives.  
3. The blackboard is not optimally utilized by the teacher.  
4. The teacher only focuses on the blackboard.  
5. The teacher does not observe and pay attention to the students who are in the corner.  
6. The teacher doesn't know the names of some students. | 1. The teacher is very friendly, which increases students' interest in learning.  
2. The teacher pays attention to all students and addresses those who have issues.  
3. The teacher does not permit students to ask questions.  
4. The teacher tends to visit each group to work on assignments.  
5. The teacher allows students to choose one of their group friends to present in front of the class. |
| 4  | Instructional Tool | 1. The worksheet is only provided in one copy, making it very difficult to discuss.  
2. The material being taught is not included in the teaching device.  
3. The media and materials are appropriate and support learning outcomes. | 1. The device is complete.  
2. It would be better if the teaching material was presented in the form of a mind map.  
3. On the device, it is not necessary to write down all the material being taught; the title and subtitle would suffice.  
4. The device is complete as it has been equipped with video links and sources of media used. |
Table 1 presents the results of a study identifying the dominant aspects arising during reflection activities of prospective teachers. The most prominent aspect appears to be the way teachers present their models, compared to other elements such as classroom management, learning tools, duration of learning, learning models/strategies, and students' learning methods. These findings largely support the research of Han & Zhang (Ning-Yu & Zhe, 2016), suggesting that reflection processes are often structured, emphasizing the teaching method.

The aspects identified from each teaching demonstration are the outcomes of observer motivation or fellow teacher candidates, intended to improve each teaching demonstration. Through self-reflection, prospective teachers familiarize themselves with their competencies, including their strengths and weaknesses in teaching practice (Atherton, 2022). Unpressurized self-assessment embodies a critical attitude essential for developing a sense of responsibility and continuously forming a professional identity.

The study also identified self-reflection as a contributing factor to the autonomy of prospective teachers. This autonomy assists in organizing their learning, including later application strategies and approaches. In line with a study by Nugroho et al., (2022), which found reflection more beneficial than peer feedback, teacher candidates may express disinterest in the reflections of fellow candidates due to perceived insincerity and lack of professionalism. They are also unfamiliar with a new paradigm of learning that promotes active expression of opinions, interaction and collaboration, and fostering teamwork among candidates.

The open-class debriefing by the model teacher is the principal method of evaluating and reviewing the learning implementation, prioritizing students' learning over teaching methods. The teaching objective shifts to a focus on...
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how students learn, thereby mitigating intimidation in reflection activities.

Social relationships also influence the depth of feedback and suggestions among prospective teachers. The emotional bond between candidates affects the breadth of assessment in every communicated aspect. Feedback and suggestions from peers during microteaching activities are highly anticipated by prospective teachers post-practice. The everyday language used by candidates when providing feedback creates a comfortable atmosphere for the model teacher, enabling them to make improvements according to submitted suggestions. This study also found that peers were viewed as 'trustworthy', similar to the findings of Erdemir & Yeşilçınar (2021) and Sinkinson (2011). However, written feedback from known peers tends to be subjective, leading to less objective assessments.

Candidates have low trust in direct peer feedback due to concerns about honesty, leading to anonymous written feedback to encourage sharing of thoughts and critical reflection. Interviews with four prospective teachers revealed that they were sensitive to negative comments, causing a preference for written feedback shared digitally rather than direct feedback during simulation debriefs. However, feedback from other groups or different supervisors tended to be less critical.

The study also found that prospective teachers were less efficient in providing feedback, attributable to their traditional academic background. They are unaccustomed to reflective processes, knowledge collaboration, and sharing experiences, causing a lack of responsiveness. Consequently, prospective teachers should be trained to develop reflective skills (Hall & Zierler, 2015; Merriam, 2004; Noy et al., 2017; Shanmugavelu et al., 2020).

By employing blended learning methods, less confident prospective teachers can provide more critical feedback (Marlina & Hamdani, 2023). This study recommends a combined offline and online approach to microteaching, fostering competency and collaboration among prospective teachers. They should act not only as observers but also as students, building attitudes of responsibility and professionalism.

Despite positive impacts from peers on developing teaching skills, feedback from supervisors is highly sought after. Model teachers perceive their supervisors as competent professionals in the classroom (Aldemir et al., 2022). Model teachers are often reluctant to ask for clarification on misunderstood feedback from supervisors. Using blended learning methods, access to discussions with supervisors becomes easier, and reluctance can be overcome. However, the contribution of supervisors and social relationships between peers was not effectively analyzed in this study due to the need for different instruments. This study supports the framework of reflective practice in microteaching and suggests that teacher education programs, such as microteaching courses, should at least use a combined offline and online (flipped learning), online, or offline method alternately.

**Peer Feedback on Lesson Plan Design and Implementation**

Research on reflection indicates that peers in microteaching play a significant role in the success of model teachers when conducting open classes (Erdemir & Yeşilçınar, 2021; Karlsson, 2020). The reflection of fellow teacher candidates reportedly has a crucial impact on enhancing the performance of the model teacher in teaching, with the most substantive feedback and suggestions in microteaching activities being provided by the supervisor.

Reflections made by prospective teachers generally tend to identify the basic teaching skills of model teachers.
Each prospective teacher distinguishes the basic teaching skills of model teachers by dividing them into two categories: skills considered to be adequate and those that need further development. The question used to assess teacher candidates' responses towards model teacher competencies in teaching exercises was, "What skills are demonstrated in model teacher teaching exercises in cycles I and II?"

Figure 4 presents the number of prospective teachers (N=122) who identified the emergence of basic teaching skills in the reflection process in cycle I and cycle II. These were categorized into two groups, those deemed proficient ("have been good"/TB) and those requiring development ("need to be developed"/PD).

Concerning a research question that examines the feedback provided by fellow teacher candidates on the design and execution of lesson plans in microteaching courses, it was found that the skills most prominently pointed out by prospective teachers were those related to opening and closing lessons (Figure 4). This concurs with previous research (Erdemir & Yeşilçınar, 2021), suggesting that these skills are the easiest to identify. Competencies in beginning and concluding lessons are most sought-after by other future teachers during the reflection process, as these skills have clear criteria for their execution.

In the context of lesson initiation, these competencies encompass activities like conveying perception, learning objectives, and connecting the material to the students' contextual conditions. These are the key aspects identified by other teacher candidates, making them the most dominant competencies to receive feedback and suggestions in both cycles I and II. This aligns with previous research, indicating that the easiest to identify competencies are those concerning lesson initiation and explanation (Gliddon & J. Rosengren, 2012; Sinkinson, 2011). However, the previously reported competency of explaining, despite being...
most dominant, was not observed in this study.

According to Vygotsky's socio-cultural theory, teacher candidates who excel at initiating and concluding lessons can collectively assist peers who are less proficient in the zone of proximal development (Greene & Hogan, 2005). This enables all students to engage with one another and provide direct, critical feedback. Besides collaboration, feedback from fellow teacher candidates can also be given reflectively. Earlier studies have suggested that direct peer feedback is often not very profound (Mahvelati, 2021; Sinkinson, 2011), mainly due to the risk of causing embarrassment with deep criticism or negative remarks. In this study, modifications were introduced to allow feedback and suggestions through a shared drive, in writing rather than verbally. Additionally, meetings, typically held offline or online, were conducted using a blended approach (flipped learning). With the use of this blended mode (flipped learning), comments and suggestions on the performance of the model teacher in microteaching became more varied. The written language used was both evaluative and suggestive. It was found that feedback given in writing proved to be more constructive than verbal feedback, leading to enhanced performance of the model teacher in the subsequent presentation (cycle II).

This study was designed to describe the reflective practices of prospective teachers in teaching exercises during microteaching courses. The application of flipped learning in these courses is currently considered critical as it can help accumulate the fundamental competencies of future teachers in various modes. The course outcome requires prospective teachers to master 9 basic competencies or teaching skills in a relatively short span of time.

Innovations in microteaching lectures, implemented through flipped learning, were able to accommodate prospective teachers to become observers and offer constructive feedback and suggestions, thereby enhancing their practical teaching knowledge. This study suggests that teacher candidates can gain valuable insights by watching video recordings of teaching performances by their peers. Through viewing these recordings and the experience of being a direct observer, they can enhance their professional skills in teaching practice (Holstein et al., 2022).

Emotional closeness between fellow teacher candidates influenced the quality of feedback and reinforcement, whether written or oral. Those with emotional closeness were considered the most understanding and suitable to provide feedback and suggestions in their teaching practice. Comments from colleagues who were less emotionally close and outside the microteaching group lacked depth and needed re-evaluation, presenting a topic for further research.

Reflecting on the open class, the model teacher expressed that receiving feedback and suggestions, as well as reinforcement from fellow teacher candidates when designing lesson plans and simulations, helped clarify their teacher identity. Based on the comments of the model teacher candidates at the end of each teaching presentation, this study suggests that the simulation and lesson plan design processes carried out by flipped learning in microteaching courses need to be improved with sufficient guidance and time allocation.

The study is limited by insufficient information regarding the teacher candidates' understanding of the appropriateness of feedback and suggestions in relation to standard rubrics, compliance with set time allocation, and criteria for providing effective feedback. There is also a lack of clarity regarding the reasons for the limited depth of feedback and suggestions from fellow
teacher candidates, whether it's due to lack of emotional closeness or lack of knowledge on evaluating peers and providing feedback. Future research should ensure that each prospective teacher understands how to provide effective feedback and reinforcement. It is also necessary to analyze the social relationships between prospective teachers and the supervisor's contribution by developing a measurement instrument for social relations and the supervisor's contribution.

CONCLUSION
The findings of this study offer robust support for the Lesson Study framework in facilitating peer-to-peer feedback and reinforcement within microteaching contexts. It has been clearly demonstrated that the practice of reflection within microteaching significantly enhances professionalism, fosters collaboration among prospective teachers, and bolsters the ability to critically analyze lesson plans. These findings suggest that reflection practices in microteaching can serve as a valuable model for developing students' teaching skills. Consequently, prospective teacher education programs, including microteaching courses, could be effectively implemented in both online and offline settings. These insights further contribute to a deeper understanding among reflective practitioners regarding the optimal application of reflection, thereby forming the foundation for the development of a microteaching lecture model that aligns with the perceptions and perspectives of prospective teachers in higher education. Lastly, the results of this study could provide the groundwork for future research, such as exploring the effectiveness of reflection practices in schools or developing a reflection-centric microteaching model for prospective teachers.

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