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The implementation of metacognitive strategies in students' teaching practice in microteaching class

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ABSTRACT

Keywords:

Metacognition, Micro-teaching, Motivation, Strategies, Teaching

Microteaching classes can be a challenging area of negotiation between personal and professional values which can help and provide pre-service teachers understanding and opportunities to hone their teaching and learning process better. This research aims to identify the application of metacognitive strategies in the preparation process for teaching practice in microteaching classes, by focusing on the research questions regarding the implementation of metacognitive strategies in teaching practice exercises and students's motivation to apply metacognitive strategies in micro-teaching classes. A qualitative case study method was used to answer these two research questions by employing purposive sampling with three participants in a micro-teaching class (semester five). The study reveals that students applied metacognitive strategies of goal-setting, planning, monitoring, and evaluating strategies to enhance their teaching practices. These strategies are influenced by internal and external motivation factors, such as intuition, personal experience, and self-awareness. Nevertheless, as this study involved a small group and did not focus on real classroom practices, future studies are suggested to involve more participants and combine methods to track both the immediate and long-term effects of using metacognitive strategies in teacher training.

1. INTRODUCTION

In the education process, pre-service teachers will generally encounter teaching training courses or what is often called microteaching. Apart from that, it is also to develop the open attitude of prospective teachers in correcting their shortcomings, especially in teaching. To achieve these goals, students generally learn how to determine learning objectives, design learning, and put it into practice. This means that pre-service teachers are in a real teaching situation to hone their skills from Monday teaching by simplifying the way of teaching by linking the number of students, the scope of content, duration, and others to achieve learning objectives (Rahayu & Siregar, 2018). Therefore, in micro-teaching classes, students are trained to make plans, execute plans, and evaluate the practice of these plans. This is closely related to the concept of metacognitive strategies in learning and teaching. According to Rahayu and Siregar (2018), by implementing strategies in teaching, it will be easier for teachers to provide teaching materials to students and can improve student learning outcomes.

Microteaching can be defined as one of the teaching practice techniques (Rahayu & Siregar, 2018). In micro-teaching classes, pre-service teachers are taught to prepare to teach and practice it as if they were doing real teaching practice (Azrai et al., 2020). Pre-service teachers' practice teaching by participating in real-life circumstances which happen naturally in a range of educational practices (Ledger & Fischetti, 2020; Zulfikar et al., 2020). The many variables that affect program outcomes must be taken into account when attempting to assess how teacher professional development programs affect the professionalism of pre-service English teachers (Nurjanah et al., 2023). Microteaching itself is a training method to improve the abilities and basic skills of a teacher (Reddy, 2019).

Metacognition is the process of thinking about our thoughts. This term was first discussed by Flavell (1979) who distinguished metacognitive knowledge and metacognitive abilities. Flavell explains that "Metacognitive knowledge is knowledge about one's cognitive processes, such as one's strengths and weaknesses, and the different strategies that can be used to learn and problem-solve. Metacognitive skills are the skills that people use to manage their cognitive processes, such as planning, monitoring, and evaluating." Then, this theory was continued by Bandura (1991) that Metacognition in learning is related to self-control abilities or what is often called self-regulation. Bandura's theory of self-regulation emphasizes the importance of controlling cognitive, affective, behavioral, and motivational processes. This is important for goal achievement, stress coping, and emotional well-being. This theory is based on four principles including goal setting, self-monitoring, self-evaluation, and self-reaction. Self-efficacy, belief in one's ability to perform a particular behavior or achieve a goal, is a key component. Bandura's theory has been influential in psychology, education, and organizational behavior, influencing interventions to improve self-regulation skills (Bandura, 1991). Azizah and Nasrudin (2021) also stated that there is a significant relationship between metacognition and self-regulation. Metacognitive awareness also influences students' learning processes. As stated by Ramadhanti and Yanda (2021), one of the factors that influences and plays an important role in students' writing abilities is metacognition. Muhid et al., (2020) also researched the importance of applying metacognitive strategies in reading. Therefore, metacognition awareness and skills are not only in terms of writing and reading but can be related to teaching and learning in general.

Educators in the 21st-century era are required to have more modern and digital teaching skills without abandoning the concept of pedagogical principles in teaching. Language and technology proficiency are prerequisites for both L2 teachers and learners (Budianto et al., 2021). To meet the demands of a superior generation in the digital era, teachers in the digital era are now required to have 21st-century teaching skills (Azrai et al., 2020). Professional educational institutions for teachers are in charge of preparing instructors for digital skills, such as micro-teaching approaches. This strategy, however, has drawbacks such as classroom indoctrination and students' need for design learning skills. Therefore, people can employ metacognitive approaches to monitor, regulate, and manage their thoughts. They are useful for problem-solving and learning, but they can also be used to enhance teaching practice. Microteaching classes, which are typically 1-1.5 hours long, may not be sufficient for effectively teaching and practicing metacognitive strategies. They may also focus too much on specific teaching skills, such as questioning techniques or classroom management, which can hinder the integration of metacognitive strategies into lessons.

Many studies have discussed metacognition which is closely related to the learning and teaching process. Ramadhanti and Yanda (2021) investigated the influence of metacognitive awareness on the ability to write explanatory text. However, this research does not provide a clear

picture of the application of metacognitive strategies to train students' metacognitive skills. Azizah and Nasrudin (2021) also conducted research on metacognitive skills and self-regulated learning of prospective chemistry teachers through the application of teaching materials based on metacognitive skills. This research indicates that the level of metacognition and self-regulation skills in learning for prospective chemistry teachers is relatively high and there is a relationship between metacognition and self-regulated learning (Azizah & Nasrudin, 2021). The weakness is that Azizah and Nasrudin's study only focuses on the relationship between metacognition and self-regulation in learning and does not provide an explanation of how the relationship is. Apart from this topic, a study regarding the relationship between awareness of the use of metacognitive strategies in reading and gender was carried out by Deliany and Cahyono (2020). This research indicates that gender does not influence awareness of the use of metacognitive strategies in reading and that when awareness is high the use of metacognitive strategies is also high (Deliany & Cahyono, 2020). The results of Deliany and Cahyono's research are limited to the location where the research was conducted, which indicates that different contexts and different subject backgrounds produce different findings so that the results cannot be generalized more widely. In the practical aspect of micro-teaching classes, Rahayu and Siregar (2018) conducted a study regarding the use of students' direct and indirect teaching strategies in microteaching classes. In their study, the direct teaching strategies used by students showed that students more often used memory, cognitive, and compensatory strategies (Rahayu & Siregar, 2018). Unfortunately, the study was limited with the number of participants being only 37 people with a significant comparison of class sizes, namely 22 students and 15 people, so it is possible that the treatment received was different.

Of the many studies conducted regarding the influence and use of metacognition in the teaching and learning process in various courses, not many studies have discussed the application of metacognitive strategies in preparation for teaching practice in microteaching classes. By implementing metacognitive strategies into classroom teaching practice microteaching can provide a powerful learning experience for pre-service teachers by equipping them with the self-awareness, flexibility, and adaptability to become effective learners and educators. Therefore, this research aims to explore students' perspectives regarding the application of metacognitive strategies during the learning process to prepare the teaching practice in microteaching classes and also the impacts they feel. Therefore, researchers formulated two questions underlying this research:

1. What is the implementation of metacognitive strategies in teaching practice exercises in micro-teaching?
2. What reasons motivate students to apply metacognitive strategies in micro-teaching classes?

2. METHOD

This research explored student experiences on metacognitive strategies used by students as pre-service teachers in micro-teaching classes. Experience is a commonly used source of knowledge (Ary et al., 2009). The research employed a qualitative approach, specifically a case study method. According to Creswell and Creswell (2018), to generate interpretations, qualitative research entails in-depth encounters with participants, addressing strategic, ethical, and personal concerns, and recognizing biases, beliefs, and personal origins. A case study is an inquiry design in evaluation, involving an in-depth analysis of a case, often a program, event, or individual, over a sustained period using a variety of data collection procedures (Creswell & Creswell, 2018). Data

was collected through semi-structured interviews which questioned the form of metacognitive strategy implementation in the respondents' microteaching experiences and the background that motivated the use of the chosen strategy steps.

Purposive sampling was used to collect the participants of this study with the criteria that participants had completed the micro-teaching class and had completed teaching practice at school. These criterias were chosen to provide researchers with a clearer explanation of the implementation of metacognitive strategies giving a significant change to the PSTs to the real school practice based on the participants' experience. Purposive sampling, also known as assessment sampling, is a method used by researchers to choose a representative sample element of the population (Ary et al., 2009). The participants in this research were three students who had completed the micro-teaching class in semester five of the English education study program batch 2020 at Sanata Dharma University. When the researchers took the data, the three participants were in semester 7 of their undergraduate study. Table 1 showed the characteristics of the three participants

Table 1. Participants' characteristics

No.	Initials	Background	Semester	Gender	Microteaching	Teaching service
1	DM	English education	7	Male	✓	✓
2	FD	English education	7	Female	✓	✓
3	EW	English education	7	Male	✓	✓

They were chosen because they were considered able to provide decent and rich data and also they had their teaching practices in school. To approach the participants, the researchers first asked them about their willingness and matched the criteria to participate in this research. The experiences of the three participants were the main data in this study. Interviews were done through recorded online meetings which were then transcribed to ease the analysis process. Face-to-face, telephone, or focus group talks with unstructured, open-ended questions are used in qualitative interviews to elicit participants' ideas and opinions (Creswell & Creswell, 2018). The research instrument of this research can be seen in Table 2 about the questions raised to the interviewees.

Table 2. Research instrument

Theories	Questions
Setting Goal Setting goals, creating plans to achieve those goals, and anticipating possible challenges and setbacks are all part of the process (Schraw & Bain, 2004)	1. Every time you do teaching practice, what is the aim of practice teaching according to each of you? Do you set a specific goal ?
Metacognitive strategies Metacognitive strategies are divided into 3 general stages, namely planning, monitoring, and evaluating (Flavel, 1979; Fard, 2010; Taufik et al., 2022).	2. Do you apply particular strategies including planning, monitoring, and evaluation ? 3. What things did you do at the planning stage? 4. What did you do at the monitoring stage? 5. What things do you do at the evaluation stage? 6. Why and what is your motivation for implementing these strategies?
Additional Question	7. In your opinion, after implementing those strategies, do you feel that the initial goal was achieved? 8. Did the previous practice influence the next teaching practice? How does it affect you?

In analyzing this research data, researchers adopted the idea of the data analysis process by Creswell and Creswell (2018). The data analysis process passed five steps including data organization and preparation, understanding data tones, coding data, making data descriptions, and representing narrative descriptions. The first step was to manage and prepare data, which included interview copying, scanning materials, and regulating visual materials. The second step was to read the data to understand the meaning and tone as a whole. The third step was to encode data, which involves organizing it into the category and labeling it with terms based on the language of the participant. The fourth step was to produce descriptions and themes, which are used to design detailed descriptions for case studies, ethnography, and narrative research projects. The fifth step was to represent the description and theme in qualitative narratives, which can be done through narrative sections, discussions, visuals, numbers, or tables to understand the context and meaning of data.

3. RESULTS AND DISCUSSION

3.1. Results

In this section, the researchers elaborate on the findings obtained through interviews with three participants. This section is divided into two, namely examples of the implementation of metacognitive strategies carried out by respondents and the motivation underlying the choice of strategies used.

3.1.1. The implementation of metacognitive strategies in teaching practice exercises in micro-teaching

Based on the interview results, three respondents showed a positive response to the implementation of goal-setting, planning, monitoring, and evaluation strategies. They apply these strategies in teaching practice in microteaching classes. The following is an explanation of respondents' answers to the implementation of each strategy:

3.1.1.1. Goal setting

In implementing the planning steps, participants 1, 2, and 3 have the same strategy, namely referring to the learning objectives in the established curriculum and using them as a guide in micro-teaching practice.

[...] For example, I took the example of that time I taught greeting cards with two learning objectives at that time. [...] (Participant 2)

Participant 2 in the interview explained that 2 curricula are options to guide teaching practice, namely the 2013 Curriculum (K13) and the Merdeka Curriculum. So students can choose which level of education they want to target and what material will be taught based on the existing curriculum. Similarly, Participant 1 and 3 also expressed that they followed the formal curriculum document mandated by the government

The basis for my choice of material was books, learning books at school. So, I used it when microteaching. I also search on the internet, so I use sources on the internet to reference as examples. (Participant 2)

However, apart from following the learning objectives that are already in the curriculum, the respondents also explained that other things influenced them. The formulation of learning objectives also takes into account the needs of the students themselves so that learning materials will also be adjusted. Also, respondents utilized book sources and references from the internet in formulating learning objectives.

[...] got knowledge from the lecturers here about pedagogy, then approaches, teaching methods, both from TMCM, DLMD, introductory education, LPDA, and others that have been provided by the campus. [...] after I got new knowledge here about teaching methods, then tried other methods, for example, projects, they immediately wrote with activities, playing the activity, then they immediately practiced writing like that. (Participant 1)

Participant 1 also added that the experience factor of studying teaching or pedagogical knowledge in courses such as in the TMCM (Teaching methods and conventional media), introduction to education, and others influencing the determination of learning objectives and the design of student activities to be implemented in the classroom.

In this part, it can be concluded that at the goal-setting stage in teaching practice in micro-teaching classes, students refer to the formulation of learning objectives. The formulation of learning objectives itself is influenced by many factors, namely the curriculum that serves as a guide, student needs, book and internet sources, and the ability to formulate learning objectives based on the knowledge gained from lectures.

3.1.1.2. Planning

Participants 1 and 2 explained that the first step in the planning stage is to determine the content of the material which is stated in the form of a lesson plan. The lesson plan itself is created using conventional book sources and e-books on the internet as examples.

[...] then the teaching strategy is, yes, definitely, because of how the learning process works. So, I determine the method, for example, what method I want to use [...] (Participant 1)

Participant 1 also added that planning also includes determining the teaching strategies that will be used because this determines the methods that will be used during teaching. In the interview, participant 1 gave an example of determining the use of the suggestopedia method in writing class practice. Apart from that, the use of project-based learning or problem-based learning that will be used in the classroom is considered at the beginning of the planning stage.

[...] in LKPD, the first thing was what the material was, then the next planning was how to convey the material, what media would be conveyed, and what media and tasks would be conveyed, and detailed timing too. Same as prompting questions, like that. [...]. First, make a PPT, then continue testing the PPT and the questions that will be given (Participant 3)

Participants 1, 2, and 3 elaborated on the next step after making a lesson plan and determining a teaching strategy as a guideline, namely to create the media that will be used.

Participants 2 and 3 referred to PPT and LKPD (Learner Worksheets) as a means of student learning. In interviews, participants 1, 2, and 3, also explained that they also utilize online platforms such as WordWall and Quizizz in gamification learning mode as a variation in teaching. Apart from that, students also formulate questions to trigger students' critical thinking on the material to be taught.

Practicing with friends is like trying media. When it reached the media, it seemed like the paper was distributed straight away. So that. It's just preparing and trying to see if the questions are too difficult for the grade you're aiming for. (Participant 3)

Participants 2 and 3 also added that after planning in the form of making learning tools, they also carried out exercises as a preparatory stage to see whether the tools prepared were suitable for the intended target and also adjusted the timings set in teaching practice exercises in the microteaching class. The training carried out can be in the form of individual training and also involving colleagues as fake students.

In this section, it can be concluded that the implementation of planning strategies carried out by students includes determining the content of the material to be taught, creating lesson plans, determining teaching methods and strategies, creating teaching media, and exercises, and creating question prompts to trigger students' thinking about the material.

3.1.1.3. Monitoring

In employing the monitoring step, participant 1 explained that one way to observe is to observe students' activity during the learning process to check whether students were fully involved with the learning process. Then, participant 1 also mentioned that the monitoring process also gave appreciation to the progress of students.

Approaching the students and asking if there is any difference or not because indeed with munifiers the children are bolder to ask, because the point is that the distance is close and maybe not all the class hears the question he is like that. So, the child is more often asked when he is accompanied by something like that. So, the monitoring is there anyway. (Participant 2)

Participants 1, 2, and 3 also added that during the main activities or when students work on worksheets, they come to students to ask about the progress and difficulties they face. They assume that the teacher's explanation in the exposure section does not allow students to ask because there is no courage to start a discussion ask questions or show confusion. Another assumption is that maybe the teacher or other students do not hear student questions. Thus, students tend to ask questions when they get an approach from the teacher personally.

When I was teaching, I was the most monitoring, the question was, the question came here whether there was a question or not, I said that it was in speed or not, then it was already there any questions too, the question was too, then if, during the worksheet work on the worksheet, I'm also monitoring. (Participant 2)

Participants 2 and 3 share that they often ask questions that ask whether students already understand the material or instructions given. It also asks questions related to how to deliver too fast or later so that the speed factor does not interfere with students digesting the information provided by the practice teacher.

In this part, it can be concluded that the implementation carried out by students when reaching the monitoring stage is by observing and appreciating student activity, taking a personal approach to students during the learning process, asking questions to check student understanding, pausing explanations, and ask questions related to teacher performance when explaining.

3.1.1.4. Evaluating

Participants 1, 2, and 3 agreed that they conducted three types of evaluations which included self-evaluation, peer evaluation, and evaluation of lecturers.

[...] during the teaching, we certainly get an evaluation, both from the lecturer, from friends too, because friends are also monitors, the lecturer is also monitoring. So, the ending is sometimes delivered orally, but there are also some additional notes from lecturers and friends. From the notes that have been given, both orally and in writing, that's all of course I make reflection material for teaching in the future as well. [...] (Participant 2)

These evaluations become reflection material for the following teaching practices. Self-evaluation is carried out in writing. In addition, students can also access the results of teaching practices so that they can reflect and comment on themselves on the teaching practice that has been done. While the evaluation peer is carried out by two friends who have been assigned to observe in writing and orally. Feedback from the lecturer is given after the teaching practice is carried out. Evaluation is received by students practice in oral and written form. The three participants explained that the focus of feedback was in the form of language skills used by teachers, performance, gestures, volumes, time management, delivery material, content, and activities designed for students.

In this section, it can be concluded that at the evaluation stage, students get three stages of evaluation in the form of self-evaluation, peer, and evaluation from the lecturer.

[...] Micro Teaching helped me, the provision from Micro Teaching was beneficial for me to jump in the PL-PPP at one of the SMKs. So building not only preparation such as preparing material and various kinds is certain, but also this micro-teaching builds confidence where I position myself as a teacher (Participant 1)

All three participants opined that applying this step has a positive impact and changes in the next micro-teaching practices and performances. In addition to forming students' teaching skills, the level of student confidence also increases in this practice. Training by implementing a metacognitive strategy can help students in teaching in schools as stated by Participant 1.

3.1.2. Students' motivation in applying metacognitive strategies in micro-teaching classes

In this section, a summary of the motivational factors that underlie students' implementation of metacognitive strategies is elaborated. Participant 1 explained that the steps for teaching practice and good teaching methods include making lesson plans to the execution of

lesson plans made and carried out in microteaching classes, one of which is influenced by instructions and explanations from the lecturer.

From the external side, because of the TCM learning process that we have received before, we have also started from TCM, even though it is conventional media, but there we have also started to learn about the methods used to teach. [...] Especially when it comes to learning methods, application of platforms, application of teaching, then how to understand students and so on, I get it like from an introduction to education [...] (Participant 1)

Participant 2 added that the teaching theory he learned encouraged him to do things that had to be done in his teaching practice in the microteaching class. Participants 1 and 2 added that the teaching design and materials used during teaching practice were influenced by experience from the pedagogical learning process obtained through educational courses in college. The courses and activities inspire students to apply the knowledge and media as well as the platforms used and learned in their teaching practice when acting as a teacher in a microteaching class.

The role model is more of a lecturer. They will stop and ask. (Participant 3)

Apart from that, participant 3 also added that the lecturer who taught him was also a good role model when Participant 3 was faced with teaching. Participant 3 gave an example when the lecturer paused and asked questions in the middle of the explanation to adjust the student's learning tempo so that the knowledge conveyed could be well received by the students. However, participant 1 explained that in implementing metacognitive strategies, he also used his intuition in every consideration.

Firstly, those from the groups are based on experience, of course [...] Well, based on that experience that's why the students in this class need it, I think they need to understand it again like that. (Participant 1)

Participants 1 and 3 had a similar motivation related to their experiences to position themselves as students in creating instructional designs. By positioning themselves and flashbacks to past experiences, participants sort out what needs to be done or how to teach students. Participant 1 also evaluated the mistakes he made to fulfill personal needs in order to improve his teaching abilities as a future teacher.

Then the second automatic look is to see how the learning process has been carried out, whether it has achieved the initial goal or not. Because once again the important point is whether the student is enthusiastic or not. "Students understand or how so that in the future when teaching, what method or content material needs to be taken, what kind is good (Participant 1)

Participant 1 also added that the determination of the teaching design also took into account the needs, enthusiasm, and motivation of students in learning. This is done because basically, the main aim of teaching activities is to meet students' needs. Participant 3 described that one way to meet students' needs is to check whether students understand the activities being carried out or

not. This is the teacher's effort to help students understand the material being taught so that learning objectives can be achieved.

[...] inspired by other people and that is something that must be done to check how much they understand and how far and how much they understand the material that I convey, the material that I convey, that's how it is. So, to make sure they know, to make sure whether there are difficulties or not, monitoring is necessary. (Participant 2)

Participant 2 said that his motivation for implementing the strategy was because he was inspired by other people who did the same thing. Intuition itself also influences decision-making because this strategy is deemed necessary to be implemented to check students' level of understanding of the learning provided.

[...] because it is one of the easiest assessments to use to see how far they understand the material. [...] the easiest thing to assess or see how far they understand it is by directly practicing making it. (Participant 2)

Participant 2 considered the factors of ease and effectiveness in measuring and assessing students' abilities in creating instructional designs. Limitation factors in circumstances in the form of restrictions on the duration of teaching practice also influence students in applying metacognitive strategies in teaching practice as explained by participant 3.

I think I used to follow something like the one used on the internet, but the media used was different, like, he didn't use quizzes like that, they were shaped like rockets, but I used other media so that the learning was more interactive. And more interesting. (Participant 3)

Participant 3 explained that the inspiration factor from the internet motivated him to design learning that might be interesting for students if it was applied in real teaching practice in microteaching classes.

3.2. Discussion

3.2.1. The implementation of metacognitive strategies in teaching practice exercises in micro-teaching

To train education study program students' teaching skills, strategies for setting goals, planning, monitoring, and evaluating are applied in microteaching classes in the form of teaching exercises. The three student samples taken as the main data in the research explained that they applied the metacognitive strategies of goal setting, planning, monitoring, and evaluating in their teaching practice. It is in line with Taufik et al., (2022) and Fard (2010) that metacognitive strategies are divided into three general stages, namely planning, monitoring, and evaluating. First, implementation of the goal-setting strategy. Students refer to learning objectives that are formulated and also based on established regulations and curriculum. In this formulation, students tend to consider the needs of the target students and also take references from books or internet sources. Apart from that, students also combine the knowledge gained in education courses to formulate learning objectives that suit the context and needs of students. Microteaching

preparation entails developing a specific objective as well as a logical sequence that is both suitable and relevant (Thangaraju & Medhi, 2023). The second strategy is planning. At this stage, students determine the material content based on the learning objectives that have been formulated, and then the learning design is outlined in the form of a lesson plan. Students use internet sources as a reference to determine the teaching strategies used during teaching practice. Once the design is ready, students then start creating learning media products in the form of PPTs, LKPD (worksheets), games on online platforms, and question prompts for students.

To facilitate delivery during teaching practice assessments, students also carry out teaching practice individually or involve other students as fake students to practice teaching and improve things they feel are necessary. In the third stage, namely monitoring, students make observations on target students in the form of observing and appreciating student activity, approaching students when students are doing something by going around and asking about difficulties or confusion faced by students, and also making pauses during explanations and raising comprehension questions to students to check students' understanding of the material and instructions given. Teachers should provide clear instructions and examples before and during education, and they should ask questions during and after training to encourage deep thinking and effective knowledge of the material (Thangaraju & Medhi, 2023). Apart from that, pauses also function to regulate the tempo of delivering the material. In the final stage, students carry out three types of evaluation, namely self-evaluation, peer evaluation, and evaluation from the lecturer which is given orally and in writing with the evaluated aspects including English language skills, gestures, material content, delivery, learning design, and also volume and intonation. Self-evaluation is carried out by making reflections and also reviewing the teaching videos carried out. Peer evaluation is carried out by two assessors who are deliberately assigned to monitor and provide feedback on the performance of students who are practicing teaching. Lecturer evaluation is given after students have completed teaching practice. This study result is generally in line with Ledger and Fischetti (2020) who explained that Micro-teaching is a teacher training strategy that combines reflective practice and situated learning approaches, providing real-time feedback and real-time practice for mastery and vicarious experiences, essential for teacher self-efficacy development.

3.2.2. Students' motivation in applying metacognitive strategies in micro-teaching classes

In determining the implementation of metacognitive strategies in teaching practice in micro-teaching classes, students consider the factors that motivate their considerations. Motivation is based on internal and external factors. It is consistent with Self-Determination Theory, which states that individuals can be driven to do a given activity both externally (controlled motivation) and inwardly (autonomous motivation) (Mitsea & Drigas, 2019; Wang et al., 2021). Internal influencing factors include one's intuition, personal experience, and self-awareness of the need for personal skill development as well as the results of student needs analysis. Meanwhile, external factors include instructions from lecturers which is in line with Van Loon et al., (2021) that teacher instruction on cognitive and metacognitive strategies is related to children's learning at all levels of education. Other external factors cover the implementation of knowledge in educational courses, teachers and lecturers as role models, measuring the depth of students' level of understanding, being inspired by other people who do the same thing, ease, and efficiency in assessing and assessing student learning progress, time limits in teaching practices, and ideas from other online sources. It is in line with Zimnyaya (2000) in Ivanova and Vinogradova (2022) who explain that learning motivation is influenced by various factors

including the educational institution, organization, students' characteristics, teachers' relationships, and the specifics of the subject.

4. CONCLUSION

The study focuses on the application of metacognitive strategies in microteaching classes to enhance students' teaching skills. With the two research questions underlying this research, the researcher drew two conclusions. Firstly, students applied goal setting, planning, monitoring, and evaluating strategies in the teaching practice carried out. The goal-setting strategy involved formulating learning objectives based on established regulations and curriculum, considering the needs of target students, and combining knowledge from education courses. The planning strategy comprised determining material content and creating lesson plans using internet sources. Students create learning media products, such as PPTs, worksheets, games, and question prompts, to facilitate delivery. Monitoring involved observing and appreciating student activity, asking questions, and making pauses during explanations. For the final stage, the participants applied self-evaluation, peer evaluation, and lecturer evaluation, which evaluated aspects such as English language skills, gestures, material content, delivery, learning design, and volume and intonation.

Second, metacognitive strategies in micro-teaching classes are implemented based on internal and external factors. Internal influences include intuition, personal experience, and self-awareness. External factors encompassed lecturers' instructions, role models, understanding levels, assessment efficiency, teaching time limits, and online ideas. The results of this research imply that pre-service teachers in the future can increase and use more metacognitive awareness in determining teaching strategies so that the learning design implemented is more focused and appropriate to the context and needs of students. This research is still limited in the small number of participants and this research might only cover the direct impact on pre-service teacher development, neglecting the long-term effectiveness in the classroom since the microteaching session is brief. Therefore, future researchers are recommended to utilize a larger sample size and implement a combination of research methods that capture both short-term and long-term effects to gain a deeper understanding of metacognitive development.

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