

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

This chapter presents the findings of the research related to pre-service teachers' experiences in implementing active learning strategies during teaching practice, as well as the challenges they encountered during the implementation process. The findings in this chapter are organized based on the two research questions of this study. The first research question focuses on how pre-service teachers describe their experiences in implementing active learning strategies to engage students in classroom practice. The second research question focuses on the challenges faced by pre-service teachers when applying active learning strategies in the classroom.

The data in this study were collected through two techniques, namely classroom observation and semi-structured interview. Classroom observations were conducted during teaching practice sessions in which the participants implemented various active learning strategies in the classroom. Through observation, the researcher directly observed the participants' experiences and emotional responses during teaching, such as confidence, nervousness, enthusiasm, and anxiety while implementing active learning strategies. In addition, the observation also focused on teacher-student interactions, students' participation and responses, classroom atmosphere, challenges faced

during the lesson, and how pre-service teachers responded to classroom situations during the teaching process.

Meanwhile, interviews were conducted to obtain in-depth information regarding the participants' experiences and perceptions during teaching practice. Through these interviews, the researcher explored participants' views regarding the active learning they used, the reasons for choosing certain strategies, their experiences in engaging students, as well as the challenges they encountered during the implementation of active learning in the classroom. The interviews also allowed the researcher to explore the participants' reflections and emotional experiences more deeply throughout the teaching practice process.

To maintain participants' confidentiality, several codes were used in presenting the data. PST 1 refers to Pre-Service Teacher 1 and PST 2 refers to Pre-Service Teacher 2. In addition, OBS refers to observation data and INT refers to interview data. These codes are used throughout the findings section to identify the sources of the data.

1. Pre-Service Teachers' Experiences with Active Learning

Based on the results of classroom observations and interviews conducted with two pre-service teachers, it was found that both participants experienced various situations while implementing active learning strategies during their teaching practice. The participants applied several

active learning strategies during their teaching practice. The participants applied several active learning strategies such as question and answer activities, gamification, and collaborative learning activities to engage students during classroom instruction. The findings also revealed that active learning created more interactive and student-centered classrooms, encouraged students' participation, and improved communication between teachers and students. Furthermore, the analysis of the observation and interview data identified four major themes that represent the participants' experiences in implementing active learning strategies: (a) Emotional Experiences in Implementing Active Learning, (b) Interaction and Student Engagement During Active Learning, (c) Experience in Implementing Active Learning, and (d) Reflection on the Experience of Implementing Active Learning Strategies. These themes provide a comprehensive understanding of how the pre-service teachers perceived, implemented, and reflected on the use of active learning throughout their teaching practicum.

a. Emotional Experiences in Implementing Active Learning

Based on the interview findings, both participants experienced various emotions while implementing active learning strategies during their teaching practicum. Their emotional experiences developed throughout the teaching process and were influenced by their confidence in facilitating active learning, students' responses during

classroom activities, and the extent to which the learning activities achieved their intended objectives.

PST 1 described feeling nervous and anxious during the initial implementation of active learning because it was her first experience teaching senior high school students. She was uncertain about her ability to facilitate learning activities and maintain students' participation. However, these emotions gradually diminished after several teaching sessions as she became more familiar with the classroom environment and observed that the learning activities proceeded successfully. This development was also reflected during the classroom observation. At the beginning of the lesson, PST 1 appeared slightly hesitant while introducing the learning activities, but she gradually became more relaxed as the lesson progressed (PST1, OBS1, 26 August 2025).

"Of course I was nervous and anxious, because it was my first time teaching in a classroom. Especially since I was teaching high school students, but by the second, third and subsequent meetings, it felt normal, and when a meeting went well, I became confident that the next one would definitely go well too." (PST 1, INT 1, 18 May 2026)

The interview also indicated that successful implementation of active learning increased PST 1's confidence. She perceived positive

classroom experiences as evidence that she was becoming more capable of facilitating student-centered learning.

Unlike PST 1, PST 2 reported feeling confident from the beginning of her teaching practicum. She explained that her confidence was supported by her familiarity with the English subject and her belief that she understood the learning materials well.

"I am just confident when I teach, even it is my first time or whatever, I am just confident. Maybe it is because I basically like English too, I feel like I have a good understanding of the material, so I feel comfortable." (PST 2, INT 1, 22 May 2026)

Although PST 2 generally felt confident, she also experienced dissatisfaction when active learning activities did not produce the expected learning outcomes. She explained that this feeling emerged when students' characteristics did not match the learning activities she had planned, causing the implementation to become less effective than expected.

"... but there's also that feeling after it's over, usually a sense of dissatisfaction if it does not meet expectations. Like.. um, no.. we implemented it without considering the students circumstances. For instance, back then I had just conducted that class outdoors, and I also forgot that my students' circumstances did not allow them to be let loose. So it's like it could not be controlled. So, I guess I need to assess the students' characteristics before carrying out activities." (PST 2, INT 1, 22 May 2026)

The observation data supported this experience. During one classroom activity, several students did not fully engage with the assigned task, making it more difficult for PST 2 to facilitate the activity effectively (PST2, OBS1, 14 August 2025).

The participants' emotional experiences were also influenced by students' responses during active learning. PST 2 expressed feelings of satisfaction when students actively responded to questions and demonstrated their understanding during classroom interaction. Positive participation gave her confidence that the learning objectives had been achieved.

“...if they answer smoothly... according to our instructions... then the assumption is, ‘Oh, they already understand.’ So it feels like everything’s going smoothly... like we’ve achieved our goal.” (PST 2, INT 2)

Overall, the findings suggest that implementing active learning strategies generated diverse emotional experiences for the participants. Feelings of nervousness and anxiety were primarily associated with their initial teaching experiences, while confidence developed as they became more familiar with facilitating active learning. Satisfaction emerged when students actively participated and demonstrated understanding, whereas disappointment occurred when the

implemented activities did not align with students' needs or failed to achieve the intended learning objectives.

b. Interaction and Student Engagement During Active Learning

Based on the interview and classroom observation findings, both participants perceived that active learning strategies promoted greater interaction between teachers and students while encouraging students to participate more actively in classroom learning. Rather than positioning students as passive recipients of information, active learning provided opportunities for them to ask questions, share ideas, respond to their peers, and participate collaboratively throughout the lesson.

PST 1 explained that active learning encouraged students to participate more actively during classroom discussions. She observed that students were willing to ask questions whenever they encountered difficulties and actively responded to the teacher's questions during brainstorming and classroom discussions.

“Yes, they are active. Like, if they do not understand something, they just ask right away, basically, they are active in class. In the two classes I teach, they are active... most of them are active in responding to questions and asking questions.” (PST 1, INT 1, 18 May 2026)

This finding was consistent with the classroom observation. During brainstorming activities, many students voluntarily answered the teacher's questions and contributed their ideas without waiting to

be called. Students also interacted with one another while discussing the learning materials, creating a more communicative classroom atmosphere (PST1, OBS1, 26 August 2025).

Similarly, PST 2 reported that questioning and brainstorming activities successfully promoted student participation. She explained that students actively answered questions, generated examples, and followed classroom instructions throughout the learning process.

“During QnA sessions, whether the questions are asked before, after, or during the lesson, they are active... They are active in finding examples and so on.” (PST 2, INT 1, 22 May 2026)

Besides question-and-answer activities, PST 2 emphasized that connecting the lesson with students' daily lives further strengthened classroom interaction. Using familiar topics encouraged students to communicate more openly, share their own experiences, and participate more confidently during discussions.

“Using active learning really helps. For example, when we ask questions, we use topics and examples that are relevant to the students' daily lives. That way, they are more open, more communicative, and better able to respond... So they are more interested.” (PST 2, INT 1, 22 May 2026)

The observation data supported this finding. During the lesson, students actively volunteered to answer questions, expressed their opinions, and provided examples based on their own experiences. The interaction occurred not only between the teacher and students but also

among students themselves as they responded to one another's ideas during classroom discussions (PST2, OBS2, 28 August 2025).

Both participants also highlighted that active learning created a more collaborative learning environment than teacher-centred instruction. PST 1 explained that activities such as games and group work encouraged every student to participate because each learner had a role within the activity.

"With active learning, everyone is definitely involved. No one sits still..." (PST 1, INT 1, 18 May 2026)

She further explained that, unlike conventional teaching where some students tended to remain passive, active learning required students to contribute directly to classroom activities, resulting in higher levels of participation.

Likewise, PST 2 perceived that active learning established a more balanced interaction between teachers and students. Rather than becoming the sole source of knowledge, teachers acted as facilitators while students actively constructed their own understanding through classroom interaction.

"With active learning, the classroom atmosphere is more like the teacher and the students both play their respective roles... the teacher's role is to facilitate and the students' role is to realize that they are the ones learning here." (PST 2, INT 1, 22 May 2026)

Overall, the findings demonstrate that active learning strengthened teacher-student interaction by encouraging two-way communication and increasing opportunities for student participation. Strategies such as questioning, brainstorming, games, and collaborative learning enabled students to engage more actively in classroom discussions, exchange ideas with their peers, and communicate more confidently with the teacher. Consequently, the classroom became more interactive, collaborative, and learner-centred than in conventional teacher-centred instruction.

c. Experience in Implementing Active Learning

The interview results show that both participants have implemented various active learning strategies during their teaching practice. These strategies were chosen because they were considered capable for increasing student participation and creating a more meaningful learning process.

PST 1 revealed that the strategy she used most frequently was group work. In addition, she had also implemented gamification and question and answer (QnA) sessions.

“The one I use most often is eee group work... I have also used gamification... and QnA sessions.” (PST1, INT1, 18 May 2026)

According to her, these strategies were chosen because they can make students more active during the learning process.

“Because with those strategies, the students are more active, not passive.” (PST1, INT1, 18 May 2026)

Among the various strategies used, PST 1 believes that gamification is the most effective strategy because it engages all students, both individually and in groups.

“In my opinion, the one that makes students the most active is gamification, because students are active when they are working alone and they are also active when working in groups. So that is the most effective.” (PST1, INT1, 18 May 2026)

Meanwhile, PST 2 explained that the strategies she uses most often is question and answer (QnA) sessions. According to her, these strategies give students the opportunity to develop ideas and interact directly with the teacher.

“The one I use most often is QnA, um like brainstorming, where they come up with other ideas. We keep exploring, and they end up finding other ideas or looking for examples.” (PST2, INT1, 22 May 2026)

She also believes that QnA is the most effective strategy because it allows teachers to directly assess students’ understanding and provide appropriate feedback.

“... well, if I had to choose the most effective one, I think QnA is like direct interaction with us, so we can, um, provide more appropriate feedback- not just correcting, but offering the most accurate input. For example, if a student misleading or there is an error, something inaccurate. That is why it is effective.” (PST2, INT1, 22 May 2026)

In addition to discussing the strategies used, both participants also explained the various benefits of active learning for students. PST 1 noted that these strategies can boost students' self-confidence, encourage active participation, and help them interact with their peers.

“QnA sessions increase student participation in class and help boost their self-confidence. It makes students more active, they can participate, speak up, and feel confident. For example, when asked a question, they answer immediately, it is like that makes them confident, confident in presenting, basically making them confident, active, and able to socialize with their peers. Then, gamification boosts students' motivation to learn and get really actively involved, the learning atmosphere is also fun. With group work, it makes them active. There are some passive ones, but just a few.” (PST1, INT1, 18 May 2026)

Additionally, gamification is considered capable of boosting learning motivation because it creates a more enjoyable learning atmosphere.

“Gamification boosts students' motivation to learn and get actively involved, the learning atmosphere is also fun.” (PST1, INT1, 18 May 2026)

“Games make the atmosphere more exciting so students do not get bored, they become more engage, more enthusiastic, and more active. Whether they are tech-based or not, games get students excited, it is not just sitting in class all day.” (PST2, INT1, 22 May 2026)

The interview findings were supported by the observation data. During the implementation of gamification activities, the classroom atmosphere appeared noticeably more lively and energetic. Students

showed enthusiasm while participating in the games, and active interaction was observed among group members. In several instances, cheers and excitement could be heard from different groups when they successfully completed a task or obtained high scores. Students were also observed encouraging their teammates and competing enthusiastically with other groups. These observations indicate that gamification contributed to a more engaging learning environment and increased students' motivation to participate actively in classroom activities. (PST1, OBS1, 26 August 2025; PST2, OBS2, 28 August 2025)

Similar findings were also shared by PST 2. According to her, active learning gives students the opportunity to express their opinions and listen to others' views.

“During QnA sessions, they can voice their opinions and share their thought openly. And with collaborative learning, students learn from their peers, from their classmates. It is all the same, their peers can also share their opinions.” (PST2, INT1, 22 May 2026)

She also added that activities like QnA and collaborative learning help students learn to respect others' perspectives, develop critical thinking skills, and enhance their communication abilities, all of which will be useful in the future.

“... so they are basically more open to expressing their opinions rather than just staying silent, listening to the teacher ' opinion, and

accepting only that. When others speak up, it leads to a variety of opinions, many different viewpoints and feedback, so they learn that, “Oh people’s opinions differ, you can not blame them all just because their views differ from mine, that is not wrong either.” This builds students’ confidence, especially since as their education or status advances, they will need to communicate with others more, including speaking in front of large groups, and that is absolutely essential nowadays.” (PST2, INT1, 22 May 2026)

Nevertheless, both participants also encountered several challenges in implementing active learning. One of the most common obstacle was time constraints. PST 1 noted that active learning activities often take longer than traditional lessons.

“... in my opinion, if we implement active learning, especially gamification, it definitely takes a long time, it might not even fit into a single meeting, but could take two meeting. So, well, we can adjust it ourselves, but it definitely takes a long time.” (PST1, INT1, 18 May 2026)

In addition, she also encountered technical difficulties when using technology-based gamification.

“With online gamification, sometimes the app or website suddenly stop working.” (PST1, INT1, 18 May 2026)

PST 2 also identified several limitations, such as technical issues with the technology, uneven participation in group discussions, and a tendency for certain students to dominate QnA sessions.

“Like with games, there can be technical or operational issues, for example, errors or unstable internet, or maybe not all students have phone or internet access. Or, for instance, if the teacher is conducting

it in class, it might not be displayed, even though the game is supposed to be shown on the screen. Maybe there is no LCD screen, or the internet unstable...” (PST2, INT1, 22 May 2026)

“With collaborative activities, within a group, whether during a discussion or group work, there might be some people who are not doing their part or participating. We would not know unless we ask or another student points it out.” (PST2, INT1, 22 May 2026)

“With QnA, for example, if it is always the same answering, it can make the other students feel even more intimidated, like “Oh, I guess only she/he can do it,” so they end up lacking confidence.” (PST2, INT1, 22 May 2026)

To address these challenges, both participants emphasized the importance of thorough preparation, supervision during the lesson, and adapting strategies to students’ needs and classroom conditions.

“The way to handle it is to prepare even more thoroughly. For example, how to ensure questions are distributed evenly so everyone is engaged, and how to ensure everyone understands and has their own responsibilities during group work. Games, for instance, just require preparation. For instance, if a game can not use a projector, then find games that can be played individually or game that are not technology-based, like games you can do it right in the classroom. Basically, there are plenty of other non-tech games out there.” (PST2, INT1, 22 May 2026)

Overall, the experiences of both participants indicate that active learning offers numerous benefits for both students and teachers. Although there are various challenges in implementing it, this strategy is still considered effective in fostering more active, meaningful, and student-centered learning.

d. Reflection of Experience in Implementing Active Learning Strategies

Based on their teaching practicum experiences, both participants reflected on the implementation of different active learning strategies and identified important lessons for their future teaching practices. Rather than viewing every strategy as equally effective, they recognized that each active learning strategy had its own strengths and limitations depending on the learning objectives, classroom conditions, and students' characteristics.

Reflecting on her experience, PST 1 believed that gamification was one of the most effective strategies for encouraging students' participation. She observed that games created an enjoyable learning atmosphere where students became more enthusiastic and actively involved in both individual and group activities. For this reason, she expressed her intention to continue incorporating gamification into her future teaching.

“If you use active learning, everyone is sure to be involved. No one sits idly by—for example, when using gamification, everyone in the group is definitely active, especially when working in groups. For instance, if gamification involves using games on cell phones, each student is actively engaged.” (PST1, INT1, 18 May 2026)

She further reflected that implementing games changed the classroom atmosphere from teacher-centred instruction into a more interactive learning environment.

“For example, in traditional learning, ... students are less active. So, with active learning, students are more active.” (PST1, INT1, 18 May 2026)

However, PST 1 also acknowledged that implementing gamification required careful preparation. Based on her experience, games often required more instructional time than conventional classroom activities. Therefore, she realized that effective time management was essential to ensure that learning objectives could still be achieved within the available lesson time.

“Maybe time, because active learning makes students active, so it automatically gets noisy and lively. So the teacher definitely has to manage the time better to keep the class conducive.” (PST1, INT1, 18 May 2026)

Besides time management, PST 1 reflected that selecting active learning strategies should always begin with understanding students' characteristics. She realized that not every activity would be equally suitable for every classroom.

“After that, adjust it again to the students, we have to first observe the characteristics of the students in that class...” (PST1, INT1, 18 May 2026)

Similarly, PST 2 reflected that question-and-answer (Q&A) activities became one of the most valuable strategies throughout her teaching practicum. Through direct interaction with students, she was able to identify students' understanding immediately and provide

feedback whenever misconceptions occurred. This experience strengthened her belief that questioning was not only useful for checking comprehension but also for facilitating meaningful classroom interaction.

She also reflected positively on the implementation of collaborative learning. According to her, collaborative activities encouraged students to exchange ideas, appreciate different perspectives, and participate more actively in discussions, making learning more student-centred.

“...this kind of learning becomes more student-centered, which makes them more active in discussions, actively collaborate, and also express their opinions.” (PST2, INT1, 22 May 2026)

Nevertheless, PST 2 recognized that active learning strategies could only be implemented effectively through careful instructional planning. Based on her experience, learning activities needed to be designed according to the lesson objectives, students' characteristics, and available classroom resources.

“My advice is to prepare the activities, the learning activities, more thoroughly. Basically, make sure the activities are tailored to the learning objectives and the students' characteristics.” (PST2, INT1, 22 May 2026)

She further reflected that clear classroom instructions and effective time management were equally important to ensure that active learning activities could run smoothly.

“Basically, as things unfold, it is also important to provide clear instructions and manage time effectively so that the process runs smoothly.” (PST2, INT1, 22 May 2026)

Overall, the participants' reflections indicate that their teaching practicum provided valuable professional learning experiences regarding the implementation of active learning strategies. Rather than simply considering active learning as an effective instructional approach, both participants learned that the success of specific strategies, including gamification, questioning, and collaborative learning, depends on thoughtful preparation, appropriate classroom management, and the teacher's ability to adapt activities to students' characteristics and learning needs. These reflections encouraged them to continue refining their instructional practices and to implement active learning more effectively in their future teaching.

2. Pre-Service Teachers' Challenges in Implementing Active Learning

Based on the results of classroom observations and interviews conducted with two pre-service teachers, it was found that both participants encountered various challenges while implementing active learning strategies during their teaching practice. The findings revealed challenges

related to the gap between theory and practice, classroom management, time management, and self-confidence. The participants experienced difficulties in adapting theoretical knowledge to real classroom situations, managing student participation and classroom behavior, allocating sufficient time for active learning activities, and dealing with feelings of nervousness and self-doubt during instruction. Despite these challenges, the experiences helped the participants become more adaptable, reflective, and confident in managing classroom situations and implementing active learning strategies

a. The Gap between Theory and Practice

Based on the interview and classroom observation findings, both participants identified several discrepancies between the theoretical principles of active learning learned during their teacher education program and their experiences implementing active learning strategies in real classrooms. These discrepancies emerged when implementing collaborative learning, question-and-answer (Q&A) activities, and gamification. The findings indicate that although these strategies are theoretically expected to actively engage all learners, their implementation was strongly influenced by students' characteristics, classroom conditions, and available resources.

1) Collaborative learning did not always involve all students

One of the most common gaps experienced by both participants occurred during collaborative learning activities. According to the theories discussed during their coursework, collaborative learning encourages every student to contribute actively within their groups. However, both participants found that classroom reality was often different.

PST 2 explained that although group work was designed to encourage equal participation, only a few students frequently completed the assigned tasks while the remaining members became passive observers.

“..during group activities, we expect all students actively participate, discuss, or answer questions. But in reality, some students sometimes chat off-topic or remain silent, so they end up relying on their classmates. It could be just one person, or just two people doing the work...” (PST2, INT1, 22 May 2026)

This experience was also reflected in the classroom observation. During group discussions, several students actively completed the assigned task, whereas others were observed talking with friends or waiting for their teammates to finish the activity. Consequently, participation among group members was not distributed equally (PST2, OBS2, 28 August 2025).

These experiences led PST 2 to realise that successful collaborative learning requires continuous monitoring and clear

distribution of responsibilities rather than simply placing students into groups.

- 2) Question-and-answer activities revealed differences in students' confidence

Another discrepancy emerged during the implementation of question-and-answer activities. In theory, questioning strategies are expected to stimulate active participation from all students. However, the participants found that students responded differently depending on their confidence and language ability.

PST 2 explained that some students actively answered questions, whereas others remained silent because they lacked confidence in speaking English or were afraid of making mistakes.

“...there are active students, and there are also students who do not like English... there are those who lack confidence... even though they have their own thoughts and opinions... ” (PST2, INT1, 22 May 2026)

The classroom observation supported this finding. While several students volunteered to answer questions, others avoided eye contact, remained silent, or refused to read the assigned text aloud because they lacked confidence in their English pronunciation (PST2, OBS2, 28 August 2025).

As a result, PST 2 adjusted her implementation of questioning activities by simplifying the tasks, providing clearer

instructions, and offering additional guidance to students who experienced difficulties.

“...I try to make the learning activities simpler, yet still engaging... I give clear instructions... If they are having trouble, we as teachers provide them with additional support.” (PST2, INT1, 22 May 2026)

3) Gamification required greater flexibility than expected

Both participants also found that implementing gamification was more challenging than described in theory. Although educational games successfully attracted students' attention, practical constraints frequently influenced their implementation.

PST 1 explained that gamification required considerably more instructional time than she had anticipated during lesson planning.

“...if we implement active learning, especially gamification, it definitely takes a long time... it might not even fit into a single meeting...” (PST1, INT1, 18 May 2026)

She also experienced technical problems when implementing technology-based games.

“With online gamification, sometimes the app or website suddenly stop working.” (PST1, INT1, 18 May 2026)

Similarly, PST 2 reported that technology-based games depended heavily on internet access, classroom facilities, and students' devices.

"...there can be technical or operational issues... unstable internet... not all students have phones... maybe there is no LCD screen..." (PST2, INT1, 22 May 2026)

Consequently, both participants realised that successful gamification depended not only on selecting appropriate games but also on anticipating technical constraints and preparing alternative activities.

4) Active learning required continuous adaptation

Beyond individual strategies, both participants recognised that implementing active learning in authentic classrooms was far more dynamic than the situations presented during teacher education courses.

PST 1 reflected that although active learning theories provide structured procedures, real classrooms require teachers to modify activities according to students' responses and classroom situations.

"While learning theory is very structured... in a real classroom we sometimes have to improvise... and adapt to the current classroom conditions." (PST1, INT1, 18 May 2026)

Likewise, PST 2 explained that classroom participation varied considerably because students possessed different levels of confidence, motivation, and learning needs. Therefore, she

believed teachers must continuously adapt instructional strategies rather than relying solely on theoretical procedures.

"...the success of a learning strategy does not just depend on theory, but also on our ability as teachers to adapt... the students' characteristics and classroom conditions." (PST2, INT1, 22 May 2026)

Overall, the findings demonstrate that the gap between theory and practice became most apparent during the implementation of specific active learning strategies. Collaborative learning did not always ensure equal participation, question-and-answer activities revealed differences in students' confidence, and gamification was constrained by time and technological resources. These experiences led both participants to recognise that effective implementation of active learning depends not only on theoretical knowledge but also on teachers' ability to adapt instructional strategies to the realities of their classrooms.

b. Difficulties in Classroom Management

Based on the interview and classroom observation findings, both participants experienced various classroom management difficulties while implementing different active learning strategies. These challenges were particularly evident during collaborative learning,

gamification, and question-and-answer (Q&A) activities. Although these strategies encouraged greater student participation, they also created classroom situations that required continuous monitoring, clear instructions, and effective classroom management.

1) Collaborative Learning

Both participants reported that collaborative learning created a more active classroom atmosphere, but it also became one of the most challenging strategies to manage. During group discussions, students interacted simultaneously, making the classroom considerably noisier than during teacher-centred instruction.

PST 1 explained that once students became engaged in group discussions, it was sometimes difficult to regain the whole class's attention, especially when additional explanations were needed.

“... this is active learning, so the students are very active, especially when they are in groups... it is difficult because they are already busy with their own groups” (PST1, INT1, 18 May 2026)

Similarly, PST 2 experienced the same situation during collaborative group activities. Although students actively discussed the assigned tasks, many groups required repeated explanations because they interpreted the instructions differently.

"...the class got too noisy... they said they understood, but when they worked in groups, many still did not get it, so I had to explain it twice." (PST2, INT1, 22 May 2026)

The classroom observations supported these findings. During collaborative activities, both participants frequently moved around the classroom to monitor discussions, answer students' questions, and provide clarification whenever groups encountered difficulties. Instead of remaining at the front of the classroom, they continuously circulated among groups to maintain students' participation and ensure that learning activities progressed as intended (PST1, OBS1, 26 August 2025; PST2, OBS2, 28 August 2025).

2) Gamification

Gamification also presented classroom management challenges. Although games successfully motivated students and increased participation, they often created a highly energetic classroom environment that was difficult to control.

PST 2 explained that during group games, students became excited and frequently called the teacher for assistance at the same time. As a result, she had to divide her attention among several groups while ensuring that the activity continued smoothly.

"...some were asking questions over there, others here... the class was just so noisy." (PST2, INT1, 22 May 2026)

The observation findings also showed that students enthusiastically interacted with their teammates during the game. However, several groups became confused about the game procedures and repeatedly requested clarification from the teacher. Consequently, PST 2 continuously moved from one group to another to explain the rules and assist students who experienced difficulties (PST2, OBS2, 28 August 2025).

3) Question and Answer

Another classroom management challenge emerged during question-and-answer activities. Both participants explained that not all students were equally willing to participate, even when opportunities to answer questions were provided.

PST 1 explained that some students preferred to remain silent rather than respond during classroom discussions.

"...there are some students who do not dare to speak up, they just stay silent." (PST1, INT1, 18 May 2026)

To encourage participation, she approached students individually or visited each group to invite questions and provide support.

"...I would just walk over to their tables... checking in with each group." (PST1, INT1, 18 May 2026)

Similarly, PST 2 observed that students who did not understand the instructions often became passive during classroom activities.

"...because they did not understand, some did not move at all, they were really passive." (PST2, INT1, 22 May 2026)

To overcome this problem, she actively monitored students' progress and provided additional demonstrations whenever necessary.

"I walked around, monitoring... if a group did not understand, I had to explain it again... I demonstrated it once or twice." (PST2, INT1, 22 May 2026)

The classroom observations confirmed that both participants consistently circulated around the classroom during active learning activities to encourage participation and provide immediate assistance to students experiencing difficulties (PST1, OBS1, 26 August 2025; PST2, OBS2, 28 August 2025).

c. Difficulties in Time Management

Based on the interview and classroom observation findings, both participants experienced difficulties managing instructional time while implementing several active learning strategies. These challenges were particularly associated with gamification, collaborative learning, and question-and-answer (Q&A) activities, as these strategies required

students to actively participate throughout the lesson. The findings indicate that although active learning enhanced student engagement, it also demanded more classroom time than conventional teacher-centered instruction.

1) Gamification

Among the active learning strategies, gamification was perceived as the most time-consuming, particularly when technology-based platforms such as Kahoot or Quizizz were used. Before the learning activity could begin, students needed time to connect their devices, access the game platform, and solve occasional technical problems.

The classroom observation showed that several students experienced difficulties joining the online game because of unstable internet connections. As a result, the teacher had to wait until all students were successfully connected before starting the activity, reducing the time available for other instructional tasks (PST1, OBS1, 26 August 2025).

This finding was consistent with PST 1's explanation.

"Gamification, since we have to use the students' phones, for example, the internet connection is poor or slow, the students cannot log in... the learning becomes less effective because it takes too long." (PST1, INT1, 18 May 2026)

Because of these technical delays, PST 1 sometimes had to omit several planned learning activities or postpone them to the following lesson in order to ensure that the main learning objectives could still be achieved.

"The learning objectives were met, but some activities were omitted and moved to the next meeting." (PST1, INT1, 18 May 2026)

She also explained that limited lesson duration further complicated the implementation of gamification, particularly when some school schedules allowed only one instructional period.

"Some meetings were only one class period long, so it was difficult." (PST1, INT1, 18 May 2026)

These experiences led her to realise the importance of estimating the duration of each activity before implementing technology-based games.

2) Collaborative Learning

Collaborative learning also required considerable instructional time. Both participants explained that students needed sufficient time not only to discuss the assigned tasks but also to understand instructions, negotiate ideas with group members, prepare answers, and present their work.

PST 2 explained:

"Group discussion strategies require a lot of time... students need time to understand the instructions, engage in discussions, formulate their answers, and perhaps present the results." (PST2, INT1, 22 May 2026)

Because collaborative learning involves multiple stages, the planned lesson sometimes exceeded the allocated classroom time.

"Sometimes, if there is not enough time, what I want to convey is not fully conveyed, or some parts need to be sped up." (PST2, INT1, 22 May 2026)

Furthermore, she acknowledged that students often required additional explanation before beginning the activity, making the lesson take longer than anticipated.

"Sometimes things do not go as planned because students need time to understand the instructions and complete the activities." (PST2, INT1, 22 May 2026)

Consequently, PST 2 frequently simplified collaborative activities or prioritised the most essential learning content whenever instructional time became limited.

"Usually... I simplify the activities, basically prioritising the core material." (PST2, INT1, 22 May 2026)

3) Question and Answer

Although question-and-answer activities generally required less preparation than gamification or collaborative learning, both

participants explained that these activities could still consume considerable time when students needed additional prompting or clarification before responding.

According to PST 2, classroom interaction sometimes developed beyond the planned schedule because students required further explanation before they were confident enough to answer questions.

"Sometimes things do not go as planned because students need time to understand the instructions and grasp the lesson." (PST2, INT1, 22 May 2026)

Similarly, PST 1 explained that when classroom time became limited, reflective questioning or lesson summaries were often postponed until the following meeting.

"If there is not enough time for the closing section... I ask those questions at the beginning of the next lesson." (PST1, INT1, 18 May 2026)

These experiences indicate that even relatively simple active learning strategies such as Q&A require flexible time allocation to accommodate students' learning pace.

d. Low Confidence (Self-Efficacy Issue)

Based on the interview findings, both participants experienced moments of low confidence while implementing active learning strategies during their teaching practicum. These feelings were closely

related to their limited teaching experience, uncertainty about students' responses, and concerns about whether the selected active learning strategies would work effectively in real classroom situations.

1) Question and Answer

For PST 1, feelings of nervousness were particularly evident during the early implementation of question-and-answer (Q&A) activities. She explained that asking questions directly to students made her worry that students would not understand her explanation or would remain silent when invited to participate.

"...I did get nervous because it was the very beginning... I did not know what the students' characteristics were like..." (PST1, INT1, 18 May 2026)

She also expressed concern that her explanations might not be sufficiently clear for students.

"My fear is that when I explain something, the students will not understand." (PST1, INT1, 18 May 2026)

Because questioning activities required immediate interaction with students, PST 1 often questioned whether she had delivered the material effectively. To reduce this uncertainty, she frequently asked follow-up questions during the lesson to check students' understanding and sought feedback from her mentor teacher after each teaching session.

"I can ask questions more often, or I can consult with the mentor teacher." (PST1, INT1, 18 May 2026)

Over time, repeated opportunities to conduct Q&A activities gradually strengthened her confidence because she became more familiar with students' learning characteristics.

2) Collaborative Learning

Collaborative learning also created situations that affected participants' confidence. Rather than worrying about explaining the lesson content, they became concerned about whether they could successfully facilitate group interaction and maintain students' participation.

PST 2 explained that she became anxious whenever collaborative activities became difficult to control.

"...I do feel anxious when the class is uncontrollable, hard to manage. I am afraid it will turn into total chaos." (PST2, INT1, 22 May 2026)

She believed that losing control of collaborative activities could disrupt classroom communication and reduce the effectiveness of the learning process.

"...it affects the smooth flow of communication while I am teaching." (PST2, INT1, 22 May 2026)

To increase her confidence when facilitating collaborative learning, she prepared classroom activities more carefully by

considering students' characteristics, classroom conditions, and possible problems before the lesson began.

"I learn from past experiences... preparing the activities more thoroughly and adapting them to the students' conditions." (PST2, INT1, 22 May 2026)

These experiences suggest that confidence in collaborative learning developed not only through content knowledge but also through experience managing student interaction.

3) Developing Confidence through Experience and Support

Although both participants experienced moments of self-doubt while implementing active learning, they agreed that repeated teaching experience gradually increased their confidence.

PST 1 explained that after several teaching sessions she became more familiar with her students, allowing her to implement active learning more confidently.

"...as time went on, I felt calmer, got to know the students better, and felt more at ease." (PST1, INT1, 18 May 2026)

Similarly, PST 2 believed that confidence developed naturally through repeated teaching opportunities.

"Every teaching experience offers new lessons... it helps us understand how to manage a class effectively." (PST2, INT1, 22 May 2026)

Besides teaching experience, both participants highlighted the importance of social support in strengthening their confidence. PST 1 frequently consulted with her mentor teacher before and after implementing active learning activities.

"Mrs. Hasnah always observed my teaching and gave me advice." (PST1, INT1, 18 May 2026)

Meanwhile, PST 2 considered discussions with peers to be her primary source of emotional support throughout the practicum.

"The biggest source is definitely my peers." (PST2, INT1, 22 May 2026)

According to her, sharing experiences and receiving encouragement from friends helped reduce anxiety and increased her confidence when implementing new active learning strategies.

B. Discussion

1. Pre-Service Teachers' Experiences with Active Learning

a. Emotional Experiences in Implementing Active Learning

The findings show that both participants experienced different emotions, such as nervousness, anxiety, confidence, satisfaction, and disappointment while implementing active learning. These emotions changed throughout their teaching practicum. Implementing active

learning requires teachers to manage interactive activities, encourage student participation, and respond to different classroom situations. Because of these demands, teachers may experience different emotional responses during the teaching process. This finding is consistent with (Chen, 2021), who explains that teachers' emotions are influenced by their interactions with students, classroom situations, and their own perceptions of their teaching ability.

PST 1 felt nervous when she first implemented active learning because she was unsure whether the students would respond well to the learning activities. However, she became more confident as she became familiar with her students and successfully carried out active learning activities. This finding is similar to (Chen et al., 2022), who found that pre-service teachers often experience mixed emotions during their practicum, including nervousness at the beginning and satisfaction after successful teaching. It also supports (Ji et al., 2022), who found that caring and nervousness are common emotions among pre-service teachers and that these emotions develop through personal experiences, school conditions, and classroom situations.

This finding can also be explained by (Richards and Schmidt's, 2013), as cited in (Izzati, 2023) definition of pre-service teachers as students who are still learning while preparing to become professional teachers. This explains why PST 1's nervousness was mainly caused

by her lack of teaching experience rather than by active learning itself. In other words, her emotions came from being a beginner teacher who was trying to implement active learning for the first time.

Bandura's (1997) self-efficacy theory also helps explain these findings. PST 1 became more confident after successfully implementing active learning in several lessons. These successful experiences helped strengthen her belief that she could teach effectively. In contrast, PST 2 felt confident from the beginning because she believed she had strong knowledge of the lesson content, even though she had limited teaching experience.

However, PST 2 also felt disappointed when an outdoor gamification activity did not match her students' characteristics. This finding is related to Bonwell and Eison's (1991) definition of active learning, which emphasizes that students should actively participate by doing activities and thinking about what they are doing. When the activity did not match the students' abilities and classroom needs, the active learning strategy did not work as expected, which led to disappointment. This shows that teachers' emotional experiences in implementing active learning are influenced not only by their teaching confidence but also by how well the chosen strategy fits the students and the classroom context.

Overall, these findings suggest that emotional experiences are an important part of implementing active learning. As pre-service teachers gained more teaching experience and better understood their students' needs, they became more confident and more flexible in using active learning strategies. This indicates that emotional development is closely connected to the successful implementation of active learning.

b. Interaction and Student Engagement During Active Learning

The findings show that implementing active learning improved teacher–student interaction and encouraged students to participate more actively in classroom learning. Both participants used strategies such as questioning, brainstorming, gamification, and collaborative learning to involve students in the learning process. These findings are consistent with (Bonwell and Eison, 1991), who explain that active learning requires students to do meaningful learning activities while thinking about what they are doing. Instead of only listening to the teacher, students became actively involved through discussion, asking and answering questions, and working together with their classmates. This indicates that active learning helped create a classroom where students were more engaged in learning.

The findings also show that different active learning strategies encouraged interaction in different ways. PST 1 found that collaborative learning gave students opportunities to share ideas, help each other, and complete learning tasks together. This finding is in line with (Akida et al., 2023), who argue that cooperative learning increases participation because students learn through interaction with their peers. In this study, collaborative learning not only encouraged students to work together but also created opportunities for them to communicate, solve problems, and learn from one another. These experiences reflect one of the main principles of active learning, where students actively construct knowledge through participation rather than receiving information passively from the teacher.

Similarly, PST 2 explained that question-and-answer (Q&A) activities encouraged students to express their opinions and respond directly to the teacher's questions. This finding agrees with (Kumar et al., 2023), who state that discussion activities help students develop critical thinking because they are actively involved in exchanging ideas. During the implementation of active learning, Q&A did not only help the teacher check students' understanding but also encouraged students to think, explain their answers, and participate in classroom discussions. This suggests that active learning supports students' cognitive involvement as well as their classroom participation.

Gamification also played an important role in increasing student engagement. Both participants observed that students became more enthusiastic and actively participated when learning activities included games. Students showed excitement, encouraged their teammates, and stayed involved throughout the lesson. These findings support (Zhang and Hasim, 2023), who explain that gamification increases students' motivation by creating enjoyable and interactive learning experiences. In the context of active learning, gamification made learning more meaningful because students were not only enjoying the activities but were also actively participating, interacting with others, and completing learning tasks together.

These findings can also be understood through Fredricks et al.'s (2004) model of student engagement, which includes behavioral, emotional, and cognitive engagement. Students' willingness to answer questions, participate in discussions, and work in groups reflects behavioral engagement. Their excitement and enjoyment during gamification activities show emotional engagement. Meanwhile, their ability to explain ideas, respond to questions, and exchange opinions during classroom discussions represents cognitive engagement. This suggests that implementing active learning supported student engagement in several dimensions at the same time rather than improving only one aspect of learning.

Furthermore, the findings indicate that implementing active learning changed the teacher's role in the classroom. PST 2 explained that the teacher acted as a facilitator, while students became more responsible for their own learning. This finding reflects Fosnot's (2015) constructivist perspective, which explains that knowledge is built through learners' experiences, interaction, and active participation. Instead of providing all the information, the teacher guided students to explore ideas, discuss concepts, and develop their own understanding. As a result, the learning process became more student-centered, which is one of the main characteristics of active learning.

c. Experience in Implementing Active Learning

The findings show that the participants mainly implemented group work, gamification, and question-and-answer (Q&A) activities when using active learning in the classroom. These strategies are commonly used to encourage students to participate actively, interact with others, and become involved in the learning process (Sahito et al., 2025; Tarigan et al., 2025; Yuni et al., 2024). In contrast, problem-based learning and peer teaching were rarely used during the teaching practicum. This suggests that the participants preferred active learning

strategies that were easier to organize and manage within the available teaching time and classroom conditions.

The limited use of problem-based learning and peer teaching can be explained by the characteristics of these strategies. (Putri et al., 2023) explain that problem-based learning requires careful lesson planning and students who are ready to learn independently. Likewise, (Topping, 2023) states that peer teaching depends on students having enough knowledge and confidence to explain the lesson to their classmates. During the teaching practicum, these conditions may not always be available. As a result, the participants chose active learning strategies such as gamification and Q&A because these strategies were more practical to implement while still encouraging students to participate actively in learning.

Among the active learning strategies, PST 1 considered gamification to be the most effective. She explained that games encouraged students to participate both individually and in groups. The observation data also showed that students became more enthusiastic, supported their teammates, and stayed actively involved throughout the lesson. This finding is consistent with (Zhang and Hasim, 2023), who explain that gamification increases students' motivation and encourages active participation in language learning. In this study, gamification not only made learning more enjoyable but also

encouraged students to communicate, collaborate, and stay engaged in classroom activities. These findings show that gamification supported the main goal of active learning by creating opportunities for students to learn through active participation and interaction.

In contrast, PST 2 believed that question-and-answer (Q&A) activities were the most effective strategy because they created direct interaction between the teacher and students. Through Q&A, she could immediately check students' understanding, encourage them to express their ideas, and provide feedback during the lesson. This finding agrees with (Kumar et al., 2023), who argue that discussion activities help students develop critical thinking because they actively exchange ideas. Similarly, (Akida et al., 2023) emphasize that meaningful interaction and individual responsibility are important elements of successful active learning. By encouraging students to answer questions, explain their ideas, and respond to their classmates, Q&A helped students become active participants in constructing their own understanding instead of only receiving information from the teacher.

d. Reflection of Experience in Implementing Active Learning Strategies

The findings show that both participants reflected on their experiences after implementing active learning during the teaching practicum. They realized that successful active learning requires

careful planning, appropriate strategy selection, and clear classroom instructions. For example, PST 1 learned that gamification needed better time management, while PST 2 realized that active learning strategies should be adjusted to students' characteristics. Both participants also emphasized that giving clear instructions was important to help students understand and participate in learning activities. These reflections suggest that implementing active learning involves not only using different teaching strategies but also evaluating their effectiveness and making improvements for future lessons.

These findings are consistent with (Schön, 1983), who explains that professional growth develops when teachers reflect on their teaching experiences and evaluate their own practices. Rather than simply remembering what happened in the classroom, both participants analyzed the strengths and weaknesses of the active learning strategies they had used. This process helped them identify what worked well and what needed to be improved. Similarly, (Farrell, 2022) argues that reflective practice enables teachers to make better instructional decisions based on their teaching experiences. In this study, reflection helped the participants understand how active learning could be implemented more effectively in future lessons.

The participants' reflections can also be explained by Kolb's (1984) experiential learning theory, which states that learning occurs

through experience followed by reflection. (Morris, 2020) further explains that experience alone does not always lead to learning unless individuals think critically about what they have experienced. The participants did not only gain teaching experience by implementing active learning, but they also reflected on that experience to improve their teaching practices. This suggests that reflection played an important role in helping them develop a better understanding of how to implement active learning effectively.

Another important finding is that the participants became more confident after gaining experience in implementing active learning. PST 1 explained that she felt less anxious as she became more familiar with her students, while PST 2 realized that understanding students' characteristics helped her choose more appropriate learning activities. These findings are consistent with Bandura's (1997) self-efficacy theory, which explains that successful experiences strengthen teachers' confidence in their ability to perform similar tasks in the future. As the participants gained more experience in implementing active learning, they became more confident in managing the classroom and selecting strategies that matched their students' needs.

The findings also show that reflection was supported by discussions with other people. PST 1 received feedback from her mentor teacher, and both participants shared their experiences with

classmates during the teaching practicum. These interactions helped them evaluate their teaching and consider different ways to improve their active learning practices. This finding supports Vygotsky's (1978) idea that learning develops through social interaction and guidance from more experienced individuals. Similarly, (Alemdağ and Özdemir Şimşek, 2017) explain that mentoring helps pre-service teachers connect what they learn at university with real classroom practice. In this study, support from mentors and peers encouraged the participants to reflect more deeply and improve the way they implemented active learning.

2. Pre-Service Teachers' Challenges in Implementing Active Learning

a. The Gap between Theory and Practice

The findings show that both participants experienced a gap between what they had learned about active learning and what actually happened in the classroom. They expected students to participate actively in collaborative learning, contribute equally during group work, and respond confidently during Q&A activities. However, they found that some students remained silent, others relied on their group members, and classroom activities often took more time than expected. They also faced technical problems when using gamification. These findings are consistent with (Darling-Hammond, 2006), who explains

that pre-service teachers often discover that real classroom situations are more complex than what they learned during teacher education.

PST 2, for example, realized that some students preferred chatting with their friends instead of discussing the assigned task, while others were reluctant to participate. This finding is similar to Huberman's (1989) description of the survival stage, in which beginning teachers learn to deal with unexpected classroom situations that cannot be fully predicted before entering the classroom. Although active learning encourages students to participate actively, the participants found that achieving this goal depended greatly on students' characteristics and classroom conditions.

These findings also agree with (Nguyen, 2021), who states that pre-service teachers often experience difficulties in implementing active learning because of limited resources, limited teaching time, and differences in students' abilities and learning needs. Similar challenges were experienced by both participants in this study. Their experiences suggest that implementing active learning successfully requires more than understanding the theory. Teachers also need to adapt their strategies to the classroom context and respond to situations that may change during the lesson.

The findings further show that the gap between theory and practice appeared differently across the active learning strategies used

by the participants. During collaborative learning, some students participated actively while others depended on their teammates. This finding supports (Tadesse et al., 2024) and (Nguyen and Oanh, 2025), who explain that cooperative learning requires clear task distribution and effective group management to encourage equal participation. During Q&A activities, only a few confident students answered most of the questions, while other students remained silent. This finding agrees with (Topping, 2023), who states that differences in students' confidence often influence their participation in classroom discussions. Similarly, during gamification activities, the participants experienced technical problems and needed more preparation time, which is consistent with the findings of (Zhang and Hasim, 2023) and (Helvich et al., 2023).

These findings suggest that the gap between theory and practice does not mean that active learning is ineffective. Instead, it shows that implementing active learning in real classrooms is more challenging than its theoretical description. Successful implementation depends on teachers' ability to adjust learning activities to students' needs, classroom conditions, available resources, and teaching time. This finding supports (Schön, 1983), who argues that teachers develop professional competence by reflecting on real teaching experiences and learning how to respond to situations that cannot be fully explained

by theory alone. It also agrees with (Serliana et al., 2021) and (Hanum and Dalimunte, 2025), who found that pre-service English teachers often experience difficulties when implementing student-centered learning in actual classroom settings.

b. Difficulties in Classroom Management

The findings show that classroom management was one of the main challenges faced by the participants when implementing active learning. Both participants found it difficult to manage students during group work, gamification, and Q&A activities. They reported that students sometimes became too noisy during games, lost focus during group discussions, or remained silent during classroom discussions. These findings are consistent with (Kabilan et al., 2020) and (Nababan and Amalia, 2021), who found that pre-service teachers often experience difficulties in managing active classrooms because interactive learning activities naturally create more movement, communication, and student participation than traditional teacher-centered lessons.

The findings also show that the participants needed to move around the classroom continuously to monitor students' learning. They checked each group, answered students' questions, and reminded students to stay focused on the assigned tasks. This finding reflects

Kounin's (1970) classroom management theory, which explains that effective teachers need to monitor classroom activities continuously and respond quickly when problems occur. In the context of active learning, classroom management becomes more demanding because students work in different groups and participate in different activities at the same time. As a result, teachers need to divide their attention across several learning situations instead of focusing only on the whole class.

Another challenge was maintaining students' participation without losing classroom control. During collaborative learning, some students became passive and depended on their group members. During Q&A activities, only a few confident students answered most of the questions, while other students remained silent. These findings suggest that encouraging active participation does not always mean that every student is equally involved. Similar findings were reported by (Fredricks et al., 2004), who explain that student engagement includes behavioral, emotional, and cognitive aspects, meaning that students may participate in different ways. (Bond et al., 2020) also argue that meaningful engagement requires learning activities that encourage all students to participate, not only the most confident ones.

The findings further indicate that the challenges in classroom management were closely related to the characteristics of active

learning itself. Because active learning encourages students to discuss ideas, work together, and interact more frequently, the classroom naturally becomes more active and dynamic. While these interactions increase student engagement, they also require teachers to manage noise levels, maintain students' attention, and ensure that every student participates in the learning process. This suggests that classroom management is not a separate challenge from active learning but an important part of implementing active learning successfully.

These findings are also supported by (Maharani and Fithriani, 2023), who found that many pre-service teachers pay more attention to maintaining classroom order than to achieving learning objectives. This situation often occurs because beginning teachers are still developing their classroom management skills. Similarly, (Shulman, 1987) argues that effective teaching requires not only strong subject knowledge but also the ability to manage learning situations. (Dicke et al., 2015) further explain that these teaching skills develop gradually through classroom experience, which is why beginning teachers often experience difficulties when teaching for the first time.

Although the participants experienced classroom management challenges, they also developed strategies to deal with them. They walked around the classroom, checked students' progress regularly, repeated instructions when necessary, and provided additional

guidance to groups that needed help. These strategies are consistent with (Maulidina et al., 2022), (Husen and Hardianti, 2024), and (Ragawanti, 2015), who explain that pre-service teachers improve their classroom management through continuous teaching practice and reflection. By evaluating what happened during each lesson, the participants gradually learned how to manage active learning activities more effectively.

c. Difficulties in Time Management

The findings show that time management was another challenge faced by the participants when implementing active learning. They explained that some learning activities took longer than expected, making it difficult to complete all planned activities within the available class time. Gamification required more time to prepare and conduct, collaborative learning often lasted longer because students needed time to discuss and complete their tasks, and Q&A sessions sometimes had to be shortened or postponed because other activities had already used most of the lesson time. These findings are consistent with (Novitasari and Murtafi'ah, 2022), who found that pre-service teachers often struggle to balance explaining the lesson, managing learning activities, and finishing the lesson within the allocated time.

The findings also suggest that different active learning strategies require different amounts of time. Gamification was the most time-consuming strategy because teachers needed to prepare the learning materials, explain the game rules, organize students, and solve technical problems during the activity. This finding agrees with (Helvich et al., 2023), who explain that gamification requires careful preparation and technological skills before it can be implemented successfully. Similarly, collaborative learning also required more time because students needed opportunities to discuss ideas, complete tasks together, and present their work. (Akida et al., 2023) explain that cooperative learning is effective when students have enough time to communicate and work together. However, when the available class time is limited, these activities may not be completed as planned.

Another important finding is that the participants gradually learned how to manage their teaching time more effectively. After experiencing difficulties, they began to estimate the duration of each activity more carefully, simplify some learning tasks, and adjust their lesson plans based on previous teaching experiences. This finding can be explained by Zimmerman's (2002) theory of self-regulated learning, which describes time management as part of self-management. Teachers need to plan, monitor, and evaluate their own teaching process so that learning activities can be completed effectively. In this

study, the participants showed this ability by reflecting on which activities took too much time and making improvements for future lessons.

Reflection also played an important role in helping the participants improve their time management. After each lesson, they evaluated which parts of the lesson ran well and which parts needed adjustment. This finding supports (Schön, 1983), who argues that teachers improve their professional practice by reflecting on their teaching experiences. Through reflection, the participants were able to identify more effective ways to organize active learning activities and use classroom time more efficiently in future lessons.

In addition, the findings indicate that time management was influenced not only by the teaching strategies themselves but also by external factors. PST 1 explained that some lessons were limited to a single class period, making it difficult to complete all planned activities. This finding is consistent with (Bibi and Aziz, 2024), who state that teachers' workload, teaching schedules, and administrative responsibilities can affect time management. Similarly, (Nguyen, 2021) explains that limited instructional time is one of the common challenges faced by pre-service teachers when implementing active learning. These conditions required the participants to adjust their lesson plans and prioritize the most important learning activities.

d. Low Confidence (Self-Efficacy Issue)

The findings show that both participants experienced moments of low confidence while implementing active learning. PST 1 felt nervous during her first Q&A activities because she was worried that her students would not understand her explanations. Meanwhile, PST 2 felt anxious that collaborative learning activities might become difficult to control. These findings suggest that low confidence was closely related to the challenges of managing interactive and student-centered learning rather than to a lack of subject knowledge. This finding is consistent with Bandura's (1997) self-efficacy theory, which explains that teachers' beliefs about their own abilities influence how they approach teaching tasks and respond to challenging situations.

PST 1's concern that students might not understand the lesson reflects the low self-efficacy often experienced by beginning teachers. Similarly, PST 2's concern about losing control during collaborative learning shows that implementing active learning requires teachers to manage not only the lesson content but also students' participation and classroom interaction. These findings agree with (Li et al., 2023), who explain that pre-service teachers with lower self-efficacy often feel uncertain when teaching because they doubt their ability to manage classroom situations effectively. In this study, these feelings appeared when the participants were implementing active learning strategies

that required students to participate actively and interact with one another.

The findings also support (Chen, 2021), who explains that teachers' emotions are influenced by the interaction between teachers and their classroom environment. The participants' lack of confidence did not remain constant throughout the practicum. Instead, it appeared in situations where active learning required them to manage discussions, collaborative activities, and student participation. This suggests that low confidence was influenced by the demands of implementing active learning rather than by personal characteristics alone.

As pre-service teachers, the participants were still developing their teaching skills through classroom experience. (Richards and Schmidt, 2013), as cited in (Izzati, 2023) explain that pre-service teachers are still learning how to become professional teachers while applying what they have learned in real classrooms. Therefore, experiencing uncertainty and low confidence during the implementation of active learning is a normal part of their professional development. Similarly, (Ji et al., 2022) found that teachers' emotions are strongly influenced by support from mentors, supervisors, and peers during the teaching practicum.

The findings further show that both participants tried to overcome their low confidence through preparation and support from others. PST 1 discussed her lesson plans with her mentor teacher before teaching, while PST 2 often shared ideas and experiences with her classmates. These experiences helped them feel more prepared and confident when implementing active learning. This finding supports Vygotsky's (1978) theory, which explains that learning develops through interaction and guidance from more experienced people. Likewise, (Alemdağ and Özdemir Şimşek, 2017) argue that mentoring helps pre-service teachers connect theoretical knowledge with classroom practice. In this study, guidance from mentors and discussions with peers helped the participants improve both their confidence and their ability to implement active learning more effectively.

The findings also indicate that confidence developed gradually through teaching experience. After teaching several lessons, reflecting on their performance, and receiving feedback from mentors and peers, the participants became more confident in managing active learning activities. This finding is consistent with Kolb's (1984) experiential learning theory, which explains that learning develops through experience followed by reflection. (Morris, 2020) also argues that professional growth occurs when individuals reflect critically on their

experiences and use those reflections to improve future practice. In this study, reflection helped the participants strengthen their confidence and improve the way they implemented active learning.