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Unlocking the Path to Professional Teaching: Insights from Student Teachers and Mentor Teachers in an At-School Practicum Program

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Abstract

This research aims to observe the implementation process of the Teacher Professional Program, specifically during the Practicum Experience in Schools (Program Praktik Lapangan or PPL), from the perspectives of the Mentor Teachers and the Student Teachers. The focus is on examining both groups' experiences and perceptions regarding the program's effectiveness and impact on teacher preparation and professional development. A qualitative research approach was applied, involving in-depth interviews with Mentor Teachers and Student Teachers and direct observation of the PPL process. The findings show that student teachers have developed competency in using various learning strategies while considering the learners' conditions and the learning objectives. They conducted a diagnostic test to assess the learning characteristics of their students and focused on developing several learning objectives, including critical thinking, science literacy, and communication skills. The student participants utilized various relevant information technologies, such as Physicslab, PhET Simulation, Octave, Canva, and Google Docs. The supervising teacher supported student teachers in managing the classroom from planning to evaluation, which is essential in providing a positive learning experience for student teachers and promoting their professional development. The observations showed that the students were comfortable with the student teachers and performed satisfactorily, which made the student teachers feel comfortable during their teaching practice. The support system from the supervising teacher is crucial in ensuring the effectiveness and impact of the program on teacher preparation and professional development.

Keywords: *Mentor Teacher, Practicum Program, Professional Teacher, Student Teacher*

Introduction

Improving teacher professionalism in Indonesia is not an easy task. It comes with several challenges that need to be addressed [1]. One of the biggest challenges is the quality of education. Teachers need to have a good knowledge of the curriculum, teaching methods, educational technology, and assessment to provide quality education to students [2]. Another challenge is professional development. Teachers need to develop their skills and knowledge to provide adequate education continuously. However, the lack of time, funding, and training opportunities make it difficult for them to do so [3].

Furthermore, the working environment for teachers in Indonesia is often not conducive. They often face pressure and stress due to inadequate classrooms, noisy environments, and health problems. These factors can affect the quality of education they provide. Limited resources are also a challenge for

teacher professionalism [4]. The lack of textbooks, teaching materials, laboratory facilities, and qualified human resources makes it challenging to provide quality education [5].

Changes in the curriculum can also be a significant challenge. With frequent changes, teachers must constantly adapt and adjust their teaching methods [6]. This can be challenging for teachers who lack experience in the new curriculum. Another challenge is the lack of support from parents. Parents play a crucial role in improving teacher professionalism, but some may not appreciate the efforts teachers put in. This can demotivate teachers and make it difficult for them to carry out their duties effectively. Technology can also pose a challenge to teacher professionalism. While technology is essential in education, teachers unfamiliar with it may face technical problems and a lack of resources [7]. Lastly, cultural differences can present a challenge. Indonesia's cultural diversity makes education in each region unique. Teachers need to understand and integrate the local culture into their teaching to strengthen the values applied in education [8].

Improving teacher professionalism in Indonesia requires addressing these challenges. With proper support, training, and resources, teachers can provide quality education to students and enhance the education system in the country. The teacher certification program in Indonesia was introduced in 2005 to improve the country's education quality [9]. The program aims to assess and certify teachers' competencies in Indonesia based on predetermined standards [10]. The program is mandatory for all teachers in both public and private schools.

The teacher certification program's success level in Indonesia can be evaluated based on several factors [11]-[13]. One of the factors is the number of teachers who have successfully obtained certification. Another factor to consider is the impact of the certification program on the quality of education in Indonesia. While it is difficult to measure the program's direct impact, studies have shown that there has been an improvement in the quality of education in schools where certified teachers are employed [14]-[17]. This suggests that the program has successfully improved the quality of education in Indonesia.

However, the certification program is not without its challenges. One of the challenges is the program's cost, which can burden teachers who have to pay for the certification themselves. There is also the issue of the quality of the assessment process, which has been criticized for being too focused on theoretical knowledge and not enough on practical skills. The teacher certification program in Indonesia has been relatively successful in terms of the number of teachers who have obtained certification and the improvement in the quality of education. However, challenges still need to be addressed to ensure that the program continues to improve the quality of teaching and the professionalism of teachers in Indonesia.

The Teacher Professional Program (*Program Profesi Guru* or PPG) aims to improve the quality of teachers and education in Indonesia by providing teachers with professional training and certification. PPG offers several benefits to teachers in Indonesia. Firstly, it provides teachers professional development opportunities, such as training and workshops, to improve their skills and knowledge. This can help teachers stay up-to-date with the latest teaching methods and technologies, ultimately enhancing teaching and learning outcomes. Secondly, the program provides teachers with

certification, which is recognized nationally and internationally. This can increase the professional status of teachers and provide them with more opportunities for career advancement. However, PPG is still relatively new, and its effectiveness in supporting the preparation of professional teachers is still being evaluated. Some concerns have been raised about the quality of the training and certification process, as well as the accessibility of the program to teachers in remote areas. While PPG has the potential to support the preparation of professional teachers in Indonesia, it is still too early to determine its overall effectiveness. Further evaluation is needed to determine whether the program is achieving its goals of improving the country's education quality and preparing professional teachers for the future.

This research aims to observe the implementation process of the Teacher Professional Program, particularly during the Practicum Experience in Schools (*Program Praktik Lapangan* or PPL), from the perspectives of the Mentor Teachers and the Student Teachers. The focus will be on examining both groups' experiences and perceptions regarding the program's effectiveness and impact on teacher preparation and professional development. The research involved direct observations of the PPL process and interviews with Mentor Teachers and Student Teachers to gain insights into the challenges and opportunities of the program. The findings of this research contribute to improving the quality of teacher education and professional development in Indonesia.

Methods

A qualitative methods research approach was applied to examine the Teacher Professional Program implementation process from the perspectives of Mentor Teachers and Student Teachers. The qualitative component involved in-depth interviews with mentors and student teachers further to explore their experiences and perceptions of the program. The interviews were semi-structured and open-ended, allowing participants to share their opinions and insights in their own words. The interview data was analyzed using thematic analysis to identify key themes and patterns. Direct observation of the PPL process was also included as part of the research methodology. This provided a first-hand understanding of the challenges and opportunities of the program from the perspectives of both Mentor Teachers and Student Teachers. The participants in this study are a Physics Subject Mentor Teacher (initial: SRL) and three student teachers (initial: ALM, NNA, and SJA). The sound material is covered in approximately 4 or 5 class meetings.

Results and Discussion

A. Competency in implementing Learning Strategies

In their teacher training, the student teachers have developed competency in applying various learning strategies while considering the learners' conditions and the learning objectives. To ensure the effectiveness of their teaching strategies, they conducted a diagnostic test to assess the learning characteristics of their students. They have focused on developing several learning objectives throughout their practicum, including critical thinking, science literacy, and communication skills. The result of an interview with a teaching intern explains that they apply several learning strategies.

> *Anak-anak di sekolah ini (sekolah favorit di Yogyakarta) termasuk anak-anak yang serius dalam belajar. Namun karena pelaksanaan praktik ini pada bulan puasa, ada beberapa anak yang*

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terlihat letih. Jadi saya menerapkan diskusi kolaboratif agar anak-anak aktif. Saya juga menggunakan Phypox untuk mengukur pelayangan pada saat sesi diskusi. (ALM)
(Students in this school (a favored school in Yogyakarta) are known to be serious in their studies. However, some students appeared fatigued due to implementing practical activities during the fasting month. Therefore, I applied collaborative discussions to encourage active participation among the children. I also used Phypox to measure engagement during the discussion sessions.)

Dalam pembelajaran saya memvariasikan beberapa strategi. Ada tiga siklus divariasikan dengan PPT, teknologi dan budaya. Teknologi untuk analisis gelombang dengan Octave. Siswa membuat grafik sinusiodal. Untuk yang budaya, siswa diajak ke aula yang ada gamelan di sana. (SJA).
(In my teaching, I varied my strategies by implementing three cycles: PowerPoint presentations, technology, and culture. Technology was used for wave analysis with Octave, and students were required to create sinusoidal graphs. As for culture, students were taken to the hall where a gamelan was present.)

Selama pembelajaran saya menerapkan PBL (Problem Based Learning) karena itu merupakan pembelajaran yang disarankan ketika PPG (kuliah). Kelompokan berdasar kemampuan dan gaya belajar mereka. Saya memberikan soal untuk mengetahui pengetahuan awal mereka. Di antara mereka ada yang bimbel dan tidak bimbel (pelajaran tambahan di luar sekolah) sehingga digabungkan biar dapat berbagi. (NNA).
(Throughout my teaching, I implemented Problem-Based Learning (PBL) as it is recommended for PPG (course). Students were grouped based on their abilities and learning styles. I provided questions to assess their prior knowledge. Among them were students who received private tutoring and those who did not, and they were combined so they could share their knowledge.)

The student teachers consulted with their mentor teachers to prepare to implement these strategies. This collaboration between the student and mentor teachers was critical in ensuring that the learning strategies were appropriate and effective for the student's needs. By working together, they could tailor their plan to meet the specific needs of the learners.

The student teachers have applied various learning strategies, including group discussions, demonstrations, and hands-on activities. They have also incorporated technology into their teaching, such as educational videos and interactive software, to enhance the learning experience. The student teachers used these strategies to create an engaging and effective learning environment fostering critical thinking, science literacy, and communication skills.

Figures 1 to 4 demonstrate that the teaching intern has implemented several strategies in their teaching approach. Figure 1 explains that the teaching intern uses evaluation questions based on higher-order thinking skills, specifically about real-life scenarios. Figure 2 shows that the intern provides a case study about sound on a toll road as evidence of implementing contextual teaching and learning. Meanwhile, Figure 3 illustrates that the intern applies contextual teaching learning and technology in their instruction.

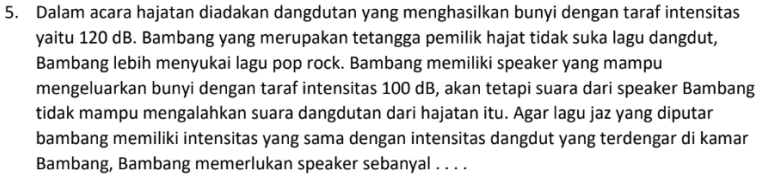

5. Dalam acara hajatan diadakan dangdutan yang menghasilkan bunyi dengan taraf intensitas yaitu 120 dB. Bambang yang merupakan tetangga pemilik hajat tidak suka lagu dangdut, Bambang lebih menyukai lagu pop rock. Bambang memiliki speaker yang mampu mengeluarkan bunyi dengan taraf intensitas 100 dB, akan tetapi suara dari speaker Bambang tidak mampu mengalahkan suara dangdutan dari hajatan itu. Agar lagu jaz yang diputar bambang memiliki intensitas yang sama dengan intensitas dangdut yang terdengar di kamar Bambang, Bambang memerlukan speaker sebanyal . . . .

Fig. 1. Example of the problem based assignment

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Fig. 2. Example of contextual learning on Sound Material

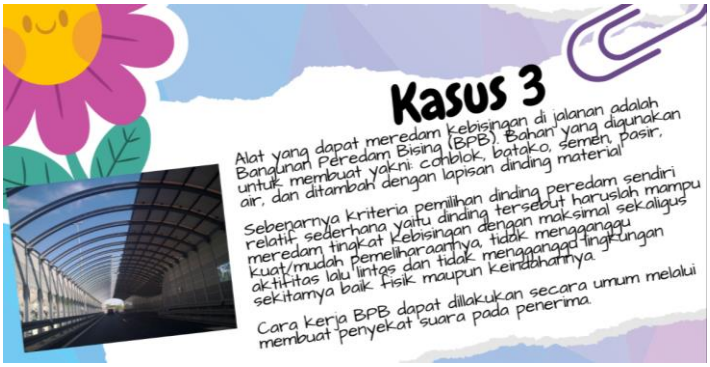


Fig. 3. Example of the case of Sound Material in daily situation

The student teachers' competency in applying various learning strategies has enabled them to develop an effective and engaging learning environment that supports the learners' needs and objectives. Their collaboration with their mentor teachers has further enhanced the quality of their teaching, ensuring that their strategies are appropriate and effective. Implementing diverse learning strategies suitable for the learners' competency needs, and prior knowledge is crucial in the learning process. This is because each learner has unique learning characteristics and knowledge background that require tailored teaching methods to ensure effective learning. One theory that supports the importance of diverse teaching strategies is the constructivist theory [18]. According to this theory, learners construct knowledge based on their experiences, interactions, and prior knowledge. Therefore, providing various learning opportunities and strategies can help learners connect new and existing knowledge, leading to better retention and understanding.

Additionally, the social cognitive theory emphasizes the importance of observational learning, where learners observe and imitate the behaviors of others in the learning environment [19]. By incorporating diverse learning strategies, learners can watch and learn from different teaching methods and approaches, leading to a broader understanding of the subject matter. Applying various learning strategies that cater to learners' competency needs and prior knowledge is essential for effective learning [20]. The constructivist and social cognitive theories support the importance of using various teaching methods and approaches to provide learners with opportunities for knowledge construction, retention, and observational learning.

Recent studies support the argument of the importance of diverse learning strategies in enhancing students' learning outcomes. One study by Ref. [21] investigated the effectiveness of integrating various teaching strategies, such as cooperative learning, problem-based learning, and case-based learning, in a college-level biology course. The results showed that incorporating these strategies improved students' learning outcomes and ability to apply knowledge to real-world situations. Another study explored the effectiveness of integrating diverse teaching strategies, such as inquiry-based learning, project-based learning, and discovery learning, in improving students' critical thinking skills in a high school biology course [22]. The study found that integrating these strategies improved students' thinking skills and ability to apply knowledge to new situations.

B. Competence in utilizing technology

In the sound topic's learning process, the field experience's student participants have utilized various relevant information technologies. The interview results indicate that the teaching intern has used multiple technologies, both digital and other instruments, to support active learning. The diverse range of technologies used provides opportunities for better learning outcomes.

> *Sebelum masuk kelas, saya menyortir aplikasi simulasi dengan pertimbangan kemudahan penggunaan. Kita tu perlu mempelajari aplikasi yang ada agar dapat gambaran dan dapat menyesuaikan dengan pembelajarannya. Saya menggunakan katakunci dalam mencari aplikasi simulasi. Tidak semua bisa sesuai. (ALM)*
> (Before entering the classroom, I sorted simulation applications based on their ease of use. We must learn about the available applications to gain an overview and adjust our teaching accordingly. I used keywords to search for simulation applications, but not all were suitable.)

> *Pertimbangan pemilihan adalah karena mereka (siswa) telah menggunakan alat tersebut sebelumnya. Sehingga tidak terlalu sulit. Hanya saja dalam pelajaran itu belum dijelaskan makna fisisnya karena belum sampai. Teknologi juga mempertimbangkan kemampuan kognitif baik terus kemampuan membawa laptop (akses informasi). Sehingga bisa menggunakan Octave (SJA)*
> (The reason for selecting those particular applications was that the students had used them before, making it easier for them to use them again. However, due to time constraints, the physical meaning of the applications had not been explained in class. The student's cognitive abilities and ability to carry a laptop (access to information) were also considered regarding technology. Therefore, Octave was used.)

> *Saya menggunakan canva sebagai media siswa untuk mengerjakan projek hasil diskusi mereka. Mereka dapat berkolaborasi. Guru juga dapat memberikan feedback pada pekerjaan siswa secara online. (NNA)*
> (I used Canva as a tool for students to collaborate on their discussion projects. The teacher could also provide online feedback on the students' work.)

For a better understanding, the students used simulations from the internet, such as Physicslab, PhET Simulation, and Octave. For collaborative work, applications such as Canva and Google Docs were used as tools to produce products. Class discussions also used PowerPoint. In hands-on activities, students were taken to the studio to observe Gamelan (traditional musical instruments). Figure 4 illustrates the use of the online Octave application to simulate sound phenomena. Figure 5 demonstrates the use of the Canva application for collaborative work and providing feedback on student work.

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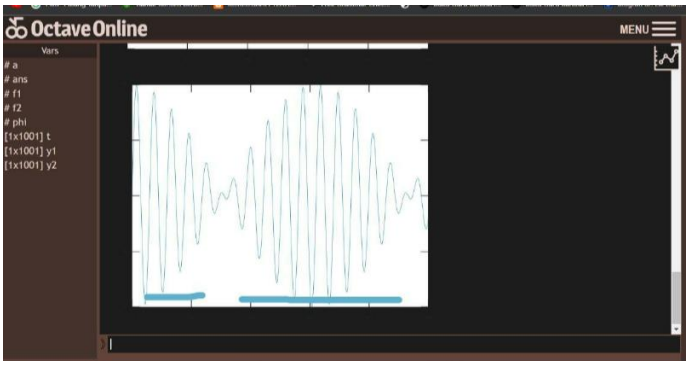


Fig. 4. The use of certain tool to simulate the sound wave



Fig. 5. The use of technology to facilitate student discussion

Using simulations such as Physicslab, PhET Simulation, and Octave can enhance students' understanding of the subject matter. Simulations provide an interactive and dynamic learning experience that can help students visualize and understand complex concepts. By allowing students to manipulate variables and observe the effects of their actions in real-time, simulations can help students develop a deeper and more intuitive understanding of the concepts being taught. Research has shown that the use of simulations can have a positive impact on student learning outcomes. For example, a study by Ref. [23] found that using simulations in physics education significantly improved students' conceptual understanding and problem-solving skills.

In the context of the earlier study on the use of technology in teaching sound, simulations were an effective way to help students grasp the abstract concepts of sound waves and their properties. Using Physicslab, PhET Simulation, and Octave, the students could visualize and explore the behavior of sound waves in different scenarios and gain a deeper understanding of the underlying principles. Using simulations can be valuable in teaching and learning, particularly in subjects involving complex and abstract concepts [24]. By providing a more interactive and engaging learning experience, simulations can help students better understand the subject matter and improve their learning outcomes.

Using applications such as Canva and Google Docs as tools to produce products in collaborative learning is suitable and relevant. These applications provide a platform for students to collaborate and create visually appealing and engaging products such as infographics, posters, and presentations. The collaborative aspect of these applications allows for group work, which can enhance communication, teamwork, and critical thinking skills [25]. In addition, these tools are accessible and user-friendly, making it easier for students to produce high-quality products. Studies have shown that collaborative

learning and technology tools in education can lead to better learning outcomes and student engagement [26]. According to Ref. [27], technology tools can enhance the learning experience by providing a more interactive and engaging environment and promoting collaboration and problem-solving skills. Using these applications in collaborative learning can effectively engage students in learning and develop essential skills for the 21st century.

In utilizing these various technologies, the student participants were able to enhance their learning experiences and develop their competencies in utilizing technology for educational purposes. Using simulations and interactive tools provided the students with a more engaging and dynamic learning experience, enabling them to explore the topic of sound in a more immersive way. The collaborative work also allowed for a more interactive and participatory learning environment, where students could exchange ideas and feedback with each other and develop their teamwork skills.

Furthermore, the use of technology in the classroom has been shown to impact student learning outcomes positively. According to Ref. [28], technology can help increase student achievement, improve learning efficiency, and enhance student engagement and motivation. By utilizing various technology tools and resources, educators can create a more personalized and practical learning experience that caters to their students' diverse needs and learning styles. The use of technology in education has become increasingly important in today's digital age, and educators need to develop their competencies in utilizing technology for educational purposes and guiding their students in developing their technological literacy.

C. Student Acceptance Rate in Practicum Students Teachers

During the observation, it was seen that the students were comfortable with the student teachers. They showed respect and treated them like any other teacher. Although some students were not focused during group learning, they could present their work well during discussions and presentations. Overall, the students performed satisfactorily, making the student teachers feel comfortable during their teaching practice. The student teachers tried to establish a friendly learning environment by treating the students as their peers to reduce psychological pressure during their teaching practice.

A teacher's level of student acceptance can significantly impact their performance and the overall learning environment. Students with a positive attitude towards their teacher are likelier to engage in classroom activities, participate in discussions, and complete assignments. On the other hand, when students have a negative attitude toward their teacher, they may be disengaged or disruptive, creating a challenging learning environment for the teacher and other students. Research has shown that student-teacher relationships significantly impact student motivation, academic achievement, and well-being. Positive relationships can increase students' confidence, sense of belonging, and intellectual engagement, while negative relationships can lead to decreased motivation, poor academic performance, and negative attitudes toward school. Therefore, teachers must develop positive relationships with their students by creating a supportive and respectful learning environment, establishing clear expectations and boundaries, and demonstrating care and interest in their students' learning and well-being. Teachers can also seek student feedback to understand their needs and perspectives and adjust their teaching practices accordingly.

The interview results indicate that the students tend to accept the teaching intern and still show the same level of respect as they do with their other teachers. This finding is very positive for the success of the teaching internship program.

> *Sejauh ini anak-anak memperhatikan pelajaran dan mengerjakan tugas. Alhamdulillah tidak ada yang aneh-aneh. Selama ini pembelajaran berjalan dengan baik. Kadang memang ada yang terlambat mengerjakan tugas. Kalau diingatkan mereka segera mengumpulkan juga. (SJA)*
> (So far, the students have been attentive during lessons and have completed their assignments. Alhamdulillah (Praise be to God), there have been no unusual incidents. The teaching has been going well, although some students may be late submitting their assignments. However, upon being reminded, they promptly offer their work.)

> *Ketika awalnya ada yang ngobrol, saat saya masuk mereka segera menyesuaikan dan mencermati apa yang saya jelaskan. Ketika diminta membuat kelompok, mereka segera mengerjakan. Ini menunjukkan penerimaan siswa juga baik pada kami. (NNA)*
> (When some students were chatting at the beginning of the lesson, they quickly adjusted and paid attention to what I was explaining when I entered the room. When asked to form groups, they promptly got to work, which shows that the students are also receptive to us as educators.)

Several learning theories support that student acceptance of the teacher can influence learning outcomes and the classroom environment. One such theory is the social learning theory, which emphasizes the role of observational learning and modeling in shaping behavior. This theory suggests that students may observe and model their teacher's behavior in the classroom context. A positive relationship between teacher and student can promote a positive learning environment and enhance student motivation [29]. Another theory that supports this idea is the self-determination theory, which suggests that motivation and engagement in learning are influenced by the extent to which students feel a sense of autonomy, competence, and relatedness in the learning process [30]. A positive relationship between teacher and student can help to foster these feelings and promote greater engagement and motivation in learning. These theories suggest that the relationship between teacher and student is essential in promoting positive learning outcomes and a supportive classroom environment.

Many research studies support that student acceptance of their teacher can positively impact learning outcomes and the classroom environment. Students who have a positive relationship with their teacher are more engaged in learning and have higher academic achievement [31]. Another study found that teacher-student relationships can affect students' emotions and motivation, influencing their academic performance [32]. Furthermore, students who perceive their teacher as supportive and caring are more likely to engage in prosocial behaviors, such as helping others and participating in class discussions [33]. This creates a positive classroom environment that fosters learning and personal growth. Research consistently shows that student acceptance of their teacher is essential in creating a positive learning environment and promoting academic achievement.

D. Accompanying teacher support

In the field experience teaching, the supervising teacher supports student teachers in managing the classroom from planning to evaluation. Before the lesson, student teachers discuss their lesson plans with the supervising teacher. At the end of the lesson, the supervising teacher gives feedback for improvement in the next lesson. The supervising teacher also provides essential materials that can be

used in the lesson. The supervising teacher allows student teachers to sit in their class to understand how they serve as role models in teaching. Student teachers also feel comfortable asking questions if there is any confusion in the teaching process. This support system from the supervising teacher is essential in providing a positive learning experience for student teachers and promoting their professional development.

The role of a mentor teacher is essential in enhancing the teaching competence of student teachers. Mentor teachers provide guidance and support throughout the teaching practicum, from lesson planning to evaluation. They also offer constructive feedback for improvement and give essential teaching resources to students. Mentor teachers are also excellent role models for the students, allowing them to observe the teacher's pedagogical practices and techniques. Student teachers can develop their teaching skills and style through observation and guidance. The role of the supervising teacher as a mentor is crucial. A teacher who provides opportunities for the teaching intern to explore more widely and without pressure can lead to better outcomes. Positive feedback can also help improve learning. The following interview explains these findings.

> *Guru pendamping sebagai guru pamong sebenarnya memberi masukan pada kami. Tapi yang saya senang itu bu X memberi kebebasan kepada kami untuk berekspresi. Jadi yang penting adalah ketercapaian belajar. Tidak harus pakai aplikasi atau cara tertentu. Bu X juga memberi saran untuk mengatur proporsi diskusi dengan menyampaian materi. ... Sekolah sangat mendukung. Kepala sekolah memberikan akses yang luas pada laboratorium yang ada dan juga alat peraga lain. (ALM)*
> (As our mentor, Mrs. X provided input and suggestions to us, but what I appreciated most was that she gave us the freedom to express ourselves. What mattered most was the achievement of learning, which did not necessarily have to be done using specific applications or methods. Bu X also advised us to balance discussions with the delivery of material. The school has been very supportive, providing us access to various teaching aids, including laboratory equipment.)

> *Sebelum kami praktek, kami diajak diskusi oleh Bu X untuk membahas materi, waktu, apa yang akan dilakukan. Kalau materi, beliau memberikan bahan-bahan. Di akhir guru memberikan feedback seperti cara penyampaiannya begini. (SJA)*
> (Before we began our practical teaching sessions, Bu X discussed the material, timing, and activities with us. She also provided us with teaching materials. At the end of the session, she provided feedback on our delivery.)

> *Sebelum PPL, guru pamong memberikan penjelasan karakter siswa sehingga tidak kaget. Juga lebih ke dukungan moril agar kami juga dapat praktik dengan baik. Bu X, memberikan kepercayaan pada kita untuk eksplorasi dan menerapkan kemampuan yang diterima saat PPG (kuliah). (NNA)*
> (Before our teaching practice, our mentor gave us a briefing on the students' character, so we were not surprised. She also provided moral support to help us effectively practice our teaching. Bu X gave us the confidence to explore and apply the teaching skills acquired during our college coursework.)

Numerous studies have emphasized the importance of mentor teachers in improving the teaching competencies of student teachers [34]. Mentor teachers' support had a significant impact on the professional development of student teachers [35]. Another study showed that mentor teachers' feedback and guidance improved the students' teaching performance and self-efficacy [36]. Therefore, the role of mentor teachers in enhancing the teaching competence of student teachers cannot be

overstated. Their guidance and support are crucial in helping student teachers to become effective educators.

The theory that can be used to explain the role of the model teacher and the success of learning practices is the Social Cognitive Theory by Albert Bandura [36]. According to this theory, individuals learn through observation and imitation of the behavior of others, particularly role models. In the context of teaching, this means that students who observe and learn from effective and skilled teachers are more likely to develop the same competencies and skills. This theory also emphasizes the importance of feedback and self-efficacy in the learning process. By providing feedback and positive reinforcement, model teachers can help students build their confidence and belief in their abilities, leading to better learning outcomes [37]. Many studies have investigated the role of a teacher as a model in improving teaching competence among student teachers. One study found that the modeling behavior of cooperating teachers significantly influenced student teachers' perceptions of their teaching skills and their actual performance [38]. The study suggested that cooperating teachers who demonstrated good teaching practices and provided constructive feedback to student teachers could enhance their teaching skills and improve their overall performance. Another survey emphasized the importance of teacher modeling in developing a practical knowledge base among student teachers. The study argued that observing and reflecting on a teacher's practice could help student teachers acquire tacit knowledge essential for effective teaching. These studies suggest that teacher modeling is crucial in improving teaching competence among student teachers, providing them with practical knowledge and skills to apply in their teaching practices.

Conclusion

In conclusion, the student teachers in this study demonstrated competency in applying various learning strategies tailored to the learners' conditions and learning objectives. They utilized different relevant information technologies to enhance the learning experience, including simulations and collaborative tools. The students were comfortable with the student teachers, and the student teachers made an effort to establish a friendly learning environment. The supervising teacher supported the student teachers in managing the classroom, including feedback and necessary materials. This support system is essential in promoting the professional development of student teachers and providing a positive learning experience for teachers and their students. This study highlights the importance of practical teacher training and supportive supervision in promoting quality teaching and learning.

Conflict of Interest

The authors declare that there is no conflict of interest.

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