



Reflective Practice: An Effort to Increase Pre-Service Teacher's Pedagogical Competence

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Abstract. One of IB curriculum's characteristics is student-centered learning. The teacher's role is to facilitate students to be actively involved in learning. The purpose of this study is to describe a pre service teacher's efforts to increase pedagogical competence in the implementation of the IB curriculum through the application of reflective practice. This research was conducted using a qualitative descriptive method which were using literature data sources and portfolios. The data then was analyzed using qualitative descriptive data analysis technique using the framework developed by Miles and Huberman. Reflective practice is considered capable of increasing the pedagogic competence of teachers in carrying out their teaching and learning based on the curriculum content. Reflective practice by 'imitating' helps pre service teacher build instructional performance in carrying out learning. Feedback is considered as a means of validating, correcting, and providing alternatives for pre service teachers' obstacles during the reflective practice process. In conclusion, reflective practice with the Follow me model was able to improve pre service teacher's pedagogical competence.

Keywords: Pedagogical competence, Reflective practice, Feedback

1 Introduction

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect [1]. IB educates the students to become global-thinking individuals so that they are able to think critically and solve problems in their daily lives. Inquiry skill is one of the graduate profiles expected by IB Curriculum to their students. The inquiry approach emphasizes the process of seeking and finding through a series of thought processes to organize concepts and principles which are important to the students [2]. Dwyer in Pada [3] argues that the principles of inquiry are: intellectual principles, interaction, asking questions, learning to think and openness. According to Pedaste, et.al [4] and Hasibuan [5], the main purpose of learning through the inquiry learning model is to help students develop intellectual discipline and thinking skills by authentically asking questions and getting answers based on their curiosity. This makes students' understanding last a long time and in-

crease compared to only receiving information from the teachers [6]. Inquiry learning gives the students opportunity to process the knowledge by themselves so that the knowledge becomes theirs.

The key to school success in achieving educational goals in schools is in the hands of the teacher [7]. There is teacher competence regulated in the Undang-undang Guru dan Dosen and PP (Teacher and Lecturer Regulation) No. 19 Year 2005 which states that teacher competence includes pedagogical, professional, social and personality competencies [8]. According to Irwanto and Suryana [9], pedagogical competence is related to the management of student learning; professional competence is broad and deep mastery of material; social competence is the ability to communicate with students, fellow teachers, and parents; as well as personal competence including the teacher's ability to be noble, wise, authoritative and to be a role model for students. Thus, through this set of competencies teachers are required to have complete abilities in their teaching.

The scope of pedagogical competence according to Irwanto & Suryana [9] includes (1) mastering the characteristics of students, (2) mastering learning theory and educational learning principles, (3) curriculum development, (4) carrying out educational learning activities, (5) development of students' potential, (6) communication with students, and (7) assessment and evaluation. Indicators of carrying out educational learning namely (1) carrying out learning activities according to the design (2) communicating new information, (3) addressing student mistakes as a learning process, (4) carrying out activities according to curriculum content, (5) carrying out various learning activities, (6) managing classes [9]. Related to the problems previously described the indicators in carrying out educational learning, learning activities, learning design, and the contents of the curriculum are all aligned and serve their own purposes.

Based on the observations made at one of the IB Curriculum-based schools in Jakarta, pre service teachers had difficulty in implementing the IB Curriculum through doing planned learning activities. This is because the lecture method still dominates teaching and learning activities. Pre service teacher had difficulty processing students' ideas by categorizing and drawing conclusions. The problem is that when the teacher provides too much information in a lecturing manner. In this case, the characteristics of the IB curriculum have not been implemented in learning. When the teacher has not been able to carry out learning activities in accordance with the philosophy of the IB Curriculum, the goals of the curriculum are also difficult to achieve. The problem is the lack of teacher competence to be able to carry out learning that has been designed according to the contents of the curriculum. Teachers should not only fully understand the curriculum in theory but also have to be able to put it into practice.

Pendergast, Dole, and Rentoule in 2014 used a qualitative study approach to interview 33 instructors, over 100 MYP and DP courses, and students from over 70 different nationalities at an international school in Japan. They discovered that neither grade level, IB program, nor subject area were associated to instructors' pedagogical style, and that only a small percentage of teachers used practices that were in line with the IB's student-centered approach [10]. There are also particular cases happens in Indonesia. Yuwono [11] explained that there were still several teachers who did not

properly prepare the subject topic to be delivered to their students. Even in learning, there are still many educators who seem unprepared. In addition, other studies have also found that one of the causes of the low quality of education in Indonesia is teacher performance as seen from the feasibility of teaching teachers. Srinadi [12] also found that the quality of teachers in Indonesia is still relatively low because the quality of education is not fulfilled through teacher performance. Based on findings during academic visits to several schools, problems that occur in the field are still found to be teachers (both in public and private schools) who have not been able to make good and complete RKM and RKH. In addition, there are also teachers who modify other people's RKM and RKH. In line with that, the research conducted by Wahyuni and Berliani [13] shows that there is still a lack of teacher competence in planning the learning process, carrying out the learning process well and evaluating the learning process and student learning outcomes themselves. The teacher still delivers material using the lecture method throughout the lesson so that the role of students is only to listen to the teacher. A similar problem is also explained by the lack of teacher creativity in determining various approaches, strategies, methods and techniques in learning and the learning process is monotonous [14].

Seeing the conditions of the problems that occur in the field, the teachers need to develop their pedagogical competence in carrying out learning that has been designed according to the curriculum. This can be done by carrying out independent professional development through Reflective Practice. According to Agustin [15] basically reflection is an effective tool for developing competencies independently and continuously. Yet the reflective approaches that will be used is introduced by Schon named "Follow me". The phrases "follow me!" "joint experimentation," and "hall of mirrors" were refined into a three-part professional coaching sequence. Within a framework of knowledge and skill development, these stages of a learning process steadily improved the experience learning of the preservice teacher [16]. Therefore, the formulation of the problem in this study is how to increase teacher pedagogical competence in the implementation of the IB Curriculum through the application of practical reflection? The purpose of this research is to describe efforts to increase teacher pedagogical competence in the implementation of the IB Curriculum through reflective practice.

This research will describe that pre service teachers also need intentional professional development to improve their pedagogical competence. Compared to in-service teacher, pre service teacher needs professional development method which best suit their contexts. One of the effective tools for their context, which are in training and in practicum, is practical reflection. Practical reflection is also considered effective because of its practicality and flexibility.

2 Method

This research was carried out using a qualitative descriptive method with literature data sources and portfolios from the pre service teacher's internship program. The focus of this research is the process of implementing reflective practice by pre service

teacher to increase pedagogical competence. The subject in this study was a pre service teacher who taught at a private school in Jakarta during July-August 2022. The framework for preservice teacher experiential learning with the aid of experts serving as coaches is known as a "reflective practicum," according to Schön. The steps in carrying out the reflective practice of the Follow me model are (1) observing teaching demonstrations by the mentor teacher (observation), (2) observing demonstrations by the mentor teacher (noting the results of observations), (3) imitating the teaching methods carried out by the mentor teacher and (4) criticizing the pre service teacher performance by the mentor teacher.

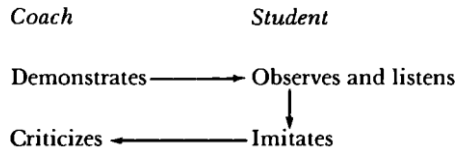


Fig. 1. Reflection Ladder taken from (Schön, 1987)

The picture above is called Reflection Ladder described by Schön [17] in the process of reflective practice. The Reflection Ladder describes the flow of practical reflection involving professionals as trainers or coaches, including the *Follow me* model. Data collection techniques used in this study are observation and documentation. The results of the subsequent research were analyzed using a qualitative descriptive data analysis technique using the framework developed by Miles and Huberman in Morissan [18] which consisted of three stages: Data reduction, Data presentation and Drawing conclusions.

The effective reflective supervision promotes professional confidence and important ethical decision-making for social workers [23]. This is supported by some research that show the effectiveness of reflection approach. Previous research conducted by Mohan and Chan [27] states that professional learning communities are a strong form of professional development for teachers. One of the ways schools can enhance their teacher professional growth is through a professional learning community model where teachers can engage in sharing stories and reflective dialogue. Professional learning communities are a powerful form of professional development for teachers. As a result of research conducted by Go and Nam [28], interactions with mentor-teachers through collaborative mentoring programs stimulate mentee-teacher reflection about their teaching. This leads to improving teaching skills through reflection. In line with that, the research conducted by Fiertes et al also found that the practice of reflection has a positive impact on teachers and must be accompanied by a process of communication and (professional) supervision that encourages a desire to develop [29].

3 Result & Discussion

3.1 Result

The result of Follow-Me observation and documentation which were taken from pre service teacher portfolio is displayed in the table below.

Table 1. The result of Follow-Me observation and documentation which were taken from pre service teacher portfolio

Table 1 : Results of Observation and Documentation *Follow me*

Steps <i>Follow me</i>	1. Demonstrating 2. Observing	3. Imitating	4. Criticize
Session 1	Discussion, seeking information from articles in groups, group presentations	Discussion and information seeking by group interviews .	Appreciate the selection of methods, Lack of class management and detailed instructions
Session 2	Interactive question and answer	Independent discussion and practice. Class management constraints and lack of time .	Appreciation for choosing a method, suggestions for providing extra activities and conveying something more practically
Session 3		Interactive practice questions. Doing a more practical delivery method	Checking minor errors in teaching materials
Session 4		Interactive question exercises. Commitment to more discussions with colleagues and senior teachers	Appreciate the selection of methods and check for minor errors in teaching materials .

Based on the reflection of the lesson plan on August 23, 2022, students discussed concepts from the topics studied. Then the learning activities continued with information seeking by students in groups through interviews. Each group looks for different information to be shared later in class. However, pre service teacher still didn't have enough time to close classes and was still unclear in giving detailed and repetitive instructions. Based on teaching feedback on August 23, 2022, mentor teacher appreciated the teaching methods used by pre service teacher and provide input on being able to manage time and provide clearer activity instructions.

Based on the reflection of the lesson plan on August 24, 2022, pre service teacher explained the topic by giving examples of contextual problems then inviting students to be involved in answering questions. However, pre service teacher experienced problems in managing student behavior which also affects time management. During the day's teaching, pre service teacher imitated the interesting math question and answer technique and involved all students. Based on the feedback on August 24, 2022, the mentor teacher appreciated the pre service teacher's chosen method. However, the method of student delivery is still too theoretical and suggests explaining it more practically. The mentor teacher also suggested providing extra activities to overcome classroom management constraints.

Based on reflections on August 25, 2022, pre service teacher taught in a more practical way of delivery. Pre service teacher also lead math problem practice activities by

exchanging questions made by students themselves so that behavior is more controlled. Pre service teacher was still carrying out the process of 'copying' based on the same observations as before. Practical reflection needs to be done continuously because change does not happen instantly. In this teaching pre service teacher tried to improve classroom management by selecting activities that limit students' deviant behavior. Based on teacher mentor feedback on August 25, 2022, there is a suggestion for pre service teacher to re-examine teaching materials because they encountered several minor errors and to be able to manage time better.

Based on pre service teacher reflections on August 26, 2022, teaching practice was carried out by reviewing material through group games. The obstacles experienced were in conveying instructions and there were still minor errors in the teaching materials that needed clarification. Weaknesses in class management but quite helped by selecting the right activity. Pre service teacher realized that so far teaching practices have been sufficient to facilitate student engagement. The commitment going forward is to have more discussions with colleagues and senior teachers to be able to anticipate obstacles as early as possible. Based on the mentor teacher's feedback on August 26, 2022, the mentor teacher appreciated the teaching process. The mentor teacher also suggested re-checking minor errors in teaching materials, managing time well and giving instructions with the help of PPT.

3.2 Discussion

There are some stages to be implemented. The first stage is demonstrating the teaching method by the mentor teacher. While the second stage is observing the demonstration. Thus, the first and second stages are carried out together. The third stage is done by imitating the way mentor teachers teach. For this reason, pre service teachers need to be given space to practice their teaching skills as a follow-up step after pre service teachers make observations in the teaching of mentor teachers. According to Brandenburg et al. [19] pre-service teachers need to ensure that they can acquire and apply knowledge and use skills. When practicing teaching social studies subjects, the pre service teacher carried out learning by leading discussions at the beginning of learning then guiding students in interview activities to seek information in groups.

Based on the results of observations, mentor teacher carried out classes with an inquiry approach and discussion methods. The mentor teacher asked students to find information from the articles provided by the teacher in groups. Each group got a different article. The teacher then lead presentation between groups to share information. "Follow me" model of coaching characterized by Schön implies that novices imitate the mentor's talk and actions until it is internalized [20]. Students may learn through observing, and every student can do this by internalizing the teacher's behaviors [21]. It means that the pre service teacher not simply 'imitating' the pedagogical ways of the expert without any reason but also grasp the pedagogical knowledge at the level of 'internalizing' it. This requires the pre service teacher to observe and examine the teaching demonstrations intensely. The application of learning activities in the form of discussions, explorations and presentations by mentor teachers can in-

involve students actively in learning. The class action carried out by the mentor teacher is of course based on his knowledge of the IB Curriculum. This also can be understood by the terminology theory-in-use where somebody observe people's behavior and try to establish what rules that would make sense of the action [22]. In this case, theory is no longer understood only cognitively but becomes the basic assumption that drives behavior in the form of teaching practices carried out by mentor teacher. Mentor teacher facilitated students with active learning activities that help them explore information and be sensitive to their surroundings. Based on this, it can be said that mentor teacher understands the principles of the IB Curriculum which carries the spirit of progressivism that rejects the traditionalist education system by making the teacher the center of learning.

However, the thing that gives more challenge is the student's response which is not always predictable. Students can sometimes behave well and orderly. However, students sometimes have distracting behavior. If the teacher is not ready or used to it, then a conducive classroom situation cannot be maintained. This can be a factor that hinders the implementation of learning based on the teacher's knowledge as an expectation. Reflective supervision is essential for strengthening practitioner confidence in a changing environment and connecting theory and practice [23]. It can be said that the teacher's ability to handle the situation is included in the skill to carry out educational learning as an aspect of the teacher's pedagogical competence. The ability to carry out learning means that the teacher must be able to carry out learning activities according to the lesson plan in unpredictable classroom situations. The lesson plan has been prepared in accordance with the contents of the IB Curriculum both in terms of content and principles in the learning approach. Because the situation may not always be the same, the teacher's skills in carrying out learning must be equipped with the knowledge to deal with the situation. Schön in Cushion [24] argued that this kind of knowledge cannot be articulated, intuitive and implicit, and exists as tacit knowledge. Tacit has the meaning of knowledge that can be understood without saying. Brufee in Cushion [24] states that through reflective practice, tacit knowledge can be brought to the surface. When the pre service teacher imitated the mentor teacher's teaching method in the second session, it turned out that the students had difficulty understanding the instructions for working on the interview task given by the teacher. This was unexpected and prepared by pre service teachers beforehand, so teachers need to keep repeating instructions which impacts the use of time.

Another situation that surprised the pre service teacher regarding classroom management was the behavior of some students who were not focused and played around while conducting interviews. This is also caused by less instruction detailed from the teacher because children have not been able to fully control themselves in carrying out their responsibilities. The same thing also happened in other research which showed the phenomenon of students' lack of concentration by talking with friends, daydreaming or disturbing their friends who were paying attention to the teacher [25]. Pre service teacher only realized this after conducting teaching sessions and directly observing how students responded to their teaching. These cases may not always be the same during learning and must be handled case by case with the capital of tacit knowledge obtained from the experience. For this reason, pre service teacher needed

to have sensitivity or awareness of the learning process that is going on within themselves and sufficient 'flying hours' are needed for that. Thus, in the next stage there will be more provisions to deal with situations in the teaching process. This process is assisted by professional intervention at the next practical reflection stage.

The fourth stage is that the teacher mentor criticized the performance of pre service teachers. At this stage the role of the mentor teacher is to help pre service teacher to understand their experiences or what Schön describes as "conversation with the situation". Engaging in a collaborative reflective conversation about the situation might help them increase their understanding of it [26]. Mentor teacher helped pre service teacher to understand the real situation that they are not aware of, both their weaknesses and strengths. Schön argues that the occasion for the mentor to model professional thinking and for the learner to imitate that modeling provided by the conversations between mentor and learner during the practicum [20]. For example, because some students do not say what they feel, some of their behaviors represent what are in their hearts, so that the teacher can immediately give the right response. This can be done by giving appreciation for what pre service teacher was doing through written feedback after pre service teacher teaching practices. The appreciation given in the feedback becomes a validation that pre service teacher has organized appropriate class activities to implement the IB Curriculum. By validating experiences, mentor teacher can help to connect pedagogical knowledge resulting from teaching experience with teaching and learning theory during lectures [19]. Written feedback by mentor teachers can also correct mistakes made by pre service teacher in the imitation process. For example, writing errors in teaching materials that cause ambiguity, lack of detailed instructions for student activities, as well as problems with class and time management.

Alternative suggestions can also be given at the same time by the mentor teacher to be an improvement for the pre service teacher's teaching practice in the future. The implementation of learning that consistently involves students shows that reflective practice using the Follow me approach provides benefits for the development of teacher competence in carrying out educational learning. Based on written feedback from teacher mentors to pre service teachers, there are indications of changes in pre service teachers from those who initially received major corrections (teaching during the main learning activities) to minor corrections (correcting minor errors in teaching materials).

4 Conclusion

The teacher's pedagogical ability in developing the curriculum can be improved by applying practical reflection. Schön's approach to practical reflection, namely Follow me by observing and imitating, can train pre service teacher in applying pedagogical theory into practice. Obstacles experienced by pre service teachers in implementing the Follow me model can be assisted by mentor teacher feedback. The role of feedback is to provide validation, correction, and alternative suggestions for the application of practical reflections carried out by pre service teacher. It is highly recom-

mended for future research to use practical reflection in the other area/indicator of teacher's competence for example social or professional competence.

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