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The Effect of the Discussing-Practicing-Reflection Technique on Basic Teaching Skills and Developing PAI Learning Tools in Scientific Approach

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Abstract: This study aims to see and describe how the process of implementing lectures using the Discussion-Practice-Reflection technique improves the ability to improve basic teaching skills and the ability to develop learning tools with a scientific approach. The research approach used is quantitative and quasi-experimental methods with a research sample of 24 students (5th semester PAI course participants) by total sampling technic. Based on the data and descriptions of the division that has been carried out, it can be concluded that the DPR learning technique has a positive effect on the two variables tested, namely: basic teaching skills and the ability to develop learning tools in scientific approach. It can be seen from the results of the test that 50% of the students got "very good", then 37.5% got "good" and 12.5% got "enough". It can also be said that the use of DPR techniques in developing basic teaching skills was quite successful. Regarding the ability to develop learning tools, as many as 37.5% of students got "very good", then 46% got "good" and 16.5% got a "enough". It can also be said that the use of DPR techniques in developing learning tools skill with a scientific approach is quite successful.

Keywords: DPR technique, basic teaching skills, scientific learning tools

INTRODUCTION

To prepare the generation (students) of Indonesia to enter the global era or what is known as the era of the industrial revolution 4.0, the Indonesian nation has designed an educational curriculum in a systematic and integrated manner. The curriculum has been designed since 2013, so it is known as the 2013 Curriculum (K13) or currently known as the National Curriculum. The curriculum is compiled and developed with the main objective of equipping students with Higher Order Thinking Skills (HOTS), namely high-level thinking skills, which include 4C, namely: creative thinking, critical thinking, collaborative skills, and communication skills (Fitri, 2017).

To create a classroom learning process that can facilitate and explore developing 4C abilities as mentioned above, good teaching skills are needed. A teacher's good teaching ability will participate in improving the quality of education in general (Alamsyah, 2016) and (Kleickmann et al., 2013). This is also in line with the opinion of Fadhli (2017) and Gess-Newsome et al., (2019) that to improve the quality of education, one of the indicators is teacher performance in implementing learning, in this case, is pedagogical competence. Aziz

(2015) also states that one of the important efforts to improve the quality of education is the implementation of the teaching and learning process in the classroom. That is why Indonesia has a standard learning process as an effort to maintain the quality of education (Kemendikbud, 2016). Therefore, every teacher and prospective teacher must master the techniques, methods, strategies, models, and learning approaches that allow ensuring process standards and developing students' 4C abilities to develop properly. Thus, at least, every teacher and student-teacher must master basic teaching skills as the main foundation of becoming a professional teacher.

As the main foundation of becoming a professional teacher, basic teaching skills must be mastered by every teacher (Sundari & Muliyawati, 2017). This is also in line with the opinion of Shavelson, (1973) and Nurlaili (2018), that one indicator of the professionalism of a teacher is that they have teaching skills. Even Nurwahidah (2020) states that basic teaching skills are very important for teachers to do so that the delivery of learning material can run smoothly, effectively, efficiently, and professionally. According to Saragih (2008), Charanjit, (2014), and Arono (2019), several basic skills are very important and must be mastered well by prospective teachers, namely: opening and closing lessons, asking questions, providing reinforcement, and conducting variations in teaching. Meanwhile, according to Wahyulestari (2018), (Nurlaili, 2018) basic teaching skills that affect learning success are skills: asking, providing reinforcement, holding variations, explaining, opening and closing lessons, guiding group discussions, and managing classes. Meanwhile, according to Kristiana (2018), the basic skills that a teacher must have been planning, implementing, and assessing learning.

In addition to basic teaching skills, another factor that is very important and must be mastered by teachers in developing learning tools. According to Kusumaningrum & Djukri (2016) and Hadza, et al. (2020) the learning device is a learning support tool that contains learning planning that describes in detail the competencies to be achieved by students, learning designs that follow the syntax of certain learning models, activity guidelines for students and tools to measure student competency achievement. Thus it can be said that the learning device is the "heart" of the teaching and learning process in schools (class). Quality learning tools reflect quality processes. While a quality process, of course, will have an impact on quality learning outcomes as well. This is in line with the opinion of Tanjung & Nababan (2018) that good learning tools will determine quality learning outcomes. For that, directly or indirectly, learning tools have an impact on learning processes and outcomes.

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In general, the ability of basic teaching skills and the ability to develop learning tools with scientific approaches of PAI teacher candidate students at the Ibnu Sina Islamic College of Religion, Batam has not been optimal. This is indicated from the results of observations during the implementation of Field Experience Practices (PPL), where students must practice their abilities in developing learning tools and practice them in class. The results of these observations indicate that in general, PAI teacher candidate students have not been able to develop learning tools with a scientific approach optimally. Indicators of the scientific approach have not been seen in the learning tools they have developed. Likewise in the implementation of learning in the classroom. The ability to ask questions, provide reinforcement, provide variations, explain, open and close lessons, guide group discussions and manage classes that should be done by them has not been implemented optimally. Therefore, a real, serious, and systematic effort is needed to improve this ability so that one day they become professional PAI teachers.

To equip prospective PAI teacher students with reliable abilities in terms of mastery of basic teaching skills and the ability to develop learning tools with a scientific approach, proper techniques are needed. According to several technical types of research that are suitable for developing student abilities, they involve a process of discussion, practice, and reflection. This is in line with research conducted by Sumarni et al. (2014), Bessy (2016), Prianto (2017), Ahmad & Tambak (2018), and Marpaung (2018) show that the discussion learning method can improve learning outcomes. Besides, learning with the "doing it directly" technique also makes students more active in learning (Bot, et al. 2005). Therefore, the discussion method is believed to be able to effectively improve the ability of teaching skills and the ability to develop learning tools for Islamic Education students.

As related to practicum-based learning, the results of the research show that practical activities or practicum have a positive impact on the learning outcomes of students. This is in line with the research of Ma, Teng, et al., (2014) and Sutrisno & Siswanto (2016) which states that learning by practice can improve student learning outcomes. Practicum or practical learning also has a positive impact on student motivation (Rizkiana, et al. 2016). Besides, practicum-based learning can also improve students' critical thinking skills (Aguado, 2009) and (Ariyati, 2012), and build student creativity

(Widodo, et al. 2016) and (Sahida & Zarvianti, 2019). Practice-based learning can also improve process skills (Duda, et al. 2019) and have a positive impact on student development (Helle, et al. 2006). Thus it can be understood that practicum-based learning is believed to be able to improve the ability of Islamic Education students in mastering basic teaching skills and developing learning tools with a scientific approach.

As for reflection activities, it is one of the higher-order thinking skills (Anwar & Sofiyan, 2018) that a person needs to assess and measure his abilities. Even Oktaria (2015) states that (medical) students must be trained to be able to reflect themselves on the learning process, their experiences, and achievements to be able to find out their weaknesses and strengths, then compile a follow-up plan to be able to correct deficiencies and improve. self ability. Besides, Van Loon (2019) also stated that self-assessment through reflection activities can better develop oneself. According to Devis-Rozental (2018), self-reflection activities can also be used as a means of developing emotional intelligence and professional development of prospective teachers (Monet & Etkina, 2008). Thus, reflection-based learning activities for PAI students at the Ibnu Sina-Batam Islamic College to improve basic teaching skills and the ability to develop learning tools with a scientific approach are needed.

Referring to the description above, this research focuses on seeing and describing how the lecture implementation process uses the Discussion-Practice-Reflection technique to improve the ability of basic teaching skills and the ability to develop learning tools with a scientific approach. Thus, the novelty of this research is that the DPR technique is used in a systematic and controlled manner. Systematic in research means that the activities of discussion, practice and reflection are carried out sequentially. Controlled means that each element uses a certain duration of time, with the same focus, namely to improve basic teaching skills and increase the ability to develop learning tools with a scientific approach. In previous studies, neither the systematics of DPR's activities and their focus have been carried out.

METHOD

This research focuses on seeing and describing how the lecture process is carried out using the Discussion-Practice-Reflection technique to improve the ability to improve basic teaching skills and the ability to develop learning tools with a scientific approach. Thus, the research approaches that are considered the most suitable for this research are quantitative and quasi-experimental methods. The quasi-experiment is an experiment in which the placement of the smallest experimental unit into the experimental and control group is not carried out randomly (Hastjarjo, 2019). The model or design used is one group with post-treatment. Thus, this study only involved one group of students without a control group. The sample in this study consisted of 24 students majoring in Islamic Religious Education who took the course "Methods and Strategies for Learning Islamic Religion" at the Ibnu Sina Islamic College of Religion, Batam. Because all students who take the course are sampled in this study, the technique used is often referred to as total sampling (Alwi, 2012)

By the design and model used in this study, the data in this study were obtained through tests, namely posttest. Posttest is carried out after the learning process is carried out. The data analysis was carried out in two stages, namely the initial stage or categorization, namely the grouping of values based on the category of Higher Education provisions. The next stage is the stage of analyzing the average score of each aspect or measured indicator. This is done to determine the effect of DPR techniques on every aspect of basic teaching skills and indicators of RPP development with a scientific approach carried out by students.

The instrument used in this study was a test. The test is in the form of multiple-choice questions consisting of 35 questions each. The basic teaching skills that were the focus (tested) in this study included: 1) skills to open / close lessons, 2) skills to ask questions, 3) skills to provide reinforcement, 4) skills to conduct variations, 5) explaining skills, 6) skills to guide discussions groups, and 7) class management skills (Nurlaili, 2018). Thus, each indicator is measured by five questions. The skills to develop learning tools that are measured are the ability to develop tools in the form of lesson plans with a scientific approach. The indicators measured in skills are: 1) development of learning indicators, 2) formulation of learning objectives, 3) development of core materials, 4) learning media, 5) stages of the scientific

approach used, 6) assessment of learning outcomes.

The instrument used was in the form of a previously developed supervision observation sheet. All test questions used have been tested to determine their validity, reliability, level of difficulty, and distinction. The test trial analysis was carried out with the help of Anates software.

RESULT AND DISCUSS

Result

As previously mentioned, the research aims to describe the effect of using DPR techniques in the "PAI Learning methods and strategies" lectures on basic teaching skills and the ability to develop learning tools with a scientific approach. For this reason, the variables tested are basic teaching skills and the ability to develop learning tools with a scientific approach. Based on the test results after the implementation of learning with the DPR technique, the following results were obtained:

1. Effect of DPR Techniques on Basic Teaching Skills

The results of the basic teaching skills test with an assessment category based on a range of values can be seen in Table 1 below:

Table 1. Results of the Assessment of Basic Teaching Skills for PAI Students

No	Score Range	Symbols	Category	Number of Students	Percentage (%)
1	80-100	A	Very good	12	50
2	70-79	B	Good	9	37,5
3	60-69	C	Adequate	3	12,5
4	50-59	D	Less	0	0
5	<50	E	Very less	0	0
Total				**24**	**100**

Based on Table 1 above, it can be seen that the basic teaching skills of Islamic Education students are quite satisfying. As many as 50% of students get A (very good), then 37.5% get B (good) and 12.5% get C (enough). Thus, no student scored less than 60. It can also be said that the use of DPR techniques in developing basic teaching skills was quite successful. Furthermore, to see the average score of each aspect measured in this study, each indicator was scored. The average score for each aspect of basic teaching skills can be seen in Table 2 below:

Table 2. Average scores on aspects of basic teaching skills

No	Measured Aspect	Average of Score	Category
1	Open / close lessons Skills	85,6	Very good
2	Asking skills	80,2	Very good
3	Reinforcement Skills	79,5	Good
4	The skills to do variations in learning	73,6	Good
5	Skills to explain the subject matter	86,0	Very good
6	Skills to guide study group discussions	81,5	Very good
7	Classroom management skills	80,7	Very good
Total			

Based on Table 2 above, it can be seen that there are five of the seven aspects measured, namely: the skill aspect of opening/closing lessons, the aspect of questioning skills, the aspect of explaining skills, the aspect of guiding skills in group discussions and the aspects of managing the class get an average score by category "very good". Thus there are only two aspects, namely: the skill aspect provides reinforcement and the skill aspect makes variations in the "good" category. Therefore, based on the table, no aspect gets an average score in the "adequate" and "poor" categories. It also shows that these two aspects, namely: the skill aspect provides reinforcement and the skill

aspect of making variations is the relatively difficult skill aspect among the other aspects.

2. The influence of DPR techniques on the ability to develop Islamic Education Learning Tools with a scientific approach

Based on the results of the final test on the ability to develop learning tools with a scientific approach that is carried out at the end of the lecture session, the data is obtained as shown in Table 3 below:

Table 3. The results of the ability test to develop Islamic education learning tools with a scientific approach

No	Range score	symbols	Category	Number of Students	Percentage (%)
1	80-100	A	Very good	9	37,5
2	70-79	B	Good	11	46
3	60-69	C	adequate	4	16,5
4	50-59	D	less	0	0
5	<50	E	very less	0	0
Total				24	100

Based on Table 3 above, it can be seen that the ability of PAI students to have the ability to develop learning tools with a scientific approach is also quite satisfying. As many as 37.5% of students got A (very good), then 46% got B (good) and 16.5% got C (enough). Thus there are no students who get a score less than 60. It can also be said that the use of DPR techniques in developing skills in developing learning tools with a scientific approach is quite successful.

Furthermore, to see the average score of each aspect measured in this study, a scoring was carried out on each indicator of the ability to develop a learning device with a scientific approach. The average score for each aspect of basic teaching skills can be seen in Table 4 below:

Table 4. Average scores on the aspects of abilities/skills in developing learning tools with a scientific approach

No	**Measured Aspect**	**Average of Score**	**Category**
1	Development of learning indicators	86,5	Very good
2	Formulation of learning objectives	85,8	Very good
3	Core material development	78,5	Good
4	Use of instructional media	75,6	Good
5	The stages of the scientific approach used	77,0	Good
6	Assessment of learning outcomes.	81,5	Very Good
Total			

Referring to Table 4 above, it can be seen that the highest average score (86.5) was achieved by the aspect of developing learning indicators in the "very good" category. This was followed by the aspect of formulating learning objectives (85.8) with the category also "very good". Likewise, the aspect of assessing learning outcomes (81.5) is also in the "very good" category. The core material development aspects (78.5) are in the "good" category and the Stages aspects of the scientific approach used (77.0) are also in the "good" category. Thus, based on these data it can be said that students experience relatively general difficulties in the aspects of material development and the stages of the scientific approach.

Discussion

The results of the test or data above indicate that the DPR's technique, which includes Discourse, Practicing and reflection activities in “PAI Learning Methods and Strategies” has a positive impact on the teaching skills of prospective teacher students. This finding is in line with the opinion of education experts that learning activities that involve Discussion, Practicing and reflection activities have a positive impact on learning outcomes. This is as stated by Sathiya & Shilaja (2016) that

discussion collaborative learning is an effective method to improve learning outcomes. Also, discussion activities according to Omatseye (2007) can stimulate imaginative and conceptual thinking, and sharpen logical reasoning among students. It is a design that makes students more active and participatory members of the teaching and learning process, and not just passive recipients of knowledge. Nengsih (2016) also said that the use of the discussion method in the learning process can effectively improve learning outcomes. Even the discussion method according to Handayani, et al. (2009), is effective in increasing the knowledge, attitudes, and motivation of students without a facilitator. It is thus clear that the discussion process in the DPR technique is one of the aspects that affect the learning outcomes above, namely basic teaching skills and the ability to develop learning tools.

The lecture model using the DPR technique which is carried out systematically, controlled and focused on the main theme as offered in the research has been proven to be effective in improving students' basic teaching abilities. In addition, with this technique, it has also been proven to be able to improve students' abilities in developing learning tools with a scientific approach. Thus it is clear that systematics (sequence of activities), control system (duration of time) and focus on themes have a positive impact on student learning outcomes.

In a learning process, practice is an effective way to train a skill. This is in line with the opinion of Wiwin & Kustijono (2018), that practicum activities can improve students' scientific process skills and attitudes. Nyberg et al. (2006), also said that learning by doing (practicing motorically) is more profitable than learning just by thinking. Foti et al. (2015), in research also strengthens the argument that learning by doing or practice is better than learning through observation. This fact is also by the results of research by Maulida & Kusumaningtyas (2017), that practicum-based learning can improve student learning outcomes. Therefore, it can be understood that practical activities in the DRP technique in this study affect the learning outcomes of PAI majors in developing basic teaching skills and the ability to develop learning tools with a scientific approach.

Apart from that, the findings in this study also prove that the reflection activity on the road in the DPR division technique is also believed to affect student learning outcomes. This is by the opinion of Wain (2017), that reflection is a learning process through everyday experiences and is an integral part of educational programs. Smith (2011) in his research also states that learning with self-reflection can encourage students to think more logically and be able to solve more complex problems. Besides, Helyer (2015) also said that self-reflection activities will encourage a person to have the ability to consider thoughts and actions and to make continuous improvements. Thus, it can be understood that the reflection activities in the DPR techniques developed can positively influence students.

The results of this study imply that the DPR approach learning techniques need to be applied in other, broader lessons. In addition to seeing the effectiveness of the DPR's approach, this is also to inspire academics and education practitioners so that they can take further benefits from this approach. Besides, learning with the DPR approach also needs to be trained and developed for student teacher candidates, so that later they can develop learning programs or learning methods that are more effective with the inspiration of this model.

CONCLUSION AND SUGGESTION

Based on the data and descriptions of the division that has been carried out, it can be concluded that the DPR learning technique which is carried out systematically, controlled and focused on the main theme as offered in research has been proven to be effective in improving students' basic teaching abilities has a positive effect on the two variables tested, namely: basic teaching skills and the ability to develop learning tools with a scientific approach. It can be seen from the results of the test that 50% of the students got an A (very good), then 37.5% got a B (good) and 12.5% got a C (enough). Thus, no student scored less than 60. It can also be said that the use of DPR techniques in developing basic teaching skills was quite successful. Regarding the ability to develop learning tools, as many as 37.5% of students got an A (very good), then 46% got a B (good) and 16.5% got a C (enough). Thus there are no students who get a score less than 60. It can also be said that the use of DPR techniques in developing skills in developing learning tools with a scientific approach is quite successful.

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