

Analysis of the application of problem-based learning model on critical thinking skills in thematic learning of 5th grade students

Azlansyah*

MIS Al-Ikhwah Pontianak

Corresponding author: aan.azlansyah@gmail.com

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Abstract

The lack of students' critical thinking skills and understanding in learning occurs because the variations in learning models implemented by teachers have not been maximized, even though teachers apply other learning models, in their implementation the variations in learning models implemented so far have not been effective. The purpose of this research is to analyze the application of the Problem Based Learning model to students' critical thinking skills in thematic learning in class V of SD MIS Al-Ikhwah Pontianak. This research uses qualitative research, in which the researcher makes observations and observes the actions of the informant. The data collection techniques used were observation, interviews and documentation. The research results show that the application of the PBL (Problem Based Learning) learning method in the teaching and learning process really helps students to improve students' critical thinking skills as evidenced by the increase in student learning outcomes of 95.44%. This is because the application of the PBL learning method makes it easier for students to understand the material taught by the teacher, makes students active, confident and more courageous in answering questions given by friends between groups.

Keywords: Problem Based Learning learning model, critical thinking, effective, problem solving, complete KKM.

PRELIMINARY

According to the KBBI (Kamus Besar Bahasa Indonesia), "thematic" is defined as "relating to a theme" and "theme" itself means "the main idea; the basis of the story (which is discussed, used as a basis for composing, composing rhymes, and so on)." For example, the theme of this play is that the wicked and the evil will surely be defeated by the good. Similarly, in other literature sources, such as those written by Hendro, et al. "Thematic" is defined as "about the theme; the main; about the main song." (Prastowo, 2019: 1)

Thematic learning is learning that is designed based on certain themes so that it can provide learning experiences and is reviewed from various subjects to provide direct experience to students. The theme given is the main thought or main idea that is packaged into learning topics (Watipah, 2019: 15).

Thematic learning is a learning model that integrates several learning materials from various basic competencies of one or several subjects. Thematic learning is carried out with a view to efforts to improve and improve the quality of education, especially to balance the density of curriculum material (Muhammad, Pramono, and Kustiono 2021). Thematic teaching needs to choose material from several subjects that may be interrelated. Therefore, the application of this learning can be done through three approaches, namely determining based on the linkage of basic competencies, themes, and problems faced (Malawi & Kardati, 2017: 3). This helps them to develop the ability to ask questions and seek answers on the basis of evidence to develop critical thinking (Samatowa, 2011: 5).

From the results of interviews and observations that have been made, it can be concluded that what causes the lack of critical

thinking and student understanding in face-to-face learning is that the teacher has not maximized the variety of learning models applied in the classroom, although basically the teacher has done several variations of learning models such as games and ice breaking, however, in its implementation, the variation of learning models carried out so far has not been able to encourage students' interest, understanding, and critical thinking skills. The purpose of learning model variation is to meet students' needs and learning styles, improve their understanding, increase learning motivation, develop social and cooperation skills, improve critical thinking skills and creativity, and broaden students' horizons. It aims to create an effective and enjoyable learning environment for students.

One of the learning methods that can support a learning centered approach and that empowers learning and hones students' critical thinking skills is by applying a learning model that can be done by using the Problem Based Learning learning model (Amir 2009:12). One of the increasingly popular learning models is Problem Based Learning (PBL), which places students in an active role in solving real-world problems. According to Barrow, cited (Huda, 2014) the problem-based learning model is learning that is obtained through a process towards understanding the resolution of a problem (Vebrianto, et al. 2021: 2).

Problem Based Learning (PBL) is a learning approach that emphasizes problem solving as a core method of understanding important concepts. PBL teaches students to identify, analyze and find solutions to complex problems, often in the context of real-life situations. One of the key aspects of PBL is a learning approach that encourages learners to come into direct contact with the facts of problems in their real environment (Syarifah, 2022: 9).

Donal Woods (2000) mentions PBL is more than just an effective environment for learning certain knowledge, but it can help students solve problems, communicate, and teamwork. Lynda Wee (2002) characterizes the PBL process as strongly supporting the development of self-directed, collaborative, information-seeking skills, all of which are relatively necessary for the future world of work. It can be concluded that Lynda and Donal's opinions are in line with current higher education which should emphasize the active participation of learners. That way, traditional methods, such as taking lots of notes from the teacher, passing only periodic exams, can indeed be considered suitable when books were rare and expensive to obtain (Amir, 2016: 13).

With this thematic learning, the problem-based learning model is very suitable for the needs of students to improve students' critical thinking skills. Thematic learning emphasizes the active involvement of students in the learning process, so that students are active and critical in the knowledge they learn. This learning theory is driven by Getsalt psychology figures, one of which is Piaget who emphasizes that learning must be meaningful and oriented to the needs and development of children (Malawi and Kardarwati, 2017: 3).

What needs to be understood in teaching thinking skills is that these skills must be in accordance with students' cognitive development. Although in this problem-based learning model the teacher is only a facilitator while students investigate the problem themselves. This can trigger students' critical thinking skills. According to Hamdayana (2014), the problem-based learning model has three characteristics, as follows. First, the problem-based learning model is a series of learning activities. Second, learning activities are directed to solve problems. Third, problem solving is done using the scientific

method, which is a deductive and inductive thinking process (Pamungkas, 2020: 12). That is, thinking systematically and empirically.

Based on these problems, the authors are interested in conducting research with the title "Analysis of Problem Based Learning (PBL) on critical thinking skills in thematic learning of class V students of MIS Al-Ikhwah Pontianak" with the application of PBL, teachers are able to encourage students to develop their critical thinking skills in a more integrated and contextual way, because they will face problems that are relevant to their learning theme.

RESEARCH METHODS

This research uses qualitative research methods. According to Hamid Darmidi (2013: 286) qualitative research is a research process or understanding based on methodologies that investigate social phenomena and human problems. In this approach, researchers create a complex picture, examine words, detailed reports from respondents' views, and conduct studies on experienced situations (Hamid, 2013: 287).

With this opinion, this research uses a qualitative approach, because the researcher focuses on the actions of the sources. The source's actions in disclosing the meaning of the words spoken by the source or the object of research, in other words the meaning of the learning process as an encouragement to students' skills through the actions taken.

RESULTS AND DISCUSSION

Based on the results of observations made by researchers to class V teachers through teacher observation sheets, it is known that in implementation, class V teachers carry out PBL steps well. The first thing the teacher does is orient students to the problem, secondly explain the learning objectives, thirdly motivate students to get involved in the learning process and invite students to repeat the material that has been conveyed previously.

After conducting orientation, the teacher asks and baits with problems by exploring

students' knowledge of the material being taught and assigning students to do learning activities. In the next stage, the teacher collects data by encouraging students to gather information from books and create discussion groups. After collecting data and reasoning, the next stage the teacher collects and formulates answers by monitoring the work of students in groups and guiding students in doing their tasks.

Then the final stage of the teacher communicates the results of the lesson to students by providing facilities for students to present the results of their discussions using infocus or in groups, and evaluates the learning. This shows that the teacher has implemented the PBL learning method.

Based on the observation that students' critical thinking skills in the learning process before to after using the PBL learning model, are as follows:

Table 1

Observation results of student learning activities

No.	Aspects of critical thinking skills	before	after
1	Solving neighborhood problems	7	12
2	Provides a simple explanation	8	10
3	Summarize	8	12
4	Provide further explanation	6	12
5	Organize strategies and techniques	6	12
6	Building basic skills	9	11
Total score		44	69

Based on the results of the table above, it is known that the number of observation scores of critical thinking skills before applying the PBL learning model amounted to 44 or

around 70%. Then after using the PBL learning model the score obtained by students increased to 95.44%. This shows that the application of the PBL learning model is able to improve the critical thinking skills of fifth grade students of MIS Al-Ikhwah Pontianak Elementary School.

Apart from that, based on observation, simple explanation for students has significant benefits in learning. It helps students understand concepts better, reduces anxiety, improves information retention, eases problem solving, and motivates learning. It also helps students with different levels of ability, builds a strong foundation, facilitates discussion, simplifies the learning process, and improves communication skills. Overall, simple explanations are an important tool in creating an effective and inclusive learning environment.

Problem-Based Learning (PBL) has great benefits in the development of various critical skills. Through this approach, students can develop problem-solving skills, critical thinking, collaboration, communication, as well as improve research skills and independent learning. PBL also prepares students to face real-world situations more readily, helps them become lifelong learners, and combines theoretical knowledge with practical application in relevant contexts.

It is concluded that after the application of the PBL learning model, students have been able to deduce and develop the results of deduction, able to induce and consider the results of induction and make and determine the results well. Furthermore, students are able to provide an explanation of the definition of terms and consider a definition as well as identify assumptions well. In organizing strategies, students are able to determine actions and are able to interact with classmates.

Based on the results of the study, it is also known that the application of PBL in the

learning process really helps students to improve their critical thinking skills, which is based on the results of interviews with class V teachers, who stated that student learning outcomes have increased 80% have completed KKM. This is due to making it easier for students to understand the material being studied, making students active so that they are not bored and are more confident in presenting their work to their friends. In accordance with its understanding in Ayu Agung (2021: 12) says PBL is a learning model that exposes students to problems in the real world, through the problems given students analyze answers that are in accordance with the learning material provided and develop students' knowledge into broader insights (Ayu, 2021: 13).

In accordance with the main objectives of PBL according to Heminarto (2017: 52) critical thinking skills and abilities and actively students are able to find and solve problems with the knowledge gained. So that students are able to develop independence and skills in social life (Sofyan, 2017: 47). Those skills are formed for collaboration between teaching materials and identification of information that students get from learning.

In addition, based on research also that doing PBL learning methods can involve students directly with enthusiasm, more fun, and active. Students can also better understand the material and problems given by the teacher because through the application of PBL the teacher participates in helping students who experience problems when preparing group reports and provides opportunities for students who do not understand the material to ask the teacher.

So the application of the PBL learning model is very effective in supporting students to think critically in thematic learning of grade V students of SD MIS Al-Ikhwah Pontianak. This is the same as Amir's opinion (2009) Problem-based learning model has

several benefits, among others: First, being more mindful and increasing understanding of the teaching material. Second, it encourages critical thinking. Third, it increases the focus on relevant knowledge. Fourth, it builds soft skills. Fifth, building learning skills. And Sixth, motivate students to learn. Meanwhile, in line with the opinion of Arends (2008), the benefits of problem-based learning model are also mentioned to help students develop critical thinking skills and problem-solving skills (Umi Kulsum, 2023: 23).

CONCLUSION

Based on the results of the study, it is known that through the application of the PBL method students can be directly involved with the experiences they get so that students' responses to the PBL method are enthusiastic, increase independence in learning, encourage active participation of students, develop skills in the real world, improve critical thinking skills. Students can also better understand the material provided by the teacher because through the application of the PBL learning method the teacher helps students who have difficulty in preparing group reports and helps students see the connection between learning in the classroom and real life. This makes learning more relevant and meaningful to them.

A learning-based approach has many advantages in improving learners' engagement, understanding and skills. By encouraging learners to be actively involved in learning and facing real problems, this approach helps them develop skills that are relevant and ready to be used in their lives. So the application of PBL learning model is very effective in improving critical thinking in thematic learning of grade V students of MIS Al-Ikhwah Pontianak Elementary School.

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