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Application of *the Mind Mapping-Assisted PBL Model* to Improve the Learning Outcomes of Halal and Haram Animal Fiqh in Madrasah Ibtidaiyah

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ABSTRACT

This research aims to improve the learning outcomes of student fiqh in halal and haram animal material through the application of the Problem Based Learning (PBL) Model supported by Mind Mapping techniques. This material often causes difficulties for students, especially in distinguishing the types of animals according to Islamic law. As a result, student learning outcomes tend to be low and often below the Minimum Completeness Criteria (KKM). To overcome this, this class action research is carried out in three cycles which include the stages of planning, implementation, observation, and reflection. Each cycle showed a significant improvement in learning outcomes. In the first cycle, student learning outcomes reached 48%, increased to 68% in the second cycle, and reached 88% in the third cycle. The use of PBL assisted by Mind Mapping has been proven to help students understand the material in a more in-depth and structured way. With this approach, students are invited to solve real problems that are relevant to daily life, so that the concepts learned are easier to understand and apply. Mind Mapping, as a visual aid, also makes it easier for students to organize information, remember, and understand concepts more systematically. The results of this study show that the application of the PBL Model assisted by Mind Mapping can be an effective learning strategy to improve fiqh learning outcomes on complex materials such as halal and haram animals. The results of the descriptive analysis of the research showed an increase in the learning outcomes of students in class VI MI Al Falah Gedongan. In cycle I (48%), cycle II (68%) and cycle III (88%). The conclusion of this study is that the application of the PBL model assisted by Mind Mapping can improve the learning outcomes of grade VI students of MI Al Falah Gedongan Baki Sukoharjo, and PBL model learning can be used as an alternative to fiqh learning.

KEYWORDS

Problem Based Learning, Mind Mapping, Learning Outcomes, Halal and Haram Animals, Madrasah Ibtidaiyah

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Article History: Received 10 April 2024, Revised 15 Oktober 2024, Accepted 21 Oktober 2024

A. Introduction

According to Fauzi dkk (2023: 2093) Learning Fiqh is often a challenge for students, especially when the material taught has a wide and detailed scope At MI Al Falah Gedongan, many students find it difficult to understand and follow fiqh lessons, especially in halal and haram animal material. This material requires a good understanding of Islamic legal concepts, which for most students is considered boring because there is too much information to digest. Low learning outcomes are an indication that students have not achieved adequate understanding. Based on the data obtained, out of 25 students, only 12 students (48%) were able to meet the Minimum Completeness Criteria (KKM) set at 75, while 13 other students (52%) were still below the standard. This condition shows a gap in students' understanding of the material being taught, as well as the need for a more interesting and effective learning approach so that students can more easily master the material.

One of the learning approaches that can be used to overcome these problems is the Problem Based Learning (PBL) model. According to Hotimah (2020:5), the PBL model is designed to create a more active and participatory learning atmosphere, where students are directly involved in the problem-solving process. In the context of fiqh learning, the application of PBL allows students to understand concepts in a more relevant and applicable way (Sihabuddin DKK, 2023: 9). This model encourages students to think critically and creatively through case studies or real situations related to halal and haram animal material. Thus, students can relate the knowledge learned to their daily lives, so that their understanding of the concept of fiqh becomes more profound. In addition, PBL also provides a space for students to discuss, ask questions, and test their understanding collaboratively, which can ultimately improve student learning outcomes. (Prastawa & Radi fifth, 2024: 15).

To strengthen the effectiveness of the PBL model, Mind Mapping is used as a tool in the learning process. According to Ardiansyah (2023: 201), mind mapping is a visual technique that helps students organize information in a more systematic and structured way. In learning fiqh, especially on complex materials such as halal and haram animals, the use of Mind Mapping can help students connect the concepts they learn and see the relationship between one concept and another. This technique also makes it easier for students to remember important information and rearrange the knowledge they have. By using Mind Mapping, students can summarize the material taught in the form of a concept map that is easier to understand (Fitriyati & Karyanto, 2021: 11). This not only helps them in understanding the material better, but it also increases their involvement in the learning process. The combination of PBL with Mind Mapping has proven to be effective in overcoming learning problems faced by grade VI students of MI Al Falah Gedongan.

Istiana (2024: 302) stated that the use of the PBL model combined with Mind Mapping in fiqh learning at Madrasah Ibtidaiyah shows the importance of innovation in teaching methods. The need for more interactive and relevant learning is increasing, especially when students are faced with difficult-to-understand material. By combining these two approaches, teachers can create a more engaging learning environment and support active student engagement. This innovative approach focuses not only on understanding concepts, but also on students' ability to apply their knowledge in everyday life. In the current era of education, teachers are required to continue to adapt to methods that can increase learning effectiveness and have a positive impact on student development holistically (Nurmasari et al., 2020: 52).

B. Theoretical Framework

Problem Based Learning (PBL) is a learning model that is student-centered, by utilizing relevant problems as the starting point of learning. In PBL, students are faced with real

problems taken from daily life, which are then analyzed and found solutions independently or in groups. PBL encourages students to think critically and scientifically, as well as develop problem-solving skills systematically. According to Wina Sanjaya (2010: 214), PBL has the main feature in the form of a series of activities that focus on solving problems with a scientific thinking approach. This process involves several important steps such as formulating the problem, analyzing it from various perspectives, formulating a hypothesis, collecting data, testing the hypothesis, and finally formulating a solution recommendation. PBL is designed to create more contextual and meaningful learning, as well as integrate knowledge with practice.

The stages in PBL, as explained by John Dewey in Vienna Sanjaya (2010: 215) consist of six steps: formulating a problem, analyzing the problem, formulating a hypothesis, collecting data, testing the hypothesis, and formulating problem-solving recommendations. In the first stage, students are asked to determine the problem to be solved, which is then critically analyzed from various points of view. After that, students formulate various possible solutions based on the knowledge they have, then collect relevant data to test the hypothesis. This process is followed by hypothesis testing and the preparation of recommendations that can be applied as solutions. These stages encourage students to be actively involved in the learning process by honing their critical, collaborative, and creative thinking skills, so that they are better prepared to face challenges in the real world.

Mind Mapping is a visual technique that can be used to help students understand and organize information in a more structured and creative way. In the context of active learning, Mind Mapping serves as an effective tool to connect the concepts learned in a more interesting and memorable way. According to Mel Silberman (2009: 188), creating a Mind Mapping involves several steps, from choosing a main topic, constructing a mind map with colors and symbols, to providing a space for students to share the results of their thoughts. This technique facilitates more interactive and collaborative learning, where students not only process information passively, but also actively visualize and relate the ideas obtained. By using Mind Mapping, students can improve their understanding of the material and more easily integrate complex concepts into their thinking.

C. Method

This study uses a combination of quantitative and qualitative approaches to get a comprehensive picture of the effectiveness of the Problem Based Learning (PBL) learning model assisted by Mind Mapping. The quantitative data collected in the form of student learning outcomes were analyzed using descriptive statistics to see the improvement of student achievement. This analysis provides information on the average learning outcomes, percentage of completion, and distribution of student scores before and after the implementation of the learning model (Sugiyono, 2018: 137). On the other hand, qualitative data in the form of narratives that provide descriptions of teachers' skills in teaching and student activities during the learning process are analyzed descriptively. This qualitative data is obtained through direct observation and field notes during learning activities, thus providing an in-depth picture of the interaction between teachers and students and how students are involved in the problem-solving process (Miles & Huberman, 1994: 10).

The data sources in this study consist of primary and secondary data. According to Arikunto (2010: 22), primary data sources are informants who directly provide important information for research. In this study, the primary data source is grade VI students of MI Al Falah Gedongan Baki Sukoharjo, which consists of 14 male students and 11 female students. These students were chosen as informants because they were subjects who experienced the learning process firsthand with the application of the PBL model assisted by Mind Mapping. By involving students as the main informants, researchers can find out firsthand how the application of the learning model affects their learning outcomes. In addition, secondary data in the form of supporting documents and notes related to the

implementation of learning were also analyzed to complete the research results (Creswell, 2014: 17).

The data collection technique in this study involves several instruments to obtain comprehensive information. Quantitative data was collected through learning outcome tests conducted at the end of each learning cycle. This test aims to measure the improvement of students' understanding after they participate in learning with the PBL model assisted by Mind Mapping (Arikunto, 2010: 54). In addition, qualitative data was collected through participatory observation, interviews, and field notes during the learning process. Observations were conducted to record students' activities and teachers' skills in applying the learning model, while in-depth interviews were used to further explore students' perceptions of their learning experiences (Creswell, 2014: 28). The data obtained were then analyzed descriptively to produce a narrative that described the effectiveness of the method used. Data analysis is carried out continuously in each learning cycle to gain a better understanding of the dynamics that occur during the teaching and learning process (Miles & Huberman, 1994: 33).

D. Research Results

In this study, the author introduces a literacy-based learning model known as LOK-R, which stands for Literacy, Orientation, Collaboration, and Reflection. This model is applied in history learning with the aim of improving students' literacy skills. Literacy, as an important component in education, plays a major role in facilitating understanding and mastery of subject matter. However, the data shows that the average literacy ability of students in Indonesia is still below global standards. This gap is a major concern in this study. Literacy involves not only the ability to read and write, but also the ability to think critically and analytically about the information received. The LOK-R model is expected to overcome weaknesses in literacy skills by applying a structured and interactive approach. Literacy in this model involves the reader in an active learning process, while orientation helps them understand the context of the material. Collaboration encourages cooperation between students, and reflection facilitates the assessment of the learning process that has been carried out. With this model, it is hoped that students will not only improve their literacy skills but also better understand the subject matter in a more in-depth and comprehensive way.

In this case study, the Problem Based Learning (PBL) model assisted by Mind Mapping techniques was applied to grade VI students of MI Al Falah Gedongan Baki Sukoharjo in one meeting with Halal and Haram Animal material. Learning begins with opening activities which include greetings, recording students' attendance, and perception by teachers. As part of the core activity, the teacher showed a 10-minute video that discussed the material on Halal and Haram Animals. After the video, students are divided into small groups and given materials and tools such as cardboard, animal drawings, glue, and scissors. Each group was asked to make a Mind Mapping based on the direction from the teacher. This technique encourages students to organize and compile information visually regarding the concept of halal and haram animals. This process aims to improve students' understanding in an interactive and collaborative way, allowing them to think critically and work together in solving the problems they face.

After the creation of Mind Mapping, students are asked to convey and present the results of their work to other groups. Each group discusses and discusses the results of their Mind Mapping, with a representative noting things that are lacking or wrong in the preparation of the concept map. This process not only assists students in evaluating their own work but also in receiving feedback from their classmates. Teachers play a role in helping students self-evaluate the process they have gone through. This evaluation includes an assessment of how Mind Mapping is used to solve problems and how students collaborate during activities. Teachers provide additional guidance if needed, as well as facilitate reflection on the process and results obtained. Through presentations and discussions, students can deepen their understanding of Halal and Haram Animal material and evaluate the effectiveness of Mind

Mapping techniques in the learning process.

E. Discussion

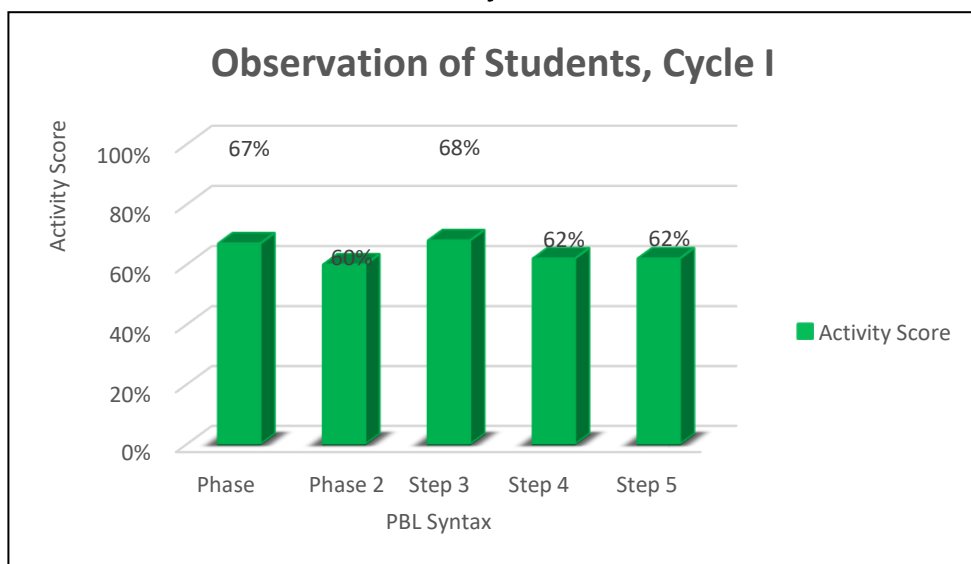
In this study, data sources are divided into two main categories: primary and secondary data sources. According to Arikunto (2010: 308), primary data sources refer to informants who directly provide information related to research. In this case, the main informant was a grade VI student of MI Al Falah Gedongan Baki Sukoharjo, consisting of 14 male students and 11 female students. This primary data is used to evaluate the success of students in learning using the Problem Based Learning (PBL) model assisted by Mind Mapping on Fiqh material regarding Halal and Haram Animals. In addition, data collection techniques involve quantitative and qualitative methods. Quantitative data was collected through tests, while qualitative data was obtained from documentation, questionnaires, and observations. This technique is designed to provide a comprehensive overview of the effectiveness of the learning model in improving student learning outcomes.

In cycle 1, the first stage is action planning which will be carried out on December 6, 2022, with a focus on learning Fiqh subjects regarding Halal Animals. This activity was carried out in classroom VI of MI Al Falah Gedongan Baki Sukoharjo and was taught directly by practical teachers. The planning stage includes a number of important aspects to ensure a smooth learning process. Among them is the preparation of learning tools which include learning scenarios or Learning Implementation Plans (RPP) 1, media, materials, and learning tools. In addition, observation instruments are also prepared to assess the effectiveness of learning. All of these elements are designed to support the implementation of the Problem Based Learning (PBL) model assisted by Mind Mapping and ensure that every aspect of learning is in accordance with the goals that have been set.

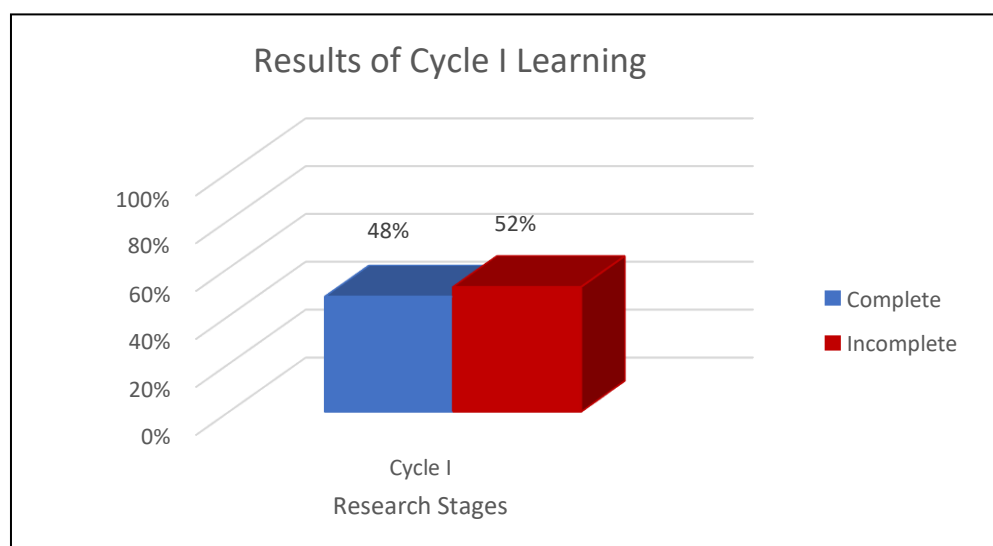
The second stage is the implementation of actions, all elements that have been planned in advance are applied directly in the learning process. This process is carried out according to the scenario that has been prepared, including the use of relevant media, materials, and tools to support learning. During the implementation, observations were also carried out simultaneously to monitor and evaluate the application of the PBL model assisted by Mind Mapping in the classroom. The implementation of this first cycle aims to identify how this learning model is received by students and how effective the method is in achieving learning goals. These observations are important to provide an overview of the successes and challenges faced during the learning process.

The third stage is observation is a crucial part of this research, carried out by practical teachers who monitor student activities and interactions during learning. The practical teacher observed how students adapted to the PBL model assisted by Mind Mapping and evaluated their involvement and understanding of the Halal Animal material. The data collected through these observations provide valuable information regarding the effectiveness of the applied methods.

Results of Observation of Student Activities in Cycle 1



Student Learning Outcomes Cycle I



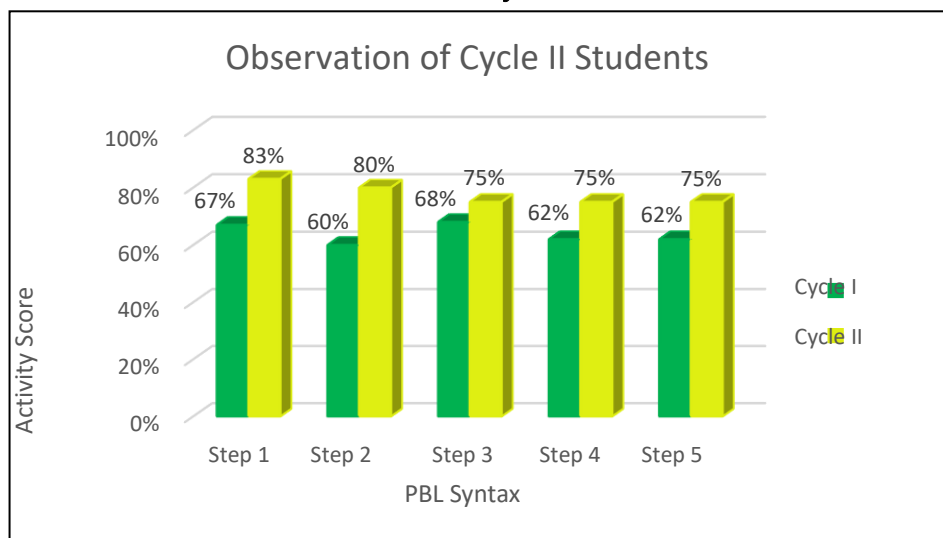
After all stages of implementation are completed, reflection is carried out to evaluate the results and processes that have taken place. This stage aims to analyze the strengths and weaknesses of the first cycle, as well as plan improvements for the next cycle. The results of this reflection will be used as a basis for adjustments and improvements in the implementation of the next cycle.

In Cycle 2, action planning was carried out on December 13, 2022, with a focus on learning Fiqh subjects regarding Halal Animals taught directly by practical teachers. The learning process was carried out in classroom VI MI Al Falah Gedongan Baki Sukoharjo. In this planning stage, a number of important elements are prepared, including learning scenarios or Learning Implementation Plans (RPP) 2, media, materials, and learning tools. In addition, observation instruments are also prepared to assess the effectiveness of the implementation of the Problem Based Learning model assisted by Mind Mapping. All of these elements are designed to ensure that learning takes place in accordance with the goals set and supports the implementation of the expected learning model.

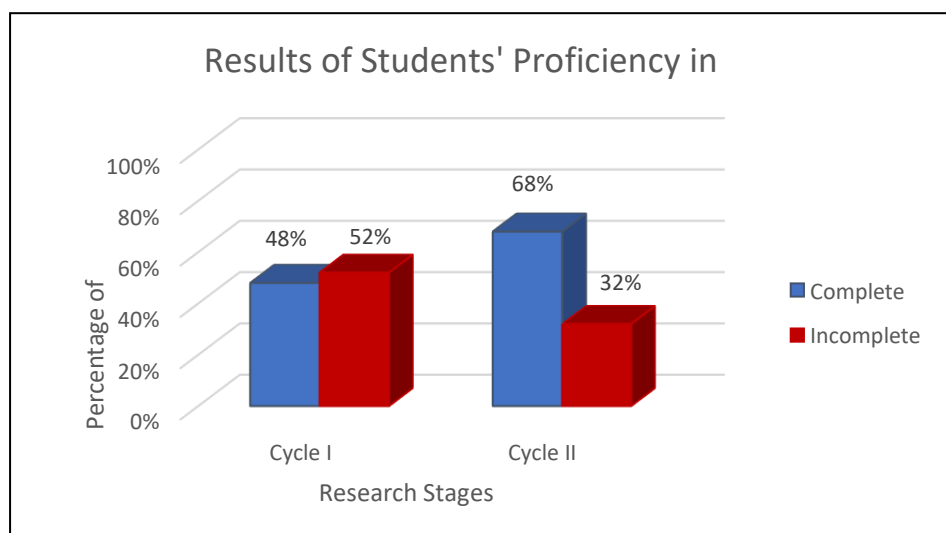
The implementation of actions in the second cycle involves the implementation of all pre-planned elements. This process is carried out in accordance with the learning scenarios that have been prepared, including the use of relevant media, materials, and tools to support the learning process. During the implementation, observations were also carried out simultaneously to monitor and evaluate the application of the PBL model assisted by Mind Mapping. This aims to ensure that the method applied functions effectively in achieving learning objectives and provides an overview of students' adaptation to the model.

Observation in the second cycle is carried out by practical teachers who monitor student activities and interactions during the learning process. The practical teacher observes how students adapt to the applied learning model and evaluates their involvement and understanding of the Halal Animal material. The data obtained from these observations are important to assess the successes and challenges faced during learning. The results of these observations will be the basis for making improvements and adjustments in the next cycle, in order to increase the effectiveness of the learning model applied.

Results of Observation of Student Activities Cycle 2



Student Learning Outcomes Cycle II



In the reflection stage, all stages that have been carried out during the second cycle are thoroughly evaluated. This process involves assessing the planning, implementation, and observations that have been carried out to identify strengths and areas that need improvement. The evaluation is carried out after all activities in the second cycle are completed, and the results obtained from this assessment are used as a basis for formulating improvements in the next cycle. This reflection aims to improve the effectiveness of the implementation of the learning model and ensure that every aspect of the second cycle has met the expected objectives. Thus, the results of reflection will provide valuable insights for the planning and implementation of future cycles, in order to achieve more optimal learning outcomes.

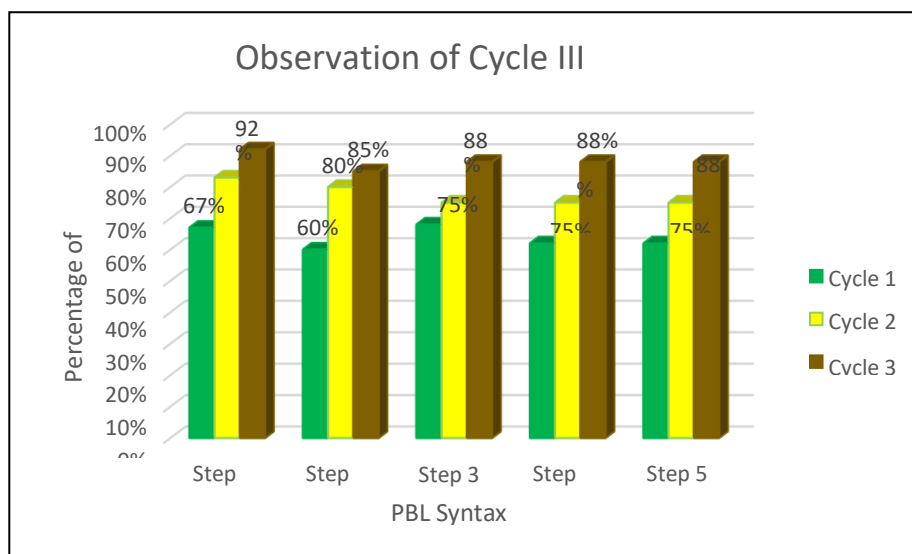
In Cycle 3, action planning was carried out on December 20, 2022, for the learning of Fiqh material on Haram Animals in class VI of MI Al Falah Gedongan Baki Sukoharjo. At this stage, the preparation includes the preparation of learning scenarios (RPP 3), as well as the procurement of the necessary media, materials, and learning tools. In addition, observation instruments are also prepared to assess the effectiveness of the implementation of the Problem Based Learning model assisted by Mind Mapping. All of these elements are

designed to support the learning process and ensure that activities take place according to the plan that has been set.

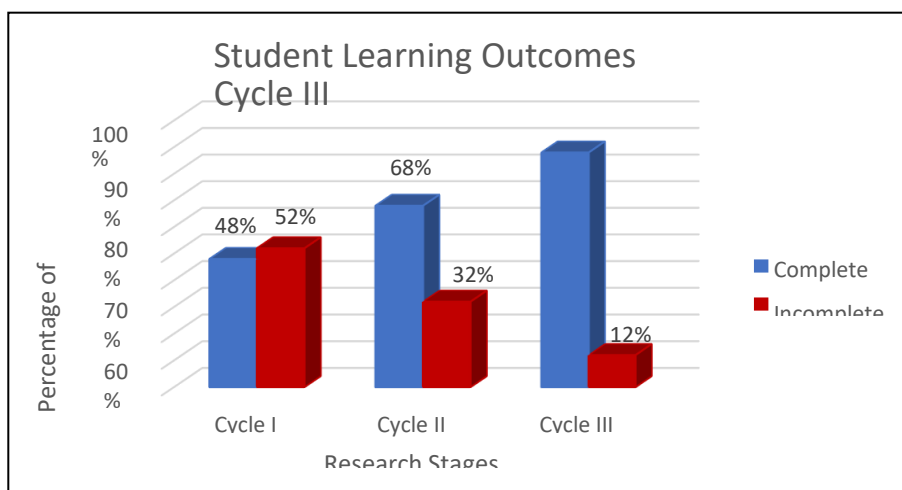
The implementation of actions in the third cycle follows what has been planned in advance. This process involves the application of learning scenarios, media, materials, and tools that have been prepared in the plan. During this stage, the practical teacher implements and monitors the learning process to ensure that all activities are carried out in accordance with the plan and learning model applied. Observations are carried out simultaneously to evaluate the effectiveness and involvement of students during the learning process.

Observations are carried out by practical teachers who observe student activities and responses during the third cycle. The main focus of observation is to assess how students interact with the material and the applied learning model, as well as to evaluate their acceptance and understanding of the Haram Animal material. The data obtained from these observations are important for assessing the success of the learning model and for determining the necessary improvement steps in the next cycle.

Observation Results of Cycle III Students



Results of Student Learning Completeness Cycle III



The reflection in the third cycle is carried out as a thorough evaluation of all stages that have been carried out previously. After all activities in the third cycle are completed, an evaluation is carried out to assess the achievement of student learning outcomes. The results of the reflection showed that the achievement of students' learning outcomes had increased significantly. Around 88% of students have reached the Minimum Completeness

Criteria (KKM), while only 12% have not met these standards. Thus, the implementation of learning in the third cycle is considered successful and in accordance with expectations, because the set success indicators have been exceeded, exceeding 80%. This reflection provides a positive picture of the effectiveness of the learning model applied and becomes the basis for arranging the next steps in the learning process.

F. Conclusion

Based on the results of the research that has been carried out, it can be concluded that the application of the Problem Based Learning (PBL) learning model assisted by Mind Mapping can significantly improve student learning outcomes on halal and haram animal material in grade VI of MI Al Falah Gedongan Baki Sukoharjo. This study shows that the use of the PBL model, supported by Mind Mapping techniques, not only helps students in understanding fiqh material in more depth but also facilitates their active involvement in the learning process. The application of this model encourages students to actively participate, think critically, and become more creative in solving given problems. By involving students in activities based on real problem solving and information visualization through Mind Mapping, students can better organize and understand the concepts of fiqh. Therefore, this PBL model assisted by Mind Mapping is recommended as an effective alternative in fiqh learning, especially in complex materials such as halal and haram animals. This model not only improves students' learning outcomes but also enhances their critical thinking skills and creativity, which are essential components of a quality educational process.

The application of the Problem Based Learning (PBL) model assisted by Mind Mapping to improve the learning outcomes of halal and haram animal fiqh at Madrasah Ibtidaiyah, such as the one applied at MI Al Falah Gedongan Baki Sukoharjo, shows positive potential in increasing student engagement and learning outcomes. However, there is a significant weakness that needs to be considered, namely that this research was only conducted in one school. Research limited to one location does not adequately provide a comprehensive picture of the effectiveness of this model in a broader context. Each school has different characteristics, cultures, and classroom dynamics, which can affect the results of the implementation of the learning model. The limitations in one location also reduce the ability to generalize research findings to different types of schools or other groups of students. In order to obtain more valid results that can be applied in general, it is recommended that this study be extended to several schools with diverse characteristics. By involving different locations and student populations, it will be easier to evaluate whether the Mind Mapping-assisted PBL model is really effective in different educational contexts or only applicable to specific conditions in a single school. Further research involving more schools can provide more comprehensive and in-depth insights into the effectiveness and adaptation of this model in various educational situations.

BIBLIOGRAPHY

- Ardiansyah, A. (2023). *Development of PAI Teaching Materials Based on Mind Mapping Model on Class II Congregational Prayer Materials at SDN 2 Keniten*. *Social Science Academic*, 1(1), 201-212.
- Arikunto, S. (2011). *Basics of Educational Evaluation*. Jakarta: Bumi Aksara.
- Arikunto, S. (2010). *Research Procedure: A Practical Approach*. Jakarta: Rineka Cipta.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks: Sage Publications.
- Fitriyati, D., & Karyanto, U. B. (2021). The effectiveness of the use of the mind mapping learning method on improving student fiqh learning outcomes. *Indonesian Journal of Islamic Elementary Education*, 1(2), 11-18.
- Fauzi, B. B. N., Qomaruzzaman, B., & Zaqiah, Q. Y. (2023). *Problem Based Learning in Fiqh Learning Innovation to Improve Critical Thinking*. *Journal of Educatio FKIP UNMA*, 9(4),

2093.

- Hotimah, H. (2020). *Application of Problem Based Learning Methods in Improving Storytelling Skills in Elementary School Students*. *Journal of Education*, 7(2), 5-11.
- Isti'ana, A. (2024). *Integration of Technology in Islamic Education Learning*. *Indonesian Research Journal on Education*, 4(1), 302-310.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks: Sage Publications.
- Nurmasari, I., Supriadi, H., Mawarny, E., Amalya, N. T., & Anjani, S. R. (2020). Professional management of teachers in the quality of education as an effort to improve the quality of human resources. *Journal of Creative Lokabmas: Loyalty of Creativity of Creative Community Servants*, 1(2), 52-55.
- Prastawa, S., & Radiyanto, A. (2024). The Effectiveness of the Problem Based Learning Model Based on the Post-Covid 19 Pandemic Era to Improve Students' Critical Thinking. *Brilliant Journal of Education*, 1(1), 5-14.
- Silberman, Mel. 2009. *Active Learning (101 Active Learning Strategies)*. Yogyakarta: Pustaka Insan Madani.
- Sugiyono (2013). *Statistics for Research*. Bandung: Alfabeta
- Sugiyono (2018). *Quantitative, Qualitative, and R&D Research Methods*. Bandung: Alfabeta.
- Syihabuddin, A. A., Nursyamsiyah, S., & Putra, D. W. (2023). Implementation of the Problem Based Learning (PBL) Model to Improve Student Learning Outcomes in Fiqh Subjects. *Journal of Islamic Education*, 1(1), 9-9.
- Wina Sanjaya, *Learning Strategies Oriented to Educational Process Standards*, (Jakarta: Prenada Media. Group, 2010).