# Implementation of Problem-Based Learning (PBL) Learning Model to Improve Learning Motivation of Class V Students

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**ABSTRACT.** Motivation is one factor that influences student success; someone will get the desired results in learning if they desire to learn. This study aimed to improve student learning motivation through the Problem-Based Learning (PBL) model in grade V students of SD Inpres 12 Baiya. This study uses the type of Classroom Action Research (CAR); the subjects used were 31 students of grade V SD Inpres 12 Baiya. Data collection techniques were carried out using questionnaires and observations. Data analysis used in this study was qualitative data analysis, with the results obtained in cycle I at 65.75% and cycle II at 81.31%. These results indicate an increase in student learning motivation. This is reinforced by the results of teacher activities in cycle I 75.2 and cycle II 93.3 and the results of student activities in cycle I 61 and cycle II 91. It can be concluded that using the PBL learning model can improve learning motivation in grade V students of SD Inpres 12 Baiya.

Keywords: Problem Based Learning Model, Learning Motivation, Students



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#### INTRODUCTION

Efforts to improve the quality of education in order to improve human resources are a central point and strategy in realizing dynamic, independent and proactive quality education (Masitah et al., 2024). The function of education is to guide students towards a goal that we uphold, namely to enlighten the life of the nation and develop the Indonesian people as a whole (Tussa et al., 2024). The learning outcomes of students in elementary school are closely related to the learning motivation possessed by each student. Students' learning motivation should always be fostered in students because failure in learning is not only caused by the students but may be caused by teachers who fail to establish learning motivation in students so that interest in learning will decrease and will affect student learning outcomes (Hikmawati & Yonanda, 2022). Motivation plays an important role in the student learning process, especially in efforts to increase learning efforts. Motivation as a psychological condition that drives someone to do something (Syah, 2020). Motivation is one of the factors that influences student success, a person will get the desired results in learning if he has a desire to learn (Munawir et al., 2024).

The current problem of education in Indonesia, especially related to learning, is often associated with monotonous learning methods. These methods are generally less varied and uninteresting to students, where teaching is often only done through lectures or a one-way

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approach that limits active student participation (Aniah et al., 2023). Monotonous learning can also reduce student motivation due to the lack of interaction and collaboration in the learning process (Aqil et al., 2025). Previous research shows that the Problem-Based Learning (PBL) model is effective in increasing student learning motivation. PBL is a learning method where relevant problems are introduced at the beginning of the learning cycle and are used to provide context and motivation for subsequent learning. (Argaw et al., 2017; Wijnen et al., 2018; Wijnia et al., 2024a, 2024b). Problem-based learning (PBL) is a professional education approach that emphasizes the use of real-life problems as learning stimuli. In PBL, students work in small tutorial groups to discuss the problem and, in the process of discussing it, formulate independent learning goals. The learning that results from this activity is considered constructive and contextually meaningful (Van Berkel & Schmidt, 2000). However, research examining the application of PBL in the context of science learning is still limited because science learning was initiated in the independent curriculum. Therefore, this study focuses on exploring how PBL can improve students' learning motivation, especially in science learning, on growth and development materials.

The subject of science is also no less important in education, because the subject of science studies the universe and its contents and the events that occur in it, which are developed by experts based on scientific processes. Therefore, the subject of science is taught to students from elementary school (Nirwana et al., 2024). It is hoped that students can understand various things related to the natural world around them, so that students can apply the knowledge they have learned (Rosiyani et al., 2024). Problems in learning science and natural sciences, namely learning science and natural sciences (IPA) and social sciences (IPS), often involve complex concepts that are difficult for students to understand if using traditional teaching methods. Abstract concepts and invisible processes are often difficult to understand without proper visualization. The problem in learning science and natural sciences at this time is that many teachers still use conventional learning methods until which can often be rigid, monotonous, and not fun. The use of conventional learning methods affects students' abilities in science and natural sciences subjects, which are still low (Mina Listiana et al., 2024). In implementing the science learning process, teachers should create a healthy and creative learning atmosphere so that children are able to express themselves as subjects of the learning process, not just as objects of learning (Paratiwi & Ramadhan, 2023). One of the learning models that can be applied to science learning is the Problem-Based Learning (PBL) learning model. The PBL model provides space for students to learn actively by solving real-world problems. PBL aims to increase student motivation and learning. (Wijnia et al., 2011) involving students with the problems they face is expected to make learning meaningful and motivate students (Servant-Miklos et al., 2019).

The implementation of PBL also has drawbacks, as explained by (Mubarak et al., 2024). Among them are the lack of interest and confidence of students in solving problems that are considered difficult, as well as the longer time needed to solve problems at the beginning of PBL implementation. This model also requires rich materials and in-depth investigation. One of the goals of PBL is to increase students' intrinsic motivation to learn. Based on the background above, this study was conducted with the aim of increasing students' learning motivation through the application of the PBL learning model to fifth grade students of SD Inpres 12 Baiya. Through the application of the PBL learning model, it is expected to increase students' learning motivation, especially in science learning.

# **METHOD**

This study uses a Classroom Action Research approach, which aims to solve learning problems in the classroom and achieve improvements, enhancements, and changes in learning to optimize learning objectives. This study combines qualitative and quantitative approaches to produce descriptive data based on observations, learning development, and student learning motivation, which are then analyzed quantitatively to obtain conclusions in the form of numbers.

In this classroom action research, a series of iterative cycles were conducted, each consisting of planning, action, observation, and reflection stages. The cycle began with initial observation to assess students' initial motivation, followed by implementation of the actions in the first cycle. After the evaluation of the first cycle actions, the researcher planned and implemented the second cycle, which may include improvements or adjustments based on the findings from the first cycle. This process continues until the desired results are achieved, with each cycle consisting of four meetings that include three teaching sessions and one session for testing and evaluation.

The focus of this study was on fifth-grade students at SD Inpres 12 Baiya to evaluate the improvement of early reading skills through the learning while singing method. The subjects of the study involved all 30 grade 1a students and the related class teachers. The location of the study was at SD Inpres 12 Baiya, with the study taking place from November 2024

The instruments used in this study included observation sheets, questionnaire sheets, and documentation. A qualitative descriptive approach was used to analyze the results of observations and documentation during the study, while a quantitative descriptive approach produced numerical data on student motivation. A comparison of student motivation between the final cycle and the previous cycle will determine the effectiveness of the application of the PBL learning model in improving student motivation.

### **RESULT AND DISCUSSION**

#### Result

Data collection in this study was carried out in November 2024, which was divided into 2 stages, namely cycle I and cycle II. This Classroom Action Research was carried out at SD Inpres 12 Baiya. Before taking action, the researcher first asked permission from the principal and prepared the instruments needed in the study, collecting information about the learning of grade V students. The information collected is expected to be able to assist in carrying out the research to be carried out. The subjects of this study were 31 grade V students, consisting of 19 boys and 12 girls. This study aims to increase student learning motivation by using the PBL learning model.

Progress in each cycle was measured through observation sheets and motivational questionnaire results given to students. Although there was an increase in student performance from cycle to cycle, several challenges and obstacles were faced but were successfully overcome through improvements in learning strategies.

During cycle I, the main challenge was that teachers were less able to control class conditions, so that when dividing groups, the class became a little noisy. Teachers were less able to guide students in learning so some students had difficulty completing their learning. There were still many students who did not care when the teacher conveyed learning objectives. The existence of interesting activities in learning is still in the sufficient category. It was found that the teacher's creativity in delivering the material was still lacking.

Teacher activity in cycle II learning has increased because the teacher has been able to control the class conditions, so that in dividing the class groups, it is no longer noisy. Then the teacher has also been able to guide and direct students so that they can understand the steps in completing their learning. Student activity in learning has increased because, in the learning process, students can listen and pay more attention to the teacher when delivering learning objectives. In the classroom, the teacher has also been able to communicate with students, so that students have been able to convey obstacles or problems in conducting discussions. Student learning motivation from cycle I to cycle II has increased in each indicator of learning motivation.

Analysis of test results from each cycle shows consistent development: 1) Cycle I, the highest score was 80 and the lowest score was 55.2 from 31 students. The number of students who completed was 11 people and 20 students did not complete. The average score was 65.75. Looking at the results above, students' learning motivation is still low and still needs to be improved. Cycle

II, students' learning motivation obtained the highest score of 85.6 and the lowest score of 74.4 from 31 students. The number of students who completed was 29 people and 2 students did not complete. The average score was 81.31, a very good category.

Table 1. Comparative Data of Motivation Cycle I and II

No	Aspek Perolehan	Siklus I	Siklus II	Keterangan
1	Number of Students	31	31	-
2	Number of Students Who	11	29	Increase
	Completed			
3	Number of Students Who Did Not	20	2	Reduce
	Complete			
4	Highest Motivation Score	80	85,6	Increase
5	Lowest Motivation Score	55,2	74,4	Increase
6	Average Motivation Score	65,75%	81,31	Increase
7	Category	Good	Sangat	Increase
			Baik	

### **Dsicussion**

This research was conducted in order to overcome the low motivation of students. The purpose of this study is to increase students' learning motivation in science learning through the PBL learning model. This learning model was chosen because, through the PBL model, students feel challenged to solve the problems given, so that students are active in learning and their learning motivation increases. The research process is organized in cycles, where each cycle is designed to improve learning so that students are motivated to learn. As an improvement, teachers are expected to be more able to create a fun learning atmosphere such as inserting games into learning so that the classroom atmosphere is not boring, taking over the class so that students are more organized in group divisions, guiding students to understand the steps in completing learning and being able to condition the class so that students pay attention and listen to the delivery of learning objectives.

In cycle II, there was an increase in student learning motivation. The increase in student activity in learning was supported by increasing teacher activity in managing learning, adapting to students, and in cycle II, the teacher had succeeded in improving aspects that were still lacking in cycle I, so that the learning process could run well. Students had experienced improvements, such as in student learning being more active and focused in solving problems.

The increase in students' learning motivation from cycles I and II shows that the PBL model is suitable for use in science learning. In cycle I, students who had minimal good motivation were only 11 people (35.5%), increasing in cycle II to 29 students (93.5%). This increase was because students in learning with the PBL model became active. In addition, the PBL model emphasizes collaborative learning and is an innovative approach that creates active learning conditions (Argaw et al., 2017). PBL has the following characteristics: (1) Learning focuses on students as the center of learning, supported by constructivism theory that encourages students to develop their own knowledge; (2) The problems given are authentic problems that are easy for students to understand and can be applied in their professional lives; (3) New information is obtained through independent learning, where students seek additional knowledge from various sources; (4) Learning is carried out in small groups to increase scientific interaction and collaboration; (5) Teachers act as facilitators who monitor student development and encourage them to achieve predetermined goals (Susanto, 2020).

The results of this study are in line with previous research (Minarti et al., 2023; Rahmandani et al., 2024; Susanto, 2020) The PBL model has the potential to increase students' learning motivation in Indonesia. Therefore, the integration of the PBL model in the context of education in Indonesia needs further attention in order to provide a more significant contribution to improving the quality of learning and students' learning motivation in Indonesia. The PBL model is effective in increasing students' learning motivation. By providing interesting and contextual challenges, students feel more motivated to seek a deeper understanding of the learning material (Sari et al., 2020a).

Study (Sari et al., 2020b) which reveals that a person's interest in the learning process does not arise naturally, but is influenced by various factors. One factor that can encourage student interest is the use of a learning model that makes it easier for them to understand the teaching materials presented by the teacher. The problem-based learning (PBL) approach creates a learning environment that encourages students to improve their thinking and problem-solving skills. Such an environment can result in significant increases in student motivation because students are actively involved in the learning process.(Kadir & Fadillah, 2024). PBL involves students in collaboration and teamwork, which can increase their motivation due to social interaction and support from group members (Sari et al., 2020a). The increase in student learning motivation occurs because the teacher implements the PBL learning model well and can attract students' attention. This can be seen from the students' better ability to face and solve complex and real problems. They become more skilled in analyzing situations, formulating problems, and developing solutions. Students also show improvements in critical and analytical thinking. Student motivation and involvement increase because they feel that learning is more relevant to real life. Students become more enthusiastic and excited in following the learning process. Through group work in PBL, students develop cooperation and communication skills, learn to collaborate with friends, respect the opinions of others, and work towards common goals. Students also become more independent in the learning process, learn to take the initiative, seek information independently, and be responsible for their learning outcomes.

## **CONCLUSION**

Based on the results of the study, it can be concluded that the PBL learning model can improve students' learning motivation in learning science in grade V at SD Inpres 12 Baiya. This can be seen from the following description, namely that students' learning motivation increased from cycle to cycle II, namely in cycle I with a percentage value of 65.75% included in the good category, in cycle II there was an increase in the percentage value of 81.31% included in the very good category. This can also be seen from the process of teacher activity activities that appear to increase from each cycle, namely, in cycle I it obtained an average value of 75.2, included in the good category and in cycle II, teacher activity activities obtained an average value of 93.3, included in the very good category. Then for student activity activities it appears to increase from each cycle, namely in cycle I it obtained an average value of 61 included in the sufficient category and in cycle II student activity activities obtained an average value of 91, included in the very good category. from the results that have been presented, it can be concluded that the use of the PBL learning model can improve the motivation to learn science in grade V SD Inpres 12 Baiya students.

# REFERENCES

Aniah, S., Darmayanti, N., & Arsyad, J. (2023). Pengaruh Minat dan Gaya Belajar Terhadap Kemampuan Menghafal Alquran Siswa Program Tahfizh. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 4(3), 634–644. https://doi.org/10.31538/munaddhomah.v4i3.465

Aqil, M., Lagandesa, Y. R., Fasli, M., Tadulako, U., Tadulako, U., Tadulako, U., Tadulako, U., & Tadulako, U. (2025). Pengaruh Model Problem Based Learning (PBL) dengan berbantuan Media Wordwall terhadap Hasil Belajar Siswa pada Mata Pelajaran Bahasa Indonesia. 8(1), 151–159.

- Argaw, A. S., Haile, B. B., Ayalew, B. T., & Kuma, S. G. (2017). The effect of problem based learning (PBL) instruction on students' motivation and problem solving skills of physics. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(3), 857–871. https://doi.org/10.12973/eurasia.2017.00647a
- Hikmawati, R., & Yonanda, D. A. (2022). Keterkaitan Motivasi Belajar Siswa Dan Hasil Belajar Ipa Di Sekolah Dasar. *Mirabilis: Journal of Biology Education*, 1(2), 22–27. https://doi.org/10.56916/jm.v1i2.291
- Kadir, A., & Fadillah, A. A. (2024). Jurnal Pendidikan & Pembelajaran Sekolah Dasar Pengaruh Model Pembelajaran Problem Based Learning Terhadap Motivasi Belajar IPAS Siswa Kelas IV. 4(1), 49–56.
- Masitah, W., Sitepu, M. S., Hidayati, M., & Kaharu, S. N. (2024). The Influence of the Ice Breaking Technique in Learning on the Learning Motivation. *Journal of Psychology and Instruction*, 8(2). https://doi.org/https://doi.org/10.23887/jpai.v8i2.79404
- Mina Listiana, Mike Herlinawati, & Muhammad Rifki Supyadi. (2024). Implementasi Media Pembelajaran Berbasis Teknologi Animasi dan Simulasi Interaktif Pada Pembelajaran IPAS. *Jurnal Lensa Pendas*, 9(1), 29–35. https://doi.org/10.33222/jlp.v9i1.3547
- Minarti, I. B., Nurwahyunani, A., Aifiyyatul Fajriyah, S., Dzakiyatus Sholekhah, S., Valenta Kafita Ardian, V., Asanu Lestari, S., & Handrian Firdaus, D. (2023). Numbers: Jurnal Pendidikan Matematika dan Ilmu Pengetahuan Alam A Creative Commons Attribution-Non Commercial 4.0 International License. Integrasi Model Problem Based Learning (PBL) dalam meningkatkan Hasil Belajar dan Motivasi siswa di indonesia. *Jurnal Pendidikan Matematika Dan Ilmu Pengetahuan Alam*, 1(2), 45.
- Mubarak, A. Z., Dzaky, A., & Syahrani, S. (2024). Implementasi Model PBL Untuk Meningkatkan Hasil Belajar Siswa pada Mata Pelajaran Fikih. *Al Madrasah Jurnal Pendidikan Madrasah Ibtidaiya*, 8(3), 1097. https://doi.org/10.35931/am.v8i3.3086
- Munawir, M., Rofiqoh, A., & Khairani, I. (2024). Peran Media Interaktif Dalam Meningkatkan Motivasi Belajar Siswa pada Mata Pelajaran SKI di Madrasah Ibtidaiyah. *Jurnal AL-AZHAR INDONESIA SERI HUMANIORA*, 9(1), 63–71.
- Nirwana, S., Azizah, M., & Hartati, H. (2024). Analisis Penerapan Problem Based Learning berbantu Quizizz pada Pembelajaran IPAS Kelas V Sekolah Dasar. *Jurnal Inovasi, Evaluasi Dan Pengembangan Pembelajaran (JIEPP)*, 4(1), 155–164. https://doi.org/10.54371/jiepp.v4i1.396
- Paratiwi, T., & Ramadhan, Z. H. (2023). Model Pembelajaran Problem Based Learning untuk Meningkatkan Aktivitas dan Hasil Belajar Siswa Pada Pembelajaran IPAS Kelas V Sekolah Dasar. *Journal of Education Action Research*, 7(4), 603–610. https://doi.org/10.23887/jear.v7i4.69971
- Rahmandani, F., Hamzah, M. R., Handayani, T., & Fatimah, S. (2024). Penerapan Problem Based Learning (PBL) dalam Peningkatan Keaktifan dan Motivasi Belajar Peserta Didik pada Mata Pelajaran Pendidikan Pancasila di SMAN 2 Batu. *Jurnal Pendidikan Dan Pembelajaran Indonesia (JPPI)*, 4(3), 1016–1027. https://doi.org/10.53299/jppi.v4i3.674
- Rosiyani, A. I., Aqilah Salamah, Lestari, C. A., Anggraini, S., & Ab, W. (2024). Penerapan Pembelajaran Berdiferensiasi dalam Kurikulum Merdeka pada Pembelajaran Ipas Sekolah Dasar. *Jurnal Pendidikan Guru Sekolah Dasar*, 1(3), 10. https://doi.org/10.47134/pgsd.v1i3.271
- Sari, Y., Sutrisno, S., & Sugiyanti, S. (2020a). Experimentation of Problem Based Learning (PBL) Model on Student Learning Motivation and Achievement on Circle Material. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 9(4). https://doi.org/10.30998/formatif.v9i4.3650
- Sari, Y., Sutrisno, S., & Sugiyanti, S. (2020b). Experimentation of Problem Based Learning (PBL) Model on Student Learning Motivation and Achievement on Circle Material. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 9(4), 315–324. https://doi.org/10.30998/formatif.v9i4.3650
- Servant-Miklos, V. F. C., Norman, G. R., & Schmidt, H. G. (2019). A short intellectual history of problem-based learning. *The Wiley Handbook of Problem-based Learning*, 3–24. https://doi.org/https://doi.org/10.1002/9781119173243.ch1
- Susanto, S. (2020). Efektifitas Small Group Discussion Dengan Model Problem Based Learning

- Dalam Pembelajaran Di Masa Pandemi Covid-19. *Jurnal Pendidikan Modern*, 6(1), 55–60. https://doi.org/10.37471/jpm.v6i1.125
- Syah, R. H. (2020). Dampak Covid-19 pada Pendidikan di Indonesia: Sekolah, Keterampilan, dan Proses Pembelajaran. *SALAM: Jurnal Sosial Dan Budaya Syar-I*, 7(5). https://doi.org/10.15408/sjsbs.v7i5.15314
- Tussa, H., Yana, I. N., Satria, S., Pendit, D., & Kunci, K. (2024). *Implementing Experimental Learning Methods on Student Learning Motivation*. 8(2), 75–82. https://doi.org/https://doi.org/10.23887/jpai.v8i2.79404
- Van Berkel, H. J. M., & Schmidt, H. G. (2000). Motivation to commit oneself as a determinant of achievement in problem-based learning. *Higher Education*, 40(2), 231–242.
- Wijnen, M., Loyens, S. M. M., Wijnia, L., Smeets, G., Kroeze, M. J., & Van der Molen, H. T. (2018). Is problem-based learning associated with students' motivation? A quantitative and qualitative study. *Learning Environments Research*, 21(2), 173–193. https://doi.org/10.1007/s10984-017-9246-9
- Wijnia, L., Loyens, S. M. M., & Derous, E. (2011). Investigating effects of problem-based versus lecture-based learning environments on student motivation. *Contemporary Educational Psychology*, 36(2), 101–113. https://doi.org/https://doi.org/10.1016/j.cedpsych.2010.11.003
- Wijnia, L., Noordzij, G., Arends, L. R., Rikers, R. M. J. P., & Loyens, S. M. M. (2024a). The effects of problem-based, project-based, and case-based learning on students' motivation: A meta-analysis. *Educational Psychology Review*, 36(1), 29.
- Wijnia, L., Noordzij, G., Arends, L. R., Rikers, R. M. J. P., & Loyens, S. M. M. (2024b). The Effects of Problem-Based, Project-Based, and Case-Based Learning on Students' Motivation: a Meta-Analysis. In *Educational Psychology Review* (Vol. 36, Issue 1). Springer US. https://doi.org/10.1007/s10648-024-09864-3