

Implementation of the Problem Based Learning Model to Increase Student Learning Activeness in Class 2 SD Thematic Learning

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1. Abstract

This research was conducted based on the results of learning observations in class 2, which have been carried out by researchers and show the low active participation of students in learning. The purpose of this study is to increase the active learning of students in class 2 through thematic learning using the *problem-based model of learning*. This research is classroom action research using the Kemmis and McSpiral model by Taggart, which consists of four components including planning, action, observation, and reflection. This research was conducted in two cycles, with each cycle consisting of two meetings. The subjects in this study were 20 grade 2 students in the even semester of the 2022–2023 school year. The data collection techniques used in this study are interviews, observation, and documentation. The data analysis technique used is descriptive-qualitative analysis. indicator of success in the study This is if the average presentation of every aspect of the study reaches the minimum criteria of 75%. The results showed that the application of the *problem-based learning model* (PBL) in thematic learning can increase the activity of class 2 students. This can be seen from the results of observations of student activity. In the first meeting of cycle I, the average percentage of participants' active learning education was 67%, and at the second meeting, it increased to 74.58%. In the first cycle II meeting, the average percentage of participants' active learning education increased to 82,29%,

and at the meeting, both presentation averages of liveliness education increased to 92.29%. The conclusion from this study shows that the application of the *problem-based* learning model (PBL) can increase student learning activeness in class 2 thematic learning.

Keyword: *Problem Based Learning, Activeness Study, Thematic*

2. Introduction

Learning is a process of interaction between students, educators, and learning resources in a learning environment. Learning is assistance provided by educators so that the process of acquiring knowledge and mastering skills and character, as well as forming attitudes and beliefs in students, can occur. In other words, learning is a process to help students learn well (Anggarayanthi et al., 2016).

The success of learning is the responsibility of the teacher and cannot be separated from the role of the teacher. The teacher must create and achieve a conducive learning situation, namely active, creative, innovative, effective, and fun learning in the process of learning activities. Professional teachers design learning using a learning model that best suits the goals to be achieved so that the learning process becomes more interesting and can motivate students (Anugraheni, 2017; Majid, 2014; Mawardi, 2014).

Learning is defined as a process carried out by the teacher with objective participants. Students can carry out learning activities. Learning activities are carried out guided by the learning design that has been compiled by the teacher (Kristin et al., 2017; Mayasari, 2021). In designing learning, the teacher determines the need for learning, which includes objectives, approaches, and methods. When a plan is made and becomes a unified whole, a learning model is formed.

Learning models are something that has a conceptual framework: stages procedural in activity systematic learning with an objective to reach an objective that has been set. Learning models are made as guidelines for internal teachers designing series activity learning in the classroom (Sulaeman, 2022). A learning model, according to Arifudin (2021), is a pattern design used by the teacher as guidelines for compiling learning on the device.

In the learning process, the teacher must choose an appropriate learning model based on the needs of the study and the characteristics of the participant. This is expected to make learning meaningful and fun so that participants are enthusiastic about following the learning. Enthusiastic participants teach in class, as can be seen from the liveliness with which study participants educate when following learning in the classroom (Adri, 2015; Vitasari, 2016). According to Rahman (2021), indicators of activity can be seen in five aspects, including: 1) students' attention to the teacher's explanation; 2) understanding the problems given by the teacher; 3) students' ability to express opinions; 4) discussing with groups; and 5) presenting discussions.

Based on the results of researchers' observations from April 12 to April 13, 2023, in the thematic learning process in class 2 at an elementary school in Bantul, Yogyakarta, it shows that class 2 learning activities are mostly carried out individually in class; there are no group activities, so students lack interaction during learning activities. Teachers use conventional methods such as lecturing and explaining material written on blackboards, and learning activities are still teacher-centered. In addition, it has not been seen that teachers use interactive media, both concrete media and digital-based media. The activities of students in the learning process only work on the questions in the theme book, so learning tends to be monotonous and the activity of students during the process of learning

activities is not maximized. This can be seen from the observational data from 20 students: only 3 students were 7.50% active learners and 62.50% passive learners.

Based on the existing problems, it is necessary to improve the quality of learning. The improvement of learning from boring to fun can be done by using a cooperative learning model. One of the cooperative learning models that can be used is the problem-based learning model. *The problem-based* learning model is used with the aim of increasing the activeness of students in the learning process. Students are given the understanding that teachers are not the only source of learning information, but students can explore the surrounding environment to increase knowledge according to the material being taught (Darmawan, 2021; Hosnan, 2014; Kusmiati, 2019).

Based on the description above, the researcher is interested in conducting further research related to the implementation of the *problem-based* learning model (PBL) in increasing student learning activeness in the thematic subjects of class 2 elementary schools. This research is expected to answer the problems found through the collection of supporting data.

3. Methods

This research is classroom action research by adopting the Kemmis and Mc Taggart spiral model research design which consists of four components including planning, action, observation, and reflection. These components are carried out in one cycle. The cycle is a round of activities consisting of planning, action, observation, and reflection. Implementation of the number of cycles depends on the problem that needs to be solved.

This research was carried out in collaboration between researchers and teachers of class 2 schools in the State of Yogyakarta. The research subjects were 20 second-grade students, consisting of 10 boys and 10 girls. In this study, the data were obtained by researchers using several data collection techniques, among them interviewing, observing, and documenting. Interview done with the class teacher for more information on related conditions and characteristics that participants teach in class.

Observation techniques are carried out by making observations on measurement targets using observation sheets or observation sheets that have been prepared beforehand. The data to be collected through this observation is qualitative. Observations in this study were used to collect data regarding the activeness of the participants while using the problem-based learning model. Documentation techniques are used to obtain data, photos, and videos that provide a concrete picture of the participants' activities. students during the learning process, as well as data and other documents such as the syllabus and RPP.

The analysis technique used is simple descriptive-qualitative, namely describing using sentences to obtain clear and detailed information. The data analysis technique in this study was carried out by reflecting on the results of observations on the learning process carried out by the teacher and participants in class. The analysis of data from observations of participant activities by students in this study is to reflect the results of observations in the form of student activities, which are analyzed with the following steps:

1. Based on the observed data, the activeness value of each student on each indicator is processed by adding up the scores obtained to find out the total value of the acquisition of the activeness of each indicator and each

2. After obtaining the total activeness value of each indicator from each student, compare it with the total maximum score expected.
3. Calculating the percentage of student activity with the formula:

$$\text{Persentase} = \frac{\sum \text{Skor tiap indikator}}{\sum \text{Kategori} \times \sum \text{Siswa}} \times 100 \%$$

The indicator of success in this study is the increase in learning outcomes and student activity from each cycle during the given action activities. In increasing student activity, an indicator of success in this aspect is when student learning activity is said to increase if the average percentage is at least 75% on each indicator.

4. Result and Discussion

The activity study started with pre-action. Beginning participants should be educated about the condition. This pre-action activity is in the form of initial observations made by researchers to find out the problems that exist in class 2 in thematic learning. Researchers conducted field observations and discussions with colleagues to find out the conditions that occur in the classroom during the learning process. Observation done to aspect liveliness Study participants educate as focus research. In the aspect of active learning, observation assessment criteria are measured through six indicators, namely: (1) paying attention to the teacher's explanation; (2) asking questions; and (3) answering questions. (4) solving problems (5) paying attention to friends' presentations and (6) recording a summary of the subject matter. Observation results and activity pre-action are as follows:

Table 1: Learning Activeness Participant Grade 2 Students on Pre-Action

No	Indicator	Amount Score	Results (%)
1.	Pay attention to the teacher's explanation.	32	40.00 %
2.	Asking question	32	40.00 %
3.	Answer the question.	31	3 8.75 %
4.	Solve the problem.	31	3 8.75 %
5.	Pay attention to friends' presentations.	28	35.00% _
6.	Record a summary of the subject matter.	26	3 2.50 %
The average learning activity participant educates			37.50%

Based on the findings of the observations, it is clear that participants in learning activities include students in the low category, with an average of 37% and 50%. Learning activity participant low-performing students will have an impact on fluency in the learning process in class. The teacher, as a collaborator, must increase active learning by asking participants to be actively involved in learning activities. In addition to the role of the participant students in teaching and learning activities, learning must also be presented so that it is more fun and effective, namely through the problem based learning model.

Observation results on activities pre-adopted as material reflection for the researcher for designing learning customized with needs ttudy participant educates observation of liveliness study participant education is done collaboratively. The results of observations that have been carried out by researchers and observers, including during the learning process using the Problem Based Learning model, show that observers record the implementation of learning and active learning by students while participating in learning activities. Based on the results of observations on learning activeness in cycle I, it shows that the participants students have shown a positive response, although there are still some

who have not been actively involved. All participants carry out learning activities in accordance with the indicators to be achieved. This can be seen from the data showing that the big indicator has not yet reached the indicator of success.

Results of observation of learning activeness among participants in the cycle I showed that the average value of learning activeness at the first meeting was 70.14%. From these data, it can be concluded that learning activeness is still below the indicator of achievement. Following This acquisition of each aspect of liveliness, each indicator in cycle I can be seen in the table.

Table 2: Learning Activity Participant educates Class 2, Cycle I

No	Indicator	Score		Results (%)	
		P1	P2	P1	P2
1.	Pay attention to the teacher's explanation.	50	51	62.50%	63.75%
2.	Asking question	54	56	67.50%	70.00%
3.	Answer the question.	56	62	70.00%	77.50%
4.	Solve the problem.	57	61	71.25%	76.25%
5.	Pay attention to friends' presentations.	56	64	70.00%	80.00%
6.	Record a summary of the subject matter.	52	64	65.00%	80.00%
				67.71%	74.58%
Average student activity				71.15%	

Based on the first cycle, the table shows that the indicator learning activity participants have not yet achieved the expected indicators of success. The average percentage of liveliness among study participants at meeting 1 was 67.71%. As for the average percentage of liveliness among study participants at meeting 2, it increased to 74.58%. Based on these data, we obtained the average percentage of liveliness among study participant students in cycle 1 of 71.15%. Average this has yet to achieve the expected success indicators research, so the study will continue in the next cycle.

Results of the observation of liveliness Study participant students in cycle II showed that participants have shown their activeness while participating in learning activities using the Problem model B ased L earnings. Participant students seem to participate more actively when compared to cycle I. The observation results show that the average value of learning activeness among participants in cycle II is 87.29%. Following is the acquisition of data on each activity indicator at the first and second meetings of cycle II.

Table 3: Learning Activeness Participant Class 2 Students, Cycle II

No	Indicator	Amount Score		Results (%)	
		P1	P2	P1	P2
1.	Pay attention to the teacher's explanation.	65	73	81.25%	91.25%
2.	Asking question	66	73	82.50%	91.25%
3.	Answer the question.	68	74	85.00%	92.50%
4.	Solve the problem.	68	75	85.00%	93.75%
5.	Pay attention to friends' presentations.	66	73	82.50%	91.25%
6.	Record a summary of the subject matter.	62	75	77.50%	93.75%
				82.29%	92.29%
Average student activity				87.29%	

Based on Table 3, it shows that the participants already participate actively in activities of learning with the Problem Based Learning model. Average percentage liveliness study participant students at meeting 1 have reached indicator success expected research, i.e., 82.29%. Average Tthis return increased at meeting 2, so we obtained data of 92.29%. Based on the results of data acquisition at meetings 1 and 2, we obtained an average percentage of liveliness among study participant students in cycle II, namely 87.29%. Indicators of learning activeness have reached the expected indicators of success, so the

study is considered successful and the cycle is dismissed. This is because the participants have been able to adapt to the problem-based learning model, so there is no confusion in carrying out the learning process. Participants are active students in various activities carried out by the teacher. They were very enthusiastic about the learning that was carried out, and even some of them found new information related to the material being studied. Average learning activity increased by 16,14% in cycles I and II, respectively. Following are tables and diagrams for increasing active learning participation among students in cycles I and II.

Table 4: Comparison of Activeness Study Participants: Class 2 Students

No	Indicator	Pre-	Cycle I Results		Cycle II results	
		Action Results	P1	P2	P1	P2
1.	Pay attention to the teacher's explanation.	40.00 %	62.50%	63.75%	81.25%	91.25%
2.	Asking question	40.00 %	67.50%	70.00%	82.50%	91.25%
3.	Answer the question.	3 8.75 %	70.00%	77.50%	85.00%	92.50%
4.	Solve the problem.	3 8.75 %	71.25%	76.25%	85.00%	93.75%
5.	Pay attention to friends' presentations.	35.00 %	70.00%	80.00%	82.50%	91.25%
6.	Record a summary of the subject matter.	3 2.50 %	65.00%	80.00%	77.50%	93.75%
Average student activity		37.50%	67.71%	74.58%	82.29%	92.29%

According to the table above, it can be presented in the form of a bar chart as follows:

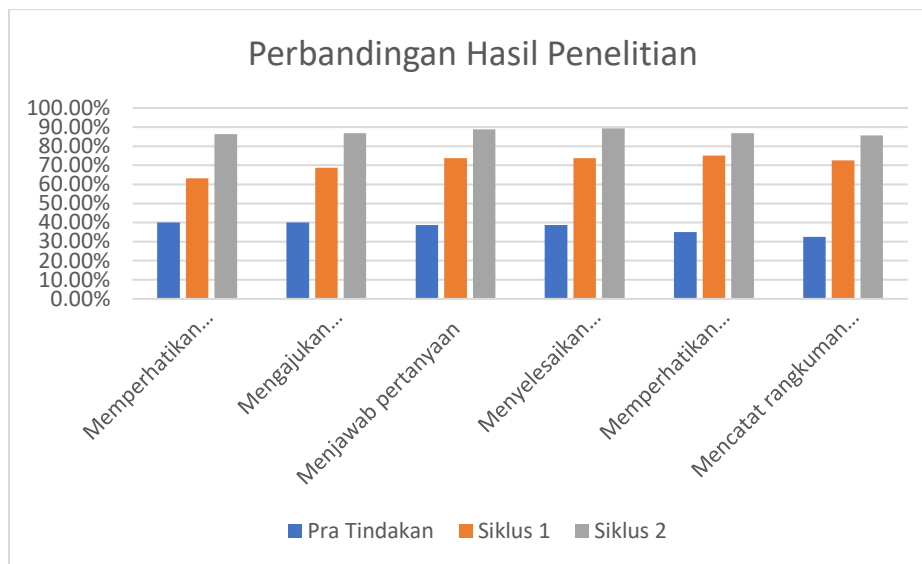


Figure 1. Comparison diagram of learning activity participants in class I

Based on Figure 1, there are six indicators used for measuring liveliness study participant educates the results of data acquisition show that enhancement starts from activity pre-action until the end of the cycle. In the implementation of the first cycle, the average student activity has reached 71.15% of the predetermined criteria. At the cycle II meeting, which reached 87, 29%. So that there is an increase from cycles I and II of 16,14%.

The first aspect is paying attention to the teacher's explanation. In cycle I, participants who paid attention to the teacher's explanation reached 63,13%. On execution

cycle II, criteria increased, i.e., reached 86,25%, so that the increase occurred in cycle I and cycle II as a big 23.12%.

The second aspect is asking questions of the teacher. In cycle I, students who dared to ask questions reached 68.75%.. On execution cycle II, criteria increased, i.e., reached 86.88%, so that the increase occurred in cycle I and cycle II as a big 18.13%.

The third aspect is answering questions given by the teacher. On cycle I, participants who dare to answer questions just reached 73.75%.. In the implementation of cycle II, the rate reached 88.75%,, resulting in an increase from cycle I to cycle II of 15.00%.

The fourth aspect is that students can complete problems. In cycle I, participants who can solve problems reach 73.75%.. In the implementation of the second cycle, the criteria increased, reaching 89.38%, and the increase from cycle I to cycle II was 15.63%.

The fifth aspect is paying attention to friends' presentations. In cycle I, participants who paid attention to friends' presentations only reached 75.00%. In the implementation of cycle II, the criteria increased, namely reaching 86.88%,, so that the increase from cycle I to cycle II reached 11.88%.

The sixth aspect is the participants. Students record a summary of the subject matter. In cycle I, it only reached 72.50%. In the implementation of cycle II, the criteria increased, namely reaching 85.63%, so that the increase from cycle I to cycle II reached 13.13%.

Based on the graph of increased learning activity among participants in cycles I and II, in cycle II, the average percentage of activity obtained by each indicator has reached the expected success criteria. Participants in cycle II have started to adapt to the learning model used. Learning activity participants can be seen when paying attention to the teacher

and friends who are presenting. Participant students have the courage to ask and answer the questions given. Participant Students are accustomed to discussing and seeking information from various learning sources.

Problem Based Learning model can increase active learning participation and educate participants. This can be seen in the presentation stage, where in this PBL model there are five stages. The first stage is orienting the participants to the problem, which means the participants get information from what is read when the teacher gives questions or problems. At this stage, the participants will associate the information obtained with the facts they have found. The second stage is organizing the participants to learn, and the third stage helps with independent and group investigations. Students will learn by conducting discussions and exchanging information. In accordance with what was expressed by Mc Keachie (Bahri, 20–21), one of the dimensions of participant learning Active learners are students who participate actively in carrying out teaching and learning activities, especially those that shape interactions between students. At this stage, the participant students solve problems according to the assignments given. By discussing after reading the material or looking for other relevant references, they can interpret, clarify, conclude, and explain the material provided. Fourthly, develop and present the works and exhibitions. Participants and students are required to be active in expressing the results of the discussion, while other students can provide feedback and ask questions related to the results of the discussion that is being presented.

Fifth, analyze and evaluate the problem-solving process; at this stage, the participants will get feedback from the material being taught. The increase in learning activity at each meeting, which is divided into two cycles, proves that the application of the

learning model is a Problem B: Learning can be used as a variation of learning models to encourage students to take an active role in their learning. This is in line with Tanjung (2021), who argues that choosing the right learning model by the teacher can support the achievement of learning objectives.

5. Conclusion

Based on the results of research that has shown and obtained the conclusion that the problem-based learning model can increase liveliness, Study participants are educated in learning thematically. Enhancement of liveliness in study participant education can be seen from results of research that has been held in two cycles. In the first cycle I meeting, the average percentage of participants' active learning educated was 67%, and the second meeting increased to 74.58%, yielding an average cycle I of 71.15%. In the cycle II meeting, the average percentage of participants' active learning education increased to 82.29%, and at the meeting, both percentage averages of active learning education increased to 92.29%. The average liveliness of learning in cycle II is 87.29%. This shows an enhancement from cycle I to cycle II of 16.14%. Treatment discontinued Because Already reach expected criteria. Research results prove that the learning model of problem-based learning is effective when used. Because syntax in this model can facilitate every aspect of liveliness,

Based on the results of research that has been done as expected, it can be beneficial for researchers to expose the application of the problem-based learning model to increase the liveliness of study participants' education. Research results are expected to be useful

as material evaluation in the application of the problem-based learning model and become a reference for readers as they develop further in the learning process.

6. References

- Adri. (2015). *Pengaruh Media Pembelajaran Dan Motivasi Terhadap Hasil Belajar*. Jurnal: Of Physical Education and Sports, 4(1), 1–10.
- Anggarayanthi, L. A., Suniasih, N. W., & Suara, I. M. (2016). *Penerapan Model Discovery Learning Berbantuan Media Llingkungan untuk Meningkatkan Hasil Belajar IPA Tema Ekosistem Siswa Kelas VA SD N 12 Padang Sambian*. e-Journal Universitas Pendidikan Ganesha, 4 (1), 2. Diunduh dari
- Anugraheni, I. (2017). *Penggunaan Portofolio dalam Perkuliahan Penilaian Pembelajaran*. Jurnal Pendidikan Dasar PerKhasa, 3(1), 248.
- Arifudin, O. (2021). *Media Pembelajaran Pendidikan Anak Usia Dini*. Bandung : Widina Bhakti Persada.
- Bahri, A. S. (2021). *Pengantar Penelitian Pendidikan (Sebuah Tinjauan Teori dan Praktis)*. Bandung : Widina Bhakti Persada.
- Darmawan, I. P. A. (2021). *Total Quality Management Dalam Dunia Pendidikan" Model, Teknik Dan Impementasi*. Bandung: Widina Bhakti Persada Bandung
- Hosnan. (2014). *Pendekatan Sainifik dan Kontekstual dalam Pembelajaran Abad 21*. Bogor: Ghalia Indonesia.

- Kristin, F & Astuti W. (2017). *Penerapan Model Pembelajaran Temas Games Tournament untuk Meningkatkan Keaktifan dan Hasil Belajar IPA*. Jurnal Ilmiah Sekolah Dasar, 1(3), 157.
- Kusmiati, E. (2019). *Penerapan Model Pembelajaran Problem Based Learning Dalam meningkatkan Hasil Belajar Siswa pada Pembelajaran IPA Dalam memahami Konsep Hubungan Antara Struktur Organ Tubuh Manusia dengan Fungsi dan Pemeliharaannya*. Jurnal Tahsinia, 1(1), 49–62.
- Majid, I. (2015). *Meningkatkan Hasil Belajar Sains Siswa kelas V SD Tunas Barito Sidangoli Melalui Penerapan Model Pembelajaran Think Pair Share (TPS) pada Konsep Perubahan Sifat*. EDUKASI-Jurnal Pendidikan. 13 (1): 193.
- Mawardi. (2014). *Pemberlakuan Kurikulum SD/MI Tahun 2013 dan Implikasinya Terhadap Upaya Mempebaiki Proses Pembelajaran Melalui PTK*. Scholaria,. 4 (3), 109.
- Mayasari, A. (2021). *Implementasi Sistem Informasi Manajemen Akademik Berbasis Teknologi Informasi dalam Meningkatkan Mutu Pelayanan Pembelajaran di SMK*. JIIP-Jurnal Ilmiah Ilmu Pendidikan, 4(5), 340–345.
- Rahman, N. H. (2021). *Pengaruh Media Flashcard Dalam Meningkatkan Daya Ingat Siswa Pada Materi Mufrodat Bahasa Arab*. Jurnal Tahsinia, 2(2), 99–106
- Sulaeman, D. (2022). *Implementasi Media Peraga dalam Meningkatkan Mutu Pembelajaran*. Edumaspul: Jurnal Pendidikan, 6(1), 71–77.
- Tanjung, R. (2021). *Kompetensi Manajerial Kepala Sekolah Dalam Meningkatkan Kinerja Guru Sekolah Dasar*. JIIP-Jurnal Ilmiah Ilmu Pendidikan, 4(4), 291–296.

Vitasari, R. (2016). *Peningkatan Keaktifan Dan Hasil Belajar Matematika Melalui Model Problem Based Learning Siswa Kelas V SD Negeri 5 Kutosari*. Kalam Cendikia Kebumen.4 (3), 14