

Improving Student Learning Outcomes in Thematic Learning Using the Problem-Solving Model

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Abstract

Class IV students at SD Negeri 14/III Punai Merindu face thematic learning difficulties in Indonesian and natural science subjects. These difficulties arise because, first, the teacher's lack of creativity in designing learning models. Second, teachers are not optimal in using learning models, methods and media that are appropriate to the learning material. Researchers intend to overcome students' learning difficulties in thematic learning in Indonesian and natural science subjects by using the Problem-Solving model. This type of research is PTK. The subjects of this research were fourth grade students at SD Negeri 14/III Punai Merindu, West Lake Kerinci District, Kerinci Regency in semester 1 of the 2023/2024 academic year. This research was conducted in 2 cycles. Each cycle held 2 meetings. At the end of each meeting, a written test was carried out in the form of essays and short essays to see improvements in student learning outcomes. Researchers succeeded in improving the thematic learning outcomes of class IV students in Indonesian language subjects in cycle I (27%) and cycle II (82%). Completeness in science subjects cycle I (36%) and cycle II (91%). The average value of observations of teacher activities in cycle I was (74%) and cycle II (93%). The results of observations of student activities in cycle I were average (62%) and cycle II (89%). So, it can be concluded that the Problem-Solving learning model is successful in improving student thematic learning outcomes.

Keywords: Learning, problem-solving model, student, thematic learning



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INTRODUCTION

Education is a conscious effort to realize cultural inheritance from one generation to another (Wasitohadi, 2014). Education makes this generation a role model for the teachings of previous generations (Listiwati & Trisiana, 2021). Education also creates a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, control, personality, intelligence, noble morals and the skills needed by themselves and society (Nainggolan et al., 2023). regarding the National Education System states that, "National Education functions to develop abilities and shape the character and civilization of a dignified nation in order to make the life of the nation intelligent, aimed at developing students' potential to become human beings who believe and are devoted to God Almighty, have noble character, be healthy, knowledgeable, capable, creative, independent, and be democratic and responsible citizens."

The government is trying to improve the quality and management of education by forming a new paradigm by a teacher in the learning process from teacher-centered learning to innovative and student-centered learning. These changes start in terms of the curriculum, completing infrastructure, teaching methods, and improving the quality of teachers so that teachers are able to use various models, media and methods in the learning process. Wardani et al. (2020) and Nugrahaningsih et al. (2020) stated that, thematic learning is one model of integrated learning (integrated instruction) which is a learning system that allows students, both individually and in groups, to actively explore and discover scientific concepts and principles holistically, meaningful, and authentic. Related to student development, thematic learning is a learning approach that pays attention to concepts according to the student's level of development (Kholisotin, 2014). Thematic learning is learning esigned to improve student skills (Zaqiah et al., 2021) that uses certain themes to link the subjects of Mathematics, Indonesian, Citizenship Education, Science, Social Sciences and SBDP with real life experiences and are meaningful for students when studying (Risnaini et al., 2020). Learning is commonly defined as a process of permanent behavior change from not knowing to knowing, from not understanding to understanding, less skilled to more skilled and from old habits to new habits, and is beneficial for the environment and the individual Alone (Barron et al., 2015). Learning is a process of effort carried out by a person to obtain a new change in behavior, as a result of his own experience in interaction with his environment (asnitadaeng & Wayong, 2022). The learning process requires someone to be able to use their thoughts, wisdom and enthusiasm for themselves. Learning must go through process activities and is a very important element in the implementation of the learning process and educational levels. After following the learning process, a person will experience changes that occur in him. These changes are what are called learning outcomes.

Based on interviews with class IV homeroom teachers, researchers received information that students had difficulty understanding Indonesian and science subjects during the learning process in class. And the researcher made direct observations of the learning methods carried out by the class IV homeroom teacher. After making direct observations during the teaching and learning process, researchers found that the teacher's way of teaching was not in accordance with the characteristics of thematic learning so that more than 75% of students' grades were low because the way of teaching was not correct so that the students' grades had not been completed

according to the Minimum Completeness Criteria (KKM) set by the State Elementary School. 14/III Punai Merindu, West Lake Kerinci District, Kerinci Regency from the results of the grades given by the class IV homeroom teacher. The student's grades can be seen in the following table:

Table 1. Daily Scores of Thematic Horse Defender Students in Class IV Theme 3 Subtheme 1 SD Negeri 14/III Punai Merindu, West Lake Kerinci District, Kerinci Regency, Odd Semester, Academic Year 2022/2023

No	Student Code	KKM	BI			IPA		
			Mark	Q	BT	Mark	Q	BT
1.	DF	70	75	√	-	75	√	-
2.	GH	70	45	-	√	45	-	√
3.	MB	70	40	-	√	45	-	√
4.	M.F	70	60	-	√	60	-	√
5.	MH	70	50	-	√	65	-	√
6.	MI	70	60	-	√	70	√	-
7.	M N	70	70	√	-	70	√	-
8.	MZ	70	45	-	√	50	-	√
9.	RO	70	35	-	√	40	-	√
10.	SS	70	40	-	√	40	-	√
	Amount		520	2	8	560	3	7
	Average		52			56		
	Completion Percentage			20%	80%		30%	70%

Source: Grade IV Teacher's Grade Book at SD Negeri 14/III Punai Merindu, West Lake Kerinci District, Kerinci Regency, Odd Semester, 2022/2023 Academic Year.

Information:

KKM : Minimum Completion Criteria Q : Complete

BT : Not finished yet BI : Indonesian

Sciences : Natural Sciences

From the table above, according to the teaching and learning process that researchers saw as well as interviews with class teachers and students, the low student learning outcomes were caused by a lack of teacher creativity in designing learning models, less than optimal use of cooperative models in learning, lecture methods and learning media in the form of pictures. which is appropriate to the learning material so that students are less motivated, less active, and tend to be noisy and chatter during learning.

To overcome this problem, researchers conducted classroom action research in order to improve student learning outcomes, creativity, and maximize the use of models. For this reason, researchers applied the Problem-Solving learning model, where the Problem-Solving learning model is a learning model for solving problems. Problem-Solving learning is a learning model that trains students to face various problems in everyday life, both personal problems and group problems and to solve them individually or together. This learning model can train students to

think critically. It is hoped that the application of this model can improve the way teachers teach and increase student learning outcomes.

METHOD

This research type is Classroom Action Research (PTK), where the researcher interacts directly with the subject in the field and collaborates with the class teacher. The researcher teaches in front of the class while the teacher acts as an observer. This research is concerned with improving or enhancing learning outcomes in a class. The instruments and data collection techniques researchers use are test sheets, observation sheets, student worksheets, and documentation. The research procedure What researchers use is, according to Arikunto (2013), the PTK flow, namely planning, implementation, observation, and reflection.s

RESULTS AND DISCUSSION

Cycle 1 Data

1. Planning

Meeting 1

Theme 1 : The Beauty of Togetherness Subtheme 1 : Cultural Diversity of My Nation

Learning 3

Day/Date : Thursday/20 July 2023 Basic competencies: 3.1 and 4.6

Indicators :

- Identify the main idea
- Identify supporting ideas
- Identify the properties of sound

Learning objectives :

- Using the *Problem-Solving model* and reading the text, students can write the main idea of each paragraph correctly.
- *Problem-Solving* model and reading the text, students can write the supporting ideas for each paragraph correctly.
- With the *Problem-Solving model* and experiments, students can explain the properties of sound correctly.

The instruments used in this research were worksheets for each group, student learning achievement test question sheets, teacher activity observation sheets and student activity observation sheets. The media used in this research is learning in the form of *power points*.

Meeting 2

Theme 1 : The Beauty of Togetherness Subtheme 2 : Togetherness in Diversity

Learning 3

Day/Date : Thursday/26 July 2023 Basic competencies: 3.1 and 4.6

Indicators :

- Identify the main idea and supporting ideas
- Identify the function of the ear organs
- Identify how to care for your ears.

Learning objectives:

- By using the *Problem-Solving model* and reading the text, students can identify the main idea and supporting ideas of each paragraph of text correctly.
- With the *Problem-Solving model* and LKS, students can identify the function of the ear organ correctly.
- With the *Problem-Solving model* and LKS, students can explain how to care for their ears properly.

The instruments used in this research were worksheets for each group, student learning achievement test question sheets, teacher activity observation sheets and student activity observation sheets. The media used in this research is learning in the form of *power points*.

2. Implementation

Meeting 1

Cycle I meeting 1 was held on Thursday 20 July 2023 at 08.00-11.00 WIB. The implementation of learning is carried out in accordance with the syntax of the *Problem-Solving model*.

Meeting 2

Cycle I, meeting 2, was held on Wednesday 26 July 2023 at 08.00-11.00 WIB . The implementation of learning is carried out in accordance with the syntax of the *Problem Solving model*.

3. Observation

Meeting 1

Observations in cycle I, meeting 1, can be seen from the data from the teacher activity observation sheet and student activity observation sheet. Observations were carried out by the fourth grade teacher as observer 1 is tasked with observing researchers when carrying out actions and observer 2 is tasked with observing students during the teaching and learning process.

Meeting 2

Observations in cycle I, meeting 2, can be seen from the data from the teacher activity observation sheet and student activity observation sheet. Observations were carried out by the fourth grade teacher as observer 1 is tasked with observing researchers when carrying out actions and observer 2 is tasked with observing students during the teaching and learning process.

4. Cycle 1 Analysis and Reflection

Observation

Based on the results of observations made by observers in cycle I, meetings 1 and 2. The average value of the observation results for teacher activities was 74% and student activities 62%.

Learning outcomes

Table 2. Analysis of the Completeness of Student Learning Outcomes in Thematic Learning Using the Problem Solving Model Cycle I Meetings 1 and 2

No	Student Code	KKM	BI		Average value	Note	IPA		Average value	Note
			1	2			1	2		
1.	A-Z	70	40	70	55	BT	60	70	65	BT
2.	AZZ	70	40	55	47	BT	50	60	55	BT
3.	BQ	70	70	85	77	Q	70	80	75	Q
4.	DD	70	60	55	57	BT	70	60	65	BT
5.	EN	70	60	35	47	BT	40	50	45	BT
6.	HW	70	60	55	57	BT	40	60	50	BT
7.	KZ	70	50	55	52	BT	40	60	50	BT
8.	M.F	70	70	85	77	Q	70	80	75	Q
9.	MR	70	50	75	62	BT	40	60	50	BT
10.	BC	70	40	85	62	BT	60	80	70	Q
11.	ZF	70	70	85	75	Q	80	80	80	Q
Amount			610	740	668	Q:3 BT:8	620	730	680	Q:4 BT:7
Average Percentage			67.1	81.4	73.4	27% 73%	68.2	80.3	75	36% 64%

Based on the table above, student learning outcomes with the application of this model begin with the teacher preparing the problem to be solved, then the teacher presents the problem, then the teacher collects data or information to be solved, then formulates a hypothesis, then the teacher tests the hypothesis, and finally draws conclusions. The learning results in cycle I can be seen as follows: in the Indonesian language subject there were 3 students who have reached the specified KKM, with a percentage of 27%. There are 8 students who have not met the KKM with a percentage of 73%. There are 4 students who have achieved the specified KKM, with a completion percentage of 36%. There are 8 students who have not met the KKM with a percentage of 64%.

Students have not been able to fulfill the KKM because when the learning process takes place students do not understand learning using the *Problem Solving learning model*, students have not fully concentrated when following the lesson delivered by the teacher in front of the class, students follow the lesson well, this can be seen from the attitude of the students where there are still students who are less willing to cooperate with their group when filling in the worksheet and less thorough in problem solving.

Reflection is carried out to improve actions in the next learning process (Husebø et al., 2015), in this case the students have not been able to fulfill the KKM because during the learning process the students do not understand learning using the Problem Solving learning model, the students have not fully concentrated *when* following the lesson delivered by the teacher in front of the class, the students follow learning well, this can be seen from the students' attitudes where there are still students who are less willing to cooperate with their groups when filling in worksheets and are less careful in solving problems.

Cycle II Data

1. Planning

Meeting 1

Theme 1 : The Beauty of Togetherness Subtheme 3 : Grateful for Diversity

Learning 3

Day/Date : Wednesday/2 August 2023 Basic competencies: 3.1 and 4.6

Indicators :

- Identify the main idea and supporting ideas.
- Identify the nature of bouncing sound.

Learning objectives:

- By using the *Problem-Solving* model and reading the text, students can identify the main idea and supporting ideas of each paragraph of text correctly.
- With the *Problem Solving model* and LKS, students can explain the function of the bouncing and absorbing properties of sound systematically.

The instruments used in this research were worksheets for each group, student learning achievement test question sheets, teacher activity observation sheets and student activity observation sheets. The media used in this research is learning in the form of *power points*.

Meeting 2

Theme 2 : Always Save Energy Subtheme 1 : Energy Sources

Learning 3

Day/Date : Thursday/10 August 2023 Basic competencies: 3.1 and 3.5

Indicatorsb:

- Identify important information.
- Identify changes in wind energy.

Learning objectives :

- By using the *Problem-Solving model* and reading the text, students can identify information carefully.
- With the *Problem-Solving model* and LKS, students can identify changes in the form of wind energy in everyday life.

The instruments used in this research were worksheets for each group, student learning achievement test question sheets, teacher activity observation sheets and student activity observation sheets. The media used in this research is learning in the form of *power points*.

Implementation

Meeting 1

Cycle I I meeting 1 was held on Thursday 2 July 2023 at 08.00-11.00 WIB. The implementation of learning is carried out in accordance with the syntax of the *Problem Solving model*.

Meeting 2

Cycle II meeting 2 was held on Thursday, August 10 2023 at 08.00-11.00 WIB . The implementation of learning is carried out in accordance with the syntax of the *Problem Solving model*.

2. Observation

Meeting 1

Observations in cycle I I meeting 1 can be seen from the data from the teacher activity observation sheet and student activity observation sheet. Observations were carried out by the fourth-grade teacher as observer 1 is tasked with observing researchers when carrying out actions and observer 2 is tasked with observing students during the teaching and learning process.

Meeting 2

Observations in cycle I I meeting 2 can be seen from the data from the teacher activity observation sheet and student activity observation sheet. Observations were carried out by the fourth grade teacher as observer 1 is tasked with observing researchers when carrying out actions and observer 2 is tasked with observing students during the teaching and learning process.

3. Cycle 1 Analysis and Reflection

Observation

Based on the results of observations made by observers in cycle I, meetings 1 and 2. The average value of the observations on teacher activities was 93% and student activities with an average value of 89%.

Learning outcomes

Table 3. Analysis of the Completeness of Student Learning Outcomes in Thematic Learning Using the *Problem-Solving Model* Cycle I I Meetings 1 and 2

No	Student Code	KK M	BI		Average value	Note	IPA		Average value	Note
			1	2			1	2		
1.	A-Z	70	70	100	85	Q	80	80	80	Q
2.	AZZ	70	60	80	70	Q	60	80	70	Q
3.	BQ	70	70	100	85	Q	80	100	90	Q
4.	DD	70	70	100	85	Q	80	60	70	Q
5.	EN	70	55	60	57	BT	60	60	60	BT
6.	HW	70	55	80	67	BT	60	80	70	Q
7.	KZ	70	70	80	75	Q	80	80	80	Q
8.	M.F	70	100	100	100	Q	80	100	90	Q
9.	MR	70	70	100	85	Q	80	100	90	Q
10.	BC	70	75	100	87	Q	80	100	90	Q
11.	ZF	70	85	100	92	Q	80	100	90	Q
Amount			765	1,000	888	Q:9 BT:2	820	730	880	Q:10 BT:1
Average Percentage			84.1	110	98	82% 18%	90.2	103.4	97	91% 9%

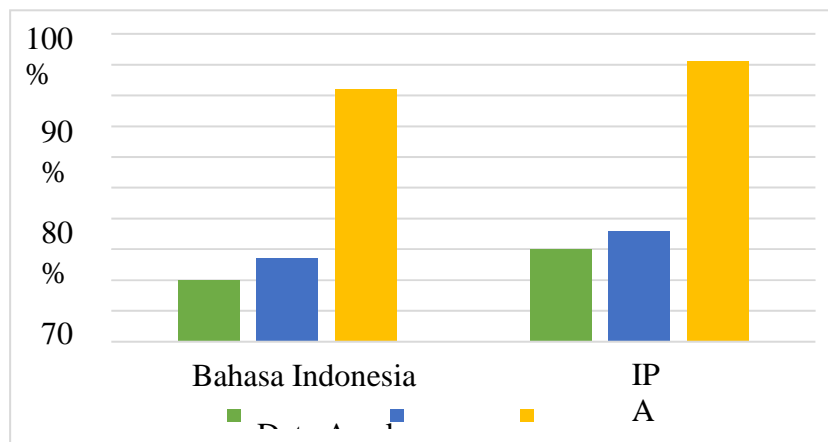


Figure 1. Diagram of Improvement of Class IV Student Learning Outcomes Using the *Problem-Solving Learning Model* Initial Data, Cycle I and Cycle II

Based on the completeness of student learning results in cycle II, it shows that the learning process has reached the set standards and is proceeding as expected. So, this research was stopped in cycle II, meeting 2. The picture obtained from the implementation of learning by the researcher was very better than before because the researcher wanted to guide students well in understanding the model, using media, the researcher gave rewards in the form of small snacks, the researcher approached the students more closely and guided *them*. students in discussions, the researcher provides correct and incorrect revisions regarding the percentage of students' discussion results in front of the class before carrying out the test.

CONCLUSION

The value of the results of the first cycle observation learning process for teacher activities was 74%, student activities 62%. cycle II in teacher activity 93%, student activity 89%. With the steps of the Problem Solving learning model, namely: first, prepare the problem to be solved , present the problem , collect data or information to be solved , formulate a hypothesis , test the hypothesis and draw conclusions .

Problem Solving learning model can improve student learning outcomes. There is an initial percentage of completeness in Indonesian language subjects of 20% and natural sciences of 30%. In cycle I, namely: Indonesian 27% and Natural Science 36%. Cycle II, namely: Indonesian 82% and Natural Science 91%. There is a very significant influence of the use of the Problem-Solving learning model on SD 14/III Punai Merindu, West Lake Kerinci District, Kerinci Regency.

REFERENCES

- Arikunto, S. (2013). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Rineka Cipata.
- asnitadaeng, A., & Wayong, M. (2022). Illustrates Learning Conditions And The Learning Process Asnita. *INSTRUCTION: International Journal for Islamic Education*, 1(1), 1–7.
- Barron, A. B., Heberts, E. A., Cleland, T. A., Fitzpatrick, C. L., Hauber, M. E., & Stevens, J. R. (2015). Embracing multiple definitions of learning. *Trends in Neurosciences*, 38(7), 405–407. <https://doi.org/10.1016/j.tins.2015.04.008>
- Husebø, S. E., O'Regan, S., & Nestel, D. (2015). Reflective Practice and Its Role in Simulation. *Clinical Simulation in Nursing*, 11(8), 368–375. <https://doi.org/10.1016/j.ecns.2015.04.005>
- Kholisotin, L. (2014). STRATEGI PEMBELAJARAN TEMATIK KELAS AWAL DI SD MUHAMMADIYAH. *Edu Sains: Jurnal Pendidikan Sains Dan Matematika*, 2(1). <https://doi.org/10.23971/EDS.V2I1.19>
- Listiowati, D. F., & Trisiana, A. (2021). PERAN PENDIDIKAN PANCASILA DAN KEWARGANEGARAAN MEMBANGUN KARAKTER GENERASI PINTAR. *Jurnal Global Citizen: Jurnal Ilmiah Kajian Pendidikan Kewarganegaraan*, 10(1), 139. <https://doi.org/10.33061/jgz.v10i1.4707>
- Nainggolan, A. C., Ardani, D. N., & Faridah, F. (2023). PENGUASAAN KOMPETENSI KEPERIBADIAN OLEH TENAGA PENDIDIK SEBAGAI METODE DALAM MERAH

- PRESTASI BELAJAR DI KELAS. *Dharma Acariya Nusantara: Jurnal Pendidikan, Bahasa Dan Budaya*, 1(1), 114–124. <https://doi.org/10.47861/JDAN.V1I1.263>
- Nugrahaningsih, T. K., Almasitoh, U. H., Darmo, M. P., & Riyadi, I. (2020). The Implementation of Thematic–Scientific Learning to Build High-Order Thinking Skills of Elementary School Students. *Proceedings of the 3rd International Conference on Learning Innovation and Quality Education (ICLIQE 2019)*. <https://doi.org/10.2991/assehr.k.200129.105>
- Risnaini, E., Rahman Hakim, Z., & Taufik, M. (2020). Thematic-Based Big Book Learning Media as a Facility of Visual Learning Styles for Students. *Jurnal Ilmiah Sekolah Dasar*, 4(3), 407. <https://doi.org/10.23887/jisd.v4i3.27295>
- Wardani, N. F. K., Sunardi, & Suharno. (2020). Thematic Learning in Elementary School: Problems and Possibilities. *Proceedings of the 3rd International Conference on Learning Innovation and Quality Education (ICLIQE 2019)*. <https://doi.org/10.2991/assehr.k.200129.099>
- Wasitohadi, W. (2014). HAKEKAT PENDIDIKAN DALAM PERSPEKTIF JOHN DEWEY Tinjauan Teoritis. *Satya Widya*, 30(1), 49. <https://doi.org/10.24246/j.sw.2014.v30.i1.p49-61>
- Zaqiah, Q. Y., Heryati, Y., & Narongraksakhet, I. (2021). Implementation of The Thematic-Integrative Learning to Enhance Students Skill in The 4.0 Era. *Jurnal Pendidikan Islam*, 7(2), 243–254. <https://doi.org/10.15575/jpi.v7i2.15220>