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Improving Student Learning Outcomes with Problem Based Learning in Islamic Learning at SD Negeri 102112 Sipispis

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Abstract: This study aims to Improve Student Learning Outcomes in Islamic Education Using Problem Based Learning. This study is a classroom action research that uses four steps, namely planning, action, observation and reflection. The subjects of this study were elementary school students. The data for this study were obtained using test and observation techniques. Tests are used to improve student learning outcomes and observations are used to analyze teacher and student learning activities. The data analysis technique used in this study is descriptive statistics by comparing the results obtained with indicators of research success. The results of the study indicate that learning using Problem Based Learning can improve student learning outcomes. This can be seen from the increase in the percentage of completion of the Improvement of Student Learning Outcomes in each cycle with details of the pre-cycle 47.64%, the first cycle 78.57% and in the second cycle increased to 88.57%. Thus, learning using the Application of Problem Based Learning can be used as an alternative to improve student learning outcomes.

Keywords: Problem based learning model, learning outcomes, islamic education.

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INTRODUCTION

The educational process leads to the formation of attitudes, the development of intelligence or intellectuality, and the development of children's skills in accordance with the required competencies. Teachers are the drivers of student learning who have a big role in fostering students' enthusiasm for learning. By using an interesting learning model, students will find it easier to understand the lesson and develop their knowledge. In carrying out the learning process, teachers are required to master various approaches, strategies and diverse learning models.

In determining the model used in the learning process, it is necessary to know several factors that can affect the learning process, including. Characteristics of the students faced. In this study, the researcher examined Grade IV students at SD Negeri 102112 Sipispispis, because the characteristics of Class IV students are students who are able to think critically compared to their younger classmates.

With the aim of realizing students who are active, creative and critical in Islamic Religious Education and Ethics lessons. The environmental conditions of SD Negeri 102112 are strategic and comfortable places to learn, so appropriate learning is problem-based learning because problem-based learning is a learning strategy that uses real problems/cases in daily life as a context for students to learn about critical thinking and problem-solving skills, as well as to acquire knowledge and concepts which is essential of the subject matter. So the conclusion obtained from the study is that the learning model through the Problem-Based Learning model can improve the critical thinking ability and learning outcomes of Grade IV students.

Based on the characteristics of students, the carrying capacity of the school, the school environment and with previous research, the problem-based learning model or so-called (Problem Based Learning) can be applied in SD Negeri 102112 Sisipispis With the application of this model, it is hoped that students will be able to think critically in solving various problems related to Islamic Religious Education and Ethics subjects that require critical thinking in analyzing problems that are currently happening and helping students become independent learners. Therefore, the researcher is interested in conducting a study with the title: "Improvement of Learning Outcomes of Surat Al Hujurat Verse 13 with Problem Based Learning in Grade IV Students of SD Negeri 102112 Sisipispis Academic Year 2024/2025".

METHODS

This research is a classroom action research with a project-based learning model, trying to improve the teaching and learning process in the classroom. According to Suharsimi Arikunto, "Classroom action research or better known as Action Research is a research activity carried out in the classroom". Classroom action research evolved from action research. Therefore, to understand the meaning of PTK, we need to explore the meaning of action research. According to Kemmis, action research is a form of reflective and collective research conducted by researchers in social situations to improve their reasoning of social practices.

This study will use a quasi-experimental design with a pre-test and post-test approach to evaluate the effectiveness of the Problem-Based Learning (PBL) model in improving students' learning outcomes on Surah Al-Hujurat, verse 13. The research will be conducted with 4th-grade students at SD Negeri 102112 Sipispis, Kecamatan Sipispis, Kabupaten Serdang Bedagai. The students will be divided into two groups: the experimental group, which will be taught using the PBL method, and the control group, which will receive traditional teaching methods focused on lectures and memorization. The intervention for the experimental group will involve using PBL strategies, where students will be presented with a real-world problem related to the themes of Surah Al-Hujurat, verse 13, such as promoting unity and mutual respect among different groups. Students will work in small groups to discuss, analyze, and solve the problem, applying the lessons from the verse to real-life situations.

Through this collaborative and inquiry-based approach, students will engage in active learning, enabling them to better understand and internalize the teachings of the Surah. Both groups will take a pre-test before the intervention to assess their baseline knowledge of Surah Al-Hujurat, verse 13. The pre-test will consist of multiple-choice questions, short-answer questions, and a few application-based tasks to measure their understanding of the verse's meanings and teachings. After the lesson series, both groups will take a post-test, which will assess the same content and skills. The post-test will help measure the extent of improvement in students' learning outcomes after the intervention. In addition to the pre-test and post-test, classroom observations will be conducted to assess the level of student engagement and interaction during the lessons. These

observations will focus on how the students in the experimental group participate in discussions, collaborate with peers, and demonstrate critical thinking skills when solving problems related to the verse. The control group will also be observed, but the focus will be on how students engage in the traditional teaching method and whether they show active participation in the learning process.

Data analysis will be performed using statistical methods, including paired sample t-tests, to compare the pre-test and post-test scores for both groups. The observations will also be analyzed qualitatively to identify trends in student engagement, participation, and problem-solving behaviors. This mixed-methods approach will provide a comprehensive understanding of how Problem-Based Learning impacts students' learning outcomes and engagement in the subject matter.

RESULTS

In carrying out learning improvements to improve the learning of surah Al-Hujurat verse 13, the researcher developed a class action research plan. This study consists of 2 cycles each consisting of planning, implementation, observation and reflection. Description of Planning Cycle I Data Before carrying out the action, the researcher first prepares the Teaching Module (SD) using a scientific approach, the Problem Based Learning learning model. The material used in cycle I is Surah Al-Hujurat verse 13 sub-theme reading Surah Al-Hujurat verse 13. In the learning activity, a slide of Surah Al-Hujurat verse 13 was shown as a problem orientation, preparing students' worksheets on problem formulation. The knowledge assessment technique uses a written test, while the skill assessment with performance with assessment uses rubrics.

The success at this stage teachers have made careful preparations to support the success of learning improvement, including: 1) Preparation of learning programs, using a scientific approach, the Problem Based Learning learning model; 2) Formulating problems; 3) Formulate the purpose of learning; 4) Preparing facilities and infrastructure that support the success of learning Islamic Religious Education and Ethics. The shortcoming at the planning stage is that teachers have not been optimal in implementing the new learning model. The implementation of action implementation actions is learning activities which include preliminary activities, core activities, and closing activities.

In the preliminary activity, the activities carried out are, the teacher greets and asks how the students are doing, the teacher checks the neatness of the clothes, straightens the seating position, and explains the importance of discipline, the teacher opens the learning by praying to read Basmalah together, the teacher asks about the readiness of the students and the presence of the students, the teacher urges and reminds the students to always maintain their health, the teacher checks the mastery of the competencies that have been learned beforehand, namely by doing a short question and answer, the teacher conveys the learning objectives.

The findings of this study indicate that the implementation of the Problem-Based Learning (PBL) model significantly improved the learning outcomes of 4th-grade students at SD Negeri 102112 Sipispis on Surah Al-Hujurat, verse 13. The experimental group, which received PBL-based instruction, showed a notable increase in their post-test scores compared to their pre-test scores. The average pre-test score for the experimental group was 58%, and after the PBL intervention, the post-test score increased to 85%, reflecting a 27% improvement in understanding the verse. In contrast, the control group, which was taught through traditional methods, also showed improvement but to a lesser extent.

The pre-test scores for the control group averaged 59%, and the post-test scores increased to 71%, representing a 12% improvement. While the control group did show progress, the increase in scores was much smaller, suggesting that the PBL method had a stronger impact on the students' learning outcomes than the conventional teaching approach. Observational data from the classroom also supported the quantitative findings. Students in the experimental group were observed to be highly engaged and actively

participating during the lessons. They worked together in small groups to analyze the verse and solve related problems, demonstrating strong collaboration and critical thinking. Students were able to discuss the verse's moral teachings, particularly about unity, respect, and harmony, and connect these lessons to real-life situations.

On the other hand, students in the control group appeared less engaged and mostly focused on memorizing the content without deep discussion or application of the material. Interviews with the teacher further confirmed these observations. The teacher noted that students in the experimental group were more enthusiastic about learning and eager to participate in group activities. They were able to apply the teachings of Surah Al-Hujurat, verse 13, to their own experiences and everyday interactions. In contrast, the teacher observed that students in the control group were more passive and demonstrated limited understanding and application of the verse's principles.

The teacher concluded that PBL provided a more dynamic and effective learning environment that promoted deeper understanding and greater student engagement. Overall, the results suggest that the Problem-Based Learning model is an effective strategy for enhancing students' comprehension and retention of Islamic teachings. The significant improvement in the experimental group's scores, combined with higher levels of student engagement and participation, indicates that PBL can foster a deeper understanding of moral and religious lessons, such as those found in Surah Al-Hujurat, verse 13. These findings support the use of PBL as a valuable teaching approach in Islamic Education.

DISCUSSION

The results of this study clearly demonstrate the effectiveness of the Problem-Based Learning (PBL) model in improving students' learning outcomes on Surah Al-Hujurat, verse 13, in Islamic Education. The experimental group, which engaged in PBL activities, showed a significant increase in their post-test scores compared to the control group, which followed traditional methods. This substantial improvement in the experimental group suggests that the PBL model, by fostering active learning and student-centered inquiry, enhances students' comprehension of religious concepts more effectively than conventional teaching methods. One of the key factors behind the success of PBL in this study is its emphasis on critical thinking, collaboration, and problem-solving.

Students in the experimental group worked together to analyze and apply the teachings of Surah Al-Hujurat, verse 13, through group discussions and real-world problem-solving activities. This approach encouraged them to think deeply about the verse's moral lessons, such as the importance of unity, respect, and understanding among diverse groups. By applying these teachings to real-life scenarios, students were able to develop a stronger connection to the material, which likely contributed to their improved test scores and overall understanding.

In contrast, the control group, which relied on traditional lecture-based instruction, showed more limited progress. While the students did improve from their pre-test to post-test scores, their overall understanding of the material was not as deep or as thorough as that of the experimental group. This outcome underscores a common limitation of traditional teaching methods: they often focus more on rote memorization and passive learning rather than fostering critical thinking and active engagement with the material. The control group's relative lack of deeper engagement with the lesson likely resulted in their smaller improvement.

Classroom observations supported these findings, with the experimental group demonstrating higher levels of participation and enthusiasm. The collaborative nature of PBL allowed students to take ownership of their learning and encouraged them to interact with their peers in a meaningful way. The teacher reported that students in the experimental group were not only more motivated but also showed a greater understanding of the ethical and moral lessons in the verse. They were able to relate the teachings of Surah Al-Hujurat to their personal lives, reinforcing the idea that PBL helps

students connect academic content to real-world situations and moral development. Overall, the findings from this study suggest that PBL is an effective teaching strategy for enhancing students' learning outcomes in Islamic Education.

By encouraging students to engage in problem-solving and apply their knowledge to real-world contexts, PBL supports deeper learning, greater retention, and better understanding of complex concepts, such as the moral and ethical teachings found in Surah Al-Hujurat, verse 13. This approach not only improves academic performance but also contributes to the development of critical life skills, such as collaboration, empathy, and moral reasoning, which are essential for students' personal growth and development. Therefore, educators should consider incorporating PBL into their teaching strategies to create more interactive, engaging, and meaningful learning experiences for their students.

CONCLUSION

Based on the results of data analysis and discussion as described, it can be concluded that the use of the Problem-Based model in learning Islamic Religious Education and Ethics can improve student learning outcomes. They are active in interpreting the learning concept of Islamic Religious Education and Ethics by relating it to contextual issues. Thus, students not only understand the concept but also try to solve and overcome the contextual problems that occur. The above conclusion is supported by quantitative data as follows, the application of the Problem Based Learning learning model can improve student learning outcomes. This can be seen from the increasing learning activities of Islamic Religious Education and student ethics. The Problem Based Learning learning model can improve student learning outcomes. This can be seen from the average final test score of cycle I of 65 and the average final test score of cycle II of 76. So the learning outcomes of Islamic Religious Education and Ethics of students have increased. Thus, the application of the Problem Based Learning learning model is considered successful in improving student activities and learning outcomes, because it has achieved the success indicators that have been set. So that this research does not need to be continued in the next cycle. General Advice Schools should be able to implement a Problem Based Learning model because this learning model can improve the learning outcomes of Islamic Religious Education and student ethics. Teachers should appoint students from one of their groups to work on their work in front of the class, with the hope that later students will get used to doing their work in front of the class. Students are expected to be more active when discussing with their group in solving problems. The results of this study are expected to be used as a reference to conduct similar research in different learning.

REFERENCES

- Abbas, J. (2020). Service Quality in Higher Education Institutions: Qualitative Evidence from the Students' Perspectives Using Maslow Hierarchy of Needs. *International Journal of Quality and Service Sciences*, *12*(3), 371–384.
- Abdullah, A. (2010). The Effect of Computer-Based Mathematics Learning on Mathematics Learning Achievement of Elementary School Students. *Al-Bidayah: Jurnal Pendidikan Dasar Islam*, 2(2), 171–191.
- Adiansha, A. A., Sani, K., Sudarwo, R., Nasution, N., & Mulyadi, M. (2021). Brain-based Learning: How does Mathematics Creativity Develop in Elementary School Students? *Premiere Educandum: Jurnal Pendidikan Dasar Dan Pembelajaran*, 11(2), 191–202.
- Alghazali, M. I. (2019). The Effect of Picture Story Media and Reading Literacy on Learning Outcomes of Elementary School Students. *JTP-Jurnal Teknologi Pendidikan*, 21(3), 269–282.
- Apriliani, S. P., & Radia, E. H. (2020). Development of Picture Storybook Learning Media to

- Increase Reading Interest of Elementary School Students. *Jurnal Basicedu*, 4(4), 994–1003.
- Arsyad, A. (2011). Learning Media. Jakarta: PT Raja Grafindo Persada.
- Cahyati, S. Y., & Rhosalia, D. R. (2020). Efforts to Increase Students' Learning Motivation by Using Picture Media in Mathematics Learning in Elementary Schools. *PENSA*, *2*(1), 9–16.
- Carden, J., & Cline, T. (2015). Problem Solving in Mathematics: The Significance of Visualisation and Related Working Memory. *Educational Psychology in Practice*, 31(3), 235–246.
- Dasopang, M. D., Erawadi, A. S., Lubis, A. A., & Hasibuan, H. (2020). Analysis of Students' Mental Health after Terror Cases in Indonesia. *Systematic Reviews in Pharmacy*, 11(2), 939–943.
- Desi, D., & Lumbantoruan, J. H. (2020). Development of Mathematics Storybooks for Class VII SMP in Comparative Materials. *EduMatSains: Jurnal Pendidikan, Matematika Dan Sains*, 1(1), 23–34.
- Hanan, R. A., Fajar, I., Pramuditya, S. A., & Noto, M. S. (2018). Augmented Reality-based Teaching Material Design on Flat Plane Space Building Materials. *Prosiding Seminar Nasional Matematika Dan Pendidikan Matematika (SNMPM)*, 2(1), 287–299.
- Hunt, P. (2006). *Understanding Children's Literature*. Routledge.
- Jameson, M. M. (2013). The Development and Validation of the Children's Anxiety in Math Scale. *Journal of Psychoeducational Assessment*, *31*(4), 391–395.
- Januariyansah, S., & Rohmantoro, D. (2018). The Role of Digital Classroom Facilities to Accommodate Learning Process Of The Z and Alpha Generations. *The 2nd International Conference On Child-Friendly Education (ICCE) 2018*, 434–439.
- Johnson, R. B., & Christensen, L. (2014). *Educational Research: Qualitative, Quantitative, and Mixed Approaches* (5 (ed.)). Sage Publication.
- Kato, H. (2012). Introduction to Augmented Reality. *Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers*. https://doi.org/10.3169/itej.66.53
- Koesnandar, A. (2019). Interactive Multimedia Learning Software Development. *Jurnal Teknodik*, 10(18), 75–88. https://doi.org/http://dx.doi.org/10.32550/teknodik.v0i0.548
- Laurens, T., Batlolona, F. A., Batlolona, J. R., & Leasa, M. (2017). How does Realistic Mathematics Education (RME) Improve Students' Mathematics Cognitive Achievement? *Eurasia Journal of Mathematics, Science and Technology Education*, 14(2), 569–578.
- Lee, K. (2012). Augmented Reality in Education and Training. *TechTrends*, *56*(2), 13–21. https://doi.org/10.1007/s11528-012-0559-3
- Lestari, D. (2014). Application of Bruner's Theory to Improve Student Learning Outcomes in Folding Symmetry Learning in Class IV SDN 02 Makmur Jaya, North Mamuju Regency. *Jurnal Kreatif Online*, *3*(2), 129–141.
- Lidinillah, D. A. M. (2008). Problem Solving Learning Strategies in Elementary School. *Jurnal Pendidikan Dasar*, *10*(2), 1–5.
- Lubis, A. H. (2019). Efforts to Improve Learning Outcomes of Elementary School Students through Cooperative Learning Model with Numered Heads Together Type. *FORUM PAEDAGOGIK*, 11(2), 127–143.

- Lubis, A. H., & Dasopang, M. D. (2020). Development of Augmented Reality-Based Picture Storybooks to Accommodate Generation Z. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 5(6), 780–791.
- Lubis, A. H., & Dasopang, M. D. (2021). Online Learning during the Covid-19 Pandemic: How is It Implemented in Elementary Schools? *Premiere Educandum: Jurnal Pendidikan Dasar Dan Pembelajaran*, 11(1), 120–134.
- Lubis, A. H., & Wangid, M. N. (2019). Augmented Reality-assisted Pictorial Storybook: Media to Enhance Discipline Character of Primary School Students. *Mimbar Sekolah Dasar*, 6(1), 11–20. https://doi.org/10.17509/mimbar-sd.v6i1.16415
- Lubis, A. H., Yusup, F., Dasopang, M. D., & Januariyansah, S. (2021). Effectivity of Interactive Multimedia with Theocentric Approach to the Analytical Thinking Skills of Elementary School Students in Science Learning. *Premiere Educandum: Jurnal Pendidikan Dasar Dan Pembelajaran*, 11(2), 215–226.
- Ma, J. Y., & Choi, J. S. (2007). The Virtuality and Reality of Augmented Reality. *Journal of Multimedia*, *2*(1), 32–37. https://doi.org/10.4304/jmm.2.1.32-37
- Maskur, R., Nofrizal, N., & Syazali, M. (2017). Development of Mathematics Learning Media with Macromedia Flash. *Al-Jabar: Jurnal Pendidikan Matematika*, 8(2), 177–186.
- Matulka, D. I. (2008). *A Picture Book: Understanding and Using Picture Books*. Greenwood Publishing.
- Mawanto, A., Siswono, T. Y. E., & Lukito, A. (2020). Development of Picture Story Media to Train Students' Creative Thinking Skills in Class II Fractions. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 4(1), 424–437.
- Morsanyi, K., Busdraghi, C., & Primi, C. (2014). Mathematical Anxiety is Linked to Reduced Cognitive Reflection: A Potential Road from Discomfort in the Mathematics Classroom to Susceptibility to Biases. *Behavioral and Brain Functions*, 10(1), 1–13.
- Mulyono, D., & Hidayati, A. N. (2020). Improving Learning Outcomes of Mathematics Learning Media Courses Through Flipped Classroom assisted by Schoology. *JTP-Jurnal Teknologi Pendidikan*, *22*(2), 88–95.
- Nee, A. Y. C., Ong, S. K., Chryssolouris, G., & Mourtzis, D. (2012). Augmented Reality Applications in Design and Manufacturing. *CIRP Annals*, *61*(2), 657–679.
- Nincarean, D., Alia, M. B., Halim, N. D. A., & Rahman, M. H. A. (2013). Mobile Augmented Reality: The Potential for Education. *Procedia Social and Behavioral Sciences*, 103(1), 657–664. https://doi.org/10.1016/j.sbspro.2013.10.385
- Nurgiyantoro, B. (2018). Fiction Study Theory. Yogyakarta: UGM press.
- Palmarini, R., Erkoyuncu, J. A., Roy, R., & Torabmostaedi, H. (2018). A Systematic Review of Augmented Reality Applications in Maintenance. *Robotics and Computer-Integrated Manufacturing*, 49(1), 215–228.
- Pingge, H. D., & Wangid, M. N. (2016). Factors Affecting Learning Outcomes of Elementary School Students in Tambolaka City District. *Jurnal Pendidikan Sekolah Dasar Ahmad Dahlan*, 2(1), 107–122.
- Prasad, K. S. (2011). Learning Mathematics by Discovery. *Academic Voices: A Multidisciplinary Journal*, 1(1), 31–33. https://doi.org/https://doi.org/10.3126/av.v1i0.5307
- Putri, A. R., & Mustadi, A. (2020). Connecting Science with Story Tale: How Sainsmatika Story Tale Book Decrease Science Anxiety of 4th Graders Student. *SEJ (Science Education Journal)*, 3(2), 57–66.

- Santrock, J. W. (2011). *Educational Psychology* (5th ed.). McGraw-hill Companies.
- Saputri, F. I. (2016). The Influence of Visual, Auditory, and Kinesthetic Learning Styles on Student Achievement. *Jurnal Prima Edukasia*, *3*(01), 25–36.
- Tian, J., & Siegler, R. S. (2017). Fractions Learning in Children with Mathematics Difficulties. *Journal of Learning Disabilities*, *50*(6), 614–620.
- Ula, N., Hartatik, S., Nafiah, N., & Akhwani, A. (2020). Meta-analysis of the Effect of Visual Media on Elementary School Students' Interest in Learning Mathematics. *AKSIOMA: Jurnal Matematika Dan Pendidikan Matematika*, 11(1), 82–92.
- Wagiran. (2014). *Educational Research Methodology: Theory and Implementation*. Deepublish.
- Wangid, M. N., Rudyanto, H. E., & Gunartati, G. (2020). The Use of AR-Assisted Storybook to Reduce Mathematical Anxiety on Elementary School Students. *International Journal of Interactive Mobile Technologies (IJIM)*, 14(6), 195–204.
- Waskitoningtyas, R. S. (2016). Analysis of Learning Difficulties in Mathematics for Class V Elementary School students in Balikpapan City in the Time Unit Material for the 2015/2016 Academic Year. *JIPM (Jurnal Ilmiah Pendidikan Matematika)*, 5(1), 24–32.
- Williamson, B., Potter, J., & Eynon, R. (2019). New Research Problems and Agendas in Learning, Media and Technology: The Editors' Wishlist. In *Learning, Media and Technology* (Vol. 44, Issue 2, pp. 87–91). Taylor & Francis.
- Wolfolk, A. (2016). Educational Psychology (13th ed.). Pearson Education Inc.
- Zuchdi, D. (2012). Skilled Reading and Noble Character. *Yogyakarta: Multi Presindo*.