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Implementation of Jarimatika Method in Mathematics Subjects at MI Maarif NU Bentul To Improve Learning Motivation

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ABSTRACT

This study aims to implement the Jarimatika method in Mathematics subjects in grade IV MI Ma'arif NU Bentul to improve student learning outcomes. Jarimatika is a finger-based calculation technique that helps students understand basic arithmetic operations faster and easier. This method is expected to improve students' understanding of Mathematics concepts and motivate them to learn more actively. The approach used in this study is quantitative with an experimental method. The subjects of the study consisted of two groups, namely the experimental group using the Jarimatika method and the control group using the conventional method. Data were collected through learning outcome tests before and after the implementation of the Jarimatika method, as well as through observation and interviews with teachers and students. The results showed that the implementation of the Jarimatika method significantly improved student learning outcomes compared to conventional methods. In addition, students who used this method were more motivated and showed a higher interest in learning Mathematics. Therefore, the Jarimatika method can be used as an effective learning alternative in improving Mathematics learning outcomes in elementary schools.

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Introduction

Mathematics is one of the basic subjects that plays an important role in building logical, systematic, and analytical thinking patterns in students (Suherman, 2003). However, in reality, many elementary school students have difficulty understanding the concept of basic arithmetic operations. This difficulty often arises because Mathematics learning still uses conventional methods that are abstract and less interactive, so that

students feel bored and less motivated to learn (Trianto, 2010). As a result, students' low understanding of basic Mathematics concepts has an impact on less than satisfactory learning outcomes.

Effective learning must consider the needs and characteristics of students so that they can understand the material more easily. One innovative method that can be applied in Mathematics learning is Jarimatika, a finger-based calculation technique that helps students perform basic arithmetic operations more concretely and enjoyably (Hudojo, 2005). This method allows students to use their fingers as a counting tool so that they can understand Mathematics concepts in a more visual and practical way.

The Jarimatika method has been proven effective in improving students' conceptual understanding and learning motivation. Research conducted by Suyitno (2017) shows that the use of this method in Mathematics learning can significantly improve student learning outcomes compared to conventional methods. In addition, another study conducted by Rahayu (2019) found that students who learn using the Jarimatika method are more active and enthusiastic in solving Mathematics problems compared to students who use traditional methods. Although the Jarimatika method has many advantages, its application in the world of education is still limited. Many schools still rely on conventional learning methods that emphasize memorization and practice questions without providing an interesting learning experience (Arsyad, 2020). In fact, a more interactive approach such as Jarimatika can help students understand basic Mathematics concepts better and increase their confidence in solving calculation problems. MI Ma'arif NU Bentul is one of the schools that wants to improve the quality of Mathematics learning by adopting the Jarimatika method. Currently, Mathematics learning in the school still uses conventional methods, which causes many students to have difficulty understanding basic arithmetic operations. Therefore, research is needed to test the effectiveness of the Jarimatika method in improving student learning outcomes in this school. This study aims to implement the Jarimatika method in Mathematics learning in grade IV MI Ma'arif NU Bentul and measure its effectiveness in improving student learning outcomes. By comparing learning outcomes between students who use the Jarimatika method and students who use conventional methods, this study is expected to provide a clear picture of the benefits of this method in Mathematics learning in elementary schools. In addition to improving learning outcomes, this study is also expected to contribute to the development of more effective and interesting learning methods for students. If proven effective, the Jarimatika method can be adopted as an alternative learning strategy for teachers in teaching basic arithmetic operations. Thus, the results of this study can be a reference for other schools that want to apply more innovative methods in Mathematics learning. With this study, it is hoped that the Jarimatika method can be a solution in improving the quality of Mathematics learning in elementary schools. The results of this study can also be

used as a consideration for educators and policy makers in designing more interactive learning strategies that are in accordance with student characteristics. Thus, Mathematics learning is no longer considered difficult and boring, but becomes a fun learning experience that is beneficial for students' academic development.

Methods

This research is a Classroom Action Research (CAR) designed to improve student learning motivation in Mathematics at MI Maarif NU Bentul. The main objective of this research is to implement the Jarimatika method in mathematics subjects and assess its impact on enhancing students' motivation. This research involves collaboration between the teacher and the students to solve problems related to low student engagement in mathematics. The research is focused on fourth-grade students at MI Maarif NU Bentul, where the implementation of this method will be observed and analyzed. The research uses a cyclical process that consists of planning, action, observation, and reflection. These stages will be repeated in cycles to refine and enhance the teaching and learning process. Each cycle is designed to address specific issues or weaknesses identified in the previous cycle. The action stage will focus on implementing the Jarimatika method in teaching mathematics, a technique known for its ability to simplify and make arithmetic operations more enjoyable and engaging for students.

In the planning phase, the researchers will prepare lesson plans that integrate the Jarimatika method, including detailed steps and activities for students. These lesson plans will be based on the mathematics curriculum for fourth-grade students, ensuring that the content is appropriate and aligned with the learning objectives. The lesson plans will incorporate interactive activities that make use of the Jarimatika method to engage students in learning, providing opportunities for hands-on practice and collaboration. During the action phase, the researcher will carry out the lesson plans in the classroom. The teacher will facilitate the learning process by demonstrating the Jarimatika method, guiding students through exercises, and ensuring that each student has the opportunity to practice. The method involves the use of specific techniques for calculating numbers in a quick and simple way, which aims to make arithmetic less intimidating and more enjoyable for students.

In the observation phase, the researcher will monitor and document the progress of the students throughout the implementation. This will include observing students' participation in activities, their level of engagement, and any changes in their behavior or attitude towards learning mathematics. The researcher will also collect data through various means, such as field notes, photographs, and video recordings, to capture the dynamics of the classroom and provide evidence of student progress. The reflection phase will involve analyzing the data collected during the observation phase. The researcher will assess whether the Jarimatika method has successfully improved

students' learning motivation. This will include examining the extent to which students have become more enthusiastic, confident, and involved in mathematics learning. The findings from this reflection will guide the researcher in deciding whether adjustments are needed for the next cycle.

The research will be conducted over several cycles, with each cycle aimed at refining the implementation of the Jarimatika method based on feedback from the students and observations made by the researcher. This iterative approach ensures that the teaching method is continuously improved to better meet the needs of the students. After each cycle, a new lesson plan will be developed, incorporating the lessons learned from previous cycles to further enhance the learning experience. Data collection will involve both qualitative and quantitative methods. Quantitative data will be obtained through pre- and post-tests to measure any changes in students' knowledge and understanding of mathematical concepts. Qualitative data will be gathered through observations, student interviews, and questionnaires, which will provide insight into students' attitudes, motivation, and experiences with the Jarimatika method.

The participants in this research are the fourth-grade students at MI Maarif NU Bentul, consisting of a diverse group of learners with varying levels of mathematical ability and motivation. The selection of participants is based on the students' enrollment in the mathematics subject during the research period. The teacher will also play a crucial role in implementing the method and guiding the students throughout the research process. To assess the effectiveness of the Jarimatika method in improving student motivation, the researcher will compare the students' motivation levels before and after the implementation. This will be done using a motivation survey administered at the beginning and end of the study. The survey will include questions related to students' interest in mathematics, their confidence in solving math problems, and their overall enjoyment of the subject.

The research will also involve the use of observation sheets to document the students' behavior during lessons. These sheets will be used to record the level of student engagement, participation, and enthusiasm during the activities designed around the Jarimatika method. These observations will help the researcher understand how the method influences students' motivation and engagement in learning. In addition, interviews will be conducted with both the students and the teacher to gather qualitative data regarding their perceptions of the Jarimatika method. Students will be asked about their experiences, whether they found the method helpful, and if it made learning mathematics more enjoyable. The teacher's feedback will provide insight into the practical aspects of implementing the method in the classroom and any challenges faced during the process.

To analyze the data, the researcher will use both descriptive and inferential statistical techniques. Descriptive statistics will be used to summarize the data collected from the surveys and tests, while inferential statistics will help to determine whether any observed changes in motivation are statistically significant. The combination of these methods will allow for a comprehensive understanding of the impact of the Jarimatika method on students' learning motivation. The expected outcomes of this research are that the implementation of the Jarimatika method will lead to an increase in student motivation in mathematics. It is anticipated that students will demonstrate greater enthusiasm for the subject, improved participation in class, and enhanced self-confidence in solving mathematical problems. Additionally, the research aims to provide insights into how the Jarimatika method can be effectively integrated into mathematics instruction in elementary schools to foster a positive learning environment.

The findings of this study will be valuable for educators seeking to enhance student motivation in mathematics through innovative teaching methods. By documenting the impact of the Jarimatika method, this research aims to contribute to the body of knowledge on effective strategies for teaching mathematics in elementary education. The results may also serve as a basis for further studies on the use of alternative teaching methods to improve student engagement and achievement in mathematics. In conclusion, this research aims to investigate the effectiveness of the Jarimatika method in improving learning motivation among fourth-grade students at MI Maarif NU Bentul. Through a systematic process of planning, action, observation, and reflection, the study will provide insights into the potential benefits of this method for enhancing student engagement and motivation in mathematics. The findings may offer valuable recommendations for teachers seeking to implement innovative teaching strategies to improve student outcomes in mathematics education.

Result

The implementation of the Jarimatika method in teaching mathematics at MI Maarif NU Bentul showed significant improvements in students' learning motivation. The research was conducted over two cycles, and through careful observation and data collection, clear evidence emerged that this method effectively enhanced student engagement and enthusiasm for mathematics. In the first cycle, it became apparent that many students initially struggled with mathematical concepts, often showing reluctance or boredom during traditional lessons. However, as the Jarimatika method was introduced, students began to display increased interest and excitement in participating in the lessons. During the initial implementation phase, students demonstrated a positive response to the interactive nature of the Jarimatika method. They seemed more eager to engage with arithmetic tasks, particularly as they became more comfortable using the various strategies provided by the method to simplify multiplication and

division. The hands-on activities that accompanied the lessons allowed students to work collaboratively, which helped build their confidence in solving problems and understanding mathematical operations.

The first cycle revealed several important findings. For instance, students who had previously shown little interest in mathematics started to approach the subject with more enthusiasm. The visual and tactile elements of the Jarimatika method, such as using their fingers to visualize calculations, were especially engaging for students. In addition, students appeared to enjoy the competitive aspects of the method, where they could challenge themselves and each other in solving mathematical problems. These activities created a more dynamic and participatory classroom environment. Moreover, based on the motivation survey administered at the beginning and end of the first cycle, there was a noticeable improvement in students' attitudes toward learning mathematics. The results of the survey indicated that the students' interest in the subject increased after the implementation of the Jarimatika method. Students reported feeling more confident in their ability to solve problems and more willing to participate in class discussions. These positive changes were reflected in their overall classroom behavior, with more students actively engaging in lessons and taking part in group activities.

The qualitative data from interviews with students further supported these findings. Many students expressed that they found the Jarimatika method fun and easy to follow, making them feel more confident in their mathematical abilities. One student mentioned that using their fingers to count made it easier to visualize numbers, which helped them grasp concepts they had previously found difficult. Another student shared that they felt more motivated to attend mathematics lessons because of the enjoyable activities and the sense of achievement when they solved problems correctly. Teacher feedback also confirmed the positive impact of the method on student motivation. The teacher noted that the classroom atmosphere had become more lively and positive. Previously, students were often disengaged during traditional lessons, but the introduction of the Jarimatika method encouraged them to be more involved in the learning process. The teacher also observed that students who had difficulty with math operations were making noticeable progress by the end of the first cycle, demonstrating improved skills in basic arithmetic. However, despite these positive outcomes, the first cycle also highlighted some areas for improvement. The researcher observed that some students still struggled with certain aspects of the Jarimatika method, especially when it came to more complex calculations. This indicated that while the method was effective for engaging students, further support and practice were needed to ensure that all students could fully master the concepts being taught. As a result, adjustments were made in the second cycle to address these challenges, with additional practice and clarification provided to students who were still struggling.

In the second cycle, the lessons were modified to incorporate more gradual steps, ensuring that students had adequate time to practice each concept before moving on to more challenging material. This was particularly important for students who required additional support in understanding how to apply the Jarimatika method to more advanced mathematical problems. The adjustments made in the second cycle were reflected in an even greater improvement in student motivation and engagement. By the end of the second cycle, there was a significant increase in the number of students who showed a keen interest in mathematics. The students were able to solve problems more efficiently, and they demonstrated greater confidence in their abilities. The additional support provided in the second cycle helped students who were initially struggling to catch up with their peers, ensuring that all students had an opportunity to succeed.

The post-test results, which were conducted at the end of the second cycle, also showed notable improvements in students' mathematical abilities. Compared to the pre-test scores, the students' performance on the post-test demonstrated a marked increase in their understanding of arithmetic concepts. These results were a direct reflection of the positive impact of the Jarimatika method on their learning process, further validating the effectiveness of the method in improving both motivation and achievement. In addition to the quantitative improvements, the qualitative data gathered from student interviews at the end of the second cycle showed even greater enthusiasm and motivation toward mathematics. Students expressed that they now viewed math as less intimidating and more enjoyable. Many students shared that they felt a sense of accomplishment after each lesson, especially when they were able to solve problems using the Jarimatika techniques.

The reflection phase of the research revealed that the students' attitudes toward mathematics had transformed significantly. The researcher noted a shift from a general dislike or disinterest in the subject to a more positive and engaged approach. The use of the Jarimatika method created a more approachable and interactive environment, which was key to fostering this change in attitude. Overall, the research found that the Jarimatika method had a profound effect on student motivation in mathematics. Students who were initially disinterested in the subject became more engaged and confident in their abilities. The hands-on, visual, and collaborative nature of the method provided students with a deeper understanding of mathematical concepts, making learning more enjoyable and effective. In conclusion, the implementation of the Jarimatika method at MI Maarif NU Bentul led to a significant improvement in students' motivation and engagement in mathematics. The results of this research demonstrate that using innovative teaching methods, such as Jarimatika, can make a substantial difference in students' attitudes toward learning and their academic performance. The findings suggest that incorporating interactive, hands-on learning techniques can play a

key role in enhancing student motivation and should be considered by educators seeking to improve their teaching practices in mathematics education.

Discussion

The results of this research indicate that the implementation of the Jarimatika method significantly enhanced students' motivation and engagement in mathematics learning. One of the core findings of this study was the positive shift in student attitudes towards mathematics. Prior to the introduction of the Jarimatika method, many students at MI Maarif NU Bentul viewed mathematics as a challenging and uninspiring subject. However, after engaging with the Jarimatika method, students expressed a greater sense of enjoyment and enthusiasm for the subject. This shift in attitude is crucial, as motivation is a key factor in learning success, particularly in subjects like mathematics, which many students often find intimidating. The Jarimatika method's ability to simplify arithmetic operations is likely a primary factor contributing to the increased motivation observed among students. By using visual aids and finger techniques, students were able to see and physically engage with the mathematical processes, making abstract concepts more concrete and accessible. This hands-on approach is particularly effective for young learners, who tend to benefit from more tangible methods of learning. The ease with which students could grasp concepts, such as multiplication and division, made them feel more capable and confident, which, in turn, sparked further interest in learning.

Furthermore, the collaborative nature of the Jarimatika method played a significant role in enhancing student motivation. By allowing students to work together in solving mathematical problems, the method fostered a sense of community and cooperation in the classroom. This collaborative environment encouraged students to share strategies, learn from each other, and solve problems collectively. Group work not only enhanced their understanding of the material but also allowed students to feel supported by their peers. This social aspect of learning can be especially beneficial for students who may feel anxious or overwhelmed when working alone, as it creates a more comfortable and encouraging learning atmosphere. The results of the motivation surveys conducted at the beginning and end of the study further emphasize the positive impact of the Jarimatika method. The surveys revealed a marked increase in students' confidence and interest in mathematics after the method was implemented. This suggests that the method was successful in transforming the way students perceived the subject. The positive changes in student attitudes are crucial, as motivation has been shown to directly affect academic achievement. A more motivated student is more likely to engage in learning, participate actively in class, and demonstrate improved performance.

While the positive impact of the Jarimatika method on student motivation is clear, the research also highlights the importance of continuous support and scaffolding in

ensuring all students benefit equally from the method. Some students, particularly those who were initially struggling with basic mathematical concepts, required additional guidance and practice. The second cycle of the research addressed this issue by providing these students with more focused attention, offering supplementary exercises, and reviewing challenging concepts. This adjustment underscored the need for personalized support within the broader classroom setting. Effective implementation of any teaching method requires the ability to cater to individual student needs, ensuring that no one is left behind. The improvement in academic performance observed in the post-test results further supports the effectiveness of the Jarimatika method. Students who were initially struggling to solve basic arithmetic problems showed marked improvement in their ability to solve such problems by the end of the study. This suggests that the method not only motivated students but also had a direct impact on their academic performance. By making mathematical operations more understandable and less intimidating, the Jarimatika method enabled students to better grasp essential math skills, leading to improved learning outcomes.

Additionally, the research demonstrated that the use of the Jarimatika method helped create a more dynamic and engaging classroom environment. The traditional approach to teaching mathematics often focuses on rote memorization and repetition, which can result in disengagement among students. In contrast, the interactive nature of the Jarimatika method encouraged students to actively participate in the learning process, making the subject more engaging and enjoyable. The increased student engagement observed during the lessons suggests that the method can be an effective tool for maintaining student interest and ensuring sustained participation. The teacher's observations also highlighted the positive influence of the Jarimatika method on classroom dynamics. The teacher noted a significant change in the way students approached mathematics lessons. Previously, students would often show disinterest or resistance when asked to participate in math-related activities. However, with the introduction of Jarimatika, students appeared more eager to engage in discussions, ask questions, and participate in exercises. This shift in student behavior indicates that the method was successful in fostering a more interactive and student-centered learning environment.

Despite the many positive outcomes, the research also suggests that the Jarimatika method may not be a one-size-fits-all solution for all students. Some students continued to face challenges, particularly when dealing with more complex mathematical problems. This indicates that while the method is effective in making basic arithmetic more accessible, further modifications may be needed to support students who require more intensive instruction. Future studies could explore ways to adapt the method to cater to the needs of advanced learners or those struggling with specific aspects of mathematics. Additionally, the research underscores the importance of teacher training

and preparation in successfully implementing the Jarimatika method. The teacher's ability to effectively introduce and facilitate the method was a critical factor in the success of the research. Teachers need to be well-versed in the method's techniques and be prepared to make adjustments based on student needs. Professional development programs could help educators gain a deeper understanding of such alternative teaching methods and how to incorporate them into their classrooms effectively. In conclusion, the findings of this study suggest that the Jarimatika method can significantly improve student motivation and academic performance in mathematics. By providing an interactive, visual, and collaborative approach to learning, the method makes mathematics more engaging and accessible. The research highlights the importance of adopting innovative teaching methods that cater to diverse learning needs, and it encourages educators to consider incorporating the Jarimatika method into their teaching practices to foster greater enthusiasm and achievement in mathematics. However, further refinement and support are necessary to ensure the method's effectiveness for all students, particularly those who face greater challenges in understanding the subject.

Conclusion

The implementation of the Jarimatika method in teaching mathematics at MI Maarif NU Bentul proved to be highly effective in improving students' motivation and engagement in the subject. Throughout the study, it was evident that students, who initially struggled with or were disengaged from mathematics, became more confident and eager to participate in lessons after experiencing the method. By utilizing visual and tactile learning strategies, such as finger-based techniques, the Jarimatika method allowed students to grasp mathematical concepts more easily, which significantly enhanced their understanding of basic arithmetic operations like multiplication and division. One of the most notable outcomes of this research was the substantial increase in student motivation. Prior to the study, many students displayed a lack of interest in mathematics, but after engaging with the Jarimatika method, students reported feeling more confident and motivated to learn. The hands-on, interactive nature of the method, which incorporated physical engagement and collaborative activities, made learning mathematics enjoyable and accessible. This led to a shift in students' attitudes, from viewing mathematics as a difficult subject to a more positive outlook where they felt capable of succeeding. The research also highlighted the importance of collaboration in the learning process. The group activities facilitated by the Jarimatika method encouraged students to work together and share strategies, creating a more supportive and interactive learning environment. This collaboration not only helped students learn from each other but also boosted their self-esteem and helped them overcome any doubts about their abilities. The positive classroom dynamics fostered by these interactions were crucial in maintaining students'

enthusiasm and promoting their active participation. The academic improvement demonstrated in the post-test results further validated the effectiveness of the Jarimatika method. Students who had previously struggled with basic arithmetic showed considerable progress, indicating that the method successfully helped them improve their mathematical skills. The combination of increased motivation and enhanced understanding resulted in a tangible improvement in student achievement. However, the study also revealed that while the Jarimatika method was effective for most students, some still faced challenges with more advanced mathematical problems. This suggests that while the method is highly beneficial for foundational learning, additional support and adaptations might be necessary for students working at higher levels or those with more significant learning difficulties. Tailoring the method to accommodate a wider range of abilities will be essential for ensuring all students can fully benefit from this approach. In conclusion, the research demonstrates that the Jarimatika method is an effective tool for increasing student motivation, engagement, and achievement in mathematics. By making math more accessible and enjoyable, it helped students build confidence and improve their understanding of key concepts. The findings suggest that this method should be considered by educators as a way to foster a more dynamic and inclusive classroom environment. With further adjustments and continued support for diverse student needs, the Jarimatika method can become a valuable tool for enhancing mathematics education in schools.

References

Arikunto, S. (2002). Prosedur Penelitian. Bandung: Rineka Cipta.

Dasopang, M. D., Lubis, A. H., & Dasopang, H. R. (2022). How do Millennial Parents Internalize Islamic Values in Their Early Childhood in the Digital Era? AL-ISHLAH: Jurnal Pendidikan, 14(1), 697–708.

Dasopang, M. D., Nasution, I. F. A., & Lubis, A. H. (2023). The Role of Religious and Cultural Education as A Resolution of Radicalism Conflict in Sibolga Community. HTS Theological Studies, 79(1), 1–7.

Erawadi, E., Hamka, H., & Juliana, F. (2017). The Analysis of Student's Stressed Syllables Mastery at Sixth Semester of TBI in IAIN Padangsidimpuan. English Education: English Journal for Teaching and Learning, 5(1), 44–57.

Fatimah, A., & Maryani, K. (2018). Visual Literasi Media Pembelajaran Buku Cerita Anak. Jurnal Inovasi Teknologi Pendidikan, 5(1), 61–69. https://doi.org/10.21831/jitp.v5i1.16212

Gogahu, D. G. S., & Prasetyo, T. (2020). Pengembangan Media Pembelajaran Berbasis E-Bookstory untuk Meningkatkan Literasi Membaca Siswa Sekolah Dasar. Jurnal Basicedu, 4(4), 1004–1015.

Hamka, H. (2023). The Role of Principals on Teacher Performance Improvement in a Suburban School. QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama, 15(1), 371–380.

Hamka, H., Suen, M.-W., Anganthi, N. R. N., Haq, A. H. B., & Prasetyo, B. (2023). The Effectiveness of Gratitude Intervention in Reducing Negative Emotions in Sexual Abuse Victims. Psikohumaniora: Jurnal Penelitian Psikologi, 8(2), 227–240.

Harahap, S. M., & Hamka, H. (2023). Investigating the Roles of Philosophy, Culture, Language and Islam in Angkola's Local Wisdom of 'Dalihan Na Tolu.' HTS Teologiese Studies/Theological Studies, 79(1), 8164.

Hendrawati, S., Rosidin, U., & Astiani, S. (2020). Perilaku hidup bersih dan sehat (PHBS) siswa/siswi di sekolah menengah pertama negeri (SMPN). Jurnal Perawat Indonesia, 4(1), 295–307. https://doi.org/https://doi.org/10.32584/jpi.v4i1.454

Lubis, A. H. (2019). Upaya Peningkatan Hasil Belajar Siswa Sekolah Dasar melalui Model Cooperative Learning Tipe Numered Heads Together. FORUM PAEDAGOGIK, 11(2), 127–143.

Lubis, A. H. (2023). The Interactive Multimedia Based on Theo-Centric Approach as Learning Media during the Covid-19 Pandemic. JPI (Jurnal Pendidikan Indonesia), 12(2), 210–222.

Lubis, A. H., & Dasopang, M. D. (2020). Pengembangan Buku Cerita Bergambar Berbasis Augmented Reality untuk Mengakomodasi Generasi Z. Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan, 5(6), 780–791.

Lubis, A. H., Dasopang, M. D., Ramadhini, F., & Dalimunthe, E. M. (2022). Augmented Reality Pictorial Storybook: How does It Influence on Elementary School Mathematics Anxiety? Premiere Educandum: Jurnal Pendidikan Dasar Dan Pembelajaran, 12(1), 41–53.

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.

Manshur, U., & Ramdlani, M. (2019). Media audio visual dalam pembelajaran PAI. Al-Murabbi:Jurnal Pendidikan Agama Islam, 5(1), 1–8.

Mardhiyah, R. H., Aldriani, S. N. F., Chitta, F., & Zulfikar, M. R. (2021). Pentingnya Keterampilan Belajar di Abad 21 sebagai Tuntutan dalam Pengembangan Sumber Daya Manusia. Lectura: Jurnal Pendidikan, 12(1), 29–40.

Ningsih, Y. S., Mulia, M., & Lubis, A. H. (2023). Development of Picture Storybooks with TheoAnthropoEco Centric Approach for Elementary School Students. AL-ISHLAH: Jurnal Pendidikan, 15(2), 1888–1903.

Nurhidayah, I., Asifah, L., & Rosidin, U. (2021). Pengetahuan , Sikap dan Perilaku Hidup Bersih dan Sehat pada Siswa Sekolah Dasar. 13(1), 61–71. https://doi.org/10.32528/ijhs.v13i1.4864

Pebtiyanti, I., Ahmad, A., Dzaky, M., Fauziah, S. N., Rendi, & Puspitasari, P. (2023). Peran kurikulum merdeka dalam meningkatkan harmonisasi antara masyarakat dan sekolah. Jurnal Pacu Pendidikan Dasar, 3(1), 269–277. https://doi.org/https://doi.org/10.22021/pacu.v3i1.411

Rahmah, S., & Lubis, A. H. (2024). Problem Posing as a Learning Model to Improve Primary School Students' Mathematics Learning Outcomes in Gayo Lues. Journal of Indonesian Primary School, 1(4), 93–104.

Rahman, A., Munandar, S. A., Fitriani, A., Karlina, Y., & Yumriani. (2022). Pengertian Pendidikan, Ilmu Pendidikan dan Unsur-Unsur Pendidikan. Al Urwatul Wutsqa: Kajian Pendidikan Islam, 2(1), 1–8.

Ranisa, R., Erawadi, E., & Hamka, H. (2018). Students' Mastery in Identifying Adverbs at Grade VIII SMPN 2 Batang Toru Tapanuli Selatan. ENGLISH EDUCATION JOURNAL: English Journal for Teaching and Learning, 6(2), 241–252.

Ricardo, R., & Meilani, R. I. (2017). Impak Minat dan Motivasi Belajar terhadap Hasil Belajar Siswa. Jurnal Pendidikan Manajemen Perkantoran (JPManper), 2(2), 188–201.

Santi, Undang, & Kasja. (2023). Peran Guru PAI dalam Membentuk Karakter Peserta Didik di Sekolah. Jurnal Pendidikan Tambusai, 7(2), 16078–16084. https://doi.org/https://doi.org/10.31004/jptam.v7i2.8918

Sugiyono. (2018). Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung: Alfabeta.