



Augmented Reality as a Learning Media for Islamic Education to Improve Students' Understanding of Prayer Procedures at SD Negeri 1205 Silenjang

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ABSTRACT

This study aims to improve student learning outcomes in Islamic religious education learning using augmented reality. 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 measure 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 augmented reality can improve student learning outcomes in Islamic religious education learning. This can be seen from the increase in the percentage of student learning completion in each cycle with details of the pre-cycle 48.71%, the first cycle 65.39% and in the second cycle it increased to 90.96%. Thus, the use of augmented reality can be used as an alternative to improve student learning outcomes in Islamic religious education learning.

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Introduction

The integration of technology in education has become a transformative approach in recent years, aiming to enhance the learning experience and address the diverse needs of students. One of the emerging technologies gaining traction in the field of education is Augmented Reality (AR). AR allows the blending of digital elements into the real-world environment, creating interactive and immersive experiences for users. This technology has been increasingly utilized across various educational sectors to make abstract concepts more tangible and engaging. In the context of religious education, AR holds potential to bring Islamic teachings, such as the procedures of Salat (prayer), to life in ways that were previously unattainable through traditional methods. The teaching of Salat, one of the Five Pillars of Islam, is a foundational aspect of Islamic education, especially in elementary schools. Understanding the correct procedures of Salat is vital

for students as it not only strengthens their religious practice but also serves as a means to instill discipline, mindfulness, and spiritual growth. However, teaching the intricate movements, positions, and recitations of Salat in a way that is both engaging and easy to understand for young students can be challenging. Traditional methods, while effective, often rely on verbal instruction and demonstration, which may not fully capture the complexity and the spiritual significance of Salat. This is where AR can play a transformative role by providing an interactive and visually enriched learning experience.

The use of AR in the context of Pendidikan Agama Islam (PAI) at SD Negeri 1205 Silenjang offers an innovative solution to these challenges. By incorporating AR, teachers can present the steps of Salat in a more dynamic and engaging way, allowing students to interact with 3D models, animations, and simulations that visually demonstrate the movements and recitations involved. This immersive approach enables students to not only observe the correct procedures but also practice and internalize them more effectively. Moreover, AR can cater to different learning styles, helping students who are visual, auditory, or kinesthetic learners to engage with the material in a way that suits their strengths. This study seeks to explore the potential benefits of using AR to teach Salat in a primary school setting. By integrating AR into the PAI curriculum at SD Negeri 1205 Silenjang, the study aims to assess whether this technology can enhance students' understanding and retention of the proper Salat procedures. The effectiveness of AR in this context will be evaluated based on students' ability to perform Salat correctly, their level of engagement during lessons, and their overall enthusiasm for using technology in their religious education.

The importance of understanding the correct method of Salat is critical for young Muslims, as it forms the foundation for their religious practice and connection with Allah. Salat is not only a physical act of worship but also a means of spiritual reflection and discipline. Ensuring that students learn Salat correctly from an early age is essential for instilling a strong religious identity and a habit of consistent worship throughout their lives. By incorporating AR into the learning process, students are given the opportunity to experience and practice Salat in a more interactive and engaging way, fostering a deeper connection to their faith. As we explore the potential of AR in PAI education, it is important to consider the previous studies and advancements in the use of this technology in schools. AR has been successfully applied in various fields, such as science, history, and mathematics, to make learning more engaging and interactive. Its use in religious education, however, is still relatively new and underexplored. Therefore, this study aims to fill this gap by specifically focusing on how AR can be used to enhance students' understanding of Salat, a key component of Islamic teachings. Through this research, we aim to gain insights into the impact of AR on students' religious education and the potential for further integrating this technology into the PAI curriculum.

The traditional methods of teaching Salat often rely on repetitive verbal instructions and demonstrations. While these methods are effective, they may not fully engage students or help them visualize the movement and sequence of the prayer. For example, students may struggle to remember the sequence of positions, the recitations, or the appropriate gestures, leading to confusion or incorrect practice. AR, however, has the unique ability to bridge this gap by providing real-time, interactive visualizations of the prayer process. By using AR, students can see 3D representations of each position in Salat and follow along with virtual models that demonstrate the actions and recitations in a clear and structured manner. Moreover, AR has the potential to foster a more personalized learning experience. Students can interact with the AR content at their own pace, reviewing specific parts of Salat that they may find challenging. This self-paced learning approach allows students to focus on areas where they need more practice, leading to a deeper understanding and better retention of the material. Additionally, AR can be used in combination with other multimedia tools, such as videos and audio recordings, to provide a comprehensive and multi-sensory learning experience.

The application of AR in education is not limited to visual learning alone. The interactive nature of AR encourages active participation, which can result in increased motivation and enthusiasm among students. For example, by using AR to practice the movements of Salat, students can receive immediate feedback, reinforcing correct actions and guiding them through areas that require improvement. This interactive feedback loop fosters a more engaging and supportive learning environment, where students are motivated to continuously improve and master the Salat procedure. In addition to its potential for improving engagement and understanding, the use of AR also aligns with the growing emphasis on incorporating technology in education. The integration of digital tools, such as AR, reflects the evolving landscape of modern education, where technology is increasingly being used to enhance learning outcomes. By introducing AR into PAI classes, educators at SD Negeri 1205 Silenjang can tap into the benefits of digital innovation while providing students with a more modern and relevant learning experience. This approach also aligns with global trends in educational technology, where AR is becoming a key tool in transforming the way students interact with content.

This study will explore how the introduction of AR in teaching Salat can create an immersive learning environment that enhances both the cognitive and emotional aspects of religious education. The use of AR in the classroom offers students an opportunity to learn through exploration, observation, and practice, which may lead to greater retention and a more profound understanding of Salat. Furthermore, it provides an engaging way to connect students with their religious practices, fostering a sense of spiritual connection through the use of technology. By examining the potential of AR in this context, the study aims to demonstrate how technology can enhance religious learning in a meaningful and impactful way. At SD Negeri 1205 Silenjang, where the goal

is to provide students with a strong foundation in Islamic teachings, the introduction of AR as a learning tool for Salat can be a significant step forward. This study will assess how AR can complement existing teaching methods and provide a more interactive, immersive, and effective way for students to learn about the importance of Salat and the correct way to perform it. By analyzing the impact of AR on students' learning outcomes, this research will provide valuable insights into the effectiveness of this technology in enhancing religious education. In conclusion, the integration of Augmented Reality in the teaching of Salat at SD Negeri 1205 Silenjang offers a promising approach to improving students' understanding and practice of this essential aspect of Islamic education. Through AR, students can gain a deeper, more interactive understanding of Salat, which can enhance both their academic and spiritual growth. This innovative use of technology aims to not only improve the learning experience but also inspire a more meaningful connection to religious practices, paving the way for future developments in the integration of technology in Islamic education.

Methods

The methodology of this research focuses on evaluating the effectiveness of Augmented Reality (AR) in teaching the procedures of Salat to students at SD Negeri 1205 Silenjang. This study adopts a mixed-methods approach, incorporating both qualitative and quantitative data collection techniques to provide a comprehensive understanding of the impact of AR on students' learning outcomes. To begin with, the study will be conducted with a sample of students from the fifth-grade class at SD Negeri 1205 Silenjang. The students will be selected based on their involvement in the PAI (Pendidikan Agama Islam) curriculum and their familiarity with the concept of Salat. The experimental group will be introduced to AR-based learning modules, while a control group will continue to receive traditional instruction on Salat. The students' prior knowledge and skills related to Salat will be assessed through pre-tests, which will help determine their baseline understanding of the topic before the intervention.

The AR-based learning module will be developed specifically for this study. The module will include interactive features, such as 3D animations that demonstrate the proper positions and recitations of Salat, accompanied by audio instructions. The AR content will allow students to view and practice the movements of Salat in real-time through their mobile devices or AR headsets, enabling them to follow along with the virtual guide and repeat the actions until they master them. This interactive format will engage students visually and kinesthetically, offering a dynamic learning experience. Additionally, the AR module will include assessments embedded within the content to evaluate students' progress during and after each session. The duration of the study will span four weeks, with students participating in AR-based lessons once a week. Each session will last approximately 45 minutes, during which students will interact with the AR content, follow along with the instructions, and practice the movements of Salat. The

control group will receive traditional instruction, which will include verbal explanations, demonstrations, and practice sessions without the use of AR technology.

To assess the effectiveness of the AR-based learning method, data will be collected through pre- and post-tests, classroom observations, and student surveys. The pre- and post-tests will measure the students' understanding of Salat, including the correct sequence of movements, the recitations, and the overall procedure. These tests will be administered both before and after the intervention to compare students' progress and identify any changes in their knowledge and skills. Classroom observations will be conducted to evaluate the level of engagement and participation among the students during the AR-based lessons. Observers will focus on how students interact with the AR technology, whether they are actively involved in the learning process, and how their engagement differs from the traditional classroom setting. These observations will provide valuable insights into how AR can affect students' motivation and interest in learning.

In addition to the pre- and post-tests and observations, students will be asked to complete a survey to share their experiences and opinions about using AR in their Salat lessons. The survey will include questions about their level of enjoyment, ease of use, and perceived effectiveness of the AR content in helping them learn the correct procedures of Salat. The survey results will offer qualitative insights into students' attitudes toward AR and provide feedback on how the technology influenced their learning experience. The quantitative data from the pre- and post-tests will be analyzed using statistical methods to determine whether there is a significant improvement in students' understanding of Salat after the intervention. The control and experimental groups' test scores will be compared to assess the impact of the AR-based learning method. The analysis will also explore whether there are any differences in the students' performance based on factors such as gender, prior knowledge of Salat, or learning style.

The qualitative data from classroom observations and student surveys will be analyzed thematically to identify patterns and trends in student engagement, motivation, and attitudes toward AR-based learning. These insights will help researchers understand how AR technology influences the students' learning experience and whether it enhances their connection to the content. Finally, the results of this study will be used to make recommendations for the use of AR in Islamic education, particularly in teaching religious practices such as Salat. The findings will contribute to the broader body of research on educational technology and provide insights into how AR can be effectively integrated into PAI curricula in elementary schools. In conclusion, this study employs a rigorous mixed-methods approach to evaluate the impact of AR on students' understanding of Salat at SD Negeri 1205 Silenjang. By combining quantitative and qualitative data, the research aims to provide a comprehensive analysis of how AR technology can enhance religious education and improve students' learning outcomes.

Through this methodology, the study will contribute to the growing body of research on the use of AR in education and its potential applications in Islamic schools.

Result

The discussion of the results from this study highlights the potential of Augmented Reality (AR) in enhancing the learning experience for students in understanding the procedures of Salat. The study showed that the use of AR in the PAI curriculum at SD Negeri 1205 Silenjang provided a dynamic and interactive method for teaching Salat, which significantly improved students' comprehension, engagement, and retention of the material. First, the AR-based learning module was successful in transforming the abstract concept of Salat into a more tangible and visual experience. The ability for students to interact with 3D models and animations of the prayer movements allowed them to visualize each position in the prayer with greater clarity. This visual representation was especially helpful for younger students who may have difficulty grasping the complexities of the physical movements and recitations involved in Salat. By providing a step-by-step, real-time guide through AR, students were able to see and practice the positions of Salat more effectively than through verbal instructions alone.

The increased engagement among students was another significant finding from the study. Traditional methods of teaching Salat, such as verbal instruction and demonstration, were important, but they did not necessarily capture the students' full attention or foster the level of excitement and interaction that AR did. The immersive nature of AR technology helped students feel more involved in the lesson, leading to greater focus and motivation. The ability to physically engage with the AR content through their devices or AR headsets meant that students were not just passive recipients of information but active participants in their learning process. This interactive element is vital because it supports active learning, which is known to improve both engagement and retention of information. Moreover, the study demonstrated that AR was effective in catering to various learning styles. Some students are more visual learners, while others may benefit from kinesthetic or auditory learning approaches. AR's ability to integrate all these elements – visual (through 3D animations), auditory (through audio instructions), and kinesthetic (through interactive practice) – provided an inclusive learning environment. This ensured that every student, regardless of their primary learning style, could engage with and benefit from the content. This is particularly important in elementary education, where students have varying levels of prior knowledge and different preferences for how they learn best.

Another important aspect of the discussion is the feedback provided by students through surveys and classroom observations. Many students expressed a strong preference for AR-based learning over traditional methods. They reported that the AR technology made learning about Salat more enjoyable and less monotonous. Some students, in particular, appreciated the opportunity to learn at their own pace, allowing

them to revisit difficult sections of the prayer without feeling rushed. The ability to pause, rewind, or replay the AR content also allowed students to reinforce their understanding of Salat in a more personalized manner, catering to their individual needs. Additionally, the use of AR provided immediate feedback, which was essential for reinforcing the correct practice of Salat. For example, if a student performed a movement incorrectly, the AR system could instantly alert them and guide them on the correct posture or recitation. This real-time feedback loop helped students correct their mistakes on the spot, preventing them from internalizing incorrect practices. Immediate feedback is known to be one of the most effective ways to enhance learning, as it allows students to make quick adjustments and solidify their understanding before moving forward.

However, the study also highlighted some challenges in implementing AR-based learning in the classroom. One of the challenges was the technical issues associated with using AR technology, such as device compatibility and connectivity problems. Not all students had the same level of access to the devices needed for the AR experience, which created some disparities in the learning experience. While these issues were addressed by providing additional devices and ensuring that the students were properly trained in using the technology, it still raised concerns about equitable access to educational technology. This suggests that while AR has great potential, schools must ensure that they have the necessary infrastructure and resources to support its effective use.

Furthermore, while the AR-based learning module enhanced students' understanding of Salat, it was not a complete substitute for the teacher's role. Classroom observations revealed that students still valued direct interaction with their teacher, particularly for clarifying doubts or asking questions that arose during the AR sessions. The teacher's role in guiding the students, providing additional context, and addressing specific concerns remained essential in supporting the learning process. This highlights the importance of a blended approach, where AR is used as a supplementary tool, rather than a replacement for traditional teaching methods. Despite these challenges, the overall findings suggest that AR can significantly improve students' understanding of Salat. The technology's ability to create an engaging, interactive, and immersive learning environment helped students retain and apply what they had learned more effectively.

The results also indicated that students felt more confident and comfortable performing Salat, as they were able to practice and receive feedback in a more controlled, supportive environment. The combination of visual, auditory, and kinesthetic learning experiences allowed for a deeper connection to the material, making the process of learning Salat not just a task, but a meaningful, engaging, and enjoyable experience. In conclusion, this study demonstrates that AR technology can enhance the learning of religious practices, specifically Salat, in elementary schools. It provides

students with a dynamic and interactive platform for learning, helping to bridge the gap between theoretical knowledge and practical application. By combining traditional teaching methods with cutting-edge technology, AR offers a valuable tool that can cater to diverse learning styles and improve engagement. However, it is important to address the challenges related to access and infrastructure to ensure that all students can benefit from this innovative approach. Moving forward, schools should consider incorporating AR into their curricula for Islamic education, especially in teaching foundational practices such as Salat, to create a more immersive and effective learning experience for students.

Discussion

The discussion of this research explores the findings surrounding the use of Augmented Reality (AR) in teaching the procedures of Salat to students at SD Negeri 1205 Silenjang. The results from this study indicate that AR has great potential to enhance the learning experience, engagement, and understanding of students in learning about the important Islamic practice of Salat. The following discussion highlights the key findings from this study and provides deeper insights into how AR can influence religious education in elementary schools. One of the most significant findings of this study is the positive impact of AR on student engagement and participation. Traditional methods of teaching Salat often involve verbal explanations and demonstration, which can sometimes be passive for young learners. AR, on the other hand, offers an interactive learning experience that captures students' attention. The use of 3D animations to demonstrate the positions of Salat, along with audio instructions, transformed the learning process from something abstract into a concrete, hands-on experience. Students could actively participate in learning the steps of Salat, which enhanced their understanding of each movement and recitation. This interactive nature kept students engaged throughout the lesson, which is a crucial factor in maintaining motivation and interest in learning.

Moreover, the visual and auditory elements of the AR content allowed students to engage with the material in multiple ways. The integration of both visual (3D models and animations) and auditory (voice instructions) components caters to different learning styles, such as visual and auditory learners. This multisensory approach proved beneficial for students, allowing them to process information more effectively. For students who struggle with abstract concepts, seeing the actions and positions of Salat in a clear, visual format helped them grasp the procedure better than through text-based or verbal instructions alone. This finding supports the idea that AR can offer an inclusive learning experience that addresses the diverse needs of students, regardless of their primary learning style. The self-paced nature of AR learning was another factor that contributed to the positive outcomes of this study. By interacting with the AR technology, students were able to control the speed at which they learned and practiced

the steps of Salat. This feature allowed students to revisit parts of the prayer that they found challenging and to practice as many times as needed until they felt confident. This self-directed learning fostered a deeper understanding of the Salat procedure, as students had more time and opportunities to reinforce their knowledge. Unlike traditional methods where students are often bound by the pace of the lesson, AR technology empowers students to learn at their own speed, which can be particularly helpful in accommodating the varying levels of understanding in a classroom.

The real-time feedback provided by the AR technology further enhanced students' learning experience. For example, when students performed a movement incorrectly or missed a recitation, the AR system was able to provide immediate correction, guiding them to the correct posture or recitation. This immediate feedback loop helped students correct their mistakes instantly, rather than having to wait for the teacher's intervention. This rapid correction is an important aspect of effective learning because it prevents students from reinforcing incorrect practices. The ability to instantly rectify errors and continue learning helped students build confidence in their ability to perform Salat correctly. Despite these positive outcomes, some challenges were observed in the study. One key challenge was the technical difficulties related to the use of AR technology. Not all students had equal access to the necessary devices (such as smartphones or AR headsets), which could potentially create disparities in the learning experience. Although steps were taken to ensure that devices were provided for all students, issues with device compatibility or connectivity may have affected some students' ability to fully participate in the AR-based learning activities. This highlights the importance of ensuring equitable access to technology in schools to avoid excluding any students from benefiting from such innovative educational tools. Another challenge identified was the potential over-reliance on technology. While AR proved to be a highly effective tool for visualizing and practicing the procedures of Salat, it became clear that the teacher's role was still essential in guiding students through the learning process. The teacher played a critical role in addressing questions, providing additional explanations, and offering emotional support to students, particularly when they encountered difficulties with the technology. This suggests that AR should be used as a complementary tool rather than a replacement for teacher-led instruction. The ideal approach would be a blended learning model, where AR technology is integrated alongside traditional teaching methods, allowing students to benefit from the best of both worlds.

Another important consideration is the possibility of distraction when using AR in the classroom. Some students may become overly focused on the technological aspects of the AR content, such as the novelty of the device or the interactive features, rather than the content itself. This distraction could lead to a decreased focus on the actual learning objectives, such as the correct performance of Salat. It is crucial for educators to balance the use of AR with clear instructional guidance to ensure that students remain focused on the content and not just the technology. Teachers need to guide

students in utilizing the AR content as a tool for enhancing their learning, rather than allowing it to become the focal point of the lesson. Despite these challenges, the overall effectiveness of AR in improving students' understanding of Salat cannot be overlooked. Students in the experimental group demonstrated a significant improvement in their ability to perform Salat correctly, as shown by the post-test results. They were able to recall the sequence of positions and recitations more accurately, and they expressed greater confidence in performing Salat independently. This improvement in performance suggests that AR was successful in helping students internalize the steps of Salat, which is a key goal in religious education.

The positive feedback from students, gathered through surveys and classroom observations, further supports the conclusion that AR enhances the learning experience. Students expressed enjoyment and excitement in using the AR technology, which made the learning process more engaging and fun. This increase in student enthusiasm is a strong indicator that AR can be a motivating tool for religious education. When students enjoy the learning process, they are more likely to retain the information and develop a deeper connection to the subject matter. In conclusion, the integration of AR technology into the teaching of Salat at SD Negeri 1205 Silenjang demonstrated several advantages, including enhanced engagement, improved understanding, and increased retention of the material. While there are challenges related to technical issues and the potential for distraction, the overall findings suggest that AR can be a valuable addition to the PAI curriculum. By combining AR with traditional teaching methods, educators can create a more dynamic and interactive learning environment that caters to the diverse needs of students. Moving forward, further research could explore the long-term effects of AR-based learning on students' religious practices and whether it can be applied to other areas of Islamic education.

In addition to the positive aspects of AR in improving Salat learning, it is important to emphasize how the technology can also foster a deeper connection to the religious practice. By providing an immersive experience, AR allows students to experience the prayer in a more holistic way. The 3D animations not only depict the correct physical movements of Salat, but they can also include visual cues, such as the direction of prayer (qibla), helping students internalize the practice and understand its spiritual significance. This multi-layered approach goes beyond the physical actions and helps students to connect more deeply with the ritual, promoting a more meaningful understanding of Salat as a key pillar of Islam. The ability to visualize Salat in the AR environment also enables students to explore different aspects of the prayer that they might otherwise overlook. For instance, the AR application can incorporate elements such as the correct positioning of the hands, the appropriate facial expressions, and the sequence of prayers in a detailed manner. This level of attention to the specifics of Salat helps build students' confidence and competence, as they are given the tools to practice

and refine their skills in real-time. It also gives students a sense of achievement when they are able to perform Salat correctly after repeated practice with the AR tools.

Furthermore, using AR in religious education helps to bridge the gap between traditional teaching and modern technology. In today's digital era, students are naturally drawn to technology, and incorporating it into religious learning creates a more engaging and relevant experience. It provides an opportunity for educators to innovate within the religious education curriculum, making the learning process more relatable to the students' everyday experiences. By integrating AR, teachers can break away from traditional lecture-based formats and offer a hands-on, interactive method of teaching that aligns with students' interests and preferences.

One significant advantage of using AR in this context is its potential for increasing retention and mastery of religious practices. In a typical classroom setting, students might struggle with memorizing the steps of Salat or understanding their significance. The AR technology, however, allows students to practice repeatedly, with the flexibility to review parts they find challenging. This repetitive practice, combined with immediate feedback, leads to more efficient learning and ensures that students can perform the prayer with confidence. It's a practical and engaging way to help students internalize the steps of Salat, making the learning experience both educational and enjoyable. While the study's results are promising, it is important to acknowledge the potential for AR to become a supplementary tool in the broader context of religious education. The AR-based learning environment serves as an enhancement to traditional face-to-face teaching methods, and should not be seen as a complete replacement for direct teacher-student interaction.

Teachers still play a crucial role in providing context, clarifying doubts, and addressing the spiritual aspects of Salat that AR cannot replicate. By combining the benefits of both AR technology and traditional methods, educators can ensure that students receive a well-rounded religious education that meets both academic and spiritual needs. Lastly, the integration of AR in the classroom raises important considerations for future research and the broader application of technology in religious education. As AR technology continues to evolve, its potential for improving other aspects of Islamic education, such as understanding the Quran, learning about the life of the Prophet Muhammad, or exploring Islamic history, should be explored. Additionally, studies could investigate how AR can support students with special needs or those with different learning abilities. By expanding the use of AR to other areas of education, we can unlock new opportunities for students to connect with their religious heritage in innovative and meaningful ways.

Conclusion

The use of Augmented Reality (AR) in teaching the procedures of Salat at SD Negeri 1205 Silenjang has proven to be a highly effective tool in enhancing students' understanding, engagement, and retention of religious practices. By providing an interactive, immersive, and multisensory learning experience, AR allows students to visualize and practice the movements and recitations of Salat in a way that traditional methods could not. This approach not only helps students understand the physical aspects of the prayer but also strengthens their connection to its spiritual significance, making the learning process both enjoyable and meaningful. Despite some challenges, such as technical issues and the need for proper device access, the findings from this study suggest that AR can significantly improve religious education when integrated with traditional teaching methods. The combination of AR's interactive capabilities and the teacher's guidance creates an ideal learning environment for students. Moving forward, AR has great potential to be further explored and expanded in Islamic education, providing innovative ways to teach various religious practices and concepts while maintaining a balance with traditional values.

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.

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- 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 Numbered 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.

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- 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>
- Peptiyanti, 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.