



Time Loop Lapbook Media on Unit Time Material for Third-Grade Elementary School Students

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ABSTRAK

Rendahnya hasil belajar matematika siswa disebabkan karena kurang optimalnya pemanfaatan media pembelajaran oleh guru. Sehingga untuk mengatasi permasalahan tersebut siswa membutuhkan media yang dapat menunjang proses pembelajaran matematika. Adapun tujuan dari penelitian ini adalah untuk mengetahui kelayakan media lapbook putaran waktu pada materi satuan waktu bagi siswa kelas 3 SD. Penelitian ini tergolong kedalam jenis penelitian pengembangan yang dikembangkan dengan menggunakan model bord and gall. Subjek yang terlibat dalam penelitian ini yakni enam ahli, yaitu dua ahli materi, dua ahli media, dan dua ahli bahasa serta 20 siswa kelas 3 sekolah dasar. Pengumpulan data dalam penelitian dilakukan dengan menggunakan metode tes, wawancara, angket validasi, dan angket praktikalitas, dengan instrument penelitian berupa lembar angket validitas produk media oleh para ahli. Data yang diperoleh dalam penelitian kemudian dianalisis dengan menggunakan teknik analisis deskriptif kualitatif dan menggabungkan data kuantitatif untuk merevisi pengembangan produk media pembelajaran lapbook. Hasil analisis penelitian menunjukkan bahwa validitas media lapbook yang meliputi dari ahli media, ahli materi, dan ahli bahasa menyatakan bahwa media pembelajaran lapbook putaran waktu memperoleh skor sebesar 89,5% yang artinya media pembelajaran lapbook ini sangat layak digunakan dalam mendukung proses pembelajaran khususnya pada materi satuan waktu kelas III sekolah dasar. Selanjutnya hasil praktikalitas yang meliputi aspek kemudahan dalam penggunaan, waktu yang diperlukan, dan mudah diinterpretasikan memperoleh skor sebesar 94% yang berarti bahwa media pembelajaran lapbook sudah sangat praktis. Berdasarkan hasil analisis data tersebut maka dapat disimpulkan bahwa media lapbook berada pada kategori valid dan sangat layak untuk dikembangkan.

ABSTRACT

The low learning outcomes of students' mathematics are due to teachers' less optimal use of learning media. So to overcome these problems, students need media that can support the process of learning mathematics. This study aimed to determine the feasibility of time loop lapbook media on time unit material for 3rd-grade elementary school students. This research belongs to the type of development research that was developed using the Bord and Gall model. The subjects involved in this study were six experts, two material experts, two media experts, two language experts, and 20 grade 3 elementary school students. Data collection in the study was carried out using test methods, interviews, validation questionnaires, and practicality questionnaires, with research instruments in the form of media product validity questionnaire sheets by experts. The data obtained in the study were then analyzed using qualitative descriptive analysis techniques and combining quantitative data to revise the development of lapbook learning media products. The results of the research analysis showed that the validity of the lapbook media, which included media experts, material experts, and linguists stated that the time lap lapbook learning media obtained a score of 89.5%, which means that this lapbook learning media is very feasible to use in supporting the learning process, especially on material unit time class III elementary school. Then the results of practicality, which include aspects of ease of use, the time required, and ease of interpretation, obtain a score of 94%, which means that the learning media for the lapbook is very practical. Based on the results of the data analysis, the lapbook media is in the valid category and is very feasible to develop.

1. INTRODUCTION

Mathematics is one of the subjects that has been introduced from the elementary level to a higher level because mathematics is not only to be studied at school but also to be applied in daily life activities, for example, learning the names of numbers, how to count and use money (Hasiru et al., 2021; Heryanto et al., 2022). Mathematics can also be used as a way to understand and solve problems found and faced in real life (Batubara, 2018; Ferdianto & Setiyani, 2018). Mathematics is a discipline that is unique compared to other disciplines. This is because mathematics is related to images of abstract concepts (Anggraini, 2021; Setyadi & Wardani, 2020). Every abstract mathematical concept will be well understood if presented concretely to students (Awalia et al., 2019; Octavyanti & Wulandari, 2021). Each of these concepts can be easily understood by students if initially presented in concrete forms (Armin & Purwati, 2021; Hasbullah et al., 2020). Mathematics learning is not only carried out to teach students about how to count properly and correctly but also teaches students to develop their thinking skills, both critical, creative, and systematic thinking skills (Mawaddah et al., 2021; Subroto et al., 2020). So that in practice, students who can master mathematics well will easily solve various problems that exist in everyday life, especially problems related to mathematics (Angriani et al., 2020; Komariah et al., 2018).

The reality shows that many students still think mathematics is difficult (Guntur et al., 2023). This assumption then causes students to be lazy to learn mathematics (Netty, 2020; Vikiantika et al., 2022). It aligns with the results of observations and interviews conducted at one of the elementary schools in Cirebon. The results of observations and interviews show that many students still find it difficult to understand mathematics learning material, especially the time unit material, especially in third-grade students. Students in this material generally make errors in each answer, on average, found in counting time and reading a time. It is due to students' lack of understanding of the unit of time material, especially in reading and counting time. The low ability of students to understand material over time is because the teacher's delivery of material seems less interesting without the use of learning media or only through pictures on the blackboard, which can make students less enthusiastic about learning and listening to the material. If left continuously, this problem will certainly impact low student learning outcomes and not achieving learning goals properly.

One effort that can be made to overcome these problems is by using media in the learning process. Learning media is something that can help convey messages through various intermediaries, which can stimulate students' thoughts, feelings, and desires to add new information to the learning process and can help achieve learning goals properly (Ario, 2019; Ferdianto & Setiyani, 2018; Nugraha et al., 2019). Learning media can also be interpreted as anything that can be used to convey messages and stimulate the thoughts, feelings, attention, and willingness of students so that they can encourage the learning process (Aureliya et al., 2022; Laila et al., 2023). Using learning media is necessary, especially for elementary school students. One type of media that can improve students' mathematical abilities is learning media in the form of a lapbook (Hasiru et al., 2021; Suseno et al., 2020).

Lapbook is a type of media made from one type of folder. Files are then folded vertically or horizontally in half so that when the folder is opened, it will look like a window (Aunurrahman et al., 2022). This lapbook media can be filled with works related to art products such as drawings, handicrafts, and so on (Aureliya et al., 2022; Latifa & Muryanti, 2022). Lapbook media is a learning media arranged systematically by combining various pictures, symbols, and colors related to learning material (Jamaludin et al., 2020; Luh & Ekayani, 2021). Lapbooks as learning media can be used to present learning outcomes, personal studies and also generalize and systemize students' knowledge and skills on certain topics, so this media is very suitable to be used to support the development of children's mathematical intelligence (Hamid et al., 2020; Latifa & Muryanti, 2022; Muttaqien & Sa'adah, 2023).

Previous studies have revealed that using lapbook media can improve critical thinking skills and increase student learning outcomes (Jamaludin et al., 2020). The results of other studies also reveal that lapbook media can significantly influence student learning outcomes (Napitupulu, 2021). The results of further research revealed that the lapbook media could also affect the activeness of student learning in class (Wulandari et al., 2021). Based on some of the results of these studies, learning media in the form of lapbook is very suitable for improving student learning outcomes. In previous research, no study specifically discussed the development of time loop lapbook media on time unit material for third-grade elementary school students. So this research was focused on this study to know the feasibility of time loop lapbook media on unit time material for third-grade elementary school students and find out the practicality of time loop lapbook media on time unit material for third-grade elementary school students.

2. METHOD

This research is research and development (RnD) carried out by adopting the Borg and Gall model. Developmental research is a process used to develop and validate products used in education. The subjects involved in this research were six experts, two material experts, two media experts, two language experts, and 20 third-grade elementary school students. Data collection in the study was carried out using test methods, interviews, validation questionnaires, and practicality questionnaires, with research instruments in the form of media product validity questionnaire sheets by experts. The assessment instrument grids can be seen in [Table 1](#), [Table 2](#), [Table 3](#), and [Table 4](#).

Table 1. Material Expert Instrument

Assessment aspects	Indicator
Content Eligibility	<ol style="list-style-type: none"> 1. The suitability of the material with basic competence. 2. The suitability of the material with the lesson indicators. 3. Completeness of the material presented. 4. Support the achievement of learning objectives. 5. The depth of the material. 6. The accuracy of the image corresponds to the reality of student understanding. 7. The material is easy to understand. 8. The material is on the cognitive development of students. 9. The use of examples based on everyday life. 10. Suitability of examples with the material. 11. The material is clear and specific. 12. The language used is easy to understand.
Encourage Curiosity	<ol style="list-style-type: none"> 13. Encourage curiosity. 14. Creating the ability to ask questions. 15. It can provide students with learning motivation.

Table 2. Media Expert Instrument

Assessment Aspects	Indicator
Media Display	<ol style="list-style-type: none"> 1. Clarity of the cover. 2. Media cover design. 3. Writing layout. 4. Font selection and font size. 5. Accuracy of color selection for each media component. 6. Attractiveness of use. 7. Image conformity. 8. Accuracy of image placement. 9. Media packaging. 10. Balancing the size of each media component. 11. Effectiveness in use. 12. The neat layout of each media component. 13. Harmony color selection. 14. Medium size. 15. Accurate spacing between posts.
Use of Materials	<ol style="list-style-type: none"> 16. The accuracy of the selection of materials. 17. Durability or resistance of the media. 18. Easy to use. 19. Safety of materials used. 20. Good quality.

Table 3. Language Expert Instrument Grid

Assessment Aspects	Indicator
Straightforward	<ol style="list-style-type: none"> 1. Accuracy of sentence structure. 2. Language standard. 3. The effectiveness of the sentence. 4. Use sentences that are easy to understand.

Assessment Aspects	Indicator
Suitability with Student Development	5. Readability of the text.
	6. Language according to student development.
	7. Language according to student development.
	8. Understanding of messages or information.
	9. The accuracy of language selection in describing the material.
	10. The language used is by the EYD.
	11. Grammar accuracy.
	12. Accurate spelling of sentences.
	13. The language used is formal.
	14. The sentences used do not contain double meanings.
	15. Selection of the right words or terms.

Table 4. Practicality Sheet Instrument

Assessment Aspects	Indicator
Ease of Use	1. Lapbook media uses language that is easy to understand
	2. The material presented through the Lapbook media is easy to understand
time Required	1. Working on the practice questions on the lapbook media does not take me long.
	2. Learning time becomes more effective and efficient
	3. It takes a relatively short time to understand the material in the lapbook media
Easy to Interpret	1. Lapbook media makes me motivated in learning
	2. I can study this lapbook media anywhere
	3. Presentation of material in lapbook media is more practical to use, and understand, and can be studied repeatedly.
	4. This lapbook media has an attractive appearance
	5. Lapbook media can be used as a tool for conveying learning material

The data obtained in the study were then analyzed descriptively and qualitatively and combined quantitative data to revise the development of lap book learning media products. Qualitative data were obtained from each validator's input, comments, and suggestions. Meanwhile, quantitative data was obtained from a questionnaire analysis of media experts, material experts, and linguists. Experts in their respective fields carry out the validation process. The questionnaire will later be answered by giving a score in the very good category (SB) with a score of 4, good (B) with a score of 3, poor (K) with a score of 2, very poor (SK) with a score of 1, and is equipped with a response column to provide suggestions or comments on the media that has been made. At the same time, third-grade students carry out the practical assessment. This questionnaire assessment was carried out to assess the practicality of the media that had been made. The practicality sheet for students using the Guttman scale measurement consists of two assessment options, the "Yes" option and the "No" option.

3. RESULT AND DISCUSSION

Result

The analysis in this study was carried out by adjusting to the board and gall development stage, which consisted of potential and problem analysis stages, data collection, product development, and product validation. The results of each stage of development are as follows: first, an analysis of the potential problems teachers and students face in the learning process through giving test questions to students to determine the level of students' understanding of the material in a unit of time. The low understanding of students regarding time units is caused by teaching that is too monotonous, a lack of growing student interest and motivation, and a lack of involvement in learning media. In addition, at the needs analysis stage, unstructured interviews were also conducted with third-grade elementary school teachers. The interview stage was carried out to obtain information regarding the use of media during learning and the conditions of students when studying the material in a unit of time in class. The interview results can be seen in [Table 5](#).

Table 5. Interview Results

No.	Questions	Answers
1	What is the mother's method or method of teaching the material per unit of time?	Students then write the material and practice questions by explaining the unit time material in the textbook.
2	Are there other books that you use to support the learning process?	Using worksheets
3	Is there an effort so students can understand more about the material unit of time?	Using unit time media to support the learning process further, but due to limited supporting media, the efforts only provided repeated practice questions accompanied by pictures in the textbook.
4	Is there any use of learning media or other means to support the learning process?	Make it simple, or use the tools that are around the school. Such as scales, clocks, meters
5	What is the state of the students when the mother is explaining material about units of time?	Please pay attention, but some students do not understand because they lack concentration.

Based on the interviews above, the method used to explain the unit time material is when the teacher explains the material in the textbook, and then the students are asked to work on the existing questions. Books that are used to support learning also use student worksheet books. Teachers rarely use assistive devices to support learning, only using objects around them. In addition, during the learning process, students are still less focused when learning occurs.

Second, after obtaining the analysis results of the problems experienced by teachers and students, the research continued at the data collection stage. The problems found based on the results of observations as one of the needs analysis in research are used as a potential for researchers to go to the next stage, collecting reference sources to support the development of learning media in the form of lapbook media. Reference sources for developing learning media are obtained from information sources, books, journals, and the internet. Third, after collecting data in the previous stage, the research continued developing learning media. The results of media development can be seen in [Figure 1](#), [Figure 2](#), and [Figure 3](#).

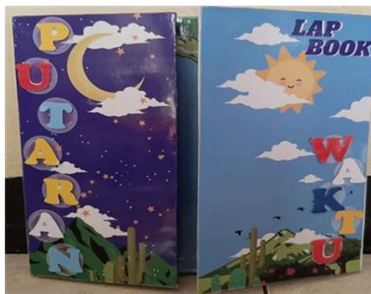


Figure 1. Front Cover



Figure 2. Back Cover



Figure 3. Content Section

The fourth stage is the product validation stage, which is carried out through a validation process and determines product practicality. Validation tests are carried out to evaluate products that have been developed. Six expert validators in their fields carried out the validation process, while third-grade elementary school students carried out practicality. Based on the results of the six validators, the average results of the validation test can be seen in [Table 6](#).

Table 6. Average Validation Results

No.	Validator	Media	Material	Language	Average	Criteria
1	First Validator	92 %			94%	Very Decent
2	Second Validator	96 %				
3	Third Validator		76 %		82%	Very Decent
4	Fourth Validator		88%			
5	Fifth Validator			90%	95%	Very Decent
6	Sixth Validator			100%		

Average	90,3 %	Sangat Layak
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Based on the results of the average validation of [Table 6](#), the results of the validation of media experts obtained an average score of 94% with very decent criteria. Then the average score of material experts obtained 82% with very feasible criteria, and the average score of linguists obtained 95% with very feasible criteria. Of the three aspects that have been validated, the media, material, and language, an average score of 90.3% is obtained with very decent criteria so that this learning media can be used as a medium to assist the learning process. After being validated by media experts, material experts, and linguists, the media was tested on 20 people. This trial was conducted to determine the practicality of the developed learning media. The results of the trials conducted, the results are shown in [Table 7](#).

Table 7. Practicality Results

No.	Aspect	Average
1	Ease of Use	91.66%
2	Time Required	90.00%
3	Easy to Interpret	98.75%
Total		280.41
Average		93.47
Percentage		93.00%

Based on [Table 7](#) above, a practicality questionnaire recapitulation was obtained by students with 20 students. The ease-of-use aspect obtained a score of 91.66%, the time-required aspect obtained a score of 90%, and the easy-to-interpret aspect obtained a score of 98.75%. The proportion of the practicality of the lapbook learning media questionnaire is 93% in the very practical category.

Discussion

Based on the results of the data analysis that has been done, it can be seen that the lapbook media was successful in developing, where the success of developing this media can be seen from several aspects, including first, in terms of ease of use, the media obtained a score of 91.66%. This aspect includes the lapbook media using easy-to-understand language and the material conveyed through the lapbook media is easy to understand. Working on the practice questions on the lapbook media does not take long. The developed Lapbook learning media presents clear, easy-to-understand material ([Mawaddah et al., 2021](#); [Subroto et al., 2020](#)). It then shows that language standards and readability in teaching materials include good and correct use of Indonesian, clarity of language, and ease of reading ([Angriani et al., 2020](#); [Komariah et al., 2018](#)). Clarity in the use of language is a factor that supports the success of developing a media. This is because the right language will make it easier for students to understand the contents of the media and minimize the occurrence of misconceptions ([Aunurrahman et al., 2022](#)).

The second supporting aspect of success is the time aspect, which scores 90%. It can be interpreted in terms of the time required which includes more efficient time, it requires a relatively short time to understand the material, increasing student motivation. This practical criterion shows that the developed learning media is used efficiently in learning. A media can overcome the limitations of space and time, which in this case, learning can be more effective and efficient ([Hamid et al., 2020](#); [Tafonao, 2018](#)). In addition, learning media must be able to attract students' attention in order to be able to foster their learning motivation. It is, of course, the role of learning media to help convey messages through various intermediaries, which can stimulate students' thoughts, feelings, and desires to add new information to the learning process and can help achieve learning goals properly ([Ario, 2019](#); [Ferdianto & Setiyani, 2018](#); [Nugraha et al., 2019](#)).

The third supporting aspect of success is the ease of media use, which scores 98.75%. It can be interpreted in terms of presentation which includes lapbook media can be studied anywhere, presentation of material on lapbooks is easy to understand, lapbook media has an attractive appearance, lapbook media can be used as a tool in the learning process, students' responses to these statements are on average agreed with the very practical category. In the indicator, the lapbook media can be studied anywhere and must be able to afford the limitations of space and time, which means that this lapbook media can be studied anywhere and anytime ([Aureliya et al., 2022](#); [Laila et al., 2023](#)). The results obtained in this study align with previous research, which also revealed that using lapbook media could improve critical thinking skills and increase student learning outcomes ([Jamaludin et al., 2020](#)). The results of other studies also reveal that lapbook media can significantly influence student learning outcomes ([Napitupulu, 2021](#)). The results of further research revealed that the lapbook media could also affect the activeness of

student learning in class (Wulandari et al., 2021). Based on some of the results of these studies, learning media in the form of lapbooks is very suitable for improving student learning outcomes.

4. CONCLUSION

Based on the results of validation data analysis, which included media experts, material experts, and linguists, stated that time loop lapbook learning media was feasible to support the learning process, especially in third-grade elementary school time unit material. Based on the practicality data analysis that has been carried out and filled out by third-grade elementary school students, which includes aspects of ease of use, the time required, and ease of interpretation, the criteria are very practical. Based on the study's results, the lapbook media can support mathematics learning activities, especially in unit time material.

5. REFERENCES

- Anggraini, V. (2021). Stimulasi Kecerdasan Logika Matematika Melalui Media Animasi Lagu Berbasis Tematik Pada Masa Pandemic Covid-19 Di Kota Bukit Tinggi. *Pedagogi : Jurnal Anak Usia Dini Dan Pendidikan Anak Usia Dini*, 7(1), 106. <https://doi.org/10.30651/pedagogi.v7i1.7258>.
- Angriani, A. D., Kusumayanti, A., & Yuliany, N. (2020). Pengembangan Media Pembelajaran Digital Book pada Materi Aljabar. *Delta-Pi: Jurnal Matematika Dan Pendidikan Matematika*, 9(2), 13–30. <https://doi.org/10.33387/dpi.v9i2.2244>.
- Ario, M. (2019). Pengembangan Video Pembelajaran Materi Integral Pada Pembelajaran Flipped Classroom. *Aksioma: Jurnal Program Studi Pendidikan Matematika*, 8(1), 20–31. <https://doi.org/10.24127/ajpm.v8i1.1709>.
- Armin, R., & Purwati, W. H. (2021). Pengaruh Penggunaan Media Papan Cerdas Perkalian Terhadap Hasil Belajar Matematika Materi Perkalian Siswa Kelas II di SD Negeri 75 Buton. *Jurnal Akademik Pendidikan Matematika*, 1(1), 81–86. <https://doi.org/10.55340/japm.v7i1.394>.
- Aunurrahman, A., Putra, F., & Hafis, M. (2022). The Effectiveness of Lapbook in Teaching Reading Comprehension. *Jurnal Pendidikan Bahasa*, 11(1), 187–198. <https://doi.org/10.31571/bahasa.v11i1.4150>.
- Aureliya, T., Zulfan, Z., & Kesuma, T. B. (2022). Pengaruh Media Lapbook terhadap Hasil Belajar Siswa pada Mata Pelajaran IPS Kelas VII MTSS Darul Hikmah. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 7(4), 228–235. <https://doi.org/10.24815/jimps.v7i4.22172>.
- Awalia, I., Pamungkas, A. S., & Alamsyah, T. P. (2019). Pengembangan Media Pembelajaran Animasi Powtoon pada Mata Pelajaran Matematika di Kelas IV SD. *Kreano, Jurnal Matematika Kreatif-Inovatif*, 10(1), 49–56. <https://doi.org/10.15294/kreano.v10i1.18534>.
- Batubara, H. H. (2018). Pengembangan Media Pembelajaran Matematika berbasis Android untuk Siswa SD/MI. *Muallimuna: Jurnal Madrasah Ibtidaiyah*, 3(1), 12. <https://doi.org/10.31602/muallimuna.v3i1.952>.
- Ferdianto, F., & Setiyani, S. (2018). Pengembangan Bahan Ajar Media Pembelajaran Berbasis Kearifan Lokal Mahasiswa Pendidikan Matematika. *JNPM (Jurnal Nasional Pendidikan Matematika)*, 2(1), 37. <https://doi.org/10.33603/jnpm.v2i1.781>.
- Guntur, M., Sahronih, S., & Ismuwardani, Z. (2023). Pengembangan Komik Sebagai Media Belajar Matematika di Sekolah Dasar. *Jurnal Kajian Pendidikan Dasar*, 8(1). <https://journal.unismuh.ac.id/index.php/jkpd/article/view/9685/5629>.
- Hasbullah, Karim, A., & Savitri, D. (2020). Pengembangan Media Pembelajaran Matematika Berbasis Android Di Kelas 4 Sekolah Dasar. *Jurnal Lebesgue: Jurnal Ilmiah Pendidikan Matematika, Matematika Dan Statistika*, 1(2), 63–75. <https://doi.org/10.46306/lb.v1i2.17>.
- Hasiru, D., Badu, S. Q., & Uno, H. B. (2021). Media-Media Pembelajaran Efektif dalam Membantu Pembelajaran Matematika Jarak Jauh. *Jambura Journal of Mathematics Education*, 2(2), 59–69. <https://doi.org/10.34312/jmathedu.v2i2.10587>.
- Heryanto, H., Sembiring, S. B. S., & Togatorop, J. B. T. (2022). Analisis Faktor Penyebab Kesulitan Belajar Matematika Siswa Kelas V Sekolah Dasar. *Jurnal Curere*, 6(1), 45. <https://doi.org/10.36764/jc.v6i1.723>.
- Jamaludin, G. M., Rosidah, A., & Nurbaiti, E. (2020). Upaya Untuk Meningkatkan Kemampuan Berpikir Kritis Dan Hasil Belajar Siswa Dengan Penggunaan Media Lapbook. *Jurnal Basicedu*, 4(1), 131–140. <https://doi.org/10.31004/basicedu.v4i1.314>.
- Komariah, S., Suhendri, H., & Hakim, A. R. (2018). Pengembangan Media Pembelajaran Matematika Siswa SMP Berbasis Android. *JKPM (Jurnal Kajian Pendidikan Matematika)*, 4(1), 43. <https://doi.org/10.30998/jkpm.v4i1.2805>.

- Laila, M., Nusir, L., & Jebastariya, N. (2023). Pengaruh Penggunaan Media Lapbook terhadap Perkembangan Kognitif Anak Usia Dini 4-5 Tahun. *Journal on Teacher Education*, 4(3), 601-608. <http://journal.universitaspahlawan.ac.id/index.php/jote/article/view/12571%0A>.
- Latifa, B., & Muryanti, E. (2022). Efektivitas Penggunaan Media Lapbook Dalam Mengenalkan Kosakata Bahasa Inggris Pada Anak Di Taman Kanak-Kanak. *Early Childhood: Jurnal Pendidikan*, 6(1), 29-41. <https://doi.org/10.35568/earlychildhood.v6i1.2115>.
- Mawaddah, A., Wardah, A., Hidayat, M. T., Amin, S. M., & Hartatik, S. (2021). Pengaruh Penggunaan Media Pembelajaran Quizizz terhadap Hasil Belajar Siswa pada Mata Pelajaran Matematika melalui Daring di Sekolah Dasar. *Jurnal Basicedu*, 5(5), 3109-3116. <https://doi.org/10.31004/basicedu.v5i5.1288>.
- Muttaqien, M. D., & Sa'adah, N. A. (2023). Media Pembelajaran Lapbook: Peningkatan Kecerdasan Visual-Spasial Anak Usia Dini. *Abata: Jurnal Pendidikan Islam Anak Usia Dini*, 3(1), 61-75. <https://doi.org/10.32665/abata.v3i1.1462>.
- Napitupulu, S. (2021). Pengaruh Media Lapbook Pada Pembelajaran IPS Terhadap Hasil Belajar Siswa Kelas V SD Negeri 101899 Lubuk Pakam. *Journal Pusedikra*, 1(1), 44-52. <https://pusdikrapublishing.com/index.php/jies/article/view/327>.
- Netty, N. (2020). Pengembangan Media Pembelajaran Berbasis Geogebra Dengan Model Pengembangan ADDIE Di Kelas XI SMAN 3 Medan. *Jurnal Pendidikan Matematika (Kudus)*, 6(1). <https://doi.org/10.24114/jpmi.v6i1.19657>.
- Nugraha, G. N. S., Tegeh, I. M., & Sudarma, I. K. (2019). Pengembangan Multimedia Interaktif Matematika Berorientasi Kearifan Lokal Kelas 3 Sekolah Dasar Negeri 1 Paket Agung. *Jurnal Eductech Undiksha*, 7(1), 12-22. <https://doi.org/10.23887/jeu.v7i1.19972>.
- Octavyanti, N. P. L., & Wulandari, I. G. A. A. (2021). Pengembangan Video Pembelajaran Berbasis Pendekatan Kontekstual Pada Mata Pelajaran Matematika Kelas IV SD. *Jurnal Edutech Undiksha*, 9(1), 66-74. <https://doi.org/10.23887/jeu.v9i1.32223>.
- Setyadi, D., & Wardani, K. W. (2020). Pengembangan Media Pembelajaran Matematika Berbasis Macromedia Flash Materi Luas dan Keliling untuk Meningkatkan Motivasi Belajar Siswa. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 10(1), 73-84. <https://doi.org/10.24246/j.js.2020.v10.i1.p73-84>.
- Subroto, E. N., Qohar, A., & Dwiyanita, D. (2020). Efektivitas Pemanfaatan Komik sebagai Media Pembelajaran Matematika. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 5(2), 135. <https://doi.org/10.17977/jptpp.v5i2.13156>.
- Suseno, P. U., Ismail, Y., & Ismail, S. (2020). Pengembangan Media Pembelajaran Matematika Video Interaktif berbasis Multimedia. *Jambura Journal of Mathematics Education*, 1(2), 59-74. <https://doi.org/10.34312/jmathedu.v1i2.7272>.
- Tafonao, T. (2018). Peranan Media Pembelajaran Dalam Meningkatkan Minat Belajar Mahasiswa. *Jurnal Komunikasi Pendidikan*, 2(2), 103. <https://doi.org/10.32585/jkp.v2i2.113>.
- Vikiantika, A., Primasatya, N., & Erwati, Y. (2022). Peningkatan Hasil Belajar Siswa Sekolah Penggerak pada Mata Pelajaran Matematika Melalui Media Pembelajaran Berbasis Flipbook. *Jurnal Basicedu*, 6(2), 2002-2013. <https://doi.org/10.31004/basicedu.v6i2.2328>.
- Wulandari, R., Mustadi, A., & Rahayuningsih, Y. (2021). Pengaruh Project Based Learning Berbantuan Lapbook terhadap Keaktifan Belajar Siswa. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 6(2), 300-308. <http://journal.um.ac.id/index.php/jptpp>.