



Panpuzfape Media to Improve Thematic Learning Outcomes of Grade V Elementary School Students

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ABSTRAK

Kurangnya media yang digunakan dalam pembelajaran dapat berpengaruh terhadap rendahnya hasil belajar siswa. Penelitian ini memiliki empat tujuan, yaitu menghasilkan rancang bangun media panpuzfape pada tema peristiwa dalam kehidupan, menganalisis validitas isi media panpuzfape pada peristiwa dalam kehidupan, menganalisis kepraktisan siswa pada media panpuzfape pada tema peristiwa dalam kehidupan, dan menganalisis efektivitas pengembangan media panpuzfape pada tema peristiwa dalam kehidupan untuk meningkatkan hasil belajar siswa kelas V di Sekolah Dasar. Studi pengembangan ini menggunakan model ADDIE, yang tersusun atas lima tahapan, yaitu analysis (analysis), design (perancangan), development (pengembangan), implementation (implementasi), dan evaluation (evaluasi). Studi ini mengambil subjek media panpuzfape, sedangkan objek penelitian pengembangan adalah validitas isi media, respon pengguna, dan efektifitas media. Metode pengumpulan data yang digunakan yaitu observasi, wawancara, angket/kuesioner, dan tes. Instrumen yang digunakan untuk pengumpulan data yaitu pedoman observasi, lembar rating scale, wawancara, lembar angket/kuesioner. Metode analisis kuantitatif terdiri dari dua cara yaitu statistik deskriptif dan statistik inferensial. Hasil penelitian menunjukkan bahwa media panpuzfape bersifat valid ditinjau dari hasil penilaian ahli, praktis ditinjau dari hasil penilaian praktisi, dan efektif ditinjau dari hasil uji terhadap siswa.

ABSTRACT

The lack of media used in learning can affect the low student learning outcomes. This study has four objectives, namely to produce a design of panpuzfape media on the theme of events in life, to analyze the validity of the content of panpuzfape media on life events, to analyze the practicality of students in panpuzfape media on the theme of life events, and to analyze the effectiveness of panpuzfape media development on the theme of deep events in order to improve the learning outcomes of fifth grade students in elementary schools. This development study uses the ADDIE model, which is composed of five stages, namely analysis, design, development, implementation, and evaluation. This study takes the subject of panpuzfape media, while the objects of development research are media content validity, user response, and media effectiveness. Data collection methods used are observation, interviews, questionnaires, and tests. The instruments used for data collection were observation guidelines, rating scale sheets, interviews, and questionnaires. Quantitative analysis method consists of two ways, namely descriptive statistics and inferential statistics. The results showed that Panpuzfape media was valid in terms of the results of the expert's assessment, practical in terms of the results of the practitioner's assessment, and effective in terms of the results of tests on students.

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1. INTRODUCTION

The rapid development of technology in Indonesia is one of the most important factors in curriculum change. It is important to understand the history of curriculum development in Indonesia so that we can take useful lessons to continue to improve the education curriculum in Indonesia (Dzo'ul Milal et al., 2020; Fatimah & Santiana, 2017). The curriculum in Indonesia has indeed changed many times. But basically the curriculum changes made by the government are to improve the education system in Indonesia. Even though in every curriculum must have deficiencies and need to be evaluated and corrected so that educational goals can be achieved properly. Curriculum development is a dynamic process in order to respond the demands of government structures regarding the education process in Indonesia (Abdullah & Maryati, 2019; Julaeaha, 2019).

The curriculum is a set of plans and arrangements regarding goals, content, and lessons as well as the methods used as guidelines for the implementation of learning activities to achieve certain educational goals (Fadilah & Suparwoto, 2016; Zaini, 2015). The curriculum in this case is expected to provide a balance of cognitive aspects, effective aspects and psychomotor aspects in a balanced way, so that learning that occurs can balance these three aspects (Kurniaman & Noviana, 2017; Sinambela, 2017). Learning is a process of regulating and

organizing the environment around students that can grow and encourage these students to carry out the learning process (Casnan et al., 2022; Pane & Dasopang, 2017). In the learning process, in order to make it easier for teachers to convey material to students, a tool or media is needed to support the learning process. This is in line with the opinion which states that the existence of learning media can assist teachers in delivering learning material. In addition, the advantages that can be felt by teachers with learning media in the teaching and learning process are that teachers can present material efficiently and students are more interested in participating in the learning process (Hasiru et al., 2021; Rejeki et al., 2020).

Learning media is anything that can be used to distribute learning materials, so that they can stimulate students' attention, interest, thoughts, and feelings in learning activities to achieve educational goals. The development of learning media greatly influences the development of science and technology (Abdullah & Maryati, 2019; Tafonao, 2018). Learning media can also be interpreted as tools or means to convey learning messages to reconstruct visual or verbal information (Hasanah, 2020; Maghfiroh & Shofia Suryana, 2021). Learning media is very necessary for students, especially elementary schools. Elementary school students have characteristics that are easier to understand something that is real or concrete. This is in line with the opinion which states that concrete objects will really help students to approach the real situation. The use of concrete objects themselves in the learning and teaching process is mainly aimed at introducing a particular unit of study and the work process of a particular object of study or parts and other aspects needed by the student (Saputro et al., 2021; Sri et al., 2022). In addition the selected media must also be creative and innovative so as to increase students' enthusiasm for learning and make learning more enjoyable.

But in reality, most teachers only use media that is often used in general, and the media they use is not creative and innovative (Afnibar, 2021; Eva et al., 2020). Based on the results of observations and interviews conducted with teachers at SD Negeri 4 Penarukan from Tuesday, 11 October 2022 to Saturday, 15 October 2022 it was found that there were still students who did not participate in learning and students paid little attention to the teacher in the learning process. In addition, students also feel bored when participating in the teaching and learning process with monotonous or unchanging media. This problem affects the low student learning outcomes. The low student learning outcomes can be seen from the minimum student completeness criteria according to those set by the school (Pradja & Tresnawati, 2018; Surya, 2017).

Learning outcomes are very influential in improving the quality of learning for students who want to develop insight or develop the skills that students have. If student learning outcomes are low, it will affect the increase in student level to the next stage. Therefore, in each learning process students are expected to obtain good and maximum learning outcomes. As a student, he must be able to demonstrate the ability and quality of his learning so that his learning outcomes increase (Idzhar, 2016; Nurhasanah & Sobandi, 2016).

Previous study presents the results of research on the use of puzzle media to improve learning outcomes in science learning. The media is declared suitable for use based on research results and expert validation with an average percentage of material expert validation of 100%, media experts provide an assessment with an average percentage of 99.5% with a very high predicate, therefore puzzle media is still feasible used in the learning process (Londa, 2018; Mahardika & Siswoyo, 2021). This is also in line with research which states that research on the development of water cycle material puzzle media to increase student learning motivation. The media is declared suitable for use based on the results of research and validation of experts with an average percentage of material expert validation of 95% with very feasible criteria (Febyanita & Wardhani, 2017; Sasaki & Sudarwanto, 2021).

The results of this research strengthen the knowledge facility to develop puzzle board media. In general, this research is almost the same as previous research, namely developing a media on certain materials. However, there are differences in the development of knowledge facility puzzle board media with previous research that has been done by (Londa, 2018; Febyanita & Wardhani, 2017). The difference between current research and previous research is that it is found in the learning material that will be included in the Panpuzfape media. Panpuzfape Media or Knowledge Facility Puzzle Board is a puzzle model in the form of arranging image pieces into a unified whole image. In addition, the puzzle is a game that is very popular, especially among children. In general, the images used are children's favorite images such as cartoons, numbers, fruit, cars, animals, and so on. Puzzles are also very interesting for students which can attract student interest in learning and foster a sense of cooperation for each student (Pangastuti, 2019; Putra et al., 2022).

Based on the description that has been described above, a development research was carried out with the aims to 1.) Produce a design of panpuzfape media on the theme of events in life, 2.) Analyze the validity of the content of panpuzfape media on life events, 3.) Analyze the practicality of students in panpuzfape media on the theme of life events, and 4.) Analyze the effectiveness of panpuzfape media development on the theme of deep events in order to improve the learning outcomes of fifth grade students in elementary schools.

2. METHOD

The research model used in this development research is the ADDIE development model. The ADDIE development model consists of five stages, namely analysis, design, development, implementation, and evaluation (Rustandi & Rismayanti, 2021; Setiawan et al., 2021). The stages of development implementation in this study were carried out according to the ADDIE development model, starting from the analysis stage which consisted of four activities, namely needs analysis, student characteristics analysis, curriculum analysis, and media analysis. Then the design stage which aims to design learning materials in the form of thematic material according to competence and design the media that is made. The third stage is the development stage, development stage is the process of realizing the product design that has been made in the form of panpuzfape media on the themes of events in life. The fourth stage is the implementation stage, at this stage testing activities are carried out on the product being developed. The final stage is evaluation in which a formative evaluation is carried out at this stage if there are revisions at certain stages in the development process. Visually the stages of the ADDIE model are presented in Figure 1.

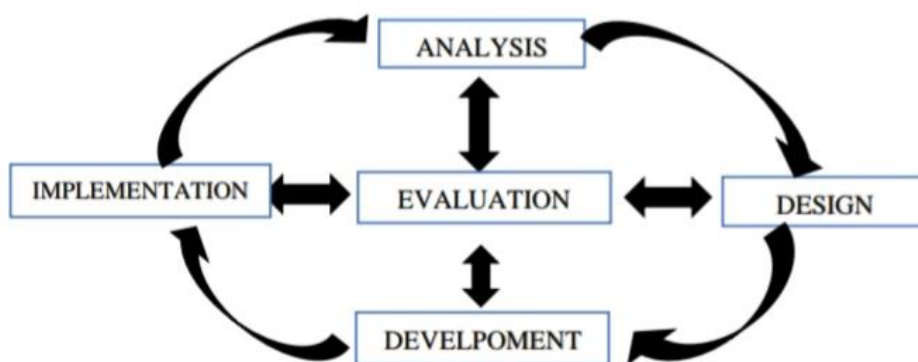


Figure 1. Stages of the ADDIE Model

The subjects in this study were panpuzfape media, while the objects in the development research were media content validity, user response, and media effectiveness. Data collection methods used in this study are observation, interviews, questionnaires, and tests. The questionnaire method was used to collect data regarding the validity and practicality of the product being developed. Test methods are used to collect data regarding the effectiveness of the products used. The instruments used for data collection were observation guidelines, rating scale sheets, interviews, and questionnaires. The instrument grids used in data collection can be presented in Table 1, Table 2, Table 3, Table 4 and Table 5.

Table 1. Media Expert Instrument Grid

| No | Aspect | Indicators | Item Number | Number of Items |
|------------------------|------------------------------------|-------------------------|-------------|-----------------|
| 1 | General principles of visual media | Media concept | 1,2,3,4, | 4 |
| 2 | Graphical eligibility | Design | 5,6,7 | 3 |
| 3 | Ease of use of media | Clarity of use of media | 8,9,10 | 3 |
| Number of Items | | | | 10 |

Table 2. Grid of Material Expert Instruments

| No | Aspect | Indicators | Items Number | Number of Items |
|------------------|---------------------|-------------------|--------------|-----------------|
| 1 | Content eligibility | Material | 1,2,3,4, | 4 |
| 2 | Learning design | Learning | 5,6,7 | 3 |
| 3 | Language | Language features | 8,9,10 | 3 |
| Numbers of Items | | | | 10 |

Table 3. Practitioner (Teacher) Response Instrument Grid

| No | Aspect | Indicators | Items Number | Number of Items |
|------------------------|------------------------------------|-------------------------|--------------|-----------------|
| 1 | Content eligibility | Material | 1,2,3,4, | 4 |
| 2 | Learning design | Learning | 5,6,7 | 3 |
| 3 | Language | Language features | 8,9,10 | 3 |
| 4 | General Principles of Visual Media | Media concept | 11,12,13,14, | 4 |
| 5 | Graphical eligibility | Design | 15,16,17 | 3 |
| 6 | Ease of use of media | Clarity of use of media | 18,19,20 | 3 |
| Number of Items | | | | 20 |

Table 4. Student Response Instrument Grid

| No | Aspect | Indicators | Item Number | Number of Items |
|------------------------|------------------------------------|-------------------------|--------------|-----------------|
| 1 | Content eligibility | Material | 1,2,3,4, | 4 |
| 2 | Learning design | Learning | 5,6,7 | 3 |
| 3 | Language | Language features | 8,9,10 | 3 |
| 4 | General Principles of Visual Media | Media concept | 11,12,13,14, | 4 |
| 5 | Graphical eligibility | Design | 15,16,17 | 3 |
| 6 | Ease of use of media | Clarity of use of media | 18,19,20 | 3 |
| Number of Items | | | | 20 |

Table 5. Grid for Testing the Effectiveness of Vanpus Vape Learning Media

| Fifth Class Theme 7 “Events in Life” | | | | | | | | |
|---|--------------------|---|--------|------------|---|-----------------|---------------------|---|
| Lesson Content | Basic competencies | | | Indicators | Cognitive Stage | Question Number | Number of Questions | |
| Civics education | 3.3 | Examine the diversity of society | the of | 3.3.1 | Analyzing socio-cultural diversity in the surrounding environment | C4 | 1,2 | 2 |
| | | | | 3.3.2 | Solve problems related to socio-cultural diversity in the surrounding environment | C4 | 3,4 | 2 |
| Indonesian Language | 3.5 | Digging important information from historical narrative texts presented orally and in writing using aspects: what, where, when, who, why, and how | | 3.5.1 | Determine the elements of narrative text | C3 | 5,6 | 2 |
| | | | | 3.5.2 | Analyze the elements contained in a narrative text | C4 | 7,8 | 2 |
| Nature Science | 3.7 | Analyze the effect of heat on | | 3.7.1 | Analyze the factors that cause changes | C4 | 9,10 | 2 |

| Fifth Class Theme 7 “Events in Life” | | | | | | | |
|--------------------------------------|--------------------|---|------------|--|-----------------|---------------------|---|
| Lesson Content | Basic competencies | | Indicators | Cognitive Stage | Question Number | Number of Questions | |
| Social Science | 3.4 | Identify the important factors that caused the colonization of the Indonesian people and the efforts of the Indonesian people to maintain their sovereignty | 3.7.2 | Criticize daily activities that can affect the shape of things | C5 | 11 | 1 |
| | | | 3.7.3 | Make ideas to prevent changes in the temperature of objects due to heat | C6 | 12 | 1 |
| | 3.4 | Identify the important factors that caused the colonization of the Indonesian people and the efforts of the Indonesian people to maintain their sovereignty | 3.4.1 | Explaining the causes of the colonization of the Indonesian people and the efforts of the Indonesian people in defending their sovereignty | C2 | 13,14,15 | 3 |
| | | | 3.4.2 | Assess solutions that have been implemented to overcome forced cropping systems | C5 | 16 | 1 |
| Cultural Arts and Crafts | 3.2 | Understanding scales | 3.2.1 | Guess the things that are needed in making folk songs | C2 | 17,18 | 2 |
| | | | 3.2.2 | Determine the songs contained in everyday life | C4 | 19,20 | 2 |
| Number of Items | | | | | | 20 | |

This study is using two data analysis techniques, namely qualitative analysis and quantitative analysis. A qualitative descriptive analysis method is used with the aim of proving the validity of learning media in the form of panpuzfape media from the data reviewed by validators and practitioners. Making decisions and giving meaning to the data obtained from the assessment of experts and practitioners uses a conversion reference level of attainment with a scale of four which can be presented in [Table 6](#).

Table 6. Conversion of Achievement Levels with a Scale of Four

| Achievement Level | Predicate/Qualification |
|-------------------|-------------------------|
| 76% - 100% | Very good |
| 56% - 75% | Good |
| 40% - 55% | Poor |
| 0 – 39% | Very poor |

Quantitative analysis method consists of two ways, namely descriptive statistics and inferential statistics. Descriptive statistics are used to process data obtained through questionnaires and rating scales with data in the form of scores. Meanwhile inferential statistics are used to analyze data and then used to generalize to the population where the sample was taken. Inferential statistical analysis is used to test the research hypothesis which includes prerequisite tests and t-test Correlated sample tests to test the research hypothesis.

3. RESULT AND DISCUSSION

Result

Document Study

Based on the explanation above, a document study was carried out on the learning outcomes of fifth grade students to support the results of direct observations and interviews that were conducted at SD Negeri 4 Penarukan. The document study on the learning outcomes of fifth grade students at SD Negeri 4 Penarukan can be seen in Table 7.

Table 7. Recapitulation of Thematic Learning Outcomes

| No | School Name | Class | Minimum completeness criteria | The number of students | Students who achieve Minimum completeness criteria | | Students Who Have Not Reached Minimum completeness criteria | |
|----|---------------------|-------|-------------------------------|------------------------|--|------|---|-----|
| | | | | | Students | % | Students | % |
| 1 | SD Negeri Penarukan | 4 V | 72 | 35 | 15 | 46% | 20 | 54% |
| | Amount | | | 35 | 15 | 46% | 20 | 54% |
| | Average | | | 35 | 63.4 | 46 % | 73.7 | 54% |

Based on this Table 7, most of the learning outcomes of fifth grade students in thematic learning are still relatively low with a percentage of 54%. Efforts that can be offered to overcome these problems are to develop appropriate and creative media in learning. One of the media that will be developed is panpuzfape media. The development of panpuzfape media is carried out to improve learning outcomes for thematic learning. This research is relevant to be carried out because there are already several experts who have conducted similar research.

Panpuzfape Media Design

The panpuzfape media has the following components (1) The long box/main base of the panpuzfape media is made of thick cardboard with adhesive glue measuring 1m x 2m. On the long box/main base, the media name and ornaments that support the panpuzfape media are listed. Apart from that, in making the long box/main base it was designed using the Canva software application. (2) Instructions for using the media were made from A4 paper that had been cut to A3 size (29.7 cm x 42.0 cm). Designing instructions is using the Canva and Microsoft Word software applications. (3) The puzzle pieces for each material are made of cardboard with a size of 5 x 5 cm. The material discussed in the puzzle media is Civic Education, Social Science, Natural Science, Art and Culture, Indonesian Language. The board to arrange the puzzle pieces is 25 x 30.48 cm in size.

Panpuzfape Media Validity

Testing the validity of this development research is reviewed from two main aspects, namely (1) testing the validity of Panpuzfape media according to learning material experts; (2) testing the validity of panpuzfape media according to learning media experts. The recapitulation of the results of the panpuzfape media validity assessment can be presented in Table 8.

Table 8. Results of the Panpuzfape Media Validity Assessment

| No | Subject | Validity Percentage | Qualification |
|----|---------------------------|---------------------|---------------|
| 1 | Learning Materials Expert | 86% | Very good |
| 2 | Learning Media Expert | 86% | Very good |

Panpuzfape Media Practicality and Effectiveness

The practicality test in this development research is viewed from the assessment of the teacher as a learning practitioner as a user of Panpuzfape media. The practicality of the developed Panpuzfape media is assessed by practitioners with a score percentage of 94.5% and is in very good qualification.

Hypothesis testing in this study was carried out using a correlated sample t-test. Based on the results of the correlation sample t-test analysis using the help of the IBM SPSS Statistics 22 for Windows program, a significance value (2-tailed) of 0.000 was obtained. This result shows that the significance level is less than 0.05

($p < 0.05$), so H_0 is rejected and H_1 is accepted. Thus it can be seen that there is a significant influence of panpuzfape media on the theme of events in life on the learning outcomes of fifth grade students at SD Negeri 4 Penarukan.

Discussion

This development research produced panpuzfape media products to improve the learning outcomes of fifth grade elementary school students. The process of developing panpuzfape media products in this study follows the ADDIE development model so that it has implications for the feasibility of the resulting product. The ADDIE model consists of five stages, namely the analysis stage, the design stage, the development stage, the implementation stage, and the evaluation stage (Rustandi & Rismayanti, 2021; Setiawan et al., 2021). This model is arranged systematically according to the sequence of activities so that it can help solve learning problems according to the needs and characteristics of students. According to product development steps, this research and development model is more rational and more complete than other models, so that the use of the ADDIE development model can produce valid and quality products (Andriani et al., 2022; Reny et al., 2021).

This panpuzfape media has through a validation process. Media validation was carried out twice, namely material expert validation and media expert validation. This validation is carried out to assess the product being developed as well as providing criticism and suggestions so that the product being developed is valid/fit for use (Sutrisno & Puspitasari, 2021; Wibowo & Mufidah, 2022). The use of panpuzfape media is appropriate. This is in line with the results of the study which stated that the puzzle media developed was categorized as very feasible with an average of all aspects of media assessment of 83.35% and the research developed was categorized as very feasible with an average of 93.75% (Asari et al., 2019; Husna et al., 2017). Research which states that the results of material validation get a percentage of 95% and the validation of media experts get a percentage of 96%, so it is said that the puzzle media is very feasible to use. In addition, the validation results from material experts obtained a percentage of 92.02% and the validation results from media experts obtained a percentage of 89.35% so that it was said that puzzle media was very feasible to use (Febyanita & Wardhani, 2017; Rahayu, 2018).

Panpuzfape media received very good qualifications because this Panpuzfape media is made of simple and easy-to-find materials. This is in line with the opinion which states that cardboard materials are easily obtained or obtained to make media that will be developed by teachers so that they are able to arouse and motivate students in thematic learning (Fath & Muslim, 2022; Maryana et al., 2021). Learning media is very good and easy to use. In addition, puzzle learning media can also help students be more active and not bored in participating in learning process (Firdaus, 2018; Maryana et al., 2021). The use of panpuzfape learning media will be able to attract students' attention and make students active in learning so that the material will be conveyed properly and learning objectives are easier to achieve (Aziz et al., 2016; Nurfadhillah et al., 2021).

The development of panpuzfape learning media in thematic learning content is effectively used for learning outcomes because it is in accordance with student learning styles and can improve student learning in following the learning process. This is in line with the statement which states that puzzle media is designed for interactive learning and can improve student learning outcomes in fifth grade students (Darmawan et al., 2019; Pramudiani et al., 2014). Puzzle media is effectively used in science learning and influences the improvement of student learning outcomes (Devi & Intan, 2020; Wibowo & Mufidah, 2022). The benefits of Panpuzfape learning media in the learning process include: (1) teaching will attract more students' attention, so that it can foster learning motivation, (2) teaching materials will be clearer in meaning so that they can be better understood by students and enable students to understand them, (3) teaching methods will be more varied, not solely verbal communication through the narration of words by the teacher, so that students are not bored and the teacher does not run out of steam, (4) students do more learning activities, because they not only listen to the teacher's description but also other activities such as observing, doing, demonstrating, and others to support the learning process (Ahdar, 2018; Neteria et al., 2020).

4. CONCLUSION

The development of panpuzfape media on the theme of events in life on the learning outcomes of fifth grade elementary school students using the ADDIE development model has produced products that are valid, practical, and effectively applied in the learning process so that they can make it easier for students to understand subject matter and can improve learning outcomes for fifth grade students in elementary school. The utilization of panpuzfape learning media in thematic learning content proves to be beneficial for learning outcomes as it aligns with students' individual learning preferences and enhances their learning throughout the educational process.

5. REFERENCES

Abdullah, D., & Maryati, T. (2019). Pengaruh Media Audio Visual Terhadap Hasil Belajar Siswa Kelas V Sekolah

- Dasar. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, 13. <https://doi.org/10.23969/jp.v4i2.2166>.
- Afnibar, D. F. (2021). Pemanfaatan Whatsapp Sebagai Media Komunikasi Antara Dosen Dan Mahasiswa Dalam Menunjang Kegiatan Belajar. *Dedikasimu : Journal of Community Service*, 3(4), 1139. <https://doi.org/10.15548/amj-kpi.v0i0.1501>.
- Ahdar. (2018). Pengembangan Media Pembelajaran Powerpoint Padu Musik Terhadap Antusiasme Siswa Dalam Pembelajaran Ilmu Sosial. *Media Komunikasi Sosial Keagamaan*, 18, 287–302. <https://doi.org/10.21274/dinamika.2018.18.2.287-302>.
- Andriani, N. M., Tegeh, I. M., & Suarjana, I. M. (2022). Pembelajaran Berbasis Phenomenon Based Learning untuk Mengatasi Fenomena Learning Loss Siswa Sekolah Dasar. *Jurnal Ilmiah Pendidikan Dan Pembelajaran*, 6(3). <https://doi.org/10.23887/jipp.v6i3.57502>.
- Asari, A., Kurniawan, T., Ansor, S., & Putra, A. B. N. R. (2019). Kompetensi Literasi Digital Bagi Guru dan Pelajar di Lingkungan Sekolah Kabupaten Malang. *BIBLIOTIKA: Jurnal Kajian Perpustakaan Dan Informasi*, 3(2), 98–104. <http://journal2.um.ac.id/index.php/bibliotika/article/view/11592>.
- Aziz, A. N., Sugiman, S., & Prabowo, A. (2016). Analisis Proses Pembelajaran Matematika pada Anak Berkebutuhan Khusus (ABK) Slow Learner di Kelas Inklusif. *Kreano, Jurnal Matematika Kreatif-Inovatif*, 6(2), 111. <https://doi.org/10.15294/kreano.v6i2.4168>.
- Casnan, C., Purnawan, P., Firmansyah, I., & Triwahyuni, H. (2022). Evaluasi Proses Pembelajaran Dengan Pendekatan Systems Thinking. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 12(1), 31–38. <https://doi.org/10.24246/j.js.2022.v12.i1.p31-38>.
- Darmawan, L. A., Reffiane, F., & Baedowi, S. (2019). Pengembangan Media Puzzle Susun Kotak Pada Tema Ekosistem. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 3(1), 14. <https://doi.org/10.23887/jppp.v3i1.17095>.
- Devi, A., & Intan, N. M. (2020). Pengembangan Media Pembelajaran Puzzle Angka untuk Meningkatkan Kemampuan Mengenal Lambang Bilangan. *Jurnal Ilmiah Pendidikan Profesi Guru*, 3(3), 416. <https://doi.org/10.23887/jippg.v3i3.28331>.
- Dzo'ul Milal, A., Rohmah, Z., Kusumajanti, W., Basthomi, Y., Sholihah, D. N., & Susilowati, M. (2020). Integrating character education in the english teaching at islamic junior high schools in Indonesia. *Teflin Journal*, 31(1). <https://doi.org/10.15639/teflinjournal.v31i1/88-107>.
- Eva, R. P. V. B., Sumantri, M. S., & Winarsih, M. (2020). Media Pembelajaran Abad 21: Komik Digital Untuk Siswa Sekolah Dasar. *Jurnal Pendidikan Dasar*, 1–8. <http://journal.unj.ac.id/unj/index.php/psdpd/article/view/17744>.
- Fadilah, N. U., & Suparwoto, S. (2016). Keterlaksanaan pembelajaran fisika implementasi kurikulum 2013 berdasarkan latar belakang akademik guru di MAN DIY. *Jurnal Inovasi Pendidikan IPA*, 2(1), 76. <https://doi.org/10.21831/jipi.v2i1.8380>.
- Fath, A. M. Al, & Muslim, A. H. (2022). Penggunaan Media Kgw (Karton Gambar Wayang) Pada Pembelajaran Tematik Kelas V Di Sdn Pendem II Sragen. *Taman Cendekia: Jurnal Pendidikan Ke-SD-An*, 6(1), 21–32. <https://doi.org/10.30738/tc.v6i1.12203>.
- Fatimah, A. S., & Santiana, S. (2017). Teaching in 21St Century: Students-Teachers' Perceptions of Technology Use in the Classroom. *Script Journal: Journal of Linguistic and English Teaching*, 2(2), 125. <https://doi.org/10.24903/sj.v2i2.132>.
- Febyanita, I., & Wardhani, D. A. P. (2017). Pengembangan Media Puzzle Materi Siklus Air Untuk Meningkatkan Motivasi Belajar Siswa. *Jurnal Inovasi Penelitian*, 1(1), 37–42. <https://doi.org/10.47492/jip.v1i1.221>.
- Firdaus, A. (2018). Pendekatan Matematika Realistik dengan Bantuan Puzzle Pecahan untuk Siswa Sekolah Dasar. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 8(3), 243–252. <https://doi.org/10.24246/j.js.2018.v8.i3.p243-252>.
- Hasanah, N. (2020). Pelatihan Penggunaan Aplikasi Microsoft Power Point sebagai Media Pembelajaran Pada Guru SD Negeri 050763 Gebang. *Jurnal Pengabdian Kepada Masyarakat*, 1(2). <http://jurnal.stkipalmaksum.ac.id/index.php/jpkm/article/download/113/123>.
- 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>.
- Husna, N., Sari, S. A., & Halim. (2017). Pengembangan Media Puzzle Materi Pencemaran Lingkungan di SMP Negeri 4 Banda Aceh. *Jurnal Pendidikan Sains Indonesia (Indonesian Journal of Science Education)*, 5(1), 66–71. <https://jurnal.unsyiah.ac.id/JPSI/article/view/8413>.
- Idzhar, A. (2016). Peran Guru dalam Meningkatkan Motivasi Belajar Siswa Sekolah Dasar. *Jurnal Office*, 2(2). http://download.garuda.kemdikbud.go.id/article.php?article=695657&val=11128&title=peranan_guru_dalam_meningkatkan_motivasi_belajar_siswa.
- Julaeha, S. (2019). Problematika Kurikulum dan Pembelajaran Pendidikan Karakter. *Jurnal Penelitian Pendidikan Islam*, 7(2), 157. <https://doi.org/10.36667/jppi.v7i2.367>.

- Kurniaman, O., & Noviana, E. (2017). Penerapan Kurikulum 2013 Dalam Meningkatkan Keterampilan, Sikap, Dan Pengetahuan. *Primary: Jurnal Pendidikan Guru Sekolah Dasar*, 6(2), 389. <https://doi.org/10.33578/jpfkip.v6i2.4520>.
- Londa, A. H. (2018). Penggunaan Media Puzzle untuk Meningkatkan Hasil Belajar Peserta Didik pada Pembelajaran IPA. *Journal of Elementary School (JOES)*, 1(2), 113–120. <https://doi.org/10.31539/joes.v1i2.359>.
- Maghfiroh, & Shofia Suryana, D. (2021). Media Pembelajaran Untuk Anak Usia Dini di Pendidikan Anak Usia Dini. *Jurnal Pendidikan Tambusai*, 05(01), 1561. <https://jptam.org/index.php/jptam/article/view/1086>.
- Mahardika, C., & Siswoyo, A. A. (2021). Pengembangan Media Pembelajaran Kotak Komponen Ekosistem (KOKOSIS) untuk Sekolah Dasar. *JUDIKDAS: Jurnal Ilmu Pendidikan Dasar Indonesia*, 1(1), 39–50. <https://doi.org/10.51574/judikdas.v1i1.184>.
- Maryana, W., Rahmawati, L., & Malaya, K. A. (2021). Penggunaan Permainan Puzzle Carakan dalam Pembelajaran Menulis Aksara Jawa di Sekolah Dasar. *Jurnal Pendidikan Dasar Nusantara*, 7(1). <https://doi.org/10.29407/jpdn.v7i1.16157>.
- Neteria, F., Mulyadiprana, A., & Respati, R. (2020). Puzzle sebagai Media Pembelajaran Inovatif dalam Mata Pelajaran IPS Bagi Guru di Sekolah Dasar. *PEDADIDAKTIKA: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 7(4), 82–90. <https://doi.org/10.17509/pedadidaktika.v7i4.25809>.
- Nurfadhillah, S., Dzakiyyah Shadiqa, C., Reki Refaldi, R., Nindy Hasri, T., & Muhammadiyah Tangerang, U. (2021). Pengembangan Media Visual Sebagai Upaya Menyampaikan Materi Pembelajaran Di Sekolah Dasar Negeri Muncul 1. *BINTANG: Jurnal Pendidikan Dan Sains*, 3(1), 177–197. <https://www.ejournal.stitpn.ac.id/index.php/bintang/article/view/1290>.
- Nurhasanah, S., & Sobandi, A. (2016). Minat belajar sebagai determinan hasil belajar siswa. *Jurnal Pendidikan Manajemen Perkantoran*, 1(1), 128–135. <https://doi.org/10.17509/jpm.v1i1.3264>.
- Pane, A., & Dasopang, M. D. (2017). Belajar Dan Pembelajaran. *FITRAH: Jurnal Kajian Ilmu-Ilmu Keislaman*, 3(2), 333. <https://doi.org/10.24952/fitrah.v3i2.945>.
- Pangastuti, R. (2019). Media Puzzle untuk Mengenal Bentuk Geometri. *Jeced: Journal of Early Childhood Education and Development*, 1(1), 50–59. <https://doi.org/10.15642/jeced.v1i1.496>.
- Pradja, N. S., & Tresnawati, N. (2018). Pengaruh Motivasi Belajar Dan Disiplin Siswa Terhadap Prestasi Belajar Siswa. *Equilibrium: Jurnal Penelitian Pendidikan Dan Ekonomi*, 14(02), 54–59. <https://doi.org/10.25134/equi.v14i02.1128>.
- Pramudiani, H., Widianti, T., & Peniati, E. (2014). Penerapan Pendekatan Accelerated Learning Disertai Media Puzzle Terhadap Aktivitas Dan Hasil Belajar. *Unnes Journal of Biology Education*, 3(2), 164–171. <https://doi.org/10.15294/jbe.v3i2.4456>.
- Putra, R. D. O., Rusmawan, & Suyatini, M. M. (2022). Pengaruh Problem Based Learning Berbantuan Media Puzzle Terhadap Minat Belajar Siswa SD. *Jurnal Pendidikan Dan Konseling*, 4(4). <https://doi.org/10.31004/jpdk.v4i4.5588>.
- Rahayu, S. (2018). Pengembangan Media Pembelajaran Crossword Puzzle Mata Pelajaran Penataan Barang Dagang Kelas XI Pemasaran SMK Negeri 1 Jombang. *Jurnal Pendidikan Tata Niaga*, 06, 198–203. <https://doi.org/10.26740/jptn.v6n3.p%25p>.
- Rejeki, R., Adnan, M. F., & Siregar, P. S. (2020). Pemanfaatan Media Pembelajaran pada Pembelajaran Tematik Terpadu di Sekolah Dasar. *Jurnal Basicedu*, 4(2), 337–343. <https://doi.org/10.31004/basicedu.v4i2.351>.
- Reny, R. R., Hutapea, N. M., & Saragih, S. (2021). Pengembangan Perangkat Pembelajaran Matematika Berbasis Model Problem Based Learning untuk Memfasilitasi Kemampuan Pemecahan Masalah Siswa Kelas VIII SMP/MTs. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 5(1), 701–717. <https://doi.org/10.31004/cendekia.v5i1.369>.
- Rustandi, A., & Rismayanti. (2021). Penerapan Model ADDIE dalam Pengembangan Media Pembelajaran di SMPN 22 Kota Samarinda. *Jurnal Fasilkom*, 11(2), 57–60. <https://doi.org/10.37859/jf.v11i2.2546>.
- Saputro, K. A., Sari, C. K., & Winarsi, S. (2021). Pemanfaatan Alat Peraga Benda Konkret untuk Meningkatkan Motivasi dan Hasil Belajar Matematika di Sekolah Dasar. *Jurnal Basicedu*, 5(4), 1735–1742. <https://doi.org/10.31004/basicedu.v5i4.992>.
- Saski, N. H., & Sudarwanto, T. (2021). Kelayakan Media Pembelajaran Market Learning Berbasis Digital Pada Mata Kuliah Strategi Pemasaran. *Jurnal Pendidikan Tata Niaga*, 9(1), 1118–1124. <https://doi.org/10.26740/jptn.v9n1.p1118-1124>.
- Setiawan, H. R., Rakhmadi, A. J., & Raisal, A. Y. (2021). Pengembangan Media Ajar Lubang Hitam Menggunakan Model Pengembangan ADDIE. *Jurnal Kumparan Fisika*, 4(2), 112–119. <https://doi.org/10.33369/jkf.4.2.112-119>.
- Sinambela, P. N. J. M. (2017). Kurikulum 2013 dan Implementasinya dalam Pembelajaran. *Generasi Kampus*, 6(2). <https://jurnal.unimed.ac.id/2012/index.php/gk/article/view/7085>.
- Sri, R., Nasrullah, & Nur, A. (2022). Meningkatkan Hasil Belajar Matematika Melalui Benda Konkret Siswa SDN

- 1 Gunungan. *Global Science Education Journal*, 4(2). <https://sainsglobal.com/jurnal/index.php/ges/article/view/692>.
- Surya, Y. F. (2017). Penerapan model pembelajaran problem based learning untuk meningkatkan hasil belajar matematika siswa kelas IV SDN 016 Langgini Kabupaten Kampar. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 1(1), 38–53. <https://doi.org/10.31004/cendekia.v1i1.7>.
- Sutrisno, S., & Puspitasari, H. (2021). Pengembangan Buku Ajar Bahasa Indonesia Membaca dan Menulis Permulaan (MMP) Untuk Siswa Kelas Awal. In *Tarbiyah Wa Ta'lim: Jurnal Penelitian Pendidikan dan Pembelajaran* (Vol. 8, Issue 2, pp. 83–91). <https://doi.org/10.21093/twt.v8i2.3303>.
- 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>.
- Wibowo, A., & Mufidah, I. (2022). Media Puzzle Daur Hidup Hewan Untuk Menstimulasi Peningkatan Hasil Belajar Kognitif Siswa Sekolah Dasar. *Jurnal Educatio FKIP UNMA*, 8(2), 661–669. <https://doi.org/10.31949/educatio.v8i2.1848>.