

# Canva-based Digital Storybooks to Improve Pancasila Education Learning Outcomes for Fifth Grade of Elementary School

Noviana Astuti Damarsari<sup>1\*</sup>, Susilo Tri Widodo<sup>2</sup> 

<sup>1,2</sup> Department of Elementary School Teacher Education, Universitas Negeri Semarang, Semarang, Indonesia

\*Corresponding author: [novianaadd@students.unnes.ac.id](mailto:novianaadd@students.unnes.ac.id)

## Abstrak

Media pembelajaran merupakan komponen penting dalam sebuah pembelajaran untuk merangsang siswa untuk belajar dan tujuan pembelajaran dapat tercapai. Tujuan penelitian ini yaitu mengembangkan media pembelajaran buku cerita digital pada muatan Pelajaran Pendidikan Pancasila yang baik, efektif dan berkualitas, untuk mendukung peningkatan hasil belajar siswa. Jenis penelitian ini masuk dalam kategori penelitian dan pengembangan (Research and Development/R&D) dengan menerapkan model Borg and Gall. Responden pada penelitian ini adalah siswa Kelas V sekolah dasar dengan total siswa sebanyak 20 peserta didik. Kemudian pada penelitian ini melibatkan ahli media dan ahli materi untuk memberikan validasi terhadap media yang dikembangkan. Dalam proses pengumpulan data pada penelitian ini dilakukan melalui wawancara, validasi ahli, kuisioner tanggapan, serta lembar pretest dan post-test. Penelitian ini menghasilkan antara lain: Buku cerita digital sangat layak digunakan dan hal ini dapat terlihat dari penilaian yang diperoleh dari ahli isi materi pembelajaran yang memperoleh presentase 90,38% (sangat layak) serta ahli media pembelajaran memperoleh presentase 90,38% (sangat layak), dari hasil tanggapan buku cerita digital dinilai sangat praktis, buku cerita digital terbukti efektif berdasarkan hasil uji N-gain, dimana terdapat peningkatan nilai rata-rata post-test dengan nilai rata-rata pretest. Hal ini menunjukkan bahwa media pembelajaran buku cerita digital sangat layak untuk digunakan dan dapat meningkatkan hasil belajar siswa kelas V sekolah dasar pada muatan pelajaran Pendidikan Pancasila.

**Kata kunci:** Pengembangan, Buku Cerita, Pendidikan Pancasila, Digital

## Abstract

Learning media is an important component in learning to stimulate students to learn and learning objectives can be achieved. This research aims to develop digital storybook learning media on Pancasila Education subject content that is good, effective, and quality, to support the improvement of student learning outcomes. This type of research falls into the category of research and development (R&D) by applying the Borg and Gall model. Respondents in this study were fifth grade students with a total of 20 students. Then this research involves media experts and material experts to provide validation of the developed media. The data collection process in this study was carried out through interviews, expert validation, response questionnaires, and pretest and post-test sheets. This research resulted in, among others: digital storybooks are very feasible to use and this can be seen from the assessment obtained from learning material content experts who obtained a percentage of 90.38% (very feasible) and learning media experts obtained a percentage of 90.38% (very feasible); from the results of digital storybook responses rated very practical; digital storybooks are proven to be effective based on the results of the N-gain test, where there is an increase in the average value of the post-test with the average value of the pretest. This shows that digital storybook learning media is very feasible to use and can improve the learning outcomes of fifth grade students on the content of Pancasila Education.

**Keywords:** Development, Story Books, Pancasila Education, Digital

### History:

Received : April 17, 2024

Accepted : July 2, 2024

Published : July 25, 2024

**Publisher:** Undiksha Press

**Licensed:** This work is licensed under a Creative Commons Attribution 4.0 License



## 1. INTRODUCTION

Education always moves with the times. Law Number 20 of 2003 concerning the National Education System Education is a conscious and planned effort to create a learning atmosphere and learning process in which students can actively develop their potential. Knowledge is proliferating with the help of technology and the development of human thought. In the field of education, especially to improve the quality of education and learning in Indonesia, the development of technology, information, and communication has a very important role (Ngo et al., 2022; Supriyanto et al., 2020). In overcoming learning problems,

growing interest in learning, and the learning process in its implementation, technology has an important role (Angga et al., 2020; Borch, 2022).

With the times, the education system or policy in Indonesia often changes. Often both students and teachers experience difficulties in following changing education policies. Changes in education policy make teachers and students adapt again to the new rules in the implementation of education itself (Mo et al., 2022; Pappas et al., 2018). Where students are required to be more active in learning activities and teachers are required to be able to provide stimuli that can stimulate students' thinking so that students have a high interest in learning. Where the development of technology teachers are also required to master expertise and be able to adapt to technology, the success of a lesson can be seen from the success of students in understanding learning materials (Angga et al., 2020; Torres-Gastelú & Kiss, 2016). Teachers are required to be innovative in carrying out learning activities so that the delivery of material can be well received by students and learning objectives can be achieved (Arisandhi et al., 2023; D. K. Dewi & Sunarso, 2020). At this time teachers are also required to master technology and create new things that can support the achievement of learning goals. Education is said to be successful if the learning objectives are achieved.

However, based on the researcher's findings in the field, the researcher found a few problems faced by teachers and students in the learning process. The problem lies in the less-than-optimal use of IT-based learning media (Torres-Gastelú & Kiss, 2016; Wati & Widiansyah, 2020). The teacher only uses video media from YouTube which is then displayed through a projector. The learning outcomes of students in the content of Pancasila Education lessons are still relatively low. This is evidenced by document data that shows student learning outcomes. The formative value with KKTP (Criteria for Achievement of Learning Objectives) set on the Pancasila Education model. Students scored below KKTP (Murdiono et al., 2014; Sahruli et al., 2017). During learning, students are less enthusiastic about participating in learning activities, especially in learning Pancasila Education. In addition, class conditions are less conducive because many students are not focused on paying attention to the explanations given by the teacher. Pancasila Education learning is a subject content that requires high creativity from students so that students can understand the material presented by the teacher (Elvira & Fitriza, 2023; Sahruli et al., 2017). Another problem is that the content of Pancasila Education lessons is considered boring for students because they must memorize a lot of material.

The solution to overcome these problems is that teachers can use digital media that can make students focus on the material and explanations delivered by the teacher. Picture storybooks are one of the learning media teaching materials that can attract students' interest and attention. Picture storybooks can help children easily understand learning materials. Because of its attractive appearance illustrated storybooks can make it easier for students to understand the material contained in the storybook (Apriliani & Radia, 2020; Wardani & Ayriza, 2020). In addition, the media of illustrated storybooks in which some pictures represent the content of the story, can make children interested in learning and strengthen their memory of the content of the material in the storybook. The characteristics of storybooks have a simple writing style, the material or content of storybooks can be easily understood by students, and storybooks are concise (Achmad et al., 2018; Hendratno et al., 2022).

Learning media has a very important role in learning. At this time learning media is one of the important components for teachers to provide learning resources for students who do not only act as learning resources. Learning media can be one of the tools that can provide stimulation to students' thinking. Learning media is the main component of learning resources or physical materials that contain learning materials that can stimulate students to learn (Lampropoulos et al., 2019; Smiciklas, 2012).

The use of digital learning media has proven to be effective in learning, this is evidenced by a significant increase in grades when using digital learning media compared to using traditional media or learning resources (Azmi Alwi, 2023). Digital learning media is digital learning media that works with digital data or can produce digital images that can be processed/made, and accessed through digital devices (Mursyidin et al., 2022). Therefore, teachers are expected to develop and use digital-based learning media. To develop digital learning media can be done through various applications or platforms.

Canva is one of the many apps that can be used to create learning media. The Canva app has many different features that can be used by teachers to create interesting digital learning media. The Canva application is an online design application in which there are various graphic design features such as creating presentations, brochures, posters, charts, and more (Rahmawati et al., 2022; Wulandari & Mudinillah, 2022). With the various graphic design features and easy use of the application, this can help teachers support learning, namely when creating digital learning media. In addition, using the Canva application to design and create learning media makes learning more interesting and motivates students.

The purpose of this study was to develop a digital storybook learning media based on Canva to improve the learning outcomes of Pancasila Education subject content of Grade V students of SDN Patemon 02. Some previous studies have revealed that the use of storybooks can attract students' attention and interest in reading (Danaei et al., 2020). This means that the use of storybook media can be implemented in learning so that students have a high interest in learning. The use of digital storybook media can improve learning and student interest in learning materials (Faizah et al., 2023). The increase in learning that takes place, can improve student learning outcomes because the success of learning is influenced by student learning outcomes. Following the development of existing technology, the novelty in this research is that researchers develop storybooks that are presented in digital form so that they are easy to access for students, in which there are videos relevant to the stories presented, making it easier for students to understand Pancasila education material that usually relies on memorization. The developed media is also presented attractively with pictures. It is hoped that this Canva-based digital storybook media can help students learn and facilitate students' understanding of the material delivered by the teacher.

## **2. METHODS**

This type of research is development research (R&D/research and Development) using the Borg and Gall research model. The steps of this development model are potential and problem analysis, data collection, product design, design validation, usage trials, product revision, product trials, design revision, product revision, and mass production (Borg, W.R. & Gall, 2013). This development model was chosen. It is considered appropriate and suitable for the type of research conducted because later in this study it will produce a product and test the effectiveness of the product, namely a digital storybook based on Canva. The respondents in this study were Class V from SDN Patemon 02 with a total of 20 students. Participants in this study were divided into two groups, namely small groups, and large groups. Where a small group of 6 students was selected through a purposive sampling technique to test the use of the product on a small scale. Then at the same time, a large group consisting of 14 students participated to test the use of the product on a large scale. In addition, the class teacher was also involved as a resource person during the analysis of potential problems.

Analysis of potential problems consisting of curriculum, material analysis, and needs in this study using literature studies and field studies. The data in this study are quantitative data and qualitative data. In this study, quantitative data was obtained through test techniques in the form of data on student learning outcomes during the pretest and post-test. The data is

presented in tabular form which has been processed through the N-Gain test. Meanwhile, qualitative data is data presented in verbal or word form. In this study, qualitative data was obtained through non-test techniques (Deril Sukma & Dyah, 2020; Nawir & Khaeriyah, 2019). Data in the study were collected through two techniques, namely using non-test techniques and test techniques. Non-test techniques include observation, interviews, and questionnaires. Data collection with test techniques in the form of pretest and post-test questions in the form of multiple-choice questions totaling 25 questions.

### **3. RESULTS AND DISCUSSION**

#### **Results**

This research creates Canva-based digital storybook learning media on Pancasila Education's subject matter on student rights and obligations. Potential and problem analysis in this study consisted of curriculum, material, and needs analysis in this study conducted through library research and field research. Based on the results of observations and interviews that have been performed. The problem obtained during learning activities is the less-than-optimal utilization of technology as a learning medium. There are school facilities in the form of chrome books whose use has not been optimized. So these things become the main problem of students becoming less interested in learning.

Data collection in this study was carried out through observation, interviews, and questionnaires. The interview was conducted directly with the fifth-grade teacher of SDN Patemon 02. Based on the results of the interview, shows that the learning outcomes of fifth-grade students in the Pancasila Education subject content are still relatively low. Students feel bored when learning activities take place. During learning activities, students also do not focus on the material explained by the teacher. The lack of optimal use of digital-based media is one of the causes. Media learning resources that are usually used by teachers are limited to YouTube videos and textbooks. By considering the facilities owned by schools to support digital-based media, the use of these facilities has not been maximized. Researchers developed digital-based media, namely digital storybook media that can be accessed through school facilities in the form of chrome books. In developing digital storybook media, researchers used a questionnaire of teacher and student needs.

The digital storybook media that researchers want to make contains material on rights and obligations in grade V which emphasizes the material on the rights and obligations of students at school and home. The media developed contains illustrated storybooks containing material on the rights and obligations of students at school and home, also equipped with videos of the application of rights and obligations connected to YouTube. The storybook media was developed and designed using the Canva application. Then through the Canva application, a digital book is made through the feature of turning the design into a flipbook which is directly connected to the heyzine.

The first step to developing a digital storybook is designing a storybook by determining the subject matter to be presented, and then creating a story that matches the subject matter, after the story is finished, illustrations are made that match the story by considering the layout. This media design process is important so that the media can be systematically designed and easy to develop. Then the researcher collects images and videos that will be added to the storybook and chooses the appropriate font for the storybook. At the end of the page in the storybook, researchers did not forget to add a list of references to the development of storybook products.

The next step is to develop the product through the Canva application by the design that has been made. Researchers must also mix and match images and illustrations to create a good blend. Thus, the depiction of the story in the digital storybook can be conveyed clearly. Then the researcher also includes a video link to an example of an application that

matches the material in the storybook. The video link is directly connected to YouTube. After the storybook has been developed, it is then converted into a flipbook with Canva which is directly connected to the heyzine. Digital storybook cover is show in [Figure 1](#).



**Figure 1.** Digital Storybook Cover

Base on [Figure 1](#), the cover contains the title of the storybook about the rights and obligations of students at school and home. In the bottom right corner of the cover, there is a navigation button to move to the next page. An instruction for using page is show in [Figure 2](#).



**Figure 2.** Instructions for using Page

Base on [Figure 2](#), the instructions for use page contain a media usage guide that includes an explanation of how to use the media with the aim that its use can be easier and more efficient. There is a picture story that contains lesson material on student rights and obligations. With the illustrated story, it can facilitate students' understanding of the material. There is a video link to the application of student rights and obligations which will be directly connected to YouTube. The developed product was tested by expert validators first before use. There are two expert validators involved in this study, namely learning media experts and material experts. [Table 4](#) shows the results of the expert validator trials.

**Table 4.** Table of Expert Validation Results

No	Validation Type	Percentage	Criteria
1	Material expert validation	90.38%	Very Feasible
2	Media expert validation	90.38%	Very Feasible

After the product was tested by experts, the product was tested on Grade V students of SDN Patemon 02. As in the data shown based on the results of validation by material and media experts, students of SDN Patemon 02 tested this product without revision.

After product validation involving media experts and material experts, the product is considered ready and very feasible to be tested in small groups. Respondents in this initial trial were Class V students of SDN Patemon 02, totaling 6 students. Respondents were selected based on a purpose sampling technique with certain criteria. Purpose sampling is a sampling technique with certain considerations. 6 Grade V students of SDN Patemon 02 who were used as a small group were taken with the provisions of 2 students who were ranked at the top of the class, 2 students who were ranked in the middle, and 2 students who were ranked two and below.

After conducting an initial trial, a large group of 14 Grade V students of SDN Patemon 02 was ready to be used to test the developed product, namely the Canva-based digital storybook. The sampling technique used during the usage trial was the saturated sampling technique. Where this technique includes the entire population as a sample in the usage trial.

The usage trial was conducted with the same treatment as the initial trial. After completing the pretest questions, learning took place using the developed product, then students were given post-test questions, after which students were asked to fill out a response questionnaire. The results of the pretest and post-test scores were used to determine the effectiveness of the product using the N-gain test. The data obtained from the results of the large group N-Gain test is show in [Table 5](#).

**Table 5.** Table of N-Gain Test

No	Data	Pretest	Post-test
1	Average	56.86	85.71
2	N-Gain		0.7
3	N-Gain (%)		65.6%
4	Category		Medium
5	Effectiveness Interpretation		Moderately effective

Based on [Table 5](#), the trial use of the product, student scores have increased from pretest to posttest. Student scores during the pretest with an average of 56.86 increased to an average of 85.71 during the posttest. Then the N-Gain test obtained a value of 0.7 in the medium category. The percentage of N-Gain value is 65.6% with the poduk category being quite effective. Furthermore, through the student response questionnaire, the percentage of responses was 92% which was classified as high.

### Discussion

Based on the results of data analysis, Canva-based digital storybook learning media is valid for use in learning. This media gets a percentage of 90.38% from material experts who say that this product is very suitable for use. This product also received a percentage of 90.38% from material experts so this media is considered very feasible to use. In addition, the media developed can be said to be valid due to several factors. First, this media can increase motivation and attract students' attention when learning. Learning media is one of the tools that can provide stimulation to students so that learning can go well ([Dewi & Manuaba, 2021](#); [Hariyono & Darnoto, 2018](#)). The use of learning media can increase the level of student focus so that students feel happy and enthusiastic about participating in learning activities ([Amanda et al., 2019](#); [Larasati & Rustandi, 2022](#); [Wulandari & Mudinillah, 2022](#)). The development of digital storybook media that is presented attractively with story illustrations and appropriate color combinations, can attract students' interest and motivation to learn. Moreover, this media can be accessed easily using the facilities available at school. Learning media presented in visual form can improve student learning outcomes, by attracting attention that can motivate students to pay more attention to the teacher's explanation ([Nomleni & Manu,](#)

2018). Learning motivation that exists within oneself is a dynamic component of learning. A lack of enthusiasm for learning can make student achievement poor. Thus, increasing learning motivation is very important in learning which can affect student learning outcomes. Increased learning motivation will make students focus on participating in learning activities.

Second, this learning media makes it easier for students to understand the material presented by the teacher. The use of media in the form of digital storybooks packaged in the form of flipbooks can make it easier for students to learn because the material is presented in an attractive form and accompanied by videos so that it is easy to understand (Abror et al., 2020; Churiyah et al., 2022; Wulandari & Mudinillah, 2022). This digital storybook learning media is presented with image visualization by the content of the material. The use of images in storybooks helps make it easier for students to visualize theories that can be explained easily (Pranajaya et al., 2022; Sahruli et al., 2017). The creation of a Canva-based digital storybook with a focus on the material of student rights and obligations made for students of SDN Patemon 02 is presented in a straightforward and easy-to-understand language. The depiction of stories related to daily activities at school and home can help students more easily understand the content of the material so that it can improve student learning outcomes. With a product effectiveness test level of 65.6% using the N-Gain test, it can be concluded that the product developed is quite effective. The utilization of digital storybooks can improve student learning outcomes. The average student pretest score of 56.86 increased to an average of 85.71 during the post-test which showed an increase in student learning outcomes. Then through the student response questionnaire got a percentage of 92%. This percentage is high and shows that this digital storybook media is very practical to use.

In line with research conducted which revealed that the use of media in the form of digitally illustrated storybooks can increase students' interest in learning (Al Mamun et al., 2022). Other researchers also revealed that learning media presented in visual form such as storybooks and digital comics can attract students' interest in learning (Oktaviana & Ramadhani, 2023). Based on this, it can be concluded that the utilization of Canva-based digital storybook media is very important in learning activities. The advantages of digital storybooks are an attractive appearance that contains learning material in the form of text, images, and stories presented with a combination of images and illustrations that are presented by the content of the material, and digital storybooks can be accessed anytime and anywhere (Mncube & Mthethwa, 2022; Muslim et al., 2021). In addition, digital storybooks can also be linked to video links that are directly connected to YouTube. The addition of videos will add clarity to the understanding of the material presented.

The results of this study can be used as the development of science in the field of Pancasila Education in elementary school. In addition, the development of this storybook media can increase students' understanding of the material presented by the teacher. So it is hoped that students can improve their learning outcomes. This research implies that it can increase motivation, and interest and attract students' attention to focus on learning so that student learning outcomes increase. For teachers, the development of this storybook can facilitate the delivery of material. For other researchers, this research can increase knowledge on how to develop digital storybook media using Canva and can be used as a reference for other research and as a comparison.

The limitation of this study is in developing digital book media, namely, the research time used in this study is relatively short even though the learning implementation process requires a longer time. The research was only carried out until the trial use stage in the field. Suggestions for future researchers by looking at the limitations of the study are to conduct research over a long period so that the implementation of learning can be achieved with good quality and the results of the study can be more accurate, the research is not carried out only until the trial use stage in the field but through the evaluation stage where the product must be readjusted or revised by revising the design and product.

#### 4. CONCLUSION

Learning media in the form of Canva-based digital storybooks gets good qualifications from experts and students. This media gets a high percentage from material experts who state that this product is considered very feasible to use. This product also received a high percentage from material experts so this media was categorized as very feasible to use. In addition, this media received a high percentage of practical responses from students and can be said to be very practical. Based on the results of the N-Gain test, this media can be said to be quite effective, where the average student score during the pretest increases compared to the average score during the post-test. The increase in value shows that in addition to being effective, this media can improve student learning outcomes with the presentation of material through digital storybooks. The use of this media can also increase motivation and attract students' attention during learning.

#### 5. REFERENCES

- Abror, M., Suryani, N., & Ardianto, D. T. (2020). Digital Flipbook Empowerment as A Development Means for History Learning Media. *JPI (Jurnal Pendidikan Indonesia)*, 8(2), 266. <https://doi.org/10.23887/jpi-undiksha.v8i2.24122>.
- Achmad, A., Wahyu, A., & Khotimah, K. (2018). Pengembangan Media Buku Cerita Elektronik Materi Hak Dan Kewajiban Mata Pelajaran Ppkn Siswa Kelas V Sdn 1 Sungonlegowo Gresik. *Jurnal Mahasiswa Teknologi Pendidikan*, 9, 1–6. <https://core.ac.uk/download/pdf/230608658.pdf>.
- Al Mamun, M. A., Lawrie, G., & Wright, T. (2022). Exploration of learner-content interactions and learning approaches: The role of guided inquiry in the self-directed online environments. *Computers & Education*, 178, 104398. <https://doi.org/10.1016/j.compedu.2021.104398>.
- Amanda, N., Reffiane, F., & Arisyanto, P. (2019). Pengembangan Media Budel (Buku Berjendela) pada Tema Keluargaku. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 3(2), 97. <https://doi.org/10.23887/jppp.v3i2.17384>.
- Angga, P. M. W., Sudarma, I. K., & Suartama, I. K. (2020). E-Komik Pendidikan Untuk Membentuk Karakter Dan Meningkatkan Hasil Belajar Siswa Kelas V Pada Mata Pelajaran Bahasa Indonesia. *Jurnal Edutech Undiksha*, 8(2), 93. <https://doi.org/10.23887/jeu.v8i2.28920>.
- Apriliani, S. P., & Radia, E. H. (2020). Pengembangan Media Pembelajaran Buku Cerita Bergambar Untuk Meningkatkan Minat Membaca Siswa Sekolah Dasar. *Jurnal Basicedu*, 4(4), 994–1003. <https://doi.org/10.31004/basicedu.v4i4.492>.
- Arisandhi, G. A. M. M., Wibawa, I. M. C., & Yudiana, K. (2023). Flipbook : Media Pembelajaran Interaktif Untuk Meningkatkan Kognitif IPA Siswa Sekolah Dasar. *MIMBAR PGSD Undiksha*, 11(1), 165–174. <https://jbasic.org/index.php/basicedu/article/view/3596>.
- Azmi Alwi, N. (2023). Pengaruh Media Kamus Digital Terhadap Hasil Belajar Bahasa Indonesia Siswa Kelas Iv Sd. *LITERASI: Jurnal Ilmiah Pendidikan Bahasa, Sastra Indonesia Dan Daerah*, 13(1), 143–152. <https://doi.org/10.23969/literasi.v13i1.6836>.
- Borch, C. (2022). Machine learning, knowledge risk, and principal-agent problems in automated trading. *Technology in Society*, 68(October 2021), 101852.1-10. <https://doi.org/10.1016/j.techsoc.2021.101852>.
- Borg, W.R. & Gall, M. D. (2013). *Educational Research An Introduction Eighth Edition*. Longman Inc.
- Churiyah, M., Basuki, A., Filianti, F., Sholikhhan, S., & Fikri Akbar, M. (2022). Canva for



- Education as a learning tool for center of excellence Vocational School (SMK Pusat Keunggulan) Program to prepare competitive graduates in the field of creativity skills in the digital age. *International Journal of Social Science Research and Review*, 5(3), 226–234. <https://doi.org/10.47814/ijssrr.v5i3.228>.
- Danaei, D., Jamali, H. R., Mansourian, Y., & Rastegarpour, H. (2020). Comparing reading comprehension between children reading augmented reality and print storybooks. *Computers and Education*, 153, 103900. <https://doi.org/10.1016/j.compedu.2020.103900>.
- Deril Sukma, Y., & Dyah, L. (2020). Pengembangan Media Interaktif Berbasis HTML5 Digital Story Pocketbook Muatan Pembelajaran Bahasa Indonesia Kelas IV. *Jurnal Persada*, 4(2), 60–67. <http://jurnal.ummi.ac.id/index.php/persada/article/view/2111>.
- Dewi, D. K., & Sunarso. (2020). Strategi Pembentukan Ketahanan Pribadi Siswa Berbasis Nilai-Nilai Pancasila Untuk Membangun Kesadaran Bernegara (Studi Di SMA Taruna Nusantara Magelang Jawa Tengah). *Jurnal Ketahanan Nasional*, 26(1), 40–54. <https://doi.org/10.22146/jkn.53132>.
- Dewi, N. L. P. S., & Manuaba, I. B. S. (2021). Pengembangan Media Pembelajaran Powerpoint Interaktif pada Mata Pelajaran IPA Siswa Kelas VI SD. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 5(1), 76–83. <https://jurnal.stkipggritrenggalek.ac.id/index.php/tanggap/article/view/42>.
- Elvira, S., & Fitriza, Z. (2023). Analysis of the Structure and Content of the Independent Curriculum on Basic Law of Chemistry. *Journal of Educational Sciences*, 7(2), 358. <https://doi.org/10.31258/jes.7.2.p.358-368>.
- Faizah, N., Listyarini, I., & Murdhhati, E. (2023). Pengembangan Media Cerita Bergambar Digital pada Pembelajaran IPS Siswa Kelas 5 SDN Kalicari 01. *Jurnal Pendidikan Tambusai*, 7(1), 3819–3825. <http://download.garuda.kemdikbud.go.id/article.php?article=3403634&val=13365>.
- Hendratno, H., Yermiandhoko, Y., & Yasin, F. N. (2022). Development of interactive story book for ecoliteration learning to stimulate reading interest in early grade students elementary school. *IJORER: International Journal of Recent Educational Research*, 3(1), 11–31. <https://doi.org/10.46245/ijorer.v3i1.179>.
- Lampropoulos, G., Siakas, K., & Anastasiadis, T. (2019). Internet of Things in the Context of Industry 4.0: An Overview. *International Journal of Entrepreneurial Knowledge*, 7(1), 4–19. <https://doi.org/10.2478/ijek-2019-0001>.
- Larasati, M., & Rustandi, A. (2022). Empowering student's creative writing ability by using Canva (A case study research in one junior high school in Ciamis). *JEEP: Journal of English Education Program*, 9(2), 101–110. [https://doi.org/10.25157/\(jeep\).v9i2.8548](https://doi.org/10.25157/(jeep).v9i2.8548).
- Mncube, L. S., & Mthethwa, L. C. (2022). Potential ethical problems in the creation of open educational resources through virtual spaces in academia. *Heliyon*, 8(6), e09623.1–8. <https://doi.org/10.1016/j.heliyon.2022.e09623>.
- Mo, C. Y., Jin, J., & Jin, P. (2022). Relationship Between Teachers' Teaching Modes and Students' Temperament and Learning Motivation in Confucian Culture During the COVID-19 Pandemic. *Frontiers in Psychology*, 13(May), 1–12. <https://doi.org/10.3389/fpsyg.2022.865445>.
- Murdiono, M., Miftahudin, M., & Kuncorowati, P. . (2014). The Education of the National Character of Pancasila in Secondary School Based on Islamic Boarding Schools. *Educational Horizon*, 36(3), 423–434. <https://doi.org/10.21831.36.3.15399>.
- Mursyidin, M. G., Wahyudi, K. P., & Ahmala, M. (2022). Utilization of Digital Application as English Learning Media. *English Education: English Journal for Teaching and Learning*, 10(2), 186–204. <https://doi.org/10.24952/ee.v10i2.6748>.
- Muslim, F., Refnida, R., Chen, D., & Wirayuda, R. P. (2021). Macroeconomic Digital Book

- Development: How are the Feasibility of Experts and Student Responses? *Journal of Education Technology*, 5(3), 501–510. <https://doi.org/10.23887/jet.v5i3.38280>.
- Nawir, M., & Khaeriyah, H. (2019). Efektivitas Model Pembelajaran Kooperatif Tipe Student Facilitator and Explaining terhadap Hasil Belajar Matematika Peserta Didik Kelas VIII SMP Negeri 18 Lau Kabupaten Maros. *Jurnal Ilmiah Pendidikan Matematika*, 2(Efektivitas Model Pembelajaran Kooperatif), 100–108. <http://www.ejournals.umma.ac.id/index.php/equals/article/view/422>.
- Ngo, T. T., Vu, N. K. T., & Chi Phan, T. (2022). Developing Self-Study Competence of Students through Experiential Activities in the Digital Environment. *Indonesian Journal Of Educational Research and Review*, 5(2). <https://doi.org/10.23887/ijerr.v5i2.50359>.
- Nomleni, F. T., & Manu, T. S. N. (2018). Pengembangan Media Audio Visual dan Alat Peraga dalam Meningkatkan Pemahaman Konsep dan Pemecahan Masalah. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 8(3), 219–230. <https://doi.org/10.24246/j.js.2018.v8.i3.p219-230>.
- Oktaviana, M., & Ramadhani, S. P. (2023). Pengembangan Media Pembelajaran IPA Berbasis Komik Digital Untuk Meningkatkan Hasil Belajar Kognitif Siswa. *Jurnal Ilmiah Profesi Pendidikan*, 8(1), 48–56. <https://doi.org/10.29303/jjpp.v8i1.1090>.
- Pappas, M. A., Papoutsi, C., & Drigas, A. S. (2018). Policies, practices, and attitudes toward inclusive education: The case of Greece. *Social Sciences*, 7(6). <https://doi.org/10.3390/SOCSCI7060090>.
- Pranajaya, S. A., Rijal, M. K., Ramadan, W., Azhar, A., Rijal, M. K., & Ramadan, W. (2022). The Distinction of Merdeka Curriculum in Madrasah through Differentiated Instruction and P5-PPRA. *Sustainable Jurnal Kajian Mutu Pendidikan*, 5(2), 463–478. <https://doi.org/10.32923/kjmp.v5i2.3447>.
- Rahmawati, Y., Komariah, K., & Kurniawan, D. T. (2022). The Development of Flipbook Based on the Addie Model in Science Learning for Elementary School Students. *International Journal of Learning and Instruction (IJLI)*, 4(2), 56. <https://doi.org/10.26418/ijli.v4i2.59356>.
- Sahruli, A., Widodo, R., & Budiono, B. (2017). Implementasi Pendidikan Karakter Berbasis Budaya Religius. *Jurnal Civic Hukum*, 2(1), 1. <https://doi.org/10.22219/jch.v2i1.9898>
- Smiciklas, M. (2012). *The Power of Infographics: Using Pictures to Communicate and Connect With Your Audiences*.
- Supriyanto, A., Hartini, S., Irdasari, W. N., Miftahul, A., Oktapiana, S., & Mumpuni, S. D. (2020). Teacher professional quality: Counselling services with technology in Pandemic Covid-19. *Counsellia: Jurnal Bimbingan Dan Konseling*, 10(2), 176. <https://doi.org/10.25273/counsellia.v10i2.7768>.
- Torres-Gastelú, C. A., & Kiss, G. (2016). Perceptions of students towards ICT competencies at the University. *Informatics in Education*, 15(2), 319–338. <https://doi.org/10.15388/infedu.2016.16>.
- Wardani, A., & Ayriza, Y. (2020). Analisis kendala orang tua dalam mendampingi anak belajar di rumah pada masa pandemi Covid-19. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 5(1), 772–782. <https://doi.org/10.31004/obsesi.v5i1.705>.
- Wati, E. K., & Widiansyah, N. (2020). Design of learning media: Modeling & simulation of building thermal comfort optimization system in building physics course. *Jurnal Pendidikan IPA Indonesia*, 9(2), 257–266. <https://doi.org/10.15294/jpii.v9i2.23504>.
- Wulandari, T., & Mudinillah, A. (2022). Efektivitas penggunaan aplikasi canva sebagai media pembelajaran IPA MI/SD(translation:The effectiveness of using the Canva application as a medium for learning MI / SD science). *Jurnal Riset Madrasah Ibtidaiyah (JURMIA)*, 2(1), 102–118. <https://journal.unugiri.ac.id/index.php/jurmia/article/view/245>.