



# Development of Canva-Based Digital Flipbook Learning Media for IPAS Subject on Respiratory System

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**Abstract:** The lack of utilization of technology-based learning media at SDN 1 Sendangharjo affects the learning outcomes of students. This study is a research and development study that refers to the ADDIE model (Analyze, Design, Development, Implementation, and Evaluation). This study aims to develop and test the feasibility, practicality, and effectiveness of a Canva-based Digital Flipbook. The population in this study consisted of 46 people with 12 subjects for a small-scale test on sixth-grade students and 24 subjects for a large-scale test on fifth-grade students at SDN 1 Sendangharjo. Data collection techniques used were tests (pretest-posttest) and non-tests in the form of observations, questionnaires, interview results, and document data. Validation results by media, material, and language expert validators showed that the Canva-based Digital Flipbook met valid criteria. Based on the pretest-posttest results, it was found that the Canva-based Digital Flipbook is effective in improving students' learning outcomes, as shown by the increase in the average pretest score from 50 to 80 at the posttest, with an N-Gain test result of 0.61 in the medium category. Based on the response questionnaire distributed, very positive responses were obtained from teachers and students. From these results, it can be concluded that the Canva-based Digital Flipbook is effective in improving students' learning outcomes and is feasible and practical to use in IPAS learning on the respiratory system material in the fifth grade at SDN 1 Sendangharjo.

**Keywords:** Canva; Digital Flipbook; Learning Outcomes; IPAS

## Introduction

Natural and Social Sciences (IPAS) is one of the subjects included in the Merdeka Curriculum. The hallmark of the Merdeka Curriculum is the integration of Natural Sciences (IPA) and Social Sciences (IPS) into Natural and Social Sciences (IPAS). This integration is based on the consideration that elementary school students tend to perceive everything holistically and integrated. The merging of IPA and IPS subjects is expected to encourage students to manage the natural and social environment as a unified whole.

However, in practice, there are still issues at the elementary school level, particularly in IPAS learning, where certain materials are difficult for students to understand, making the learning less effective (Landina

& Agustiana, 2022; Ružičić, 2021). This issue arises because the use of technology-based learning media has not been maximized in IPAS learning, affecting student learning outcomes (Hardiansyah & Mulyadi, 2022; Holisoh et al., 2023). Another problem in IPAS learning is the use of conventional or printed learning media, which fails to capture students' interest (Fiteriani et al., 2023). Additionally, the limited use of learning media in IPAS lessons causes students to lack critical thinking skills, which impacts their motivation and learning outcomes (Landina & Agustiana, 2022; Musnidar et al., 2022).

The researcher also identified the above problems in the fifth grade at SDN 1 Sendangharjo. Based on observations and interviews, the researcher found issues in IPAS lessons where students were reluctant to read

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texts. Moreover, the lack of media in IPAS learning was also a problem. The learning media used for IPAS only included pictures, YouTube videos, and concrete objects from the surroundings. In the teaching process, teachers have not fully utilized technology-assisted learning media. Often, during IPAS lessons, students feel sleepy and bored because they just watch YouTube videos. In the teaching process, teachers only use the teacher's book, the student's book, and worksheets. However, the material coverage in the teacher's book and student's book is incomplete, leading to a lack of enthusiasm among students for learning and difficulties in understanding the material. These various issues impact the learning outcomes of students in IPAS. There are students whose scores are below the Minimum Mastery Criteria (KKM) set for IPAS learning. Data recap of student scores at SDN 1 Sendangharjo revealed that out of 24 students, 17 students (71%) did not meet the KKM, while 7 students (29%) met the KKM, which is set at 70.

The solution to overcome the above issues is to develop innovative, creative, and engaging technology-based learning media. Learning media can enhance students' interest and motivation, which is expected to improve their learning outcomes. This is supported by previous findings that state digital learning media can make learning more enjoyable and help students understand IPAS material (Apriliyani & Mulyatna, 2021; Djamahar et al., 2023; Sunami & Aslam, 2021). One of the media that can be used to enhance IPAS learning is the Canva-based Digital Flipbook. A Digital Flipbook is a tool that serves as an intermediary to help educators deliver learning materials, apart from printed books, to students, making it easier and more motivating for students to read anywhere and anytime (Landina & Agustiana, 2022; Ristanto et al., 2020; Setianingrum et al., 2022). A Digital Flipbook is also described as an electronic book that can be opened like a printed book and is supported with images, instructional videos, audio, or other animations (Ula et al., 2023). The advantages of Digital Flipbooks include presenting learning materials in the form of sentences, images, and videos, with attractive colors to capture students' attention, easy accessibility anytime and anywhere, and the ability to increase students' learning activity (Gustina & Wibowo, 2020; Putra et al., 2023; Setianingrum et al., 2022).

The development of this Digital Flipbook learning media will be based on Canva. Canva is an application that can be designed and accessed using a smartphone or laptop online, equipped with various types of designs such as presentations, posters, brochures, templates, infographics, pamphlets, resumes, and YouTube thumbnails (Rustiman & Mahdi, 2021; Tanjung & Faiza, 2019). Canva is one application that can be used to design learning media. The available features can be

developed as creatively as possible to make classroom learning more interactive and communicative, thus more enjoyable and easier to understand (Tri Wulandari & Adam Mudinillah, 2022). The advantages of Canva include increasing teachers' creativity in designing learning media, offering various graphic designs, templates, and animations, and being accessible via smartphone or laptop (Ilyas et al., 2023; Tanjung & Faiza, 2019). The use of technology for learning media like Canva-based Digital Flipbooks can attract students' interest and motivation to learn (Hidayah et al., 2023). Previous research findings indicate that Canva-based Digital Flipbooks can improve students' learning outcomes in science lessons and enhance critical thinking skills (Hardiansyah & Mulyadi, 2022; Suyasa et al., 2021). Additionally, this learning media can help students enhance their critical thinking skills in solving problems (Landina & Agustiana, 2022; Yomaki et al., 2023). The use of Canva-based Digital Flipbooks in IPAS learning is crucial to address issues, especially in materials that are still considered difficult by students (Hidayah et al., 2023; Qumillaila, 2022).

Based on this background, the researcher conducted a study to develop a Canva-based Digital Flipbook learning media to improve student learning outcomes on the respiratory system in IPAS subjects for fifth-grade students at SDN 1 Sendangharjo. The purpose of this research and development is to test the feasibility, practicality, and effectiveness of the developed product. The development of this Digital Flipbook uses the Canva application utilizing Heyzine Flipbooks features. This Digital Flipbook development can facilitate students as it can be accessed anytime and anywhere. The Digital Flipbook includes material from various sources, both written, video, and audio. This Digital Flipbook development will also incorporate instructional videos and practice questions that can be observed and worked on by students.

## Method

The type of research used is Research & Development (R&D), which aims to produce a Canva-based Digital Flipbook learning media to improve the learning outcomes of the respiratory system material in the IPAS subject for fifth-grade students at SDN 1 Sendangharjo. In the research and development of the Canva-based Digital Flipbook learning media, the researcher follows a development procedure consisting of 5 steps: (1) Analysis; (2) Design; (3) Development; (4) Implementation; and (5) Evaluation (Sugiyono, 2019). The research scheme is illustrated in Figure 1.

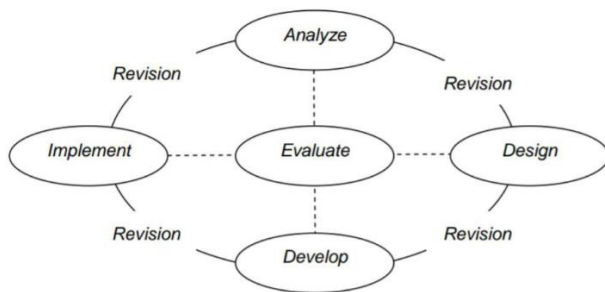


Figure 1. ADDIE Model Diagram

The analysis phase is conducted to understand the curriculum, needs, student characteristics, and existing technology in the school by conducting interviews, observations, distributing needs questionnaires to teachers and students, and documenting data in the form of learning outcomes of fifth-grade students at SDN 1 Sendangharjo. The next phase is product design, starting with drafting and creating the product framework. Once the product is designed, the development phase involves integrating the collected materials according to media creation. After the product is finalized, design validation is conducted by competent expert validators in their respective fields, namely media experts, material experts, and language experts.

The next phase is product implementation, tested on a small scale with sixth-grade students consisting of 12 students using purposive sampling techniques. During the product trial phase, learning is conducted using the Canva-based Digital Flipbook learning media. After the learning session, teachers and students are asked to fill out a response questionnaire regarding the use of the Canva-based Digital Flipbook learning media. Following this, a larger-scale product trial is conducted. The researcher tests the product with 24 fifth-grade students in the 2023/2024 academic year to determine the effectiveness of the developed product based on the students' learning outcomes. The final phase is evaluation. This evaluation is carried out after the use of the Canva-based Digital Flipbook during learning by providing evaluation questions to the students. The purpose of this evaluation is to determine the difference in students' learning outcomes before and after using the Canva-based Digital Flipbook.

## Results and Discussion

### Analysis

Based on the preliminary research results, several issues were identified: the teaching tools used by teachers do not yet utilize technology such as LCD projectors, WiFi facilities, or the use of smartphones and laptops. The learning media used by teachers are still

conventional, resulting in students being less active in learning. Additionally, many fifth-grade students' science learning outcomes have not met the Minimum Competency Criteria (KKM), which is set at 70. Out of 24 students, only 7 (29%) met the KKM, while the remaining 17 (71%) did not.

The initial data collection conducted by the researcher included curriculum analysis through interviews with classroom teachers, revealing that the curriculum used is the 2013 Curriculum and the Independent Curriculum. Subsequently, a needs analysis was conducted using questionnaires distributed to teachers and students regarding the desired learning media. The data collection results showed that the material in teacher and student books is not comprehensive. Although teachers have used learning media, it has not been maximized to attract students' attention and motivation. The available teaching materials at the school also do not sufficiently meet the material needs.

Teachers need additional learning media to expand students' understanding of the respiratory system material. The learning media should be developed into an engaging Flipbook with color choices, images, and videos to improve student learning outcomes. Teachers need a technology-based Flipbook using digital media, specifically a Canva-based Digital Flipbook, with material suitable for the students' characteristics and language that is concise and clear for easy comprehension. Teachers suggested including more images and videos to help students understand the material better. Students need engaging learning media and agree to use a Canva-based Digital Flipbook with smartphones, laptops, or Chromebooks during learning. The material in the Digital Flipbook should include videos to enhance understanding, and the evaluation questions in the Digital Flipbook should be in multiple-choice format.

### Product Design

The Digital Flipbook is designed according to the Learning Outcomes and Learning Objectives to be achieved in the IPAS subject on the respiratory system. The Digital Flipbook is designed with a concept that includes text, images, and videos suitable for the students' characteristics to be easily understood by them. The Digital Flipbook is created by preparing materials and designing through the Canva application.

### Product Development

The designed Digital Flipbook, created through Canva, will be finalized in Heyzine Flipbooks for further editing, including the addition of videos and evaluation exercise links. The final product will be hosted on the web and shared with students via a link, requiring



internet access to use the Canva-based Digital Flipbook. The Canva-based Digital Flipbook comprises the following sections:



Figure 2. Front Cover



Figure 8. Experiment and Evaluation Questions

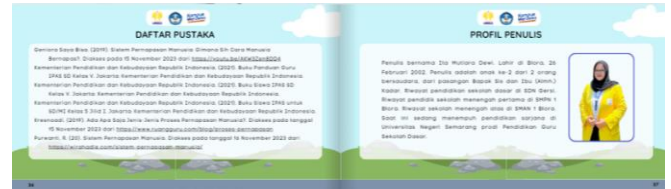


Figure 9. Bibliography and Author Profile

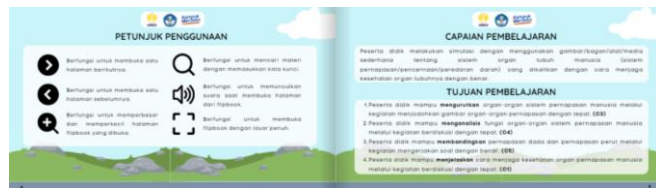


Figure 3. Instructions for Use, Learning Outcomes, and Learning Objectives

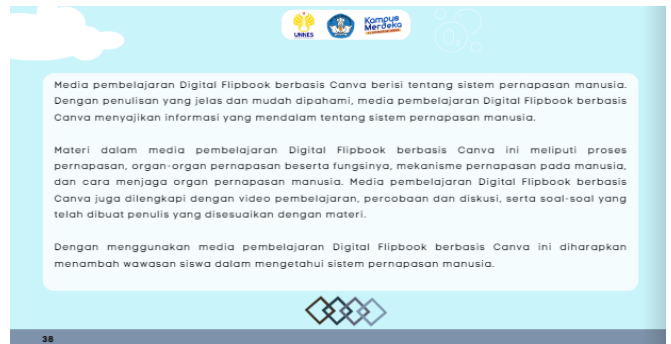


Figure 10. Back Cover



Figure 4. Learning Stimulus



Figure 5. Learning Materials and Videos



Figure 6. Material



Figure 7. Material

The steps in designing a product include: 1. Preparation of materials, format, and layout for customized material design. 2. Creation of the product design. 3. Implementation of Canva, specifically Heyzine Flipbook, in the creation of the Digital Flipbook.

*Feasibility of Canva-Based Digital Flipbook Design Validation*

At this stage, the researcher will conduct product validation with competent media expert validators, including lecturers from the Primary School Teacher Education study program, material experts such as lecturers in the Natural Science subject from the Primary School Teacher Education study program, and language experts from the Indonesian Language and Literature Education study program, to test the feasibility of the product. After being evaluated by the validators, suggestions the product developed by the researcher will be provided, allowing the researcher to revise the developed product.

**Table 1.** Results of Expert Validation of the Canva-Based Digital Flipbook

| Feasibility Aspect | Validation Index (%) | Information |
|--------------------|----------------------|-------------|
| Media Display      | 96.8                 | Valid       |
| Material           | 92.1                 | Valid       |
| Language           | 70.3                 | Valid       |

Table 1 shows that the validation results provided by the validators are valid and fall into the criteria of feasible and very feasible. The Canva-based Digital Flipbook is declared valid in terms of overall media appearance, content, and language and is ready for trial. This aligns with other research, indicating that the validation results of Digital Flipbook development from media experts obtained a score of 89%, and from material experts obtained a score of 88.06%, both categorized as very feasible (Parinduri et al., 2022). These results demonstrate that the developed Digital Flipbook is feasible and can be used as an alternative additional learning media in the IPAS learning process in elementary schools. Other research also states that the validation results of Digital Flipbook development from material experts obtained a score of 88.95%, from media experts obtained a score of 90.57%, and from language experts obtained a score of 86.25% (Putra et al., 2023).

Design Revision

The researcher revises the design according to suggestions from media, material, and language experts. The suggestions from the media expert validator include completing the front cover with the subject identity and the researcher's identity layout, and adding a page for the advisor's profile. The suggestions from the material expert validator include adding character introductions and adjusting the first and second learning stimuli. The suggestions from the language expert validator involve correcting the text according to language rules, improving the layout of conversation texts, adding numbering to images, changing the gform link to bit.ly, and correcting the bibliography according to proper writing standards.



Figure 13. Learning Stimulus Before Revision



Figure 14. Addition of Character Introduction and Learning Stimulus After Revision



Figure 15. Image Display Before Revision

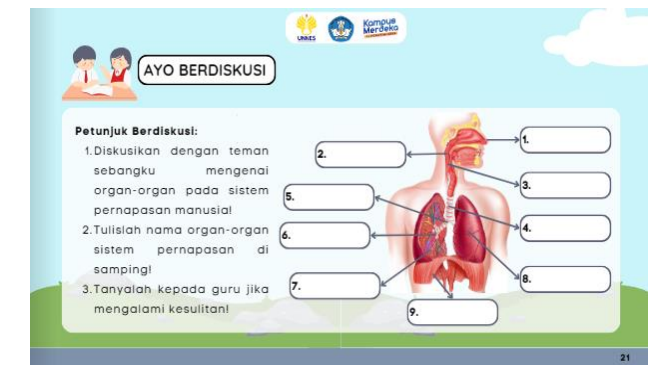


Figure 16. Image Display After Revision



Figure 11. Front Cover Before Revision



Figure 12. Front Cover After Revision

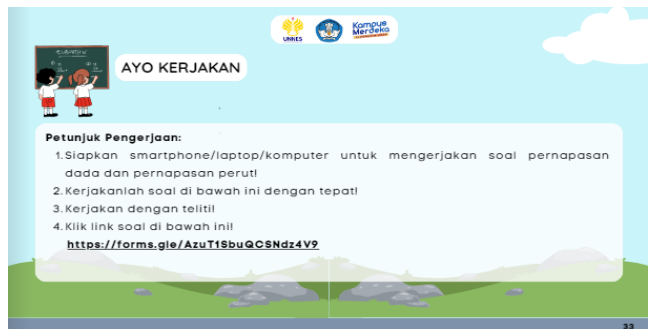


Figure 17. View of the Evaluation Question Link Before Revision



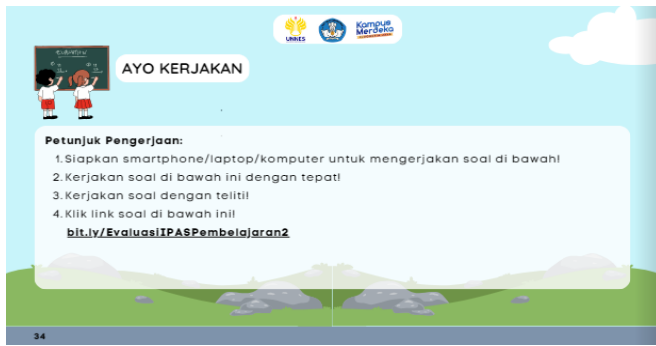


Figure 18. View of the Evaluation Question Link After Revision



Figure 19. Bibliography before revision



Figure 20. Bibliography After Revision



Figure 21. View Before Revision



Figure 22. Addition of Supervisor Profile

Practicality of Canva-Based Digital Flipbook (Product Trial) Implementation

This implementation is carried out with small-scale and large-scale trials. In the small-scale trial, there were 12 sixth-grade students selected heterogeneously based on their ability levels: 4 low-achieving students, 4 medium-achieving students, and 4 high-achieving students. After the students engage in the learning process, both students and teachers are provided with a response sheet containing 11 questions based on the Guttman scale, to be filled out according to their experience using the product developed by the researcher. The questionnaire has the following rating criteria: 1. Very positive if the score is 76%-100%, 2. Positive if the score is 51%-75%, 3. Fairly positive if the score is 26%-50%, 4. Less positive if the score is 0%-25%

$$NP = \frac{R}{SM} \times 100\% \quad (1)$$

The calculation to measure the percentage of responses from teachers and students is as follows: to test the practicality of the Canva-based Digital Flipbook, questionnaires were distributed to gather responses from teachers and students covering two aspects: the presentation of content and technical quality, and the presentation of the media. These were further divided into four indicators: the presentation of content, the impact of the content on students, usage instructions, and the appearance of the media.

Table 2. Teacher and Student Responses to the Canva-Based Digital Flipbook on a Small Scale

| Respondent Assessment | Information         |
|-----------------------|---------------------|
| Teacher               | 100% Very positive  |
| Student               | 97.5% Very positive |

Table 2 shows that the responses from teachers and students to the Canva-Based Digital Flipbook are very positive, as they scored above 75%. Thus, the Canva-Based Digital Flipbook is deemed very positive and practical based on the 11 Guttman scale questions, as almost all questions scored a 1. Therefore, no product revisions were needed in the small-scale trial. This aligns with previous research indicating that teacher and student response questionnaires scoring above 75% show very positive results, meaning the Digital Flipbook is practical for use in learning (Handika et al., 2022; Hardiansyah & Mulyadi, 2022).

Table 3. Teacher and Student Responses to the Canva-Based Digital Flipbook on a Large Scale

| Respondent Assessment | Information         |
|-----------------------|---------------------|
| Teacher               | 100% Very positive  |
| Student               | 99.2% Very positive |

Table 3 shows that the responses from teachers and students to the Canva-Based Digital Flipbook are very positive, as they scored above 75%. Thus, the Canva-Based Digital Flipbook is deemed very positive and practical based on the 11 Guttman scale questions, as almost all questions scored a 1. This aligns with previous research indicating that teacher and student response questionnaires scoring above 75% show very positive results, meaning the Digital Flipbook is practical for use in learning (Ula et al., 2023; Yulaikhoh et al., 2023).

*Effectiveness of Canva-Based Digital Flipbook Evaluation*

The evaluation was carried out on a large scale using the Canva-Based Digital Flipbook in the IPAS subject on the respiratory system to determine the effectiveness of the product based on student learning outcomes. The design used is a pre-experimental design with a one-group pretest-posttest model, where a pretest is given before the treatment and a posttest is given after the study.

**Table 4.** Results of Normality Testing in Usage Trials

| Test type | Average | Average difference |
|-----------|---------|--------------------|
| Pretest   | 50.27   | 30.44              |
| Posttest  | 80.71   |                    |

Based on Table 4, it is known that the average student learning outcomes show an increase of around 30.44 in large-scale product trials. The data shows that there are differences in student learning outcomes regarding the content of the science and sciences subject, respiratory system material in class V of SDN 1 Sendangharjo, there are differences before and after using the Canva-based Digital Flipbook. To find out the criteria for increasing the pretest and posttest average, N-Gain testing was carried out by comparing the difference between SMI and pretest.

**Table 5.** Average N-Gain Test Results

| Average Difference N-Gain | Criteria |
|---------------------------|----------|
| 30.44                     | Medium   |
| 0.612                     |          |

Based on Table 5, the average difference of 30.44 in the large-scale product trial indicates that the scores of fifth-grade students at SDN 1 Sendangharjo increased by an average of 0.612, which falls under the medium criterion. This average increase demonstrates that the use of the Canva-Based Digital Flipbook in teaching the respiratory system material in the IPAS subject for fifth-grade students at SDN 1 Sendangharjo successfully improved their learning outcomes. This finding aligns with other research showing that the development of a Canva-assisted Flipbook can capture students' attention and enhance their learning outcomes on the

characteristics of living things (Rahmawati et al., 2022). Additionally, developing learning media using Canva can improve learning outcomes in the human locomotor system (Analia & Yogica, 2021). The Flipbook learning media used in teaching the respiratory system in fifth-grade science classes can improve student learning outcomes at SDN 2 Kerobokan Kelod (Made et al., 2021).

The Flipbook learning media for the fifth-grade respiratory system material at SDN 3 Peninjoan can make students more active and interested in learning, thereby improving learning outcomes (Luh Nuryani et al., 2021). The development of technology-based Flipbook learning media can also enhance scientific literacy and achieve learning objectives (Roemintoyo & Budiarto, 2021; Sari & Ahmad, 2021). This is consistent with other research indicating that using Flipbook learning media can improve scientific literacy and critical thinking skills in science learning (Musnidar et al., 2022; Nurwidiyanti & Sari, 2022; Sumarmi et al., 2021). Furthermore, other studies have shown that the developed Digital Flipbook can enhance scientific literacy for elementary school students (Anas & Hasibuan, 2023; Landina & Agustiana, 2022). The research found an improvement in student learning outcomes after using the Canva-Based Digital Flipbook, categorized as "high." This indicates that the Canva-Based Digital Flipbook is suitable and effective for use in learning as it can improve learning outcomes, scientific literacy, and critical thinking skills.

**Conclusion**

Based on the research conducted, it can be concluded that the Canva-Based Digital Flipbook can improve learning outcomes and scientific literacy in the IPAS subject on the respiratory system for fifth-grade students at SDN 1 Sendangharjo. This is evidenced by the product validation results, which received an average score of 86.4% in the "very feasible" category. The analysis of pretest and posttest scores showed an average increase of 30.44, with an N-Gain of 0.612, categorized as medium. This proves that the Canva-Based Digital Flipbook is feasible, practical, and effective in enhancing the learning outcomes of fifth-grade students in the IPAS subject on the respiratory system.

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### Author Contributions

Ita Mutiara Dewi contributed to conducting research, developing the product, analyzing data, and writing the article. Novi Setyasto served as the advisor in the research and writing activities.

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### Conflicts of Interest

The authors declare no conflicts of interest.

### References

- Analicia, T., & Yogica, R. (2021). Media Pembelajaran Visual Menggunakan Canva pada Materi Sistem Gerak. *Jurnal Edutech Undiksha*, 9(2), 260–266. <https://doi.org/10.23887/JEU.V9I2.38604>
- Anas, N., & Hasibuan, A. T. (2023). Development of Traditional Parmayaman-Based Digital Flifbooks in Increasing Scientific Literacy in the Disruptive Era. *Jurnal Penelitian Pendidikan IPA*, 9(4), 1813–1818. <https://doi.org/10.29303/jppipa.v9i4.3388>
- Apriliyani, S. W., & Mulyatna, F. (2021). Flipbook E-LKPD dengan Pendekatan Etnomatematika pada Materi Teorema Phytagoras. *Seminar Nasional Sains*, 2(1), 491–500. <https://proceeding.unindra.ac.id/index.php/sinasis/article/view/5389>
- Djamahar, R., Rahmah, S., Sartono, N., Ristanto, R. H., & Darmawan, E. (2023). Mind map-integrated digital flipbook of circulatory system (DFM-Circulatoria): Learning media development. *AIP Conference Proceedings*, 2595, 040009. <https://doi.org/10.1063/5.0123618>
- Fiteriani, I., Komikesari, H., Sabita, Y., Baharudin, Rahmayanti, H., Ichsan, I. Z., & Sison, M. H. (2023). E-Modules with flip builder based on natural science process skills for Islamic elementary school students (Madrasah Ibtidaiyah). *AIP Conference Proceedings*, 2595, 040013. <https://doi.org/10.1063/5.0141398>
- Gustina, E., & Wibowo, M. (2020). Improving Knowledge and Changing Health Attitude among Teenagers through Digital Media Flipbook. *Journal of Educational Science and Technology (EST)*, 6(1), 15–22. <https://doi.org/10.26858/est.v6i1.12136>
- Handika, H., Sesa, M. M., Ariyanti, M., Rissa, M., Fauriza, S., Zubaida, T., Wahyuni, M., & Masrul, M. (2022). Hubungan Kreativitas Guru Menggunakan Media Berbasis Canva Dengan Hasil Belajar Ipa Siswa Di Sekolah Dasar. *Refleksi Edukatika: Jurnal Ilmiah Kependidikan*, 13(1), 65–73. <https://doi.org/10.24176/re.v13i1.7140>
- Hardiansyah, F., & Mulyadi. (2022). Improve Science Learning Outcomes for Elementary School Students Through The Development of Flipbook Media. *Jurnal Penelitian Pendidikan IPA*, 8(6), 3069–3077. <https://doi.org/10.29303/jppipa.v8i6.2413>
- Hidayah, M. D., Ruhiat, Y., & Rusdiyani, I. (2023). Pembelajaran Materi Gerak Benda Untuk Siswa Sd Dengan Media Canva Video. *Jurnal Penelitian Pendidikan IPA*, 9(6), 4303–4309. <https://doi.org/10.29303/jppipa.v9i6.3122>
- Holisoh, A., Setiani, H., Firdaus, H., Nulhakim, L., & Ruhiat, Y. (2023). Analysis of the Need for Canva-Based Electronic Modules to Improve Vocational Learning Outcomes. *Jurnal Penelitian Pendidikan IPA*, 9(9), 6772–6779. <https://doi.org/10.29303/jppipa.v9i9.4514>
- Ilyas, M., Syarif, H., & Refnaldi. (2023). The Use of English Language Learning Videos Designed Through Canva App: Students' Perceptions. *International Journal of Interactive Mobile Technologies*, 17(8), 100–112. <https://doi.org/10.3991/ijim.v17i08.39215>
- Landina, I. A. P. L., & Agustiana, I. G. A. T. (2022). Meningkatkan Berpikir Kritis Siswa melalui Media Pembelajaran Flipbook berbasis Kasus pada Muatan IPA Kelas V SD. *Mimbar Ilmu*, 27(3), 443–452. <https://doi.org/10.23887/mi.v27i3.52555>
- Luh Nuryani, N., Gede, I. B., & Abadi, S. (2021). Media Pembelajaran Flipbook Materi Sistem Pernapasan Manusia pada Muatan IPA Siswa Kelas V SD. *Jurnal Ilmiah Pendidikan Dan Pembelajaran*, 5(2), 247–254. <https://doi.org/10.23887/JIPP.V5I2.32934>
- Made, N., Dewi, L. C., Agung, G., & Negara, O. (2021). Meningkatkan Semangat Belajar Siswa Melalui Video Animasi IPA pada Pokok Bahasan Sistem Pernapasan Kelas V. *Jurnal Edutech Undiksha*, 9(1), 122–130. <https://doi.org/10.23887/JEU.V9I1.32501>
- Musnidar, L., Halim, A., Huda, I., Syukri, M., & Kasli, E. (2022). Pengaruh Media Gamification dalam Jaringan terhadap Hasil Belajar dan Sikap Berpikir dalam Belajar. *Jurnal Penelitian Pendidikan IPA*, 8(2), 1005–1011. <https://doi.org/10.29303/jppipa.v8i2.1321>
- Nurwidiyanti, A. (Ari), & Sari, P. M. (Prima). (2022). Pengembangan Media Pembelajaran Flipbook Berbasis Literasi Sains pada Pembelajaran IPA Sekolah Dasar. *Jurnal Basicedu*, 6(4), 6949–6959. <https://doi.org/10.31004/BASICEDU.V6I4.3421>
- Parinduri, W. M., Lubis, R. R., Rambe, T. R., & Rambe, N. (2022). Development Of Flipbook Based Smart Card Learning Media In Science Learning To Improve Student Learning Motivation Class III SD. *School Education Journal Pgsd Fip Unimed*, 12(3), 232–239. <https://doi.org/10.24114/sejpsd.v12i3.40164>
- Putra, A., Sidiq, F., & Mahlianurrahman, M. (2023). Development of Flipbook-Based Teaching



- Materials for Learning in Elementary School's. *Jurnal Penelitian Pendidikan IPA*, 9(9), 7651-7657. <https://doi.org/10.29303/jppipa.v9i9.5141>
- Qumillaila. (2022). Developing an E-Flipbook on Environmental Education to Promote Digital Literacy among Elementary School Students and Teachers in Rural Areas in Indonesia. *9th International Conference on ICT for Smart Society: Recover Together, Recover Stronger and Smarter Smartization, Governance and Collaboration, ICISS 2022 - Proceeding*, Bandung. <https://doi.org/10.1109/ICISS55894.2022.9915108>
- 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), 56-64. <https://doi.org/10.26418/IJLI.V4I2.59356>
- Ristanto, R. H., Rusdi, Mahardika, R. D., Darmawan, E., & Ismirawati, N. (2020). Digital Flipbook Imunopedia (DFI) A Development in Immune System e-Learning Media. *International Journal of Interactive Mobile Technologies*, 14(19), 140-162. <https://doi.org/10.3991/ijim.v14i19.16795>
- Roemintoyo, R., & Budiarto, M. K. (2021). Flipbook as Innovation of Digital Learning Media: Preparing Education for Facing and Facilitating 21st Century Learning. *Journal of Education Technology*, 5(1), 8. <https://doi.org/10.23887/jet.v5i1.32362>
- Rustiman, U., & Mahdi, S. (2021). Introduction and Assistance of Utilizing Business Marketing Design Applications With Canva for Training Participants Al Firdaus Community Work Training Center (BLKK) Kemnaker , Pangalengan Village , Bandung. *International Journal of Engagement and Empowerment*, 1(2), 92-102. <https://doi.org/10.53067/IJE2.V1I2.22>
- Ružičić, V. (2021). Development of Methodology Successful Realization of the Teaching Process. *Узdanица*, 18(1), 231-244. <https://doi.org/10.46793/uzdanica18.1.231r>
- Sari, W. N., & Ahmad, M. (2021). Pengembangan Media Pembelajaran Flipbook Digital di Sekolah Dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 3(5), 2819-2826. <https://doi.org/10.31004/edukatif.v3i5.1012>
- Setianingrum, D. A., Ula, E. M., Pratiwi, S., & Jumadi, J. (2022). Development of Science Module based on Flipbook about Physics in the Respiratory System to Improve Students' Learning Independence. *Jurnal Penelitian Pendidikan IPA*, 8(6), 2621-2628. <https://doi.org/10.29303/jppipa.v8i6.1923>
- Sugiyono. (2019). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. ALFABETA.
- Sumarmi, Aliman, M., & Mutia, T. (2021). The Effect Of Digital Eco-Learning In Student Worksheet Flipbook To Environmental Project Literacy And Pedagogic Competency. *Journal of Technology and Science Education*, 11(2), 357-370. <https://doi.org/10.3926/jotse.1175>
- Sunami, M. A., & Aslam, A. (2021). Pengaruh Penggunaan Media Pembelajaran Video Animasi Berbasis Zoom Meeting terhadap Minat dan Hasil Belajar IPA Siswa Sekolah Dasar. *Jurnal Basicedu*, 5(4), 1940-1945. <https://doi.org/10.31004/BASICEDU.V5I4.1129>
- Suyasa, P. W. A., Divayana, D. G. H., & Kristiantari, M. R. (2021). The effect of digital books based on kvisoft flipbook maker on student learning outcomes. *Journal of Physics: Conference Series*, 1810(1), 012046. <https://doi.org/10.1088/1742-6596/1810/1/012046>
- Tanjung, R. E., & Faiza, D. (2019). Canva Sebagai Media Pembelajaran Pada Mata Pelajaran Dasar Listrik Dan Elektronika. *Voteteknika (Vocational Teknik Elektronika Dan Informatika)*, 7(2), 79. <https://doi.org/10.24036/voteteknika.v7i2.104261>
- Tri Wulandari, & Adam Mudinillah. (2022). Efektivitas Penggunaan Aplikasi CANVA sebagai Media Pembelajaran IPA MI/SD. *Jurnal Riset Madrasah Ibtidaiyah (JURMIA)*, 2(1), 102-118. <https://doi.org/10.32665/jurmia.v2i1.245>
- Ula, E. M., Paidi, P., & Jumadi, J. (2023). Electronic Module Development Science-Based Learning Flipbook Theory System Breathing in Humans for Student Class VIII SMP/MTs. *Jurnal Penelitian Pendidikan IPA*, 9(4), 1593-1599. <https://doi.org/10.29303/jppipa.v9i4.1755>
- Yomaki, E. K., Nunaki, J. H., Jeni, J., Mergwar, S. D. I., & Damopolii, I. (2023). Flipbook based on problem-based learning: Its development to bolster student critical thinking skills. *AIP Conference Proceedings*, 2614, 020022. <https://doi.org/10.1063/5.0126212>
- Yulaikhoh, D., Prayitno, H. J., Rahmawati, F. P., & Amalia, N. (2023). Digital literacy-based Flipbook in beam and cube volume learning with units in class v. *AIP Conference Proceedings*, 2727, 020074. <https://doi.org/10.1063/5.0141408>