

Development of scrapbook learning media in Indonesian language content for class III primary school

Marwan Pulungan ^{a,1}, L. Laihat ^{a,2}, Siti Dewi Maharani ^{a,3}, Berta Herdiana ^{a,4}, Mazda Leva Okta Safitri ^{a,5,*}

^a Elementary Teacher Education, Sriwijaya University, Jl. Raya Palembang - Prabumulih KM. 32, Indralaya, Ogan Ilir Regency, South Sumatra 30862, Indonesia

¹ marwan_pulungan@fkip.unsri.ac.id; ² laihat@fkip.unsri.ac.id; ³ siti_dewi_maharani@fkip.unsri.ac.id;

⁴ bertaherdiana92@gmail.com; ⁵ mazdalevaoktasafitri@fkip.unsri.ac.id*

*Corresponding author

Citation: Pulungan, M., Laihat, L., Maharani, S. D., Herdiana, B., & Safitri, M. L. O. (2024).

Development of scrapbook learning media in Indonesian language content for class III primary school. *Research and Development in Education (RaDEn)*, 4(2), 762-773.

[https://doi.org/10.22219/raden.v4i](https://doi.org/10.22219/raden.v4i1.35357)

1. 35357

Received: 26 July 2024

Revised: 11 September 2024

Accepted: 12 September 2024

Published: 19 September 2024



Copyright © 2024, Pulungan et al.
This is an open access article
under the CC-BY-SA license

Abstract: Optimizing the use of learning media, so that students are more interested and actively involved in the learning process, needs to be known by teachers. This study aims to determine the effectiveness of scrapbook learning media on Basic Indonesian Language material for grade III in Elementary Schools. The type of research used is Research and Development (R&D) with the ADDIE development model with five stages consisting of Analyze, Design, Develop, Implement, and Evaluate. Data collection was carried out based on the results of material expert and media expert validation sheets, teacher response questionnaire sheets student responses, interviews, and documentation. Validation from material experts with a score percentage of 96.42% which is categorized as very valid. Validation from media experts with a score percentage of 90.6% which is categorized as very valid. The teacher response questionnaire resulted in a percentage score of 100% which was categorized as very good. Student response questionnaire with 2 trials, namely the small group got a percentage result of 88.88% in the very good category, and the large group got a percentage result of 84.44% in the very good category. Thus, the product in the form of scrapbook learning media is valid and effective for use as a learning media.

Keywords: learning media; scrapbook; Indonesian language

1. Introduction

The rapid development of educational technology in line with the modern era has had a significant impact on the world of education (Pulungan et al., 2022; Maharani et al., 2022). Currently, educational technology has begun to develop with various reforms that have been implemented, including the creation of new curricula, innovation in learning, and the provision of facilities and infrastructure. Innovation in learning can make students enjoy lessons fully and improve learning outcomes (Loderer et al., 2020). Technological developments and the dynamics of society's needs require adaptation and transformation in learning methods which require the application of more interactive strategies and the use of diverse and interesting learning media (Derkachova & Ushnevykh, 2022; Fathoni & Safitri, 2022). Teachers are expected to use technology in the classroom and knowledge that provides an appropriate environment with appropriate teaching strategies and techniques to facilitate and support students' learning (Ng et al., 2023). To adapt to technological developments, teachers must prepare learning resources and learning media according to student's interests so that students can focus their attention on the learning stages and teachers can increase their focus on learning (Carvalho & Yeoman, 2021).

Even though educational technology continues to experience rapid development, challenges in the use of learning media are still a reality at SD Negeri 05 Indralaya. Based on the results of pre-research activities through observations and interviews conducted by researchers in class III at SD Negeri 05 Indralaya, various problems in learning activities were revealed. Teachers still apply a learning model that tends to be dominant in the form of lectures, questions and answers, and discussions when teaching Indonesian. It can be seen that teachers still dominate in delivering material which results in a lack of

interaction with students. Apart from that, teachers rarely use a variety of learning media, this is due to the limitations of learning media that support Indonesian language learning. Teachers are more likely to use existing thematic books. This causes students to feel bored with monotonous learning so they become less focused on the learning material and less active in interacting with teachers and other students during the learning process. The reality is that education in Indonesia is still experiencing various problems that impact its low quality (Firdaus et al., 2024).

Problems are increasingly felt due to limitations in the variety of learning media used. Limited resources and the possibility of unequal facilities in some elementary schools can be factors that limit teacher creativity in presenting variations in learning (Faigawati et al., 2023; Shermukhammadov, 2022). By utilizing diverse and interesting learning media in the learning process, learning effectiveness can be increased (Maharani et al., 2024; Suganda M et al., 2023). The use of interesting learning media is one of the educational innovations that can attract students. When a message is sent from the sender to the recipient, the media functions as an intermediary, according to Weng et al., (2019) and Zhang & Zou, (2022), attractive learning media can make it easier for students to understand what they are learning. This is supported by the opinion of Kumalasanani & Kusumaningtyas (2024), that students who use visual learning media will learn the material being taught more quickly. Visual learning goes wrong, an example of interesting learning media. As according to Alobaid, (2020), visual-based media is a type of media that relies on the sense of sight and aims to attract attention, clarify concepts, and illustrate facts so that they are easier to understand. The design of learning media must be based on quality products so that they have a good impact on students (Sulthon et al., 2021).

Based on the research results of Yessick et al., (2020), it was revealed that learning activities with scrapbooks provide positive experiences that can improve the quality of education. The results of research by Kiptiyah & Untung, (2023) also found that teaching writing using scrapbooks made students more active and made it easier to understand learning materials. Research by Hidayati et al., (2024) shows that scrapbooks have been proven to significantly increase the knowledge and preparedness of elementary school students in dealing with tornadoes. So, the three studies show that scrapbooks have a positive impact on students' learning outcomes, both in terms of students' knowledge and language skills.

The development of visual-based learning media can support the learning process. This media is used to improve critical thinking and encourage student activity during the learning process. Apart from that, during the learning process, it is hoped that students will experience a pleasant learning experience so that the material taught becomes meaningful and easy for students to remember. As Zhao et al. (2023), states visual-based media is media that can facilitate understanding and strengthen students' memories. Scrapbooks do not only function as a place to add photos or drawings but are works that are created creatively and innovatively, aiming to create a deep impression in the learning process. The process of making a scrapbook can be handmade or handmade, thus allowing the maker to combine images that match the desired theme so that it can attract the attention of students. As according to Clark & Victor (2023), Scrapbook is an example of a very interesting still visual media, referring to the art of sticking photos or drawings on paper and making them into creative works. Scrapbook media contains images that have keywords as important notes related to the image. By using Scrapbook media, students can create stories and write according to pictures packaged interestingly. This will make it easier for students to understand the material being taught and can make students participate more actively in learning.

Based on the background, this study aims to determine the effectiveness of scrapbook learning media on Basic Indonesian Language material for grade III in Elementary Schools. This learning media is expected to be an interesting media, make learning more meaningful, and increase students' insight related to Indonesian language material for grade III elementary schools.

2. Materials and Methods

This research uses Research and Development (R&D) research (Branch, 2009). In this study, researchers analyzed student needs and developed Scrapbook Learning Media according to what was needed through the development stages. The development model used in this research is the development model with the ADDIE (Analysis, Design, Develop, Implement, and Evaluate) design. The ADDIE development model has 5 sequential stages, namely (1) Analysis, namely the need analysis stage which includes needs analysis, problem identification, and carrying out task analysis; (2) Design in the form of formulating learning objectives that by thematic learning based on innovative learning media (3) Development is the process of realizing a design that has been designed into a product; (4) Implementation (Implementation/execution) is a concrete step to implement the learning system that is being developed. At this stage everything that has been developed is set in such a way that it is appropriate to its role and function so that it can be implemented; (5) Evaluation, namely the process of seeing whether the learning system that is being built is successful, by the initial design or not. The development research flow with the ADDIE development model is as follows Figure 1.

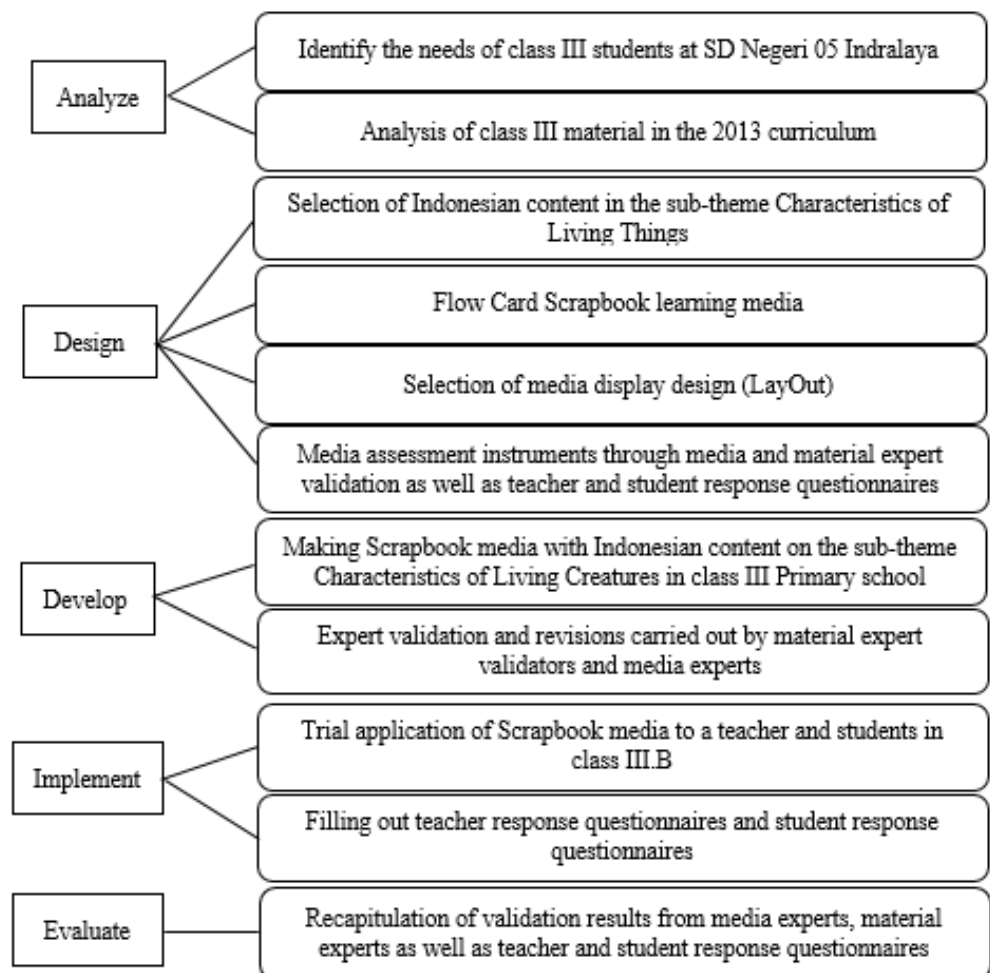


Figure 1. Research Procedure

2.1 Analyze

The analysis stage is carried out to determine the learning situation and environment so that we can find out what products need to be developed. Activities carried out at this stage include identifying the needs of class III students at SD Negeri 05 Indralaya and analyzing class III material in the 2013 curriculum.

2.2 Design

This stage is an activity to design the product according to what is needed. This design stage explains the selection of Indonesian language content in the sub-theme Characteristics of Living Things, flow cards for Scrapbook learning media, selection of display designs for Scrapbook media, and media assessment instruments through media and material expert validation as well as response questionnaires. teachers and students.

2.3 Develop

After the design stage has been completed, the next step is to create a Scrapbook media product with Indonesian language content, the Characteristics of Living Creatures sub-theme in class III elementary school, which is then validated by expert validation and revisions carried out by material expert validators to determine whether the product produced by the researcher is valid and valid. According to requirements, the Scrapbook media product is then revised based on suggestions and input from expert validators.

2.4 Implementation

After the product is complete and has been validated by media experts and material experts, this stage is the activity of using or testing the product. In this case, the resulting product was tested on 1 class teacher and 15 class III.B students where the teacher and students were asked to fill out a response questionnaire given to the learning media.

2.5 Evaluate

The final stage is to recapitulate the results of validation from media experts and material experts as well as the results of the teacher response questionnaire given to 1 class III.B teacher and the results of the student response questionnaire given to 15 class III.B students regarding learning media.

3. Results

3.1 Analyze

Based on the results of interviews conducted in class III of SD Negeri 05 Indralaya, information was obtained that the learning process was carried out using the Tematik book revised in 2018. Apart from that, the teacher also used learning media on the theme of the Growth and Development of Living Creatures, Sub-theme Characteristics of Living Creatures. namely in the form of an image poster. This causes students to feel bored with monotonous learning so they become less focused on the learning material and less active in interacting with teachers and other students during the learning process. Student needs analysis is carried out to find out what students need and use when learning. In these learning activities, teachers use thematic books as learning resources to provide material to students and occasionally use learning media in the form of picture posters. Researchers also interviewed class III teachers at SD Negeri 05 Indralaya.

3.2 Design

This stage is an activity to design the product according to what is needed. This design stage explains the selection of Indonesian language content, Flow Cards as presented in [Figure 2](#). for Scrapbook learning media, and the selection of the display design (Lay Out) for Scrapbook media.

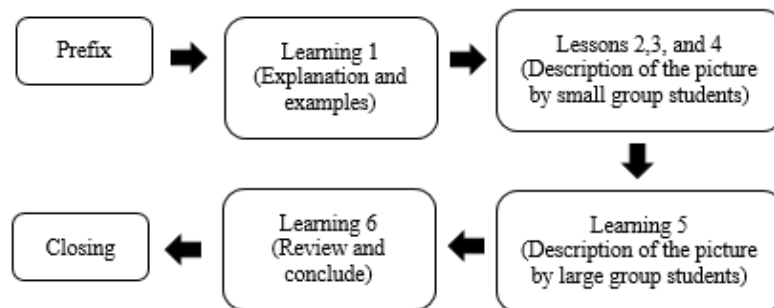


Figure 2. Flow Card Display

3.3 Develop

After making the product, the product will be validated by material experts and media experts according to the instruments that have been created. The purpose of this validation is to determine whether the product is suitable for use. The results of this validation can also be used as a source of improvement for Scrapbook media which is made according to the method recommended by material experts and media experts. The results of the assessment by material expert validators on Scrapbook media are as follows [Table 1](#).

Table 1. Material Expert Assessment Results

No	Assessment Aspects	Value	Score	Category
1	Curriculum	12	100%	Very Valid
2	Material	4	100%	Very Valid
3	Language	11	91,6%	Very Valid
Total		27	96,42%	Very Valid

From the results of the material expert validator assessment above, it can be seen that there are 3 aspects of assessment, namely curriculum, material and language. In the curriculum aspect, the indicator received a total of 12 points from 3 indicators, namely the indicator of the relevance of the material to the curriculum, which received a value of 4, the indicator of the relevance of the material to basic competencies, which received a value of 4, and the indicator of the relevance of the material to the learning objectives, which received a value of 4. In the material aspect, it received a total of 4 points out of 1 The indicator, namely material that makes the learning process easier, gets a score of 4. In the language aspect, it gets a total score of 11 from 3 indicators, namely the indicator of language used communicatively gets a score of 4, the indicator of appropriate use of vocabulary gets a score of 3, and the indicator of material using Indonesian according to EBI/EYD gets a score. 4. The results of the assessment by media expert validators on Scrapbook media are as follows [Table 2](#).

Table 2. Media Expert Assessment Results

No	Assessment Aspects	Value	Score	Category
1	Technological perspective	10	83,33%	Very Valid
2	Symbol system	12	100%	Very Valid
3	Processing capabilities	7	87,5%	Very Valid
Total		29	90,6%	Very Valid

From the results of the media expert validator assessment above, it can be seen that there are 3 aspects of the assessment, namely technological perspective, symbol systems, and processing capabilities. In the technological perspective aspect, the total score is 10 from 3 indicators, namely the positive impact performance indicator gets a score of 3, the

indicator for increasing knowledge gets a score of 3, and the media flexibility indicator gets a score of 4. In the symbol system aspect, it gets a total score of 12 from 3 indicators, namely the appropriate text indicator. the material gets a score of 4, the image indicator according to the material gets a score of 4, and the illustration indicator according to the student's development gets a score of 4. In the aspect of processing ability, the total score is 7 out of 2 indicators, namely the indicator of making learning effective gets a score of 3, and the indicator of being able to operate gets a score of 4. Media validation is also given by the teacher with the following validation results in [Table 3](#).

Table 3. Teacher Validator Assessment Results

No	Assessment Aspects	Value	Score	Category
1	Media display	4	100%	Very Valid
2	Media content	3	100%	Very Valid
3	Media use	4	100%	Very Valid
4	Media interest in students	3	100%	Very Valid
Total		14	100%	Very Valid

From the results of the teacher validator assessment above, it can be seen that there are 4 aspects of assessment, namely media appearance, media content, media use, and media interest in students. In the aspect of media appearance, it gets a score of 4, the combination of indicators and color choices in the Scrapbook learning media is attractive. In the aspect of media content, it gets a total of 3 points. In the aspect of media use, it gets a total of 4. In the aspect of media interest in students, it gets a total of 14 points, [Figure 3](#).



Figure 3. Scrapbook View

3.4 Implementation

After the product is complete and has been validated by material experts and media experts, the next stage is the activity of using or testing the product. In this case, the resulting product was tested on 15 class III students at SD Negeri 05 Indralaya. The Scrapbook learning media trial was carried out in two stages, namely small group and large group trials. This assessment was carried out to determine the suitability of Scrapbook learning media as a learning media that can be applied in schools. The small group trial consisted of 5 students with the following results in [Table 4](#).

Table 4. Recapitulation of Small Group Trial Results

No	Student's Initials	Value	Score	Category
1	MR	8	88,88%	Very Good
2	SK	8	88,88%	Very Good
3	DCP	6	66,66%	Good
4	AP	9	100%	Very Good
5	FR	9	100%	Very Good
Total		40	88,88%	Very Good

After conducting small group trials, the researchers continued trials on large groups. The large group trial consisted of 10 students. The feasibility results from the large group trial are as follows [Table 5](#).

Table 5. Recapitulation of Large Group Trial Results

No	Student's Initials	Value	Score	Category
1	R	5	55,55%	Fair
2	AH	9	100%	Very Good
3	MT	7	77,77%	Good
4	TA	9	100%	Very Good
5	AT	8	88,88%	Very Good
6	MR	7	77,77%	Good
7	DK	9	100%	Very Good
8	MS	8	88,88%	Very Good
9	AR	5	55,55%	Fair
10	NI	9	100%	Very Good
Total		76	84,44%	Very Good

In the second trial of the Scrapbook learning media which was carried out on 10 students or a large group trial, a total score of 76 was obtained with a percentage of 84.44%. Based on this percentage, the results of the first trial are in the "Very Good" category.

4. Discussion

The characteristics of the Scrapbook learning media that have been developed are generally the same as the existing Scrapbook learning media, namely pictures attached to paper with keywords or important notes related to the image, but the Scrapbook learning media that has been developed is more flexible in that it can be repaired or modified and can be placed back as desired, the media is more durable because it is laminated on each sheet, the media can also build student cooperation because it is done in groups. Then the media also really helps students to think critically because it consists of images that will make students find out the meaning of each existing image. This is in line with the opinion of [Damayanti & Zuhdi \(2017\)](#), that Scrapbooks have advantages including: attractive, realistic, can overcome time and space limitations, easy to make, the materials used are easy to obtain, can be designed according to the creator's wishes.

In the first stage, namely Analysis, the researcher conducted field observations and direct interviews with Mrs. HA as a class III teacher at SD Negeri 05 Indralaya on October 14, 2023. Based on the results of field observations, researchers found that the school used the 2013 curriculum with thematic learning focused on book material. Then the learning process rarely uses learning media to convey learning material.

Using learning media can help teachers to teach in class. [Jalinus & Ambiyar, \(2016\)](#), say that one of the benefits of learning media is that it can increase students' learning

motivation because learning will attract their attention more. Therefore, learning media is one of the things that needs to be used during the learning process. Learning media can stimulate new desires and interests, create motivation, stimulate learning activities, and even have a psychological impact on students, especially grade 3 students (Parinduri et al., 2022).

In the second stage, namely the Design stage, at this stage the researcher designs the creation of Scrapbook learning media using images/photos attached to paper and containing important notes related to the images. This assessment instrument contains validation instruments by material experts, media experts, teacher responses, and student responses. A validation questionnaire was created to determine the validity of the learning media which contains questions. Meanwhile, teacher and student response questionnaires were created to determine the practicality of the media being developed.

The third stage is Development, at this stage validation is carried out against material experts on September 9, 2023, and validation against media experts on September 11, 2023. Criticism, suggestions, and input from all validators have been carried out to improve/revise the media so that It is appropriate to carry out trials on students. Based on the results of the validator assessment of each expert, the results were obtained by material experts (96.42%) and media experts (90.6%), while for the questionnaire, teacher responses (100%) with validation from material experts and media experts were included in the very valid and response category. teachers are included in the very good category. Scrapbook learning media is very valid according to Rahmawanti et al. (2019), based on the average percentage value 77%, it can be concluded that Scrapbook learning media is very valid and worthy of trial.

The fourth stage is Implementation, at this stage, after validation of material experts, media experts, and teacher responses, the researcher conducted product trials on class III.B students at SD Negeri 05 Indralaya. The fifth stage is Evaluation, at this stage, after testing on small groups and large groups, the small group consisting of 5 students obtained a total of 40 marks with a percentage of 88.88% in the very good category and the large group consisted of 10 students. obtained a total score of 76 with a percentage of 84.44% in the very good category. After the percentage of scores from the small group and large group were combined, it was 85.92% in the very good category. So it can be concluded that the Scrapbook learning media is very good to be used as a learning media in the teaching and learning process on the Indonesian Language content in class III Primary School.

Apart from that, the Scrapbook learning media which is the product of this research can also make students enthusiastic because there are many interesting pictures. This is in line with the opinion of Sari & Yuliantini, (2020), who say that graphic/visual media functions to attract attention or decorate facts that might quickly disappear in memory if they are not graphic. So by using Scrapbook media, students can reopen the existing pictures to repeat their understanding of the material using memories obtained from the pictures to better understand the learning material. Learning refers to a flexible state of mind where students are actively involved in learning, aware of new things, and sensitive to the context of the subject matter (Windiyaningrum et al., 2024). Scrapbook - is designed to develop students, in addition to the above skills, the ability to summarize the information contained in the text; in detail or briefly state the content of what they have heard or seen; to record the necessary information (Kytina et al., 2021). According to Lukmanulhakim & Uswatun (2019), who said that the use of image media can improve learning outcomes and students' enthusiasm for learning. Scrapbooks can also make students critical when expressing opinions to their group friends. This opinion arises from each picture in the Scrapbook.

The opinion of Nadiya & Fazira (2022), who stated that using Scrapbook media can improve the ability to think accurately and students can learn how to solve problems well. Scrapbooks offer a unique form of consciousness-raising and catharsis, aiding participants in identifying, connecting, and contextualizing experiences (Walling-Wefelmeyer, 2020). Scrapbooks can create opportunities for students to demonstrate and strengthen their

active reading skills (Bassett et al., 2022). Scrapbooks where students could imaginatively communicate their scientific knowledge by repurposing various resources (Ferreira et al., 2022). Also a scrapbook that represents their understanding of the science (Bintz, 2023).

5. Conclusion

Development scrapbook learning media uses the ADDIE model with 5 stages, namely Analysis, Design, Development, Implementation, and Evaluation that have been developed by researchers are very valid based on validation results from material expert validators, media experts and teachers. The percentage of validity results obtained from the assessment of material expert validators is 96.42%, so it is included in the "Very Valid" category. The percentage of validity results obtained from the assessment of media expert validators is 90.6%, so it is included in the "Very Valid" category, and the percentage of class teacher response questionnaire results is 100%, so it is included in the "Very Good" category. The results of the recapitulation of the small group scale trial obtained a total of 40 points with a percentage of 88.88% and the large group obtained a total of 76 points with a percentage of 84.44% so it was included in the "Very Good" category. From the results of this research, it was concluded that the Scrapbook learning media developed was suitable for use as a learning media for Indonesian language content in class III of elementary school.

Author Contributions: M.P: Data Analysis, methodology, and designing research; L and S.D.M: Review and editing; B.H: collect data; M.L.O.S: writing article and data analysis

Acknowledgements: The authors would like to thank LPPM Sriwijaya University which has provided funding for our research so that our research can run well. The author would also like to thank all parties involved in this research, especially all parts of SD Negeri 05 Indralaya. The research/publication of this article was funded by DIPA of Public Service Agency of Universitas Sriwijaya 2024. SP DIPA-023.17.2.677515/2024 On November 24, 2023. In Accordance with the Rector's Decree 0013/UN9/LP2M.PT/2024, On May 20, 2024.

Conflict of Interest: The authors declare no conflict of interest.

6. References

- Alobaid, A. (2020). Smart multimedia learning of ICT: role and impact on language learners' writing fluency – YouTube online English learning resources as an example. *Smart Learning Environments*, 7(1), 1–30. <https://doi.org/10.1186/S40561-020-00134-7/TABLES/10>
- Bassett, E., Dean, H., Korda, A., Leighton, M. E., & Warne, V. (2022). Getting scrappy in the classroom during covid-19: Collaboration, open educational resources, and hands-on learning for humanities students. *KULA: Knowledge Creation, Dissemination, and Preservation Studies*, 6(1), 1–18. <https://doi.org/10.18357/KULA.222>
- Bintz, W. (2023). Using way-in and stay-in scientific picturebooks to learn about science and scientists. *Michigan Reading Journal*, 55(3), 37–46. <https://scholarworks.gvsu.edu/mrj/vol55/iss3/9>
- Branch, R. M. (2009). *Instructional design: The ADDIE approach*. <https://books.google.co.id/books?id=mHSwJPE099EC&printsec=copyright&hl=id#v=onepage&q&f=false>
- Carvalho, L., & Yeoman, P. (2021). Performativity of materials in learning: The learning-whole in action. *Journal of New Approaches in Educational Research*, 10(1), 28–42. <https://doi.org/10.7821/NAER.2021.1.627/METRICS>
- Clark, A. (Schaffner), & Victor, A. (2023). A scrapbook: Memories and photos of our inspiring teacher, phyllis young. *American String Teacher*, 73(4), 41–45.

- <https://doi.org/10.1177/00031313231197634>
Damayanti, M., & Zuhdi, U. (2017). Pengaruh media scrapbook (buku tempel) terhadap hasil belajar siswa materi keragaman rumah adat di Indonesia kelas IV Sekolah Dasar. *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, 5(3), 254531.
<https://www.neliti.com/id/publications/254531/>
- Derkachova, O., & Ushnevych, S. (2022). Use of interactive digital posters as an innovative learning technology in ukrainian higher education (on the example of the course “children’s literature and methods of teaching literary reading”). *Journal of Vasyl Stefanyk Precarpathian National University*, 9(1), 101–111.
<https://doi.org/10.15330/JPNU.9.1.101-111>
- Faigawati, F., Fathurohman, A., Nurlaila, & Safitri, M. L. O. (2023). Peningkatkan hasil belajar Pkn melalui media visual beerdasarkan gaya belajar visual pada kurikulum merdeka. *Jurnal Inovasi Pendidikan*, 1(1), 14–21. <https://sij-inovpend.ejournal.unsri.ac.id/index.php/jip/article/view/2>
- Fathoni, A., & Safitri, M. L. O. (2022). Sudut pandang mahasiswa PGSD terhadap gamifikasi menggunakan quizizz dalam pembelajaran jarak jauh. *Inovasi Sekolah Dasar: Jurnal Kajian Pengembangan Pendidikan*, 9(2), 96–105.
<https://doi.org/10.36706/JISD.V9I2.18843>
- Ferreira, J., Kendrick, M., & Early, M. (2022). Migrant and refugee background students learning through play. *The Reading Teacher*, 75(4), 453–462.
<https://doi.org/10.1002/TRTR.2072>
- Firdaus, F. M., Fadhilah, N., Wuryandari, I. T., & Fadhli, R. (2024). Liveworksheet interactive e-module effect on equal fractions comprehension at 4th grade elementary school. *Jurnal Prima Edukasia*, 12(1), 156–164.
<https://doi.org/10.21831/JPE.V12I1.64526>
- Hidayati, N., Jamilah, M., & Hanafi, A. A. (2024). The use of scrapbook to increase knowledge and preparedness of elementary school students in facing a tornado disaster : Original article. *Babali Emergency and Disaster Research*, 2(1).
<https://doi.org/10.37363/BEDR.2024.2123>
- Jalinus, N., & Ambiyar. (2016). Media dan sumber pembelajaran. Kencana.
<https://inlislite.uin-suska.ac.id/opac/detail-opac?id=22861>
- Kiptiyah, M., & Untung. (2023). The scrapbook for the students’ writing ability at junior high school (a case study at junior high school). *The Ellite of Unira*, 6(2), 39–42.
<https://doi.org/10.53712/ELLITE.V6I2.2042>
- Kumalasani, M. P., & Kusumaningtyas, D. I. (2024). Analysis of literacy-based learning media produced by primary school teacher education students. *Research and Development in Education (RaDEn)*, 4(1), 662–673.
<https://doi.org/10.22219/RADEN.V4I1.32488>
- Kytina, V., Pogadaeva, P., & Bartosh, D. (2021). Integrating essential technology as educational tools into foreign language teaching in modern learning environment. *Journal of Educational Technology and Innovation*, 5(1).
<https://doi.org/10.61414/JETI.V5I1.103>
- Loderer, K., Pekrun, R., & Lester, J. C. (2020). Beyond cold technology: A systematic review and meta-analysis on emotions in technology-based learning environments. *Learning and Instruction*, 70(November 2018), 101162.
<https://doi.org/10.1016/j.learninstruc.2018.08.002>
- Lukmanulhakim, L., & Uswatun, D. A. (2019). Pengaruh media scrapbook (buku tempel) terhadap keterampilan menulis puisi di kelas tinggi. *Ummi*, 13(1), 53–66.
<https://www.jurnal.ummi.ac.id/index.php/ummi/article/view/530>
- Maharani, S. D., Ilma, R., Putri, I., Syawaliyah, A. F., & Safitri, M. L. O. (2024). Interactive learning media: literacy and numeracy limas house balaputera dewa museum in phase b. *Research and Development in Education (RaDEn)*, 4(1), 617–629.
<https://doi.org/10.22219/RADEN.V4I1.32832>

- Maharani, S. D., Susanti, R., Indarti, L. H., & Syamsi, A. (2022). Integrating hots-based student electronic worksheet: teaching styles in elementary school during the covid-19 pandemic. *Journal of Social Studies Education Research*, 13(3), 98–119. <https://jsser.org/index.php/jsser/article/view/4016>
- Nadiya, S., & Fazira, F. (2022). Pengaruh scrapbook sebagai media konseling terhadap pengetahuan tentang resiko kekurangan energi kronis (kek) pada remaja di SMA Negeri 1 Juli Kabupaten Bireuen. *JOURNAL OF HEALTHCARE TECHNOLOGY AND MEDICINE*, 8(1), 127–136. <https://doi.org/10.33143/JHTM.V8I1.1948>
- Ng, D. T. K., Lee, M., Tan, R. J. Y., Hu, X., Downie, J. S., & Chu, S. K. W. (2023). A review of AI teaching and learning from 2000 to 2020. *Education and Information Technologies*, 28(7), 8445–8501. <https://doi.org/10.1007/S10639-022-11491-W/TABLES/8>
- 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/SEJPGSD.V12I3.40164>
- Pulungan, M., Maharani, S. D., Waty, E. R. K., Safitri, M. L. O., Suganda, V. A., & Husni, F. T. (2022). Development of e-student worksheets in the form of picture stories using live worksheets in primary schools. *Jurnal Iqra' : Kajian Ilmu Pendidikan*, 7(2), 157–167. <https://doi.org/10.25217/ji.v7i2.1759>
- Rahmawanti, N., Mashuri, M. T., & Nurjanah, N. (2019). Pengaruh media scrapbook terhadap hasil belajar siswa pada materi larutan penyangga. *Natural: Jurnal Ilmiah Pendidikan IPA*, 6(2), 94–100. <https://doi.org/10.30738/NATURAL.V6I2.5251>
- Sari, I. P., & Yuliantini, N. (2020). Pengaruh penggunaan media scrapbook terhadap hasil belajar pada pembelajaran tematik siswa kelas IV SD Gugus X Kota Bengkulu. *JURIDIKDAS: Jurnal Riset Pendidikan Dasar*, 3(3), 336–344. <https://doi.org/10.33369/JURIDIKDAS.3.3.336-344>
- Shermukhammadov, B. (2022). Creativity of a teacher in an innovative educational environment. *Journal of Higher Education Theory and Practice*, 22(12), 2022. <https://articlearchives.co/index.php/JHETP/article/view/3523>
- Suganda M, V. A., Laihat, L., Harini, B., Safitri, M. L. O., Melati, S. P., Rahmadan, D., Hayati, S., & Handrianto, C. (2023). Movable page-based interactive books on numbers in elementary schools. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, 5(2), 167–177. <https://doi.org/10.23917/IJOLAE.V5I2.21705>
- Sulthon, M., Pujiastuti, P., & Retnawati, H. (2021). What is the teacher's challenge on the developing of learning media to increase critical thinking ability and the character? *Jurnal Prima Edukasia*, 9(1), 55–64. <https://doi.org/10.21831/JPE.V9I1.34876>
- Walling-Wefelmeyer, R. (2020). The methodological potential of scrapbooking: Theory, application, and evaluation. *Sociological Research Online*, 26(1), 3–26. <https://doi.org/10.1177/1360780420909128>
- Weng, C., Otanga, S., Christianto, S. M., & Chu, R. J. C. (2019). Enhancing students' biology learning by using augmented reality as a learning supplement. <https://doi.org/10.1177/0735633119884213>, 58(4), 747–770. <https://doi.org/10.1177/0735633119884213>
- Windiyani, T., Sofyan, D., Novita, L., & Patricia, R. (2024). Puzzles as teaching materials in theme 3 using wordwall for class V elementary school. *Jurnal Prima Edukasia*, 12(1), 73–82. <https://doi.org/10.21831/JPE.V12I1.57979>
- Yessick, A. B., Haegele, J. A., Zhu, X., & Bobzien, J. (2020). Exploring the experiences of children with asd in self-contained physical education: a modified scrapbooking study. *Advances in Neurodevelopmental Disorders*, 4(1), 51–58. <https://doi.org/10.1007/S41252-019-00139-5/METRICS>
- Zhang, R., & Zou, D. (2022). A state-of-the-art review of the modes and effectiveness of multimedia input for second and foreign language learning. *Computer Assisted*

Language Learning, 35(9), 2790–2816. <https://doi.org/10.1080/09588221.2021.1896555>
Zhao, H., Xu, J., Iyendo, T. O., Apuke, O. D., Tunca, E. A., & Gever, V. C. (2023). The effectiveness of using audio-visual based media intervention for promoting social media literacy skills to curtail fake news on social media: A quasi-experimental investigation. <https://doi.org/10.1177/02666669231217236>