## Mimbar PGSD Undiksha

Volume 10, Number 2, Tahun 2022, pp. 318-325 P-ISSN: 2614-4727, E-ISSN: 2614-4735

Open Access: https://doi.org/10.23887/jjpgsd.v10i2.46550



# QR Code-Assisted Pop-Up Book Learning Media for Grade II Elementary School

## Ni Nyoman Sathya Prema Prashanti<sup>1\*</sup>, I Gede Margunayasa<sup>2</sup>



<sup>1,2</sup> Universitas Pendidikan Ganesha, Indonesia

## ARTICLE INFO

Article history:
Received April 22, 2022
Accepted April June 30, 2022
Available online July 25, 2022

#### Kata Kunci: Buku Pop-Up, Kode OR,

Buku Pop-Up, Kode QR Sekolah Dasar.

#### Keywords:

Pop-Up Book, QR Code, Elementary School.



This is an open access article under the CC BY-SA license.

Copyright © 2022 by Author. Published by Universitas Pendidikan Ganesha.

#### ABSTRAK

Kurangnya pengembangan media yang digunakan pembelajaran di kelas. Penelitian ini bertujuan untuk membuat media buku pop-up tema 8 subtema 4 berbantuan kode QR untuk kelas II SD. Penelitian ini menggunakan model ADDIE, namun penelitian yang dilakukan hanya sampai pada tahap pengembangan karena keterbatasan waktu dan situasi. Subjek uji coba penelitian ini terdiri dari dua ahli media, empat ahli materi, dan dua orang praktisi. Metode pengumpulan data dalam penelitian ini adalah metode angket dengan menyediakan lembar penilaian. Penelitian ini dianalisis dengan menggunakan rumus rata-rata. Hasil penelitian menunjukkan bahwa validitas media pop-up book yang diperoleh dari perhitungan rata-rata adalah 4,99, dengan kualifikasi layak digunakan dalam proses pembelajaran. Rata-rata kepraktisan media yang telah dikembangkan sebesar 4,73 dengan kualifikasi praktis dan sangat sesuai digunakan dalam proses pembelajaran di kelas II SD. Sehingga media yang dikembangkan berupa pop-up book berbantuan pembelajaran kode gr tema 8 subtema 4 ini valid dan praktis digunakan dalam proses pembelajaran di sekolah dasar kelas II. Implikasinya media ini dapat digunakan oleh guru dalam proses pembelajaran sehingga siswa merasa lebih nyaman dan lebih mudah memahami materi yang ada di buku maupun materi yang dijelaskan oleh guru di kelas.

## ABSTRACT

Lack of media development used in the learning process in the classroom. This research aims to create a pop-up media book on theme 8 sub-theme 4 assisted by QR code for grade II elementary school. This study used the ADDIE model, but the research carried out only reached the development stage due to time and situation constraints. The trial subjects of this research consisted of two media experts, four material experts, and two practitioners. The data collection method in this research is a questionnaire method by providing an assessment sheet. This study was analyzed using the average formula. The results showed that the validity of the pop-up book media obtained from the average calculation was 4.99, with qualifications suitable for use in the learning process. The average practicality of the media that has been developed is 4.73 with practical qualifications and is very suitable for use in the learning process in grade II elementary school. So, the media developed as a pop-up book assisted by a Qr code learning theme 8 sub-theme 4 is valid and practical to use in the learning process for grade II elementary schools. The implications of this media can be used by the teacher in the learning process so that students feel more comfortable and easier to understand the material in the book and the material explained by the teacher in class.

## 1. INTRODUCTION

The A teacher has a very important role in developing the knowledge that will be given to students. Teachers must be able to set good examples and have a role to be responsible for the achievement of students, which includes three domains, namely cognitive, affective and psychomotor students, both in the school environment and in the community or outside school (Mustadi et al., 2016; R & Putra, 2021). The learning process will create a good impression on students if the teacher can design the learning process in the classroom with something innovative and interesting for students (Buchari, 2018; Hamid, 2017). Teachers must be able to update classroom learning activities (Jabri et al., 2020; Putri Wangi & Gede Angung, 2021). Teachers are expected to be able to develop various creativity and innovations related to the classroom learning process. Teachers are expected to increase students' interest in learning by making innovations in packaging material in

the form of attractive media so that students can more easily understand each lesson given by the teacher and students can be more active in the teaching and learning process in the classroom (Heryanto, 2021; Minsih & D, 2018). Efforts to make learning fun for students in the classroom certainly require creativity and some innovations, one of which is the learning process in low grades (Pitaloka & Sumardjono, 2017; Saifulloh & Darwis, 2020). However, the problems that often arise in the second grade of an elementary school in the learning process in the classroom are that students are less active in asking the teacher when students do not understand the material being taught, students find it difficult to understand the material if the teacher does not use media, and especially students in second grade. Many students still cannot read, causing teachers to find it difficult to provide material to students, and the material contained in theme 8 and sub-theme 4 is still narrow and lacking in depth. Pop-up book media has benefits. It can increase students' creativity, foster students' imagination, especially in the learning process in class, and add insight into the material being studied (N. A. Nikmah et al., 2019; Setianingrum et al., 2020). Based on the results of initial observations and the distribution of questionnaires to the second-grade teachers of the Elementary School Gugus V, Kecamatan Buleleng, it can be seen that the results obtained are: 66.7% of teachers stated that it was necessary to develop thematic books, 100% of teachers stated that in the learning process using media assistance In learning, 100% of teachers stated that they did not know what pop-up book media was and 100% of teachers agreed to study Theme 8 Sub-theme 4 packaged into pop-up book media. The results of the interviews with the second-grade homeroom teacher got results. The problems that often arise in the learning process in the second grade, namely the lack of active students asking the teacher in class learning, students find it difficult to understand the material if the teacher does not use the media, and the material is difficult to understand. Contained in theme 8, Subtheme 4 is still narrow and lacks. If these problems are left unchecked, they will impact student learning outcomes.

The solution to overcome these problems is to use learning media. Media is a learning resource that has many functions, one of which is that it can attract students' interest in capturing learning material in class and develop student motivation in the learning process to produce an effective teaching and learning process to follow the learning objectives that have been prepared and subsequently will be achieved by students (Mustofa & Syafi'ah, 2018; Supriyono, 2018). Media has several benefits in supporting the learning process. The benefit of using media is that teachers can use media in the learning process, which will have an impact on students and can make students think more broadly, and students can analyze materials that are difficult to understand in the teaching and learning process in the classroom (Dwijayani, 2019; Julianto et al., 2021). Pop-up book media is innovative and uses low grades teaching and learning processes. A pop-up book is a book that is in the form of three dimensions (3D) and in which there is material packaged in a clear, attractive and contains pictures or illustrations that can attract students to be more enthusiastic in studying the material provided (Karisma et al., 2020; S. Nikmah et al., 2019). Pop-up book media is a unique and interesting media to bring up students' imagination directly with examples of interesting pictures and pictures according to the material provided (Elisa Diah Masturah et al., 2018; S. Nikmah et al., 2019). If the learning material is presented in the form of a pop-up book, it will be able to increase student interest in learning and increase student motivation. The advantages of pop-up book media are that they can display unique and interesting images, are practical to use as teaching materials, can increase students' enthusiasm in learning the material, have an attractive appearance, in which there are embossed images when the page is opened (Dewanti et al., 2018; Karisma et al., 2020; Kusumaningrum & Wahyono, 2019). Pop-up book media can be used as an appropriate learning tool, provide a pleasant experience for students in the learning process, and will never be forgotten by students (Fitri & Karlimah, 2018; Ningtiyas et al., 2019). The previous findings stated that the pop-up book media was effectively used as a supporting tool in the learning process, suitable for use in the learning process, and could be used in elementary schools (S. Nikmah et al., 2019; Sari, 2017). Other finding states that the developed pop-up book media is considered very practical to use in the learning process (Karisma et al., 2020; Putriningsih & Putra, 2021). Popup book media based on local wisdom in thematic learning is valid and practical to use in the learning process (Nabila et al., 2021). The difference in this study is that it uses a QR code application. The pop-up book media that will be designed is packed with innovations assisted by Qr code that can make it easier for students to access questions or evaluations of each subject in Theme 8, Sub-theme 4 by scanning the Or code that has been provided, and then students can answer evaluation questions regarding the materials in the pop-up book. This development research aims to create a pop-up book on theme 8 sub-theme 4 with the help of a QR code for the second grade of elementary school.

## 2. METHOD

This research is research on the development of pop-up book media, which in its development process uses the ADDIE model. The ADDIE model is an approach that emphasizes an analysis result in which each component is interrelated and interacts with one another (Rayanto & Sugianti, 2020). There are five stages in compiling the development of the ADDIE model, namely: the Analyze stage, the design stage, the development stage, the implementation stage, and the last stage is the evaluation stage (Sanggita & Nugrahanta, 2021; Tegeh

et al., 2014). This research developed at the implementation and evaluation stages could not be carried out due to time and situation constraints. The first stage is the analysis stage, which analyzes the media used, student needs, student characteristics, and school curriculum. The planning stage or design stage is carried out by designing a pop-up book media on Theme 8 Sub-theme 4 Second grade elementary school. The initial stage in making this pop-up book media is to determine the topics and learning materials that will be used, then design the pop-up book media following the chosen topic. The media development stage is carried out with suggestions from the supervisor. After the development stage is complete, it is continued with the media expert test activity, namely two lecturers, material experts, four lecturers, ten teachers, and ten students to review the media that has been developed. The assessment by each expert is carried out by providing an assessment sheet that has previously been tested and approved by the expert judges. The assessment sheets were given to two media experts and four material experts. The expert test results were analyzed to determine the validity of the pop-up book media Theme 8 Sub-theme 4 Second Grade Elementary School developed. The subject of this research is the media pop-up book Theme 8 Sub-theme 4, and the test object of this study is the validity of the pop-up book media Theme 8 Sub-theme 4 Second grade elementary school. The data generated in this development research are qualitative data and quantitative data. Qualitative data in the form of comments from all experts in the form of input, criticism, and suggestions. Quantitative data is data in which it is described in the form of scores or numbers obtained based on the results of expert tests from two media experts and four material experts. The following activities need to be carried out, designing and making instrument grids, providing guidance to supervisors, compiling instruments following existing indicators, and conducting instrument content validity tests to ensure the validity of the designed instrument. There are six aspects in compiling the instrument grid, namely aspects of content, cover, language, and material feasibility (S. Nikmah et al., 2019; Yamasari, 2010). The instrument validity test was carried out to determine whether the instruments that had been prepared could be said to be good or not. The content validity test of the instruments that have been compiled is carried out using the Gregory formula. The instrument grid for determining validity and practicality can be seen in Table 1.

Table 1. Validity of Pop-Up Book Media Assisted by Qr Code

No.	Criteria	Indicator	Assessment Item Number	Number of Items
1.	Aspects of material feasibility	Material equipment	1, 2, 3	3
	-	Material Accuracy	4,5,6	3
		Material up-to-date	7,8	2
2.	Aspects of language eligibility	Following linguistic rules	9,10,11,12,13,14	6
3.	Aspects of Physical Attractiveness	Physical quality of the media	22,23,24	3
4.	Display Aspect	Media formats and sizes	25,26,27	3
		Cover Design	28,30	3
		Media colors and fonts	29,31,32,33,34,35,36	7
		Image quality	37	2
		Suitability with student development	15	3
5.	Aspect of learning	Communicative	16	1
		Dialogic and interactive	17,18	2
		Relevance with material	19	1
		Learning support	20, 21	2
Total				37

(Source: Eri Karisma, 2020)

The instrument content validity test results were calculated using the Gregory formula inserted into a 2 x 2 cross tube to determine the instrument's content validity coefficient. In the development research, the data analysis technique used to process the data obtained was using qualitative descriptive statistical analysis techniques and quantitative descriptive statistics. Qualitative descriptive statistical analysis is research that contains the results of the analysis, the data obtained, and the results interpreted (Anggito & Setiawan, 2018; Yolanda et al., 2022). Quantitative descriptive statistical analysis is one of the research methods in which the results are written in the form of scores or numbers and analyzed using statistical analysis (Hermawan, 2019; Eri Karisma, 2020). To calculate the average resulting from the assessment of the two experts, namely media experts and material experts, quantitative descriptive statistical analysis methods were used. The results were

obtained from the average calculation, followed by calculations based on the five-scale conversion guidelines. The five-scale guidelines can be seen in Table 2.

Table 2. Five Scale Conversion Guidelines

Scoring range	Predicate	
$4.01$ < $ar{\chi} \leq 5.01$	Very good	
$3.34 < \bar{x} \le 4.01$	Well	
$2.66 < \bar{x} \le 3.34$	Enough	
$1.99 < \bar{x} \le 2.66$	Not good	
$0.99 < \bar{x} \le 1.99$	Very Bad	

(Kovan, 2012)

#### 3. RESULT AND DISCUSSION

#### Result

This research was conducted to develop a learning media, namely pop-up book media assisted by Or code on Theme 8 Sub-theme 4 of elementary schools tested for validity and practicality. The results of this development research were obtained through three stages: the analysis stage, the planning stage, and the development stage. The analysis phase is carried out in four stages: analysis of student needs in schools, analysis of the school curriculum, analysis of student characteristics, and analysis of good media. Researchers can know the analysis of student needs by carrying out preliminary observations to obtain information about problems that occur to students and the use of learning media in supporting the learning process. The needs analysis was carried out using a questionnaire method in the form of a google form filled in by the class II homeroom teacher and interview activities. Based on the results of the google form that has been filled in, the following results were obtained: 66.7% of teachers stated that it was necessary to develop thematic books, and 100% of teachers stated that in the learning process, using learning media assistance, 100% of teachers stated that they did not know what media was. The pop-up book and the teacher stated that they agreed that the learning development of Theme 8 Sub-theme 4 was packaged into a pop-up book with a percentage of 100%. Analysis of the curriculum used by schools is carried out by analyzing Core Competencies, Basic Competencies, and learning indicators contained in school curriculum books and teacher books with the help of a OR Code. Analysis of student character based on Piaget's theory in the learning process of elementary school students, especially low grades, in the learning process taking place in the classroom learning media, has an important role for students to understand the lessons given by the teacher quickly. The last stage is media analysis which is carried out to determine whether the media used in the school is appropriate or good for use in the learning process and whether the media to be developed already exists in the school. Several criteria are used to develop the Qr codeassisted pop-up book media: material aspects, language, learning, physical attractiveness, and appearance. The planning stage is carried out by designing the initial design of the pop-up book media. The initial design of the finished media was then consulted with the supervisor and continued at the development stage. The initial design of the media can be seen in Figure 1.

The development stage of the activities carried out is designing the pop-up book media according to the initial design or the initial design that has been made. The pop-up book media that has been designed in it consists of a front cover, on the first page, there are instructions for use, basic competencies, and a table of contents, the contents of which contain Civics, Indonesian, Mathematics, and PJOK materials and the last there is a Qr code containing exercises questions at the end of each learning material. An instrumented test designed for judges is carried out in the development stage. Furthermore, the instrument was assessed by each expert, and researchers analyzed the data obtained from the results of the media validity test to determine the validity of the pop-up book media that had been developed. The results of data analysis were carried out looking for score results using the mean formula or the average score obtained through instrument sheets that experts had filled out. The display of pop-up book media with the help of Qr code on the developed theme 8 sub-theme 4 grade two elementary schools can be seen in Figures 2, 3, and 4.

Based on the data, the average score obtained from media and material experts is 4.99, with very good qualifications. After knowing the validity of the pop-up book media that has been developed, then the practicality test of the pop-up book media is then carried out. While the practical results of each item that two teachers and ten students have filled out are at a score of 4.01 < X 5.01. The qualifications of each completed assessment item have very good qualifications with an average score of 4.73. From the results obtained, it is stated that the pop-up book media assisted by Qr code is very well used as a medium in the learning process in the second grade of elementary school.

## CONTOH PENGGUNAAN HURUF KAPITAL, TANDA TITIK DAN TANDA TANYA DALAM KALIMAT YANG BESAR.





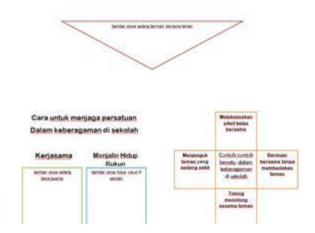


Figure 1. Initial media design



Figure 2. Media Cover Image



**Figure 3**. Basic Competencies, Instructions, Table of Contents





Figure 4. Picture of Pop-Up Book Media Content

## Discussion

This research is a study to develop learning media to support the learning process in elementary schools through pop-up book media assisted by Qr code. The subject of this research is the pop-up book media, and the object of this research is the validity of the pop-up book media. Planning and development, the research results were obtained in the form of pop-up book media assisted by Qr code Theme 8 Sub-theme 4 Second grade Elementary School which is already valid. First is the material aspect. The material presented is appropriate based on student characteristics, Basic Competencies, Core Competencies, and learning objectives. In addition, to pop-up book media, other activities are designing evaluation questions that will be included in the Qr code. The evaluation questions in the pop-up book media assisted by the Qr code consist of five questions from each subject. Pop-up book media can be used as an appropriate learning tool in the learning process to be able to provoke and motivate students in the learning process (Nabila et al., 2021; Youpika, 2021). Second, on the design aspect. The Qr code-assisted pop-up book media is made of A5-sized art paper. After printing, the next step is cutting, folding, and pasting the paper into interesting parts following the initial design that has been made. The pop-up book media developed in it contains thirteen pages consisting of a front cover, on the first page there are instructions for use, basic competencies, a table of contents, then continued on the next page consisting of content and evaluation exercises packaged into a Qr code. Visual media can provide a very interesting visualization of stories because the images presented can move in any part that is opened or shifted, and the appearance is in two or three dimensions (Goestiani et al., 2021; Nabila et al., 2021)

Third, in the learning process, the pop-up book media with the help of Qr code has a high contribution to developing children's interest in reading and learning in the second grade. The advantages are that the pop-up book media can provide interesting image visualization and can attract students' interest, it can be used as a support for the learning process, whether it is used in groups or individually, and the pop-up book is easy to carry anywhere and easy to use by students. In addition to the advantages, there are several disadvantages of pop-up book media, namely the processing time, which takes quite a long time, and this pop-up book is easily damaged if not stored properly (Ismawati et al., 2021; Musfirah et al., 2021). Another advantage of the pop-up book media is that looking at pictures can give students insight into the material they read and learn more easily. Pop-up book media can also make it easier for children to know the objects' descriptions easily, so they are suitable for use in the learning process. This finding is reinforced by previous findings stating that the pop-up book media was suitable for classroom learning activities (Safi et al., 2017). The developed pop-up book media affects elementary school students' learning outcomes (Masturah et al., 2018). The pop-up book media is included in the eligibility criteria and is very valid (Dewanti et al., 2018). The pop-up book learning media results can be very good because they meet the specified criteria and get a positive response from students (Goestiani et al., 2021). Pop-up book media is very well used in classroom learning, with the percentage of validity and practicality tested for elementary school students (Dwija, 2021). The results of these findings indicate that the Or code-assisted pop-up book media that has been developed is valid and suitable for use in the teaching and learning process in the second grade. Therefore, the pop-up book media is very practical and can increase students' interest in learning because it has visualization in three-dimensional images. The Qr code-assisted popup book implies that it can be used by teachers in the learning process in the classroom on theme 8 sub-theme 4 for second grade of elementary school to support the learning process so that students feel happier following the learning process. Students find it easier to understand the material being taught in the books and materials explained by the teacher in class. There are weaknesses and strengths in developing pop-up book media. It takes a long time in the manufacturing process and is easily damaged. With the help of Qr code, the pop-up book media is used as a new reference by other researchers with the innovations and new findings contained in it, and other researchers can develop it more broadly.

## 4. CONCLUSION

Media pop-up book assisted by Qr code is an effective media and can be used to support the learning process in Theme 8 Sub-theme 4 second grade elementary school. This Qr code-assisted pop-up book media in demand by students is due to the attractive design and colors and the fast delivery of material that makes it easy for students to understand the material presented.

# 5. REFERENCES

Buchari, A. (2018). Peran Guru Dalam Pengelolaan Pembelajaran. *Jurnal Ilmiah Iqra'*, 12(2), 106. https://doi.org/10.30984/jii.v12i2.897.

Dewanti, H., Toenlioe, A. J. E., & Soepriyanto, Y. (2018). Pengembangan Media Pop-Up Book untuk Pembelajaran Lingkungan Tempat Tinggalku Kelas IV SDN 1 Pakunden Kabupaten Ponorogo. *Jurnal Kajian Teknologi Pendidikan*, 1(3), 221–228. http://journal2.um.ac.id/index.php/jktp/article/viewFile/4551/3408.

Dwija. (2021). Pengembangan Media Pop-Up Book Pada Materi Mengidentifikasi Tokoh-tokoh Cerita Fiksi Secara Lisan Untuk Siswa Kelas IV SDN Lirboyo 1. *Jurnal Pendidikan Dan Konseling*, 4(1), 113–117.

- https://doi.org/10.31004/jpdk.v4i1.3452.
- Dwijayani, N. M. (2019). Development of circle learning media to improve student learning outcomes. *Journal of Physics: Conference Series*, 1321(2), 171–187. https://doi.org/10.1088/1742-6596/1321/2/022099.
- Fitri, N. A., & Karlimah. (2018). Pengembangan Media Pop-Up Book Kubus dan Balok untuk Siswa Kelas V Sekolah Dasar. *PEDADIDAKTIKA: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 5(4), 226–239. https://ejournal.upi.edu/index.php/pedadidaktika/article/view/13196/8502.
- Goestiani, N. M. R. D., Wibawa, I. M. C., & Rati, N. W. (2021). Pop-Up Book Media on Animal Life Cycle Topic. *Jurnal Ilmiah Sekolah Dasar*, *5*(3), 434–442. https://doi.org/10.23887/jisd.v5i3.39541.
- Hamid, A. (2017). Upaya Peningkatan Kompetensi Guru Dalam Menyusun Perangkat Pembelajaran Melalui Supervisi Akademik Yang Berkelanjutan SDN 007 Panipahan Darat. *JURNAL PAJAR (Pendidikan Dan Pengajaran)*, 1(2), 277 289. https://doi.org/10.33578/pjr.v1i2.4598.
- Hermawan. (2019). METODOLOGI PENELITIAN PENDIDIKAN Kuantitatif, Kualitatif & mixed methode (p. 16). Kuningan: Hidayatul Quran Kuningan.
- Heryanto, F. D. (2021). Hubungan Guru Kreatif Dan Inovatif Dalam Pembelajaran Dengan Hasil Belajar Ipa Siswa Kelas V Sdn 106833 Desa Wonosari Tanjung Morawa Deli Serdang. *Jurnal Ilmiah Fakultas KIP Universitas*, *5*(1), 17. https://doi.org/10.36764/jc.v5i1.551.
- Ismawati, T, M. R., & Afiif, A. (2021). Peranan Media Gambar Berbasis Pop-Up Book dalam Mengembangkan Kemampuan Mengenal Huruf pada Anak Usia Dini. *Generasi Emas: Jurnal Pendidikan Islam Anak Usia Dini*, 4(1), 23–34. https://doi.org/10.25299/jge.2021.vol4(1).5678.
- Jabri, U., Sukaryadi, A., Andika, Amin, S. Y., Arni, Pairi, M. S., Faika, N., M, N. I., Supri, Yuneda, Mahmud, Misna, Sumi, Rosminah, & Elihami. (2020). Media Pembelajaran Pop Up Book Kelas V SDN 181 Curio Yang Kreatif Dan Inovatif. *Maspul Journal Of Community Empowerment*, 2(2), 34–39. https://ummaspul.e-journal.id/pengabdian/article/view/784.
- Julianto, H., Madjdi, A. H., & Kanzunnudin, M. (2021). Pengembangan Media Pop-Up Book Batik Lasem untuk Sekolah Dasar. *Jurnal Imiah Pendidikan Dan Pembelajaran*, 5(2), 287. https://doi.org/10.23887/jipp.v5i2.30759.
- Karisma, I. K. E., Margunayasa, I. G., & Prasasti, P. A. T. (2020). Media Pop-Up Book pada Topik Perkembangbiakan Tumbuhan dan Hewan Kelas VI Sekolah Dasar. *Jurnal Ilmiah Sekolah Dasar*, 4(2), 121–130. https://doi.org/10.23887/jisd.v4i2.24458.
- Koyan, I. W. (2012). Statistik Pendidikan. Singaraja: Universitas Pendidikan Ganesha.
- Kusumaningrum, K., & Wahyono, S. B. (2019). Developing A Pop-Up Storybook Based on Multicultural Education for Early Childhood Students. *Jurnal Obsesi*, 1(4), 41 49. https://doi.org/10.31004/obsesi.v4i1.230.
- Lexi, J., & M.A., M. (2010). Metodologi Penelitian Kualitatif. In Metodologi Penelitian Kualitatif. In *Rake Sarasin*. Jawa Barat: CV Jejak..
- Masturah, E D, Mahadewi, L. P. P., & ... (2018). Pengembangan Media Pembelajaran Pop-Up Book pada Mata Pelajaran IPA Kelas III Sekolah Dasar. *Jurnal EDUTECH ..., 6,* 212–221. https://doi.org/10.23887/jeu.v6i2.20294.
- Masturah, Elisa Diah, Mahadewi, L. P. P., & Simamora, A. H. (2018). Pengembangan Media Pembelajaran Pop-Up Book pada Mata Pelajaran IPA Kelas III Sekolah Dasar. *Jurnal EDUTECH Universitas Pendidikan Ganesha*, 6(2), 212–221. https://doi.org/10.23887/jeu.v6i2.20294.
- Minsih, M., & D, A. G. (2018). Peran Guru Dalam Pengelolaan Kelas. *Profesi Pendidikan Dasar*, 1(1), 20. https://doi.org/10.23917/ppd.v1i1.6144.
- Musfirah, Maryam, S., & Yunarsi, D. A. (2021). Pengaruh Media Pembelajaran Pop-up Book terhadap Hasil Belajar Siswa pada Materi Perpindahan Kalor. *Pinisi Journal Education*, 1(1), 137–144.
- Mustadi, A., Zubaidah, E., & Sumardi, S. (2016). Peran Komite Sekolah Dalam Peningkatan Mutu Pembelajaran Di Sekolah Dasar. *Jurnal Cakrawala Pendidikan*, *35*(3), 312–321. https://doi.org/10.21831/cp.v35i3.10578.
- Mustofa, R., & Syafi'ah, R. (2018). Pengembangan Media Pembelajaran Pop Up Book Materi Kenampakan Permukaan Bumi Mata Pelajaran IPA Kelas III SD. *ELSE (Elementary School Education Journal)*, 2, 30–41. https://doi.org/10.30651/else.v2i2.1723.
- Nabila, S., Adha, I., & Febriandi, R. (2021). Pengembangan Media Pembelajaran Pop Up Book Berbasis Kearifan Lokal pada Pembelajaran Tematik di Sekolah Dasar. *Jurnal Basicedu*, *5*(5), 3928–3939. https://doi.org/10.31004/basicedu.v5i5.1475.
- Nikmah, N. A., Rohman, F., & Suhadi. (2019). Buku Ajar Ekologi Komunitas Flora Savana Bekol Taman Nasional Baluran Berbasis Problem Based Learning untuk Matakuliah Ekologi. *Jurnal Pendidikan: Teori, Penelitian Dan Pengembangan*, 4(12), 1655—1659. https://doi.org/10.17977/jptpp.v4i12.13085.
- Nikmah, S., Nuroso, H., & Reffiane, F. (2019). Pengaruh Model Pembelajaran Terpadu Tipe Shared Berbantu Media Pop- Up Book Terhadap Hasil Belajar. *Jurnal Pedagogi Dan Pembelajaran*, 2(2), 264. https://doi.org/10.23887/jp2.v2i2.17920.
- Ningtiyas, T., Setyosari, P., & Praherdiono, H. (2019). Pengembangan Media Pop-Up Book Untuk Mata Pelajaran IPA Bab Siklus Air Dan Peristiwa. *Jurnal Kajian Teknologi Pendidikan*, 2(2), 115–120. https://doi.org/10.17977/um038v2i22019p115.

- Pitaloka, S. E. D., & Sumardjono. (2017). Pengembangan Media Komik dengan Model Discovery Learning untuk Mata Pelajaran PPKN Subtema Bumi Kelas 2 SD. *E-Jurnal Mitra Pendidikan*, 1(5), 485–495. http://e-jurnalmitrapendidikan.com/index.php/e-jmp/article/view/95.
- Putri Wangi, I. D. A., & Gede Angung, A. (2021). Pengembangan Media Pembelajaran EFlashcard Pada Muatan Pelajaran IPA Kelas V. *MIMBAR PGSD Undiksha*, 9(1), 150. https://doi.org/10.23887/jjpgsd.v9i1.32355.
- Putriningsih, N. K., & Putra, M. (2021). Media Pop-Up Book Berorientasi Pendekatan Saintifik pada Muatan Pelajaran PPKn Kelas V Sekolah Dasar. *Jurnal Edutech Undiksha*, 8(1), 131–139. https://doi.org/10.23887/jeu.v9i1.32686.
- R, D. S. M., & Putra, E. D. (2021). Peran Guru Dalam Membentuk Karakter Siswa Peduli Terhadap Lingkungan Pada Sekolah Adiwiyata di SD. *Mimbar Ilmu*, *26*(3), 346–354. https://doi.org/10.23887/mi.v26i3.39617.
- Rayanto, Y. H., & Sugianti. (2020). *Penelitian Pengembangan Model Addie Dan R2D2: Teori & Praktek*. Pasuruan: Lembaga Academic & Research Institute.
- Saifulloh, A. M., & Darwis, M. (2020). Manajemen Pembelajaran dalam Meningkatkan Efektivitas Proses Belajar Mengajar di Masa Pandemi Covid-19. *Bidayatuna: Jurnal Pendidikan Guru Mandrasah Ibtidaiyah*, *3*(2), 285. https://doi.org/10.36835/bidayatuna.v3i2.638.
- Sanggita, D. T., & Nugrahanta, G. A. (2021). Peran Permainan Tradisional guna Menguatkan Karakter Kebaikan Hati pada Anak. *EDUKATIF: JURNAL ILMU PENDIDIKAN*, 4(1), 79–93. https://doi.org/10.31004/edukatif.v4i1.1707.
- Sari, S. A. (2017). The Development of Pop-up Book on the Role of Buffer in the Living Body. *European Journal of Social Sciences Education and Research*, *10*(2), 12–23. https://doi.org/10.26417/ejser.v10i2.p213-221.
- Setianingrum, R. S., Syamsuri, S., & Setiani, Y. (2020). Analyzing Students' Learning Difficulties In Algebra. *MaPan: Jurnal Matematika Dan Pembelajaran, 8*(1). https://doi.org/https://doi.org/10.24252/mapan.2020v8n1a2.
- Supriyono. (2018). Pentingnya Media Pembelajaran Untuk Meningkatkan Minat Belajar Siswa SD. *Edustream: Jurnal Pendidikan Dasar, II*(1), 43–48. https://journal.unesa.ac.id/index.php/jpd/article/view/6262/3180.
- Tegeh, I. M., Jampel, I. N., & Pudjawan, K. (2014). *Model Penelittian Pengembangan*. Universitas Pendidikan Ganesha.
- Yamasari, Y. (2010). Pengembangan Media Pembelajaran Fisika Evaluasi Media Pembelajaran Bebasis ICT (Validitas, Praktikalitas dan Efektivitas). *Jurnal Seminar Nasional Pascasarjana X-ITS*.
- Yansyah, Y., Hamidah, J., & Ariani, L. (2021). Pengembangan Big Book Storytelling Dwibahasa untuk Meningkatkan Literasi Anak Usia Dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(3), 1449–1460. https://doi.org/10.31004/obsesi.v6i3.1779.
- Yolanda, S., Winarni, R., & Yulisetiani, S. (2022). The New Way Improve Learners' Speaking Skills: Picture and Picture Learning Media Based on Articulate Storyline. *Journal of Education Technology*, 6(1), 173–181. https://doi.org/10.23887/jet.v6i1.4.
- Youpika, F. (2021). Pengembangan Media Belajar Pop-Up Untuk Materi Dongeng Siswa Kelas 3 Sekolah Dasar. *Jurnal Pustaka Indonesia*, 1(1), 56–64. https://www.siducat.org/index.php/jpi/article/view/264.