



The Effectiveness of Pop-Up Book Media in Developing Literacy Ability of Elementary School Students: Systematic Literature Study

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Keywords

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Abstract

This study aims to examine the effectiveness of Pop-Up Book media in improving the literacy skills of elementary school students through the Systematic Literature Review (SLR) approach. Literacy is a challenge in Indonesia because of the monotonous learning approach. Pop-Up Books are interactive visual media designed to increase students' interest and understanding of reading and writing skills. Seven articles that met the inclusion criteria were analyzed. The results showed that this media improved learning outcomes, reading interest, and student engagement. However, challenges such as time constraints, costs, teacher skills, and cultural mismatches are still obstacles. This study recommends supporting strategies such as teacher training and provision of relevant media.

1. Introduction

Literacy is an essential basic skill in the world of education, especially at the elementary school level. Reading and writing skills are not only determinants of academic success, but also important in supporting students' daily lives. However, data from the National Assessment conducted by the Ministry of Education, Culture, Research, and Technology shows that the level of reading comprehension of Indonesian students is relatively low (Kemendikbudristek, 2023), one of which is due to monotonous learning methods. Visual-based and interactive learning models such as the Pop-Up Book have been proven to improve students' motivation and literacy skills (OECD, 2021). Pop-Up Books as a three-dimensional medium are able to facilitate students' understanding and memory. This article raises the effectiveness of Pop-Up Book media in literacy learning in elementary schools, as well as highlights the challenges of its implementation.

One of the causes of low literacy skills is the use of monotonous and less varied learning methods. The learning model that focuses on textbooks and teacher lectures is considered less able to attract students to read and write actively.

One of the effective media to support literacy learning is the Pop-Up Book. This type of book has three-dimensional elements that appear when the page is opened, helping students visualize the story and understand the content better. This visualization also increases students' motivation and confidence in reading and writing. A number of studies have shown the effectiveness of Pop-Up Books in improving understanding of reading content, memory of information, and active involvement of students in writing activities. The use of this media provides a more contextual and meaningful learning experience.

Thus, this article provides thematic synthesis of various studies to help educators understand the potential and constraints of using Pop-Up Books. This research aims to provide a deeper understanding of the effectiveness of Pop-Up Book media in literacy learning of elementary school students and explore the challenges that may be faced in its implementation in the classroom.

2. Method

This study applied the Systematic Literature Review (SLR) method to evaluate the extent of the effectiveness of Pop-Up Book media in improving the literacy skills of elementary school students. This approach is carried out through the process of collecting, selecting, and analyzing various literature relevant to the research focus. The literature sources used include scientific journals that discuss the use of Pop-Up Books in the context of literacy learning.

Data collection is done with academic databases, such as Publish or Perish. The search was conducted using keywords such as "Pop-Up Book in literacy learning", "visual media and reading comprehension of elementary school students", and "the influence of interactive media on basic literacy". After obtaining a number of relevant articles, the literature was screened using inclusion and exclusion criteria. The inclusion criteria set include publications in the last five years, as well as discussions on the effectiveness of Pop-Up Books in developing students' literacy skills.

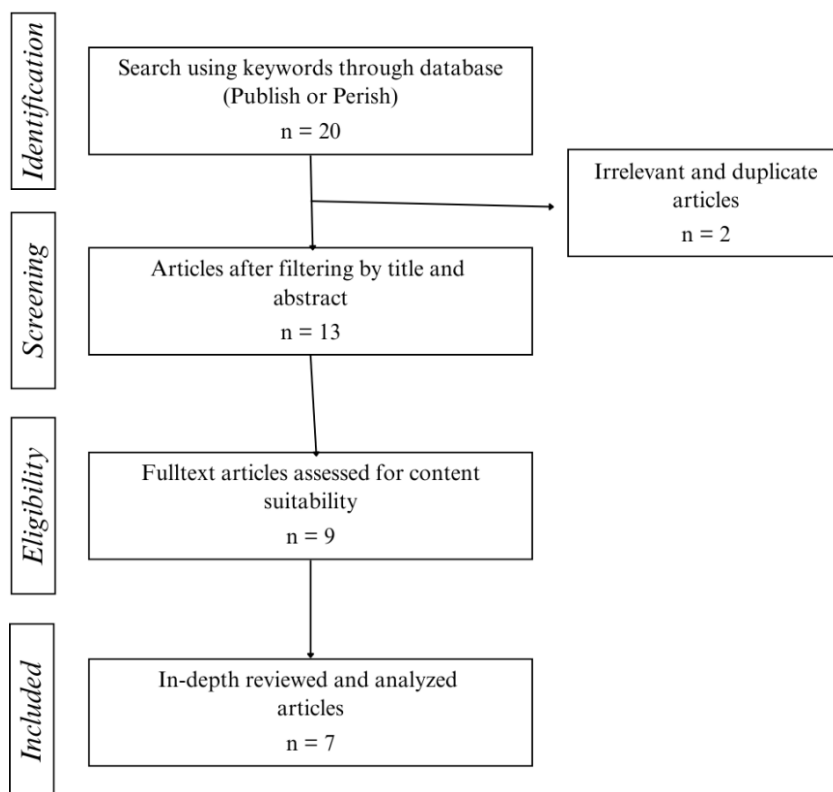


Figure 1. Prisma Flow Diagram

The data that has been collected is analyzed with a thematic approach, where the findings of each study are grouped into several main categories, such as the improvement of reading comprehension skills, students' motivation to learn, and the influence of Pop-Up Books on writing skills. This research also explores various challenges and supporting factors in the implementation of Book Pop-Ups in the classroom environment. Through this SLR approach, it is hoped that a more comprehensive understanding of the effectiveness of Pop-Up Books as a literacy medium for elementary school students will be obtained.

3. Results and Discussion

3.1. Pop-Up Book Media and Its Influence on Children's Literacy

Literacy is a basic skill that every student must have at the basic education level. However, many elementary school students still have low literacy skills, especially in reading comprehension, interpreting information, and conveying ideas in writing or orally. One of the factors that causes students' literacy skills to be low is the use of learning methods that tend to be monotonous and less varied. Learning that relies only on textbooks and teacher lectures often makes students feel bored and less motivated to learn to read or write.

To overcome these problems, learning media is needed that can attract students' attention and increase their interest in reading. One of the media that has proven to be effective in improving children's literacy skills is the Pop-Up Book. This media not only presents stories or information in visual form, but also presents interactive three-dimensional elements, so that it can stimulate students' curiosity and make reading activities more fun.

Researchers have conducted a literature review by identifying as many as 13 articles related to the research topic. From all these articles, an in-depth analysis was carried out and 7 articles were selected that specifically discussed the effectiveness of pop-up book media. The selected articles are then further classified based on their suitability with focus and objectives, the research of this article selection process is summarized in Table 1. The following:

Table 1. Article Selections Strategy

No	Information	Total
1.	Year search 2020–2024	20
2.	Titles relevant to the topic of Pop-Up Books and literacy	13
3.	Articles presenting findings, results, and media effectiveness	9
4.	Featured articles for in-depth analysis	7

The articles analyzed in this study were selected based on criteria that have been determined by the researcher, namely focusing on findings regarding the effectiveness of the use of Pop-Up Book media. The selected articles were then analyzed and compiled in Table 2, which contains a summary of findings related to the effectiveness of Pop-Up Book media in developing the literacy skills of elementary school students.

Table 2. The Effectiveness of Pop-Up Book Media in Developing Literacy Ability of Elementary School Students

Article	Research Methods	Findings	Reference
Social Science Content-Based Media Pop-Up Books Human Interaction with Their Environment in Grade V Students Primary school.	R&D (ADDIE Model)	The Pop-Up book is effective in improving social studies learning outcomes about human interaction and the environment, shown by the calculation value $t = 7.19 > t_{table} = 1.717$.	Rela, N. L. C., Sujana, I. W., & Ganing, N. N. (2022). https://doi.org/10.23887/jippg.v5i3.58022
Pop-up book media to support literacy success Reading elementary school students	Systematic Literature Review	Pop-Up books are attractive to students because they feature interactive images and stories, suitable as a reading literacy medium.	Susanti, I. A. (2021). https://doi.org/10.30738/wd.v9i1.10388
Development of Pop-Up Book Learning Media in Elementary School	R&D (Borg & Gall, validation stage)	Pop-Up Book Media has an eligibility score of 88.3%, which is very feasible to be implemented to increase students' reading interest.	Ilham, A., Isnanto, & Puluhalawa, K. (2020). Proceedings of the Gorontalo State University Webinar.
Analysis of the Initial Needs of the	Quality Descriptive	There is no interesting media based on the local	Utari, RSD, et al. (2024). Pendas, 9(4), 332–335.

Development of Local Culture-Based UP-Book Pop Media on Science Literacy in Schools		culture in elementary schools. Pop-Up Books have the potential to increase science literacy and introduce culture.	
Development of POP UP BOOK Learning Media to Improve Literacy Counting Grade II Students in Elementary School	R&D	Expert validation shows media viability: 93% (literacy) and 89.3% (numeracy).	Moerti, T.D., et al. (2023). INNOVATION, 3(3), 11364–11374
Analysis of the Needs for the Development of Pop Up Book Learning Media Based on Science Literacy Human Digestive System Material for Elementary School Class V	Qualitative Descriptive	Science literacy is not optimal, the Pop-Up Book media is very interesting and easy for students to understand.	Atikasari, Y., & Desstya, A. (2022). https://doi.org/10.31004/basicedu.v6i4.3336
Analysis of the Use of Pop Up Book Learning Media in Improving Science Learning Outcomes in Elementary Schools: Literature Review	Systematic Literature Review	The use of Pop-Up Books can improve interest, learning outcomes, and critical thinking skills in science lessons.	Rahmadita, J., et al. (2023). JIM, 1(1), 31–42.
Development of Local Culture-Based UP-Book Pop Media on Science Literacy in Schools		culture in elementary schools. Pop-Up Books have the potential to increase science literacy and introduce culture.	

3.2. Challenges faced by teachers and students in the use of Pop-Up Books in the classroom

Although the Pop-Up Book media has various advantages in improving the literacy skills of elementary school students, its use in the classroom also faces a number of challenges that need to be addressed by educators. This challenge is related to both technical and non-technical aspects that affect the effectiveness of the application of these media in learning.

One of the main challenges is the limited time that teachers have in designing and integrating Pop-Up Books into learning activities. The process of creating this media is quite time-consuming, starting from designing visual designs to the production process, while teachers also have other teaching and administrative burdens (Susanti, 2021). In addition, not all teachers have adequate design and creativity skills to create an attractive Pop-Up Book that fits the curriculum taught (Ilham et al., 2020). In addition, limited resources and costs are also obstacles. Pop-Up Book media requires

quality materials and certain equipment, which is often not available in schools on a budget (Rela et al., 2022). In addition, this media tends to be fragile and easily damaged, especially if used by low-grade students who are not fully able to maintain learning aids properly (Moerti et al., 2023).

Another challenge is the variation in students' responses to the use of Pop-Up Book media. Although the majority of students show interest, some students focus too much on the visual aspect and ignore the understanding of the content of the reading. This shows that assistance from teachers is still very necessary so that reading activities remain meaningful (Rahmadita et al., 2023).

Furthermore, the lack of integration between the content of the Pop-Up Book and the context of the local culture makes some materials feel less relevant to students. Media that is not in accordance with students' life experiences can reduce the effectiveness of contextual learning (Utari et al., 2024). On the other hand, teachers also face difficulties in evaluating learning outcomes thoroughly after the use of this media, especially in the aspects of critical thinking and writing (Atikasari & Desstya, 2022). By understanding these challenges, it is hoped that educators and policymakers can design more appropriate strategies to support the optimal use of Pop-Up Book media in literacy learning.

3.3. Conclusion

This research shows that Pop-Up Book media is one of the effective learning media in developing literacy skills of elementary school students. Through attractive visual presentations and interactive three-dimensional elements, Pop-Up Books are able to improve students' reading comprehension, learning interest, and writing skills. The results of the study from various articles analyzed strengthen the finding that the use of this media can create a more fun and participatory learning atmosphere.

However, the implementation of Pop-Up Books in the classroom still faces a number of challenges, both from the teacher and student sides. Some of the obstacles found include limited time, cost, teachers' skills in designing media, and the lack of optimal integration of the book content with the local cultural context of students. In addition, teacher assistance is needed so that the use of this media is not only visually appealing, but also cognitively meaningful.

Therefore, strategic efforts are needed in optimizing the use of Pop-Up Books as literacy media, such as through teacher training, adequate resource procurement, and media development that suits the needs and characteristics of students. With the right approach, Pop-Up Books can be an innovative solution in improving the quality of literacy learning at the elementary school level. The limitations of this study are the limited number of articles and the absence of a thorough quantitative analysis. Further research is recommended to test the Pop-Up Book directly in a classroom context and evaluate its impact on aspects of critical thinking.

Author Contributions

Ferra Femyla Sahab: Conceptualization, Methodology, Literature Review, Data Curation, Formal Analysis, Writing – Original Draft Preparation.

Candra Utama: Supervision, Validation, Writing – Review and Editing, Project Administration.

All authors have made substantial contributions to the conception and design of the study. Both authors have read and approved the final manuscript for submission. Ferra Femyla Sahab: Conceptualization, Methodology, Literature Review, Data Curation, Formal Analysis, Writing – Original Draft Preparation.

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Declaration of Conflicting Interests

The authors declared that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. The study was conducted solely for academic purposes without any influence from external parties, organizations, or institutions that might lead to bias in the research process or findings.

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