



## **Development of a Pair Check Cooperative-Based Zig-Zag Book to Improve the Writing Skills of Elementary School Students**

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### **Abstract**

This research and development (R&D) aimed at creating educational media designed to enhance skills in writing procedural texts. The research process followed eight key stages: identifying potential issues, data collection, product design, design validation, design revision, product trials, further product revisions, and concluding with usage trials. The participants in this study included fourth-grade students from Ngaliyan 05 Elementary School and Wonosari 02 Elementary School. The findings indicated a clear need among teachers and students for learning media to support their educational goals effectively. In response, the researchers developed the Zig-zag Book media based on the Pair Check Cooperative Learning method. This media encompasses a concise summary of the material, examples of procedural texts accompanied by visuals, student worksheets, and learning evaluations. Feedback from both students and teachers underscored several advantages of the developed media: it features an engaging design with bright colors that appeal to elementary school children, offers a variety of texts, images, examples, and practice questions, and presents precise instructions for use, making it user-friendly. The material is articulated succinctly, employing language and terminology that is accessible and easily understood. Field trials revealed that the media's feasibility was rated at 85% for the content and 93% for the overall quality. Furthermore, students' learning outcomes exhibited significant enhancement, with pre-test and post-test results yielding an impressive N-gain of 72.07%. This evidence suggests that the Zig-zag Book media, based on the Pair Check Cooperative Learning method, effectively improves students' writing skills.

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## INTRODUCTION

Learning Indonesian is one of the learning processes carried out in elementary schools. Learning Indonesian involves four language skills: listening, reading, writing, and speaking. Writing skills are one of the skills that elementary school students must master. Writing is the activity of scribbling on a blackboard or other writing tools (Hanisa et al., 2023). Writing skills are competencies that students must master to express meaning using various written languages accurately and fluently. This aims to enable students to express and express their thoughts, ideas, and feelings in various types of writing (Sitanggang et al., 2023). In addition, by writing, students can also learn the use of good and correct language rules (Agustin & Indihadi, 2020). One of the texts that students must master is procedural text. Procedural text is a text that provides instructions for doing something through a series of predetermined actions or steps (Kurniawati et al., 2023). Procedural text is also defined as a text that explains the steps in making or doing something (Yanti et al., 2018). The skill of writing procedural text is a skill that is difficult to teach if teachers do not use learning strategies in the form of methods and media properly (Rusino, 2021). Teachers who are fixated on specific learning methods and media are also a significant factor in declining students' writing skills (Hadyanti, 2022).

Learning media plays a crucial role in education and significantly impacts learning success. It is utilized to deliver messages or educational content that stimulate students' thoughts, emotions, attention, and skills, thereby enhancing the teaching and learning process (Wahid, 2022). Learning media can help students increase their interest and desire to learn and help teachers convey information. Apart from that, in selecting media, you must also pay attention to the criteria of students and the learning that will be carried out appropriately so that the use of media is maximized to achieve the goals to be achieved (Hasan et al., 2021). In order for students' learning abilities and interest to increase, there needs to be support from interesting learning media so that it has a better and more effective impact than before (Ntobuo et al., 2018). In research (Simatupang, 2020), writing procedural texts is also inseparable from the influence of the use of media and learning models.

Utilizing engaging and relevant learning media can significantly enhance student motivation and focus, thereby facilitating successful educational outcomes (Alawiyah et al., 2024). Of the many learning media, print media in the form of books is a media that is often used. However, of the many types of books, zig-zag books are unique in attracting students to learning. A zig-zag book is a writing medium in the form of paper folded to form a zig-zag or "Z" letter pattern with various sizes as needed (Khasanah, 2016). The zig-zag book media can improve students' writing skills because it has many positive values, and its content is interesting and easy to use in the learning process because it contains markers in the order of use (Komalasary et al., 2019). This zigzag arranged and shaped book media can be used

in two ways, namely like a book in general that can be turned over on each page or opened to form zig-zag folds without the need to turn the pages (Rizkya & Rukmi, 2020). Apart from that, zig-zag books are learning media that present information in an interesting and structured manner to support learning in the classroom so that students do not get bored and improve their writing skills. This is reinforced by a study titled "Development of Augmented Reality-Assisted Zig-zag Book Media in Learning to Write Narratives in Elementary Schools," which concluded that zig-zag books are worthy of use in learning because they have been proven to be effective in improving students' writing skills (Farizqo Irvan et al., 2023). The zig-zag book media developed can improve students' writing skills because it has advantages, including an attractive appearance with bright background colors by the characteristics of elementary school students; equipped with text, images, examples, and practice questions; there are instructions for using the media so that it is easier for students to use the media being developed; the material is presented concisely and; The language and terms used are easy to understand.

A learning model is a structured approach used to design educational materials and facilitate learning in classrooms or other settings. There are various learning models, including the pair-check cooperative model. This model involves students working in pairs or small groups, promoting independence and enhancing their problem-solving skills as they tackle assigned tasks (Thoha et al., 2023). This pair-check type cooperative model has advantages, including improving student learning outcomes, practicing responsibility cooperation, and the ability to provide assessments (Halik et al., 2023). This is reinforced by (Sudarti et al., 2024) A study entitled "The Use of the Pair-Check Learning Model on Students' Ability to Write Negotiation Texts" shows that the pair-check learning model is better than the conventional learning model. In addition, this model was also proven to improve students' writing skills in a study entitled "Improvement of Procedural Text Writing Ability with Pair Check Learning Model" by (Simatupang, 2020). Zig-zag book media, which can improve writing skills when combined with an interactive learning model such as the pair check type cooperative model, will optimally achieve learning objectives.

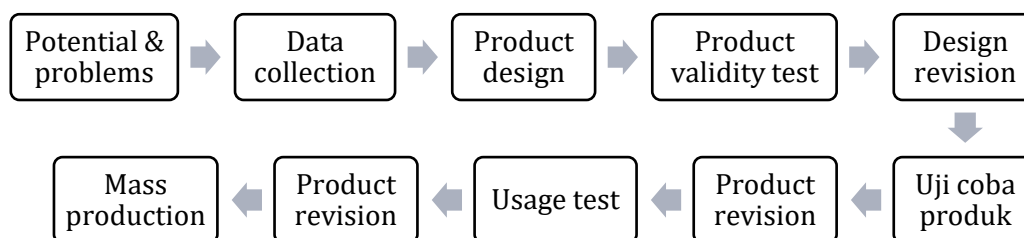
Based on the results of direct observation on Indonesian learning in grade IV of SD Negeri Wonosari 02, teachers still use book media and tools in the surrounding environment without any other variations so that students are passive during the teaching process. In addition, the utilization and use of videos from YouTube are also rare. The limited media and learning resources cause some students to lack understanding of the material being taught, so learning outcomes are not optimal. This happens in the content of Indonesian learning. Students learning outcomes in the learning content, especially in the material of writing procedural texts, obtained a result of 46.43%, which was included in the category of less. Therefore, teachers should use media supported by attractive learning models to facilitate learning so

that learning outcomes increase significantly. Using cooperative zig-zag book media based on the pair check type will have a good impact because this media has positive value in learning (Komalasary et al., 2019).

The pair check-type cooperative-based zig-zag book is an innovative tool designed for teachers to enhance their students' writing skills. This modified media allows educators to create engaging zig-zag books using Canva, ensuring that the materials are appealing enough to hold students' attention during pair-check-type cooperative learning activities. This research analyzes the challenges and obstacles teachers and students face while learning to write procedural texts in the Indonesian language. The goals of this study are threefold: (1) to develop pair check-type cooperative zig-zag book media that will improve the writing skills of fourth-grade students; (2) to evaluate the feasibility of this media in enhancing those writing skills; and (3) to assess the effectiveness of the media in advancing students' writing capabilities.

## METHOD

The type of *Research and Development (R&D)* used to produce specific products and test the effectiveness of these products so that the product can be accounted for and function in the wider community (Okpatrioka, 2023). The research model that will be used is a development model, according to Sugiyono, that includes 10 steps. According to Sugiyono, the following are the stages of the development model.



**Figure 1.** Research and development model according to Sugiyono

Concerning the stages of development research mentioned earlier, the researcher utilized the model only up to the eighth stage to evaluate the effectiveness and feasibility of the zig-zag book media, based on the pair-check type cooperative learning approach, for the Indonesian language subject focused on writing procedural texts. This limitation was due to constraints in time and budget, which prevented mass production.

The researcher began by identifying potential issues in the field, which were then validated with collected data. Upon gathering these insights, the researcher proceeded to design the educational media, which was subsequently evaluated for feasibility by experts in both media and material content. Once deemed acceptable,

the media underwent testing on both a small and a large scale. Specifically, the large-scale trial involved 24 fourth-grade students from Wonosari 02 Elementary School, while a smaller-scale trial was conducted with nine fourth-grade students from Ngaliyan 05 Elementary School.

Research data were collected through a validation instrument that assessed the media and material, drawing upon the expertise of qualified evaluators. The material feasibility questionnaire encompassed three aspects and featured 15 indicators, focusing on content, language, and presentation. In contrast, the media feasibility questionnaire included five aspects with 18 indicators, exploring the alignment of the media with learning objectives, design, language usage, functionality, and print quality.

Learning outcomes were gauged using pretest and posttest assessments and questionnaires to gather feedback from students and teachers. These responses were then analyzed through a Likert scale. For this study, the researcher employed a closed-question questionnaire structured with a Likert scale as a measuring tool. After confirming its validity, the media was tested for effectiveness in enhancing students' writing skills. This involved conducting a normality test to assess the pretest and posttest data, followed by a t-test and N-Gain test using SPSS 25. The paired samples section of the t-test required a p-value of less than 0.05 for the alternative hypothesis ( $H_a$ ) to be accepted, indicating a significant change. The N-Gain results were further interpreted according to the Gain index criteria.

**Table 1.** N-Gain Criterion

Criteria	High	Moderate	Low
N-Gain Value	N-gain $\geq 0,70$	$0,30 < \text{N-gain} < 0,70$	N-gain $\leq 0,30$

## RESULTS

### 1. Potential Problems

The initial stage involves identifying potential issues and challenges. During this stage, the researcher conducted several analyses, including curriculum analysis, learning process analysis, and an evaluation of learning media. The data were collected through observations and interviews with fourth-grade teachers at Wonosari 02 Elementary School in Semarang City.

The observations revealed that teachers use limited teaching methods, resulting in passive student engagement during lessons. Additionally, the teachers primarily relied on a few media types, such as textbooks and videos, neglecting more diverse and engaging resources, making students bored.

In the interviews, the teachers confirmed that their learning resources were limited, primarily books, websites, and YouTube as supplementary materials. However, they noted that the content presented was often not thorough enough,

making it challenging for students to complete the assigned tasks. As a result, the researcher concluded that a significant issue in the learning process is the restricted use of media to enhance and support student learning.

## **2. Data Collection**

Following the initial stages of identifying potential problems, we move on to data collection. This phase starts with gathering documentation related to value data. Specifically, we looked at daily test scores for writing procedural texts in Indonesian language classes. The data revealed that nine students scored below the criteria for achievement of learning objectives (KKTP) benchmark, while seven students met the benchmark with scores of 75, and eight students surpassed it. This trend indicates that many students still struggle with scores below the KKTP.

A needs questionnaire was administered to teachers and students to understand the situation further, serving as a basis for developing effective learning media. The questionnaire results highlighted that teaching Indonesian can be quite challenging, contributing to students' relatively low comprehension levels. A major factor appears to be the limited use of engaging learning media in Indonesian language lessons. Teachers noted that writing procedural texts is particularly complex, necessitating a solid grasp of the material for students to succeed.

Although the available teaching resources can enhance the process of writing procedural texts, they are not being utilized to their fullest potential. Teachers have yet to incorporate interesting learning media, prompting both educators and students to support the development of a zig-zag book using a cooperative pair-check approach to improve writing skills. This zig-zag book is an eye-catching printed resource designed in a zig-zag format, making it easier for students to grasp the material.

As suggested by teachers and students, the desired design for the zig-zag book includes vibrant backgrounds with illustrations, legible and appealing fonts, and accessible language that meets students' needs. Additionally, it should feature key components like titles, learning goals, and objectives, along with practice questions tailored to the student's characteristics.

According to the documentation of learning outcomes for writing procedural texts, the average class score on the Indonesian language test was 76.35. Out of the class, eight students met the KKTP, seven scored at the benchmark, and nine did not. While the overall student learning outcomes show promise, the average score indicates that there is still room for improvement in achieving higher levels of understanding.

## **3. Product design**

The design of the Pair Check Type Cooperative-based Zig-zag Book media, as envisioned by teachers and students, incorporates a colorful background adorned with illustrations. It utilizes free typefaces that prioritize readability, employs

standard language, and crafts sentences tailored to meet the needs of students while ensuring ease of understanding. Within the Zig-zag Book media, aligned with the pair check type cooperative model, it is crucial to include the title of the learning content alongside the expected learning outcomes and objectives. Furthermore, teachers should provide input so that the media includes practice questions in various formats that cater to students' unique characteristics.

The developed Pair Check-Type Cooperative-based Zig-zag Book media features a comprehensive summary of the material, complemented by examples, supporting texts, and relevant images. It also includes student worksheets, learning assessments, and additional resources such as usage instructions, developer bios, supervisor bios, and a bibliography to serve as reference material for content preparation. Below is the design of the Zig-zag Book that has been created.

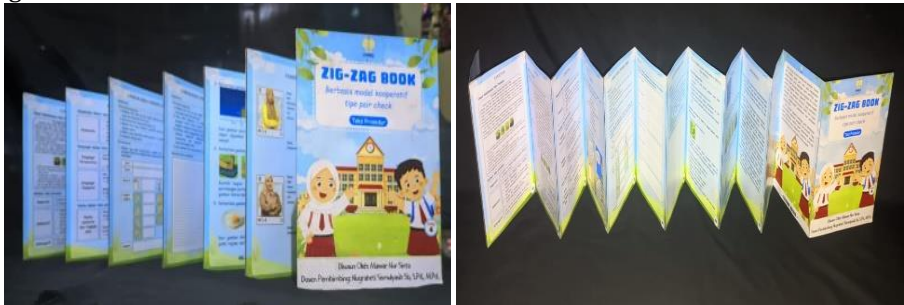


**Table 2.** Zig-zag Media Development Design

No	Design	Information
1.	Physical shape	Pair check type cooperative-based zig-zag book media is printed in A5 size and arranged in a zig-zag or "Z" letter pattern to create an attractive and fun impression when used by students.
2.	Material	The zig-zag book media contains procedural text material, which includes definitions, purpose, characteristics, writing, types, structures, and linguistic rules in the text.
3.	Language	The language used in the zig-zag book media is Indonesian.
4.	Content	<p>a. The first part contains the title on the front cover page, the preface, the table of contents, and general information containing the learning outcomes, learning objectives, and instructions for use.</p> <p>b. The content section includes a lighter section, materials, examples, and exercises. The lighter section presents the lyrics of the song for students to analyze before they get to the core of the material. Followed by the material section, which contains detailed procedural text material. The example section consists of sample procedural texts complete with discussions. Finally, the practice section contains student worksheets and evaluations that students must do.</p> <p>c. The cover section contains a bibliography, developer biodata, and back cover.</p>

The concept behind this learning media is integrated within the Pair Check Type Cooperative learning model. The developed material will be employed during lessons that follow the structure of this learning model. Additionally, the final output will be a printed book shaped in a zig-zag design that resembles the letter "Z." This study stands out from previous research due to its unique material and the variables it encompasses. Below, you will find an overview of the final product of the cooperative-based zig-zag book media rooted in the pair check type approach.



Table 3. Zig-zag book media end products

No	Media Design
1.	<div><div>Zig-zag book media form</div><div></div><div>The media design is printed using A5-size ivory paper and arranged in a zig-zag or "Z" pattern.</div></div>
2.	<div><div>The beginning</div><div>The first part contains the title on the front cover page, preface, table of contents, and general information containing learning achievements, learning objectives, and instructions for use. Here are some views of this section</div><div></div></div>
3.	<div><div>Contents</div><div><div>Lighter Parts</div><div>The lighter section presents the lyrics of the song for students to analyze before they get to the core of the material. Here are some views of this section</div><div></div></div><div><div>Material Section</div><div>The material section contains detailed procedural text material, including definition, purpose, characteristics, writing, types, structure, and linguistic rules. Here are some views of this section</div></div></div>





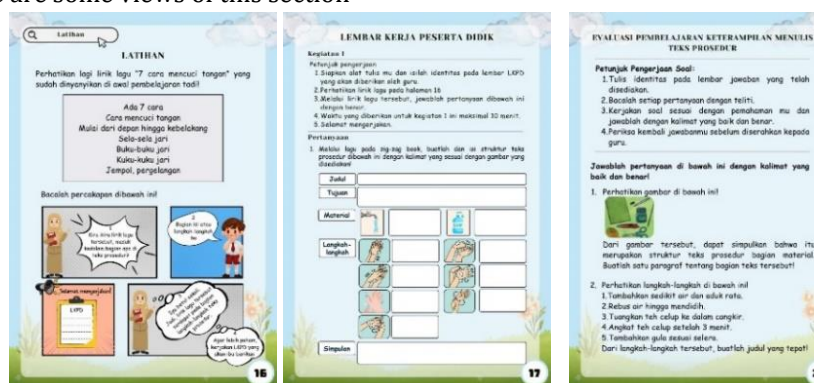
### Example Section

The example section consists of a sample procedural text complete with a discussion. Here are some views of this section



### Exercise section

The practice section contains student worksheets and evaluations that students must work on. Here are some views of this section



### 4. Closing Section

The cover section contains a bibliography, developer biodata, and back cover. Here are some views of this section



#### 4. Design Validation

A material expert evaluated the feasibility of the Pair Check Cooperative Zig-zag Book media, Mrs. Dr. Panca Dewi Purwati, M. Pd. Her assessment utilized a material feasibility instrument encompassing three key aspects with a total of 15 indicators, including content, language, and presentation. The results showed that the media scored 85%, placing it in the very feasible category. While the expert suggested clarifying the learning objectives to make them easier and less daunting for students, these recommendations did not impact the overall validation results. Therefore, the media is considered feasible without any necessary revisions.

In addition, the media validation of the Zig-zag Book based on the Cooperative Type Pair Check was conducted by media expert Mr. Abtadi Tris Hamdani, S. Pd., M. Pd. He employed a media feasibility instrument that included five aspects with 18 indicators, focusing on aligning the media with learning objectives, design, language, usability, and printing quality. This assessment yielded an impressive score of 93%, categorizing it as very feasible. However, he noted that the developer's name on the cover page could be omitted, and the author's profile should be concise, providing only general information. Furthermore, he recommended laminating the media during the next printing to enhance its durability for students' use over time. Despite these suggestions, they did not hinder the validation outcomes; thus, the developed media is deemed highly suitable for field testing.

#### 5. Design Revision

Revision is a stage of improving learning media after receiving input from material and media experts. This revision is carried out to perfect the media that has been developed so that it is more feasible when used to support the learning process in the Indonesian Language content for grade IV. The revisions made by the researcher are as follows.

- The researcher changed the description of the developer's name on the cover page by deleting the description "Compiled by" and "Supervisor." So, the design is only in the developer's and supervisor's names.

- b) In the author profile section, the researcher revised by deleting personal information about the developer and supervisor and making it general information only.
- c) When printing the media before being used for testing, the researcher provided lamination during printing so that the book was safer for students to use for a certain time, according to the advice given by the media expert.

## 6. Product Trial

The product trial stage was conducted with a small group of nine students from Grade IV at Ngaliyan 05 Elementary School. This test was important to assess the feasibility of the developed media. In the small group trial, the student response questionnaire received an impressive score of 89.72%. The results indicated that the Zig-zag Book media, based on the Pair Check Cooperative Type, was positively received by the students, meeting the criteria for being deemed very feasible. During this stage, the researcher did not receive any suggestions or feedback for improving the media. Consequently, after completing the small group trial, the researcher proceeded directly to the product usage trial stage without making any revisions.



**Figure 2.** Small-Scale Trial



**Figure 3.** Large-Scale Trial

## 7. Design Revision

The revision of the Zig-zag book media, based on the pair check cooperative method, was conducted considering the suggestions and feedback provided by students during the small-scale trial. However, the results from the student response questionnaire during this trial did not yield any input on how to improve the Zig-zag book media within the framework of the pair-check approach. As a result, following the small-scale trial, the researcher determined that no further revisions were necessary, confirming that the developed media was suitable and ready for large-scale testing.

8. Usage trial

The trial phase of the product was conducted with a significant sample group, specifically 28 fourth-grade students from SD Negeri Wonosari 02. During this large group trial, the researcher distributed questionnaires to both teachers and students to evaluate the developed media. The feedback received from the trial was overwhelmingly positive, indicating that both students and teachers appreciated the Zig-zag Book media based on the Cooperative Pair Check Type. Therefore, it can be concluded that this media is suitable for supporting the Indonesian language learning process, particularly in writing procedural texts.

Additionally, the effectiveness of the Zig-zag Book media was assessed based on student learning outcomes, which were measured through pretests and posttests. The pretest scores were obtained before the students used the Zig-zag Book, whereas the posttest scores reflected the learning outcomes after the media was implemented. The effectiveness of the Zig-zag Book media was further analyzed using t-tests and N-Gain tests to evaluate the data.

Table 4. Small Scale and Large Scale t-Test Results

Paired Samples Test								
Paired Differences								
95% Confidence								
interval of the								
Difference								
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	Df	Sig. (2-tailed)
Large-scale	26,875	12,386	2,528	32,105	21,645	10,630	23	,000

Based on the pretest and posttest data results, the large-scale t-test yielded a significance level (2-tailed) of 0.000, below the 0.05 threshold. This leads to rejecting the null hypothesis (Ho) and accepting the alternative hypothesis (Ha), indicating a significant difference between the pretest and posttest scores after utilizing the Zig-zag Book media within the Pair Check Cooperative framework. The effectiveness of this media can be evaluated using the N-Gain test of the pretest and posttest scores in a large group setting. During the large group trial, the average difference between the pretest and posttest scores was 0.7207, categorizing it as a high criterion. This finding signifies a notable improvement in the scores from the pretest to the posttest, further reinforcing the positive impact of the Zig-zag Book media in this context.

## DISCUSSION

Learning media plays a crucial role in education by sparking interest, guiding actions, presenting information, and helping students actively reach learning goals (Hasan et al., 2021). In Indonesian language learning, teachers often face challenges when managing the process of writing procedural texts. This issue has led to the development of zig-zag book media based on the cooperative pair-check approach. The development process involved multiple stages, including identifying potential problems, collecting data, designing the product, validating the design, revising it as needed, conducting product trials, and making additional revisions based on feedback.

The final product, the zig-zag book utilizing the cooperative pair check method, introduces innovations in the material, concepts, design, and overall appearance of the learning media compared to previous studies. This research benefits educators by allowing them to create effective media, evaluate its feasibility, and assess its impact through hands-on research, effectively applying the knowledge gained during their studies.

This Pair Check-Type Cooperative Zig-zag Book media falls under the visual media category, engaging students' sense of sight through a book arranged in a zig-zag format. This design helps to present information sequentially, significantly enhancing students' interest in writing (Aulia & Sismulyasih, 2019). Utilizing this zig-zag book media positively impacts the learning process, as it possesses numerous advantages that promote effective learning (Komalasary et al., 2019).

The Zig-zag Book media, based on the Cooperative Pair Check Type, aids teachers in delivering procedural text writing material actively and interactively. By incorporating this media, teachers can improve student learning outcomes and writing skills. Furthermore, the Zig-zag Book media facilitates a better understanding of the material, encourages student engagement during lessons, and boosts motivation to participate in learning activities. Additionally, this media offers a fun learning experience with its unique zig-zag shape resembling the letter "Z."

For schools, this research serves as a valuable resource for enhancing the quality of education by developing effective learning media to convey material. This is supported by research conducted by Aulia and Sismulyasih (2019), titled "The Effectiveness of the Numbered Head Model Structure with Zig-Zag Media on the Writing Skills of Grade V Students." While their research focused on improving writing skills in fifth graders using media with illustrative content, the media developed in this study specifically addresses procedural text material for fourth-grade students.

This study demonstrates that the Zig-zag Book, based on the Pair Check Cooperative Type, is feasible. This conclusion is supported by the assessments conducted by media and material experts. The feasibility of the Zig-zag Book media



was validated through design testing, resulting in a product that was deemed appropriate for further testing. The researcher developed a media feasibility assessment instrument for both media and material experts, which was then validated under the supervision of a lecturer. This process ensures that the instrument accurately measures the product's feasibility.

The researcher conducted a large group trial involving 24 fourth-grade students at Wonosari 02 Elementary School to assess the feasibility of the Zig-zag Book media through feedback from both students and teachers. In this trial, the teacher response questionnaire received a score of 75%, indicating a "feasible" category. Meanwhile, the student responses garnered a score of 71.5%, also falling within the "feasible" category. Based on these findings, it can be concluded that the Zig-zag Book media, based on the Pair Check Cooperative Type, is suitable for supporting the Indonesian language learning process, specifically in teaching procedural writing.

These results are corroborated by previous research conducted by Febriyatna & Mardiana (2022) in their study titled "Development of Zig-Zag Card Remind as a Nutrition Education Media for Hypertension Patients at the Labruk Kidul Lumajang Health Center." In this earlier study, the validation results from material experts showed a score of 75% in the good category during the first validation, followed by 75% in the good category during the second validation, and 95% in the very good category during the third validation. The media expert validation yielded a score of 92%, which is also categorized as very good. Furthermore, the subject acceptance trial scored 83.78% in the very feasible category, indicating that the media is acceptable, valid, and suitable for use as a learning tool.

In the large group trial, the average pretest and posttest scores were 0.7207, indicating a significant improvement. This suggests a marked increase in the pretest and posttest results during the large-scale trial. Therefore, it can be concluded that the Zig-zag Book media, based on the Pair Check Cooperative Type, effectively enhances writing skills in Indonesian language learning for Class IV students at Wonosari 02 Elementary School in Semarang City.

Additionally, the results of the N-Gain test support this conclusion. Research conducted by Farizqo Irvan et al. (2023), titled "Development of Zig-Zag Book Media Assisted by Augmented Reality in Narrative Writing Learning in Elementary Schools," reported an average N-Gain value of 0.65, indicating moderate improvement in student learning outcomes and an effective enhancement in writing skills. Based on the analysis of the t-test and the N-Gain test mentioned above, it is clear that the Zig-zag Book media, utilizing the Pair Check Cooperative Type, is effective in improving writing skills within the Indonesian language curriculum for Class IV students at Wonosari 02 Elementary School in Semarang City.

## CONCLUSION

This research offers valuable insights for educators, allowing them to develop media resources, assess their feasibility, and determine their effectiveness by applying knowledge gained during lectures. The Cooperative-Based Zig-Zag Book Media Pair Check Type was created through an extensive 8-stage process. This included identifying potential issues, data collection, product design, validation of the design, revisions, product trials, and adjustments based on feedback from teachers and students of Grade IV at SD Negeri Wonosari 02.

The Cooperative-Based Zig-Zag Book Media Pair Check Type features a summary of the material, complete with examples, supporting texts, and relevant images. It also includes student worksheets, evaluation tools, and additional resources such as usage instructions, developer biographies, supervisor biographies, and a bibliography for reference when compiling the material.

This media is well-suited to enhance the Indonesian language learning experience, particularly in writing procedural texts, based on validations from material experts and media specialists, along with teacher and student feedback. It scored 85% for material feasibility and 93% for media feasibility. Furthermore, it has been deemed effective based on responses gathered from teachers and students during both small-scale and large-scale tests.

According to the findings related to the Cooperative Pair Check Type, the Zig-Zag Book media significantly boosts the ability to write procedural texts in Indonesian language classes for students in Grade IV at SD Negeri Wonosari 02. The significant change in student performance before and after using the media is highlighted by a p-value of 0.000. The effectiveness of this media is further supported by an N-Gain score of 72.07% in the large-scale test.

Overall, this media proves to be valuable and effective as it actively engages teachers in delivering lessons on procedural text writing. It enhances students' learning outcomes and writing skills, simplifies understanding of the material, encourages active participation during the learning process, and boosts student motivation. Additionally, this media offers a fun learning experience with its unique zig-zag design, resembling the letter "Z."

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