

Development of Indonesian Language E-Worksheets Based on the Cooperative Integrated Reading and Composition (CIRC) Model to Improve the Reading Interest of Fifth-Grade Elementary School Students

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ABSTRACT

This study aims to develop an Indonesian Language E-LKPD based on the Cooperative Integrated Reading and Composition (CIRC) model to improve the reading interest of fifth-grade elementary school students, as well as to examine its feasibility, practicality, and effectiveness. This study employed a Research and Development (R&D) method using the ADDIE model, consisting of analyze, design, develop, implement, and evaluate. Product feasibility was assessed by material and media experts, while practicality was evaluated through one-to-one, small-group, and field-trial stages. The effectiveness of the E-LKPD was examined using a quasi-experimental design involving experimental and control groups. Data were analyzed qualitatively and quantitatively using normality, homogeneity, paired-sample test, independent test, and N-Gain tests. The results showed that the E-LKPD was highly feasible, with both media and material experts assigning a validation score of 3.6. The product was also categorized as highly practical. Furthermore, the E-LKPD was effective in improving students' reading interest, as indicated by an N-Gain score of 0.54 (moderate) in the experimental group, which was higher than the control group's score of 0.26 (low), with a significance level of <0.05.

INTRODUCTION

Reading interest is one of the fundamental abilities that plays an important role in students' intellectual development, literacy skills, and learning quality (Nurhasanah & Mustika, 2024). Reading interest is not merely related to the desire to read, but also reflects students' curiosity, attention, enjoyment, and engagement in understanding information through reading activities. Students with a high level of reading interest tend to be more motivated to seek information independently, understand various concepts, broaden their knowledge, and develop critical thinking skills. Therefore, reading interest needs to be cultivated from elementary school, as students at this level are building the foundation of literacy skills that will be essential for learning various subjects at subsequent levels of education.

The development of reading interest cannot be separated from the quality of the learning process taking place in the classroom. Learning that focuses primarily on one-way delivery of material may provide students with limited opportunities to actively engage with reading materials. In contrast, learning that offers engaging, interactive, and collaborative reading experiences can create a more meaningful learning experience. Reading interest is also closely related to character development and critical thinking skills, as reading activities enable students to recognize different perspectives, evaluate information, relate the content of texts to their own experiences, and express opinions based on the information they obtain (Fitriani et al., 2025). Therefore, learning at the elementary school level needs to be designed using strategies and learning resources that can optimally facilitate the development of students' reading interest.

One effort that can be undertaken is to provide teaching materials that are pedagogically engaging, interactive, and appropriate to students' characteristics. In Indonesian language learning, Student Worksheets (LKPD) are one of the instructional resources that serve an important function as a guide for students in carrying out various learning activities as well as a means of formative assessment (Septian et al., 2019). Through LKPD, teachers can systematically organize learning activities so that students do not merely receive learning materials but also engage in reading, comprehension, analysis, discussion, and task completion related to the learning content. However, the use of conventional LKPD still has several limitations. Based on a review of the literature, many worksheets used in learning are still presented in printed form with relatively monotonous layouts, predominantly text-based activities, limited visual elements, and minimal interactive features that can attract students' attention (Wea et al., 2025). Such conditions may make LKPD less capable of providing engaging learning experiences, particularly for elementary school students who require visual stimuli and varied learning activities. Worksheets that consist primarily of textual materials and questions may also cause reading activities to be perceived as monotonous, thereby reducing students' motivation to actively engage in understanding texts (Agustin et al., 2024).

This issue has become increasingly relevant in the context of 21st-century learning, which positions technology as an important component of the learning process. The development of digital technology provides teachers with opportunities to develop teaching materials that are more flexible, interactive, and aligned with students' characteristics. The use of technology in learning is not merely intended to replace printed teaching materials but also provides opportunities to create more varied learning experiences through the integration of text, images, videos, links, quizzes, and interactive activities. Therefore, transforming conventional LKPD into electronic worksheets or E-LKPD is one alternative for adapting instructional resources to technological developments and students' learning needs. The problems associated with the use of conventional LKPD were further supported by a needs analysis conducted by the researchers at several elementary schools, namely SDN Godean 1, SDN Sidoarum, SDN Semarangan 4, and SDN Krapyak. The needs analysis was conducted through observation, documentation, questionnaire distribution, and interviews. The results indicated that teachers rarely develop LKPD independently and tend to rely more heavily on printed worksheets provided by the government. In addition, no specific use of E-LKPD in Indonesian language learning was identified at the schools involved in the needs analysis. Nevertheless, these schools are equipped with technological facilities, such as projectors, Chromebooks, computers, and tablets, which can be utilized to support the learning process.

The availability of technological facilities indicates an opportunity to develop digital learning resources that can be utilized in Indonesian language learning. Teachers generally already possess basic technological skills; however, their use of technology to develop engaging and interactive digital teaching materials remains suboptimal. Learning activities still rely heavily on the use of whiteboards and material delivered through LCD projectors without interactive activities that provide students with opportunities to actively explore the learning content. This condition causes some students to become easily bored, sleepy, less focused, and less enthusiastic when participating in reading activities. This indicates a gap between the availability of technological facilities and their utilization as part of instructional innovation. The limitations of LKPD identified in the field indicate the need to develop learning resources that can accommodate students' characteristics while meeting the demands of learning in the digital era. One alternative that can be developed is E-LKPD. E-LKPD is an electronic form of LKPD that enables learning materials and activities to be presented in a more engaging manner through the use of digital technology. E-LKPD offers several advantages, including an attractive interface, interactive features, easy navigation, and convenience for teachers in assigning tasks and conducting student assessments (Junaidi, 2025; Malahayati et al., 2025) to *et al.*, 2024; Azis *et al.*, 2024). In addition, E-LKPD enables students to have a more flexible learning experience through the use of available digital devices.

The development of E-LKPD is highly relevant to the characteristics of Indonesian language learning (Kusumawati, 2026). Indonesian language instruction is not only oriented

toward mastering linguistic knowledge but also toward developing language skills, including reading and comprehending various types of texts. Reading activities require active student engagement so that students do not merely read texts but are also able to understand information, identify main ideas, recognize important information, connect ideas, draw conclusions from texts, and respond to the content (Wiwikananda & Briansyah, 2024). Therefore, E-LKPD equipped with engaging reading texts, structured reading activities, comprehension questions, and follow-up activities can serve as a means of creating more engaging and meaningful reading experiences. Nevertheless, the development of E-LKPD does not automatically guarantee an improvement in reading interest. The learning resource needs to be integrated with a learning model that encourages students to interact actively with reading materials. The learning model should provide opportunities for students to read, comprehend, discuss, exchange ideas, and communicate their understanding. Thus, E-LKPD functions not only as a medium for presenting learning materials and assignments but also as a learning resource that guides the learning process in a systematic, participatory manner and in accordance with the intended learning objectives.

One learning model that is relevant to these needs is *Cooperative Integrated Reading and Composition* (CIRC). CIRC is a cooperative learning model that integrates reading and writing activities through group-based learning. This model provides students with opportunities to work together to comprehend texts, discuss information, provide responses, and develop their understanding through follow-up activities (Ariyana & Suastika, 2022; Jamilah et al., 2023; Nurhidayah et al., 2017). Students do not merely read individually but also construct their understanding through interaction with peers. In its implementation, CIRC engages students in small groups to carry out various integrated activities, such as taking turns reading, comprehending texts, discussing information, predicting the storyline, formulating responses, identifying important information, and completing follow-up exercises. The collaborative learning process allows students to receive support from their peers when they experience difficulties in understanding texts. Such interaction can also create a more enjoyable learning environment and encourage students to become actively engaged in reading activities. Thus, CIRC is well aligned with the goal of developing reading interest because reading activities are not conducted passively but become an integral part of a collaborative learning process.

The integration of E-LKPD with the CIRC model is relevant because the two have complementary characteristics. E-LKPD provides teaching materials and learning activities in a digital format that can be presented visually, systematically, and interactively, while CIRC provides a learning structure that encourages students to read and comprehend texts through collaborative activities. CIRC-based E-LKPD can be designed to include reading texts appropriate to students' developmental levels, supporting illustrations, guiding questions, collaborative reading activities, group discussions, text comprehension exercises, and activities for reorganizing the information obtained. Through this design, students are expected not only

to gain experience using digital learning materials but also to develop an active and enjoyable reading experience.

Reading interest is closely related to the quality of text comprehension, learning outcomes, and students' readiness to meet literacy demands (Kanusta, 2021). Students who are interested in reading activities are more likely to devote time to reading, pay attention to the content of texts, and make an effort to understand the information obtained. Conversely, low reading interest may reduce students' motivation to engage deeply with texts. Therefore, the development of reading interest needs to be supported by learning stimuli that are engaging, enjoyable, and challenging. The use of interactive digital media and collaborative reading activities is one form of stimulus that can be employed to create such learning experiences. CIRC-based E-LKPD has the potential to address both of these needs. From a media perspective, E-LKPD can provide engaging learning materials through the use of visual designs, illustrations, and interactive features (Malahayati et al., 2025). From a pedagogical perspective, CIRC provides students with collaborative reading experiences through activities involving text comprehension, discussion, exchange of ideas, and collaborative task completion. The combination of the digital characteristics of E-LKPD and the cooperative activities of CIRC is expected to create Indonesian language learning that is more active, engaging, and student-centered. Students are not merely directed to complete tasks but are also provided with learning experiences that can foster their interest and engagement in reading activities.

Based on the needs analysis, several interrelated problems were identified, including the limited development of LKPD independently by teachers, the predominant use of printed LKPD, the suboptimal utilization of available technological facilities, the limited implementation of interactive learning activities, and the low enthusiasm of some students in participating in reading activities. On the other hand, there is an opportunity to develop digital learning resources that can utilize school technological facilities while providing learning experiences that are more suited to students' characteristics. The CIRC model is also relevant to the needs of Indonesian language learning because it emphasizes reading, comprehension, discussion, and writing activities carried out collaboratively. Based on these conditions, the development of Indonesian Language E-LKPD based on the *Cooperative Integrated Reading and Composition* (CIRC) model is important as an instructional innovation to improve the reading interest of fifth-grade elementary school students. The developed product is expected not only to serve as an alternative to printed LKPD but also to improve the quality of learning experiences through engaging, interactive, systematic, and collaborative learning materials. This development is expected to assist teachers in optimizing the use of technology in Indonesian language learning while providing instructional resources that guide reading activities in a structured manner.

Thus, the development of CIRC-based Indonesian Language E-LKPD has both pedagogical and practical significance. Pedagogically, the product is designed to integrate

reading, comprehension, discussion, and information communication skills through cooperative learning. Practically, the E-LKPD is expected to address the limitations of conventional LKPD and assist teachers in utilizing the technological facilities available at schools. Ultimately, CIRC-based E-LKPD is expected to become a feasible, practical, and effective learning resource for supporting the improvement of fifth-grade elementary school students' reading interest, while also serving as an instructional innovation in Indonesian language learning that is aligned with the demands of education in the digital era.

RESEARCH METHODS

This study employed a Research and Development (R&D) method using the ADDIE development model, which consists of five stages: *Analyze*, *Design*, *Development*, *Implementation*, and *Evaluation*. The ADDIE model was selected because it provides a systematic and structured development procedure and allows product improvement at each stage based on evaluation results. This model is appropriate for developing technology-based learning resources, including E-LKPD, as each stage provides an opportunity to ensure that the product is aligned with learning needs (Dewi et al., 2026). The product developed in this study was an Indonesian Language E-LKPD based on the *Cooperative Integrated Reading and Composition* (CIRC) model to improve the reading interest of fifth-grade elementary school students.

The *Analyze* stage was conducted to identify learning needs, student characteristics, problems faced by teachers, and the condition of teaching materials used in Indonesian language learning. The *Design* stage involved designing the E-LKPD based on the results of the needs analysis. At this stage, fifth-grade Indonesian language materials, learning activities based on the CIRC syntax, the structure and organization of the E-LKPD, assessment instruments, as well as the layout and visual elements were developed. The *Development* stage involved transforming the design into a CIRC-based E-LKPD product. The developed product was then validated by subject matter and media experts to determine its feasibility. The *Implementation* stage was conducted to determine the effectiveness of the E-LKPD in improving students' reading interest. The *Evaluation* stage was carried out continuously throughout each development stage and at the end of the study.

The research subjects were fifth-grade elementary school students. The *one-to-one* trial involved six students from SDN Sidoarum, the *small-group* trial involved 12 fifth-grade students from Class VA of SDN Godean 1, and the *field trial* involved 30 fifth-grade students from Class VB of SDN Godean 1. The effectiveness test involved 30 students from SDN Semarangan 4 as the experimental class and 29 students from SDN Krapyak as the control class. The research data consisted of qualitative and quantitative data. Qualitative data were obtained through observations, interviews, and comments and suggestions from validators and users, while quantitative data were obtained from expert validation results, user response questionnaires, and reading interest instruments. Data analysis included feasibility and practicality tests,

normality and homogeneity tests, *paired-samples test*, *independent-samples test*, and N-Gain analysis to determine the improvement in students' reading interest.

RESULTS AND DISCUSSION

This study produced an Indonesian Language E-LKPD based on the Cooperative Integrated Reading and Composition (CIRC) model, developed to improve the reading interest of fifth-grade elementary school students. The product was developed using the ADDIE procedure, which consists of the *Analyze*, *Design*, *Development*, *Implementation*, and *Evaluation* stages. The development of the E-LKPD was motivated by the need for teaching materials that not only present learning content but also provide more engaging and interactive reading activities that actively involve students in the learning process. The product was designed by integrating electronic learning materials, reading and writing activities, cooperative learning, and digital-based evaluation activities. During the analysis and design stages, learning needs were used as the basis for determining the content, structure, and presentation format of the E-LKPD. The product was designed for fifth-grade students, or Phase C, by considering the learning outcomes and objectives of Indonesian language instruction. The product design consists of three main sections. The first section contains the cover, user guide, learning outcomes and objectives, and instructions for learning using the CIRC method. The second section contains material summaries and assignments presented through engaging learning activities, including CIRC-based activities and quizzes using Quizizz. The third section contains the assessment section and developer profile.

The E-LKPD was developed using several digital tools, namely Canva for designing the interface, Quizizz for question-based activities and assessment, and Flip PDF Professional for producing interactive electronic learning materials. The use of these applications enabled the product to function not merely as an electronic document but also to incorporate visual elements and interactive activities that can enhance students' engagement during the learning process. In the introductory section, the E-LKPD provides information on how to use the product, learning outcomes, and learning objectives. The core section then guides students through reading activities, content comprehension, task completion, and group-based activities.



Figure 1. Display of the CIRC-Based Indonesian Language E-LKPD

The E-LKPD interface was developed by considering visual aspects, readability, material presentation, and student engagement. The product contains a cover page, teacher guide, learning outcomes and objectives, material summaries, assignments and learning activities, and assessment. The materials are presented using language appropriate to students' characteristics and are supplemented with examples related to everyday life. The assignments are designed with role distribution, group-work instructions, adventure activities, and games, allowing students not only to receive information but also to engage directly in activities related to the learning content. These characteristics indicate that the developed E-LKPD functions not only as a medium for delivering learning materials but also as a means of organizing learning activities. The integration of CIRC enables reading activities to be situated within a cooperative learning context. Students have opportunities to read the materials, comprehend information, discuss it with group members, complete tasks, and present their work. Thus, reading activities are not treated as passive activities but become part of a learning process involving interaction and collaboration.

The subsequent development stage involved validation and formative revision. Validation was conducted to determine the feasibility of the E-LKPD before it was used in the trial stages. The validation results showed that the subject matter expert gave an average score of 3.6, categorized as highly feasible, while the media expert also gave an average score of 3.6, categorized as highly feasible. In addition, the research instruments obtained a score of 3.9, which was also categorized as highly feasible. These results indicate that the product and instruments met the feasibility criteria required for further trials. The validation results also demonstrate that product development involved a refinement process based on validators' feedback. Regarding the content, the validator suggested aligning the learning outcomes with the *Merdeka Curriculum*, integrating reading and writing learning outcomes into each material section, increasing the cognitive level of questions, and adding more activities to the E-LKPD. These suggestions were subsequently addressed through content revisions. Regarding the media, revisions were made to several aspects of the interface and presentation, including

adding the developer's name to the cover, positioning the CIRC label, simplifying the preface, changing the term "evaluation" to "assessment," and refining the developer's identity.

These findings indicate that the validation process contributed to the quality of the final product. Feasibility was determined not only by the quantitative scores provided by the validators but also through a refinement process that considered both substantive and visual aspects. Revisions to the learning materials, for example, strengthened the relationship between reading and writing activities. This is consistent with the characteristics of the CIRC model, which integrates these two skills within cooperative learning. After the product was declared feasible, trials were conducted to determine the practicality of the E-LKPD. The trials consisted of *one-to-one trial*, *small-group trial*, and *field trial*. These stages aimed to obtain direct feedback from teachers and students as product users and to identify aspects that still required improvement. Overall, the results showed that the E-LKPD was categorized as highly practical across all three trial stages.

In the *one-to-one trial*, the teacher response score was 3.6, while the student response score was 3.6, with both categorized as highly practical. In the *small-group trial*, the teacher response score was 3.6, while the student response score was 3.7, both of which were also categorized as highly practical. Furthermore, in the *field trial*, the teacher response score was 3.7, while the student response score was 3.4, with both categorized as highly practical. These results indicate that the E-LKPD can be used relatively easily across different learning scales. The high user response scores demonstrate that the product's interface and presentation were well accepted by both teachers and students. In the *field trial*, for example, the teacher gave a score of 3.7 and assessed the product as highly practical for use in Indonesian language learning. The usefulness aspect of the E-LKPD also received the maximum score in the teacher's assessment.



Figure 2. Implementation of the CIRC-Based Indonesian Language E-LKPD

(a) students using the E-LKPD on computers; (b) students using the E-LKPD in groups; (c) learning activities using the E-LKPD; and (d) teacher assistance in using the E-LKPD.

The implementation documentation shows that students used the E-LKPD individually and in groups through digital devices. These activities demonstrated students' engagement in reading the learning materials and completing group assignments. During the trial, students also reported that the E-LKPD interface was attractive and that the materials were easy to understand. Nevertheless, some students reported difficulties in reading because the font size was too small. This feedback indicates that user evaluation remains necessary even though the product was generally assessed as highly practical. The practicality of the E-LKPD can also be associated with the characteristics of electronic learning materials, which allow learning materials and activities to be presented more flexibly. In the developed product, students did not merely read textual materials but also participated in activities presented in an interactive format. Thus, the E-LKPD provided a variety of learning activities that could help reduce monotonous learning experiences. The research manuscript also explains that the E-LKPD was designed to provide an enjoyable and interactive learning experience while encouraging students' engagement in comprehending reading materials.

After the product met the feasibility and practicality criteria, the implementation stage was conducted to examine the effectiveness of the E-LKPD in improving reading interest. The implementation involved an experimental class and a control class using a pretest-posttest control group design. The experimental class used the CIRC-based E-LKPD, whereas the control class used the teaching materials available at the school. The learning process was conducted over five meetings: the pretest was administered in the first meeting, the treatment was conducted during the second to fourth meetings, and the posttest was administered in the fifth meeting. Before hypothesis testing, the data were first analyzed through prerequisite tests. The results of the Kolmogorov-Smirnov normality test showed significance values of 0.191 for the experimental class pretest, 0.188 for the control class pretest, 0.200 for the experimental class posttest, and 0.131 for the control class posttest. All significance values were greater than 0.05. Therefore, the reading interest data from both groups were considered normally distributed.

Furthermore, the homogeneity test results showed significance values of 0.460 for the pretest data and 0.660 for the posttest data. Both values were greater than 0.05, indicating that the data from the experimental and control classes were homogeneous. The fulfillment of these two prerequisite assumptions indicated that the data could be analyzed using parametric statistics, including the *t*-test to examine differences in reading interest between the groups. The results of the independent-samples *t*-test showed a significance value of 0.000 with 57 degrees of freedom. Since the value was less than 0.05, the alternative hypothesis was accepted and the null hypothesis was rejected. This indicates a significant difference in reading interest between students who used the CIRC-based E-LKPD and those who did not use the E-LKPD. These findings were further supported by the paired-samples test conducted in the experimental class. The significance value of 0.000 indicated a significant difference between the pretest and

posttest scores of the experimental class. Thus, after participating in learning activities using the CIRC-based E-LKPD, students' reading interest showed a significant change.

This improvement was also reflected in the N-Gain analysis. The average reading interest score of the experimental class increased from 28 on the pretest to 39 on the posttest, with an N-Gain value of 0.54, categorized as moderate. Meanwhile, the control class increased from 27 to 33, with an N-Gain value of 0.26, categorized as low. Therefore, the improvement in reading interest in the experimental class was higher than that in the control class.

Table 1. Improvement in Students' Reading Interest Based on N-Gain

Class	Mean Pretest	Mean Posttest	N-Gain	Category
Experimental	28	39	0,54	Moderate
Control	27	33	0,26	Low

Descriptive data also show that in the experimental class, the N-Gain scores ranged from 0 to 1, with a mean N-Gain score of 0.54 and a mean N-Gain percentage of 53.78. In the control class, the mean N-Gain score was 0.26, with a mean N-Gain percentage of 26.39. This difference indicates that the use of CIRC-based E-LKPD resulted in a greater improvement than learning using the LKPD available at the school. The increase in reading interest can be understood through the characteristics of the CIRC model incorporated into the E-LKPD. CIRC-based learning integrates reading and writing activities within a cooperative learning environment. Students do not merely read individually but also have opportunities to discuss the information obtained, comprehend reading materials together with group members, complete tasks, and communicate the results of their work. In this context, reading activities become part of a process of social interaction and collaboration, allowing students to develop their understanding collectively.

In addition to the implementation of CIRC, the increase in reading interest was also supported by the characteristics of the E-LKPD as digital teaching material. The materials are presented electronically through visual displays, learning activities, assignments, and quizzes. Such presentation provides variation in the learning process so that students are not exposed to text in a monotonous manner. Consistent visual design, the use of colors and illustrations, and interactive activities in the E-LKPD are designed to increase students' interest and engagement. This is particularly important in Indonesian language learning because reading interest is not only related to students' ability to comprehend texts but also to their interest and engagement during reading activities. When reading activities are combined with discussions, games, assignments, and group activities, students gain a more varied learning experience. The E-LKPD developed in this study provides opportunities for students to engage in these activities in an integrated manner.

The research findings also indicate that an increase in reading interest occurred in the control class, although the improvement was lower than that of the experimental class. The

control class experienced an increase in the average score from 27 to 33, with an N-Gain of 0.26, whereas the experimental class increased from 28 to 39, with an N-Gain of 0.54. This finding indicates that the learning activities conducted in both classes were able to produce changes; however, the use of CIRC-based E-LKPD resulted in a greater improvement. Thus, the effectiveness of the product is demonstrated not only by the increase in scores after learning but also by the difference between the experimental and control groups. The significance value of the *independent samples t-test* of 0.000 indicates that the difference was statistically significant, while the N-Gain value of 0.54 indicates that the improvement in the experimental class was in the moderate category. These findings provide empirical evidence that CIRC-based E-LKPD can be used as an alternative teaching material to support the improvement of reading interest among fifth-grade students.

Overall, the findings indicate that the CIRC-based Indonesian language E-LKPD fulfills three main aspects of product development, namely feasibility, practicality, and effectiveness. The feasibility aspect is demonstrated by the material expert score of 3.6 and the media expert score of 3.6, both of which fall into the very feasible category. The practicality aspect is demonstrated by the teacher and student response scores, which were categorized as very practical during the *one-to-one*, *small-group*, and *field trial* stages. Meanwhile, the effectiveness aspect is demonstrated by the significant difference between the experimental and control classes and by the experimental class's N-Gain of 0.54, which was higher than the control class's N-Gain of 0.26. These findings demonstrate that the development of CIRC-based E-LKPD not only produces theoretically feasible teaching material but also a product that can be implemented in the learning process and contribute to changes in students' reading interest. The integration of the CIRC learning model with digital technology is the main strength of the product because it enables reading, writing, discussion, group work, and evaluation activities to be integrated into a single electronic teaching material. Therefore, CIRC-based E-LKPD has the potential to serve as an alternative Indonesian language teaching material that is more interactive and oriented toward student engagement in literacy activities.

CONCLUSION AND SUGGESTION

Based on the results of the research and development, the CIRC-based Indonesian language E-LKPD on fiction and nonfiction materials was declared highly feasible for use in learning to improve students' reading interest. The feasibility of the product was assessed through material expert evaluation covering the relevance, language, and scope of the materials, as well as media expert evaluation covering the appearance, presentation, and usefulness of the E-LKPD. In addition to meeting the feasibility criteria, the E-LKPD also demonstrated a high level of practicality based on three trial stages, namely the *one-to-one trial*, *small-group trial*, and *field trial*. Positive responses from teachers and students were reflected in the ease of understanding the usage instructions, accessing and carrying out activities within

the E-LKPD, and following the CIRC learning steps. Its practicality was also reflected in students' ability to complete learning activities with minimal technical difficulties and in teachers' ease of managing reading activities in a more systematic manner. The CIRC-based Indonesian language E-LKPD was also proven to be effective in improving students' reading interest. The implementation results in the experimental class showed an increase in reading interest after the use of the E-LKPD, with an N-Gain score of 0.54, which falls into the moderate category. This effectiveness was supported by the characteristics of the E-LKPD, which integrates reading and writing activities through cooperative learning and is complemented by engaging images and interactive features. Therefore, the CIRC-based E-LKPD not only fulfills the aspects of feasibility and practicality but can also serve as an alternative digital teaching material for Indonesian language learning to support the improvement of elementary school students' reading interest.

The CIRC-based Indonesian language E-LKPD can be utilized as an alternative digital teaching material in Indonesian language learning, particularly to support students' reading activities. The use of an E-LKPD that integrates digital technology, reading and writing activities, and interactive elements can help create a more engaging learning environment and encourage student participation. This product can be implemented more broadly while taking into account students' characteristics and needs, as well as the availability of facilities and infrastructure at schools. In its implementation, teacher guidance remains necessary, particularly during group learning activities using the CIRC approach. Teachers are expected to follow the usage instructions provided in the E-LKPD so that each stage of the activity can be carried out systematically, from reading activities and discussions to task completion and presentation of the results. Such guidance is important to ensure that students understand the CIRC steps, are able to collaborate effectively within groups, and can make optimal use of the E-LKPD features, thereby supporting the achievement of learning objectives and the improvement of students' reading interest.

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