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Interactive Digital Media Remedial Programs Improve Slow Learner Reading Comprehension Skills: Program Remedial Berbasis Media Digital Interaktif Meningkatkan Keterampilan Pemahaman Membaca Siswa yang Lambat Belajar

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Abstract

General Background Reading proficiency is essential for academic success, critical thinking development, and independent learning throughout secondary education. **Specific Background** Seventh-grade slow learners at SMPN 2 Long Mesangat face persistent challenges in text comprehension, reading fluency, and classroom engagement, consistently scoring far below the Minimum Learning Achievement Criteria. **Knowledge Gap** While traditional tutoring provides some support, previous reading interventions have lacked structured digital interactivity specifically tailored to engage secondary school slow learners within a sustained remedial framework. **Aims** This Classroom Action Research investigates the implementation of an interactive digital media-based remedial program to elevate reading and text comprehension skills among seventh-grade slow learner students. **Results** Following two instructional cycles using Canva-based digital texts and interactive exercises, average reading comprehension scores surged from a 37% baseline to 87.50% in Cycle II. Furthermore, student learning activity and overall classroom engagement escalated significantly from 39% to 89%. **Novelty** This study demonstrates that integrating interactive digital media within a structured, multi-cycle remedial program successfully transforms passive decoding into active, independent meaning construction for students with specific learning delays. **Implications** Schools should integrate interactive digital multimedia into customized remedial literacy programs, providing intensive teacher scaffolding to secure equitable academic progression and motivation for students with learning difficulties.

Highlights

- An interactive multimedia intervention significantly elevated student classroom participation and enthusiasm.
- The two-cycle action research framework successfully raised literacy scores above the minimum achievement threshold.
- Continuous teacher scaffolding combined with digital exercises strengthened inferential thinking and retelling abilities.

Keywords

Remedial Program; Interactive Digital Media; Reading Comprehension; Slow Learner Students; Classroom Action Research

INTRODUCTION

Reading is one of the most important components of the educational process. Apart from gaining knowledge, reading helps students to develop critical thinking skills, to become more proficient readers and independent learners. The school environment is where teachers and students expect the best academic learning outcomes to be achieved through the learning process. However, these expectations are not always met as some students still face learning difficulties that prevent them from achieving the expected level of performance. Reading problems are still encountered by the students in junior secondary school especially in Grade VII students who are in transition from elementary to secondary education. These difficulties are usually related to a restricted vocabulary, lack of motivation to read and ineffective use of reading comprehension strategies in classroom teaching. Therefore, students face difficulties in understanding written texts and this affects their academic performance in various subjects negatively. The literacy achievement of students especially in the read comprehension is a major concern in education in Indonesia. National reports suggest that many junior secondary students have not attained the expected levels of literacy. In other words, the basic skills of reading and text comprehension are still relatively low (Lince, 2023). The reading problems faced by the students of the junior secondary schools influence their understanding of the text and their academic performance and active involvement in the classroom learning. One approach to instruction that attempts to solve this problem is remedial instruction, which provides structured support to students who have not yet developed critical reading skills. Remedial programs are designed to help students overcome learning deficiencies and to develop skills and competencies necessary for success through reinforcement, practice, and more specific instructional strategies. Classroom Action Research (CAR) is a suitable method to apply these interventions because it allows teachers to plan, implement, observe, and evaluate instructional improvements in the classroom context itself, thus improving the learning process and outcomes (Yulandari et al., 2022).

In Grade VII, students face the transition from elementary to junior secondary school with greater demands on reading. Students are expected to decode words accurately and to analyze, interpret and evaluate increasingly sophisticated texts in multiple subject areas. Students' limited reading skills at this stage severely restrict their ability to read instructional materials. These challenges can be overcome by a systematically planned remedial program that promotes vocabulary acquisition, sentence comprehension, inferential thinking and metacognitive reading strategies. Specific reading interventions for secondary school students have been shown to have a significant positive effect on reading performance of students with learning difficulties (Vermeer, 2024). Interactive digital media has been demonstrated to be an effective means for remedial reading instruction. Interactive e-books, digital quizzes and educational apps that combine text, audio, images, animations and instant feedback create more engaging learning experiences and increase students' motivation, attention and retention. Some studies reported that digital learning media combined with the right learning strategies have a positive contribution to the interest and comprehension of students' reading. Furthermore, digital technologies enable teachers to adapt instruction to address the unique learning needs of individual students, increasing the flexibility and efficiency of remedial instruction (Devi, 2023).

Indonesian language teachers at SMP Negeri 2 Long Mesangat have implemented various strategies to help students who have difficulty in reading. These strategies include independent reading, comprehe

nsion activities based on text, extra tutoring outside of class, reading aloud, and small group discussions. These efforts have provided some instructional support, but they remain largely traditional and do not include interactive digital learning media that can increase student engagement. Also, the remedial activities have not been structured and implemented as a continuing instructional program, thereby limiting the progress of students' reading achievement. Moreover, the initial observations in the classroom and the results of formative assessment in Indonesian language indicated that some of the students in Grade VII still had serious difficulties in reading and understanding texts. These students read with difficulty, have difficulty retelling the content of passages, have difficulty finding the main ideas of paragraphs, and have difficulty answering inferential comprehension questions. The average score they achieved in reading comprehension was only 58 which was far below the Minimum Learning Achievement Criteria (KKTP) of 75. The findings imply that students need more systematic and targeted instructional intervention through a structured remedial program that targets their reading and reading comprehension skills.

Considering the literacy problems faced by Indonesia as well as the learning situations obtained at SMP Negeri 2 Long Mesangat, the improvement of students' reading competency has become a priority of education. A remedial program supported by interactive digital media provides a promising approach for strengthening students' foundational literacy skills while increasing their learning motivation and engagement. This approach is more relevant to today's learners who are highly familiar with digital technologies and are more responsive to technology enhanced learning environments. This study is aimed at investigating the implementation of interactive digital media-based remedial program for improving reading skill and reading comprehension skill of Grade VII slow learner students of SMP Negeri 2 Long Mesangat.

METHOD

The method used in this study is Classroom Action Research (CAR) using the model developed by Kemmis, McTaggart and Nixon consisting of four cyclical stages, namely planning, action, observation and reflection. CAR was chosen because it helps teachers in a systematic way to improve their teaching practices and at the same time to deal with real learning problems that they meet in the classroom. The research was conducted collaboratively between the researcher and Indonesian language teacher of SMP Negeri 2 Long Mesangat. The researcher designed and implemented the intervention while the classroom teacher was a collaborator, observing the instructional process and engaging in reflective discussions at the end of each cycle. This research was carried out in the academic year 2025/2026 at SMP Negeri 2 Long Mesangat, East

Kutai Regency, Indonesia. The participants were Grade VII slow learner students who had persistent difficulties in reading and reading comprehension based on preliminary classroom observation and Indonesian language assessment results. These students showed low reading fluency, difficulty identifying main ideas, poor inferential comprehension, and reading achievement below the Minimum Learning Achievement Criteria (KKTP) of the school. The intervention was a remedial reading program backed by interactive digital media developed with Canva. The digital learning materials integrated reading passages, visual illustrations, interactive exercises, quizzes, and immediate feedback to help students engage and comprehend. Each CAR cycle included lesson planning, implementation of remedial activities, classroom observation, evaluation of students' reading performance, and reflection to identify needed improvements before proceeding to the next cycle. In each cycle, the instructional adaptations were made based on the findings from the reflection stage.

The data were collected by reading comprehension tests, classroom observations, interviews, and documentation. The reading tests measured students' reading fluency, literal comprehension, ability to identify the main idea, inferential comprehension, and ability to retell. The observation sheets were used to record students' participation, attention, interaction and engagement during the learning process. Qualitative data related to learning experiences and perceptions on the remedial program were gathered through interviews with the students and the collaborating teacher. Documentation such as photographs and students' learning products were used as supporting evidence throughout the study. Data were analyzed descriptively, quantitatively and qualitatively. The quantitative analysis was done by calculating the average reading scores of students and the percentage of mastery learning in the preliminary phase and each cycle of CAR. The qualitative data from the observation, interviews and documentation were analyzed through data reduction, data display and conclusion drawing to describe the changes in students' learning behaviors and reading performance during the intervention. The action was considered successful if the students achieved the Minimum Learning Achievement Criteria (KKTP) score of 75 and showed continuous improvement in reading and reading comprehension throughout the implementation of the remedial program.

RESULT AND DISCUSSION

Preliminary Stage Findings

According to the classroom observation in the preliminary stage, the students' learning activities were mostly categorized as low. This was reflected in low levels of engagement of the students on all observed indicators such as attention, participation, involvement, interaction and enthusiasm. In general, the average level of students' learning activity was only 39% which means that most students have not yet demonstrated sufficient readiness or active participation during reading instruction. Regarding attention, most students reported difficulty in maintaining their attention during the learning process. Their environment easily distracted their attention and they were unable to concentrate on the teacher's explanations or instructional material. Consequently, students often missed important information involved in the lesson which negatively affected their understanding of the learning content. Also, the students' participation was low. Most of the students were passive when the teacher asked questions or asked for opinions. Their answers were limited, and many waited until the teacher gave them instructions or help before answering by themselves. This finding implies that students lacked confidence to participate actively in classroom learning activities. Similarly, students' involvement in learning activities was limited. Most of the students did not demonstrate a strong commitment in carrying out reading tasks and needed persistent direction from the teacher in the learning process. The activities in the classroom were mainly teacher oriented. This means that students had not gained enough independence in their learning. Likewise, there was little interaction between the teacher and the students and among students. Students seldom discussed the reading texts or expressed their ideas in the classroom activities. Therefore, the learning process was mainly teacher-centered. There was little excitement for reading activities among students. Their minimal interest in reading assignments, lack of motivation when asked to read texts, slow completion of learning tasks, and tendency to be discouraged when faced with unfamiliar or difficult reading materials were evidences of this. These results suggest that the instructional practices that had been used were not sufficiently engaging and responsive to the learning characteristics of the students with reading difficulties. Individually, Arya Perkasa Setiadi and Ibni Afifuddin Warramadhan got 45% of learning activity score, while M. Radi, Muhammad Repaldo, and Fahri Fatkhur Rohim got 35%. Although there were some slight differences among students, all the students were still in the low category and had not yet achieved the expected level of classroom participation.

The preliminary stage included a reading and reading comprehension test to assess the students' baseline performance prior to the implementation of the remedial program using interactive digital media. The students' reading skills were measured in five components, namely reading fluency, literal comprehension, identification of the main idea, inferential comprehension and retelling. Results of the assessment show that students' overall reading performance still remains low with an average achievement of only 37%. On reading fluency, most students had great difficulty in reading the texts smoothly. They read slowly, often stopping between words and sentences, re-reading unfamiliar words over and over, struggling with less familiar vocabulary. These challenges hindered reading and constrained students' ability to create meaning from the texts they were reading. The literal understanding of students was also quite weak. The majority of students were only able to answer the questions that had a direct answer in the text; however, they often missed important details that required closer attention. The results indicate that students were mainly engaged in mechanical decoding rather than understanding the overall meaning of the reading passages. Students also struggled finding the main idea of each paragraph. Most students were not able to differentiate between the main idea and supporting details, which made it difficult for them to understand the structure and message of the whole text. In this way students tended to remember bits and pieces of the information without understanding the main ideas in the reading material. The greatest challenges were inferential comprehension and retelling. Most students could not make logical inferences based on implied information, connect concepts across sentences, or paraphrase the content of the text in their own words in a coherent and organized

way. In response to being asked to recall what they had read, students usually repeated individual sentences from the passage, or were unable to provide a complete and logical summary. These results indicate that higher-order reading comprehension skills were not well developed and needed more structured instructional support.

Arya Perkasa Setiadi and Ibni Afifuddin Warramadhan individually reached 40% reading achievement, while M. Radi, Muhammad Repaldo and Fahri Fatkhur Rohim individually reached 35%. Although there were slight differences between students, they were still in the low performance category and had not yet achieved the school's Minimum Learning Achievement Criteria (KKTP). The initial evaluation showed that students had problems in almost all components of reading, from basic reading skills to the higher levels of reading comprehension. The persistent underachievement suggests the need for a more systematic, engaging and student-centred instructional intervention. The use of interactive digital media in a remedial program was expected to improve students' reading fluency, literal comprehension, identifying main ideas, inferential thinking and retelling in the next action research cycles.

Implementation of Cycle I

The implementation of Cycle I was based on the findings of the preliminary stage that the Grade VII slow learner students faced difficulties in reading fluently, identifying the main ideas of paragraphs, making inferences, retelling the content of texts, and comprehending the reading materials. Prior to the intervention, the researcher collaborated with the Indonesian language teacher to design the remedial instruction, develop lesson plans, create interactive digital learning media using Canva, choose reading materials appropriate for the students' abilities, and prepare observation sheets and reading assessment instruments. Supporting facilities such as laptop, LCD projector, and other digital devices were also prepared so that the learning activities could be implemented well. The action stage was carried out as planned instructional procedures. The lesson began with an introduction in which the teacher explained the learning objectives, motivated the students and activated their prior knowledge. During the main activities, students read texts presented by the interactive digital media and performed guided exercises of literal understanding, identification of main ideas, drawing conclusions, and retelling the texts in their own words. During the lesson, the teacher scaffolded continuously, explained difficult vocabulary and text passages, and encouraged the active participation of all students. At the end of the lesson, the teacher helped students to review the learning activities, summarized the key concepts, gave feedback on students' performance, and assigned reinforcement exercises. The observations made in Cycle I were then used as a reference to assess the success of the intervention and plan for the improvement in Cycle II.

Table 1. Students' Learning Activity Observation Results in Cycle I

No.	Student	Total Score	Percentage	Category
1	Arya Perkasa Setiadi	14	70%	Good
2	Ibni Afifuddin Warramadhan	14	70%	Good
3	M. Radi	12	60%	Fair
4	Muhammad Repaldo	12	60%	Fair
5	Fahri Fatkhur Rohim	12	60%	Fair
Total		64	320%	
Average		12.8	64%	Fair

The results of observations during Cycle I showed the students' learning activities were better compared to the preliminary stage after the implementation of the interactive digital media based remedial program. Arya Perkasa Setiadi and Ibni Afifuddin Warramadhan got the highest score of learning activity with 70% which was classified as good, and M. Radi, Muhammad Repaldo, and Fahri Fatkhur Rohim got 60% which was classified as fair. As a whole, the mean learning activity was 64% which is a significant improvement from the preliminary stage which is 39%. The improvement shows that the interactive digital learning media has successfully increased the students' focus, participation, engagement, interaction, and interest during learning. However, the percentage average had not reached the pre-determined success criterion of 75%, indicating that there was still room for improvement in terms of instructional strategies and more guidance was needed in the next cycle to enhance students' classroom engagement.

Table 2. Students' Reading and Reading Comprehension Test Results in Cycle I

No.	Student	Total Score	Percentage	Category
1	Arya Perkasa Setiadi	14	70%	Good
2	Ibni Afifuddin Warramadhan	14	70%	Good
3	M. Radi	12	60%	Fair
4	Muhammad Repaldo	12	60%	Fair
5	Fahri Fatkhur Rohim	12	60%	Fair
Total		64	320%	
Average		12.8	64%	Fair

The assessment of reading and reading comprehension after the implementation of Cycle I showed significant progress in students' reading performance. Students made significant gains in reading fluency, literal comprehension, identification of the main ideas, inferential comprehension, and retelling skills in contrast to their baseline performance in the preliminary stage. Arya Perkasa Setiadi and Ibni Afifuddin Warramadhan obtained the highest score, each obtained 70% (good) while M. Radi, Muhammad Repaldo and Fahri Fatkhur Rohim each obtained 60% (fair). Overall, the average reading achievement rose to 64%, an increase of 27 percentage points from the 37% attained during the preliminary stage. While these findings show that the remedial program using interactive digital media has a positive effect on the students' reading development, the average performance is still below the criterion of mastery of 75% and implies the need for further improvements in instruction in Cycle II to meet the expected learning outcomes.

Interviews conducted after the implementation of Cycle I revealed that the interactive digital media-based remedial program was perceived positively by the students and the collaborating teacher. Majority of the students reported that the learning activities were more engaging than their previous reading lessons. The integration of animations, images and interactive exercises made the reading materials easier to understand and less boredom. Students also reported higher motivation and confidence in their ability to read text and answer comprehension questions. However, there were some students who admitted that they still had difficulties in reading multisyllabic words, finding out the main ideas of paragraphs, making conclusions from texts and retelling the reading passages in their own words. The classroom teacher also commented that students were more attentive, actively responded to questions, and showed increased enthusiasm while reading activities. However, the teacher remarked that some students still needed intensive guidance and ongoing support to further enhance their reading comprehension skills.

The results of the observations, reading tests and interviews indicated that the use of the interactive digital media-based remedial program had positive improvements in students' learning activities and reading achievement. The average of students' learning activity increased from 39% in the preliminary stage to 64% in Cycle I. The average of reading and reading comprehension increased from 37% to 64%. During the intervention, students paid more attention, participated, interacted and gained confidence in the classroom learning, and the classroom atmosphere was more active than before the intervention. Even with these promising advances the findings had not yet achieved the pre-specified success criterion of 75%. Many students still had difficulty picking out the main ideas in texts, drawing inferences from what they read, and paraphrasing reading passages in a logical way. Based on these findings, the researcher and collaborating teacher agreed to proceed to Cycle II by improving the instructional strategies. Planned improvements included more intensive individual guidance, more frequent structured reading comprehension exercises, reading materials more closely related to students' daily experiences, maximizing the interactive features of the digital learning media, and increasing motivation and scaffolding to encourage greater student participation throughout the learning process.

Implementation of Cycle II

The second cycle was carried out to continue the improvement identified in the reflection stage of the first cycle. The first cycle focused more on the introduction of the remedial program based on interactive digital media, while the second cycle focused on optimizing the implementation of the remedial program based on interactive digital media through more intensive individual guidance, more structured practice in reading comprehension, more contextual and relevant reading materials to the daily experiences of students, and maximizing the interactive features of digital learning media. Before the intervention, the researcher and the Indonesian language teacher analyzed the data of Cycle I. The analysis of the data showed that there were still some students who had difficulty to identify the main ideas of paragraphs, to draw conclusion of the reading texts, and to retell the paragraphs coherently in their own words. The revised lesson plans, more engaging reading materials, observation sheets, interview guidelines and reading assessment instruments were prepared based on these findings to help the students to progress in the second cycle.

The learning activities in Cycle II were still using interactive digital media based on Canva with some improvements based on the evaluation of the previous cycle. Students read digital texts and completed structured activities during the lesson, taking turns reading aloud, answering literal comprehension questions, identifying the main ideas of paragraphs, drawing conclusions, and retelling the texts in their own words. During the learning process, the teacher gave more intensive scaffolding, on-the-spot feedback, and individual help to students who still had trouble reading. Compared to Cycle I, students were more confident, more involved in classroom discussions, and had better understanding of the reading materials. At the end of the lesson, The teacher invited students to reflect on learning activities, emphasized the key concepts, and recognized students' progress to enhance students' motivation and engagement in reading.

Table 3. Students' Learning Activity Observation Results in Cycle II

No.	Student	Total Score	Percentage	Category
1	Arya Perkasa Setiadi	19	95%	Very Good
2	Ibni Afifuddin Warramadhan	19	95%	Very Good
3	M. Radi	17	85%	Very Good
4	Muhammad Repaldo	17	85%	Very Good
5	Fahri Fatkhur Rohim	17	85%	Very Good
Total		89	445%	
Average		17.8	89%	Very Good

The result of the observation in Cycle II, there is a significant improvement of students' learning activity after the refinement of the remedial program based on interactive digital media. Arya Perkasa Setiadi and Ibni Afifuddin Warramadhan each scored 95%. M. Radi, Muhammad Repaldo, and Fahri Fatkhur Rohim each scored 85%, all five students were in the very good category. The average of learning activity increased from 64% in Cycle I to 89% in Cycle II or increased 25 percentage points. This improvement comes from increased attention, participation, interaction, engagement and enthusiasm during the learning process. The average score was also above the pre-determined success criterion of 75%, showing that the remedial program had been effective to improve the students' classroom participation.

Table 4. Students' Reading and Reading Comprehension Test Results in Cycle II

No.	Student	Total Score	Percentage	Category
1	Arya Perkasa Setiadi	15	93.75%	Very Good
2	Ibni Afifuddin Warramadhan	15	93.75%	Very Good
3	M. Radi	14	87.50%	Very Good
4	Muhammad Repaldo	13	81.25%	Very Good
5	Fahri Fatkhur Rohim	13	81.25%	Very Good

Total	70	437.50%	
Average	14	87.50%	Very Good

The assessment of reading and reading comprehension in Cycle II showed great progress in all the components assessed: reading fluency, literal comprehension, main ideas, inferential comprehension and the ability to retell texts with students' own words. The highest achievement score was obtained by Arya Perkasa Setiadi and Ibni Afifuddin Warramadhan with 93.75%, M. Radi with 87.50%, and Muhammad Repaldo and Fahri Fatkhur Rohim with 81.25%. The overall average score was 87.50%, an increase of 23.50 percentage points over 64% in Cycle I and 50.50 percentage points over the 37% obtained during the preliminary stage. The findings reveal that all students passed the predetermined mastery criterion of 75%. It shows that the interactive digital media-based remedial program effectively improves the students' reading and reading comprehension skills; thus, the classroom action research can be successfully concluded at the end of Cycle II.

The interviews after the implementation of Cycle II showed that both the students and the collaborating teacher felt the revised interactive digital media-based remedial program to be a very effective program. Most of the students stated that the learning activities have been more fun, engaging and easy to follow because they are already familiar with digital learning media and interactive reading activities. They also reported they had fewer problems reading fluently, identifying the main ideas of paragraphs, answering comprehension questions, making inferences, and paraphrasing texts in their own words. Furthermore, students reported increased confidence and motivation in reading activities, with several students reporting that they had developed an interest in reading additional materials outside the classroom. The classroom teacher verified these findings, observing that students showed higher levels of engagement, autonomy, accountability, and excitement during the learning process. The use of interactive digital media provided a more caring learning environment responsive to the students' unique learning needs.

Findings from the observations, reading assessments and interviews confirmed that the improvements implemented in Cycle II successfully addressed the limitations identified in Cycle I. Students showed significant improvement in classroom engagement, reading fluency, literal and inferential comprehension, identification of main ideas, and retelling reading passages. The average learning activity was 89%, the average achievement of reading and reading comprehension was 87.50%, both of which were above the predetermined success criterion of 75%. The additional scaffolding, more structured reading practice, contextual reading materials, and optimized use of interactive digital media effectively minimized students' learning difficulties and created a more active and motivating classroom environment. This is because the whole research objectives and the success indicators had been achieved. Therefore, at the end of Cycle II, the classroom action research was concluded and further cycle was not necessary to be conducted.

Discussion

The result of this classroom action research showed that the application of remedial program based on interactive digital media was successful in improving the learning process and reading achievement of seventh grade slow learner students. The preliminary results of the observation showed that the average of the learning activity was 39% and the average of reading achievement was 37% which meant that the students' classroom engagement and reading comprehension before the intervention were still low. Students struggled with reading fluently, identifying main ideas, making conclusions, and retelling texts in their own words. The findings reveal that the traditional teaching had not adequately addressed the learning preferences of slow learner students who typically need structured guidance, repeated practice and concrete learning experiences. The improvement in the two action research cycles could be attributed to the application of remedial instruction combined with interactive digital media using Canva. Instead of serving as a simple presentation tool, the embedded digital media allowed students to actively interact with reading materials through text, illustrations, interactive exercises, and teacher scaffolds. During Cycle I, the students showed more attention, participation and motivation because the learning activities were more attractive and interactive. After the refinement in Cycle II (more contextual reading materials, more structured reading practice, immediate feedback and intensive individual guidance), students became more confident, independent and actively involved in the classroom learning. The results suggest that effective remedial instruction should be supported not only by technology, but also by systematic teacher facilitation and ongoing scaffolding that meet students' learning needs.

Gains in students' classroom engagement were strongly associated with gains in their reading achievement. The students' learning activity increased from 39% in the preliminary stage, to 64% in Cycle I, and to 89% in Cycle II. The average score of reading and reading comprehension also increased from 37% before the intervention to 64% in Cycle I and 87.5% at the end of Cycle II, which is higher than the predetermined mastery criterion of 75%. These parallel improvements suggest that higher levels of attention, participation, interaction, and enthusiasm created more optimal conditions for learning, enabling students to develop better reading skills. It is therefore suggested that the effective reading remediation for slow learner students should focus on the cognitive development and active engagement during learning. The greatest gains were in several core aspects of reading comprehension, including reading fluency, literal comprehension, identifying main ideas, inferential comprehension, and the ability to retell the texts. First, students relied heavily on the teacher to identify important information in a passage. However, after having been exposed repeatedly to structured reading activities supported by interactive multimedia, the students gradually became more able to construct meaning independently. The visual representation, audio support, and interactive practice together decreased the cognitive load of decoding and increased students' attention to the meaning of the text. As a result, students not only read more fluently, but they also felt more confident explaining ideas and answering comprehension questions.

The positive results of this study are in line with previous studies that highlight the effectiveness of digital learning media in reading learning. Krenca et al. (2024) found that interactive digital media improve reading comprehension by promoting learner engagement and aiding in text processing, and Furenes et al. (2021) concluded that well-designed digital reading environments are more effective in improving comprehension than traditional instructional methods. Likewise, Khoirunnisaa

et al. (2025) found that digital learning media enhances students' motivation, interest in reading and literacy skills. With this body of evidence, the current findings contribute further weight by demonstrating that the digital media are even more effective when they are part of a structured remedial program specifically devised for slow learner students, rather than when they are used as standalone instructional technology. The results also support previous studies of digital literacy interventions in reading education. Suntari et al. (2024) found that technology-based learning media can improve reading comprehension significantly. Jessika (2024) showed that digital literacy instruction can improve reading comprehension and critical thinking skills in junior secondary students. Likewise, digital learning media as shown by Sahredin et al. (2024) play a significant role in developing students' literacy especially in reading. The results also support the findings of Faizatu Zahra and Sukardi (2024) and Froud et al. (2024) who found that multimedia with text, images, and interactive elements can help to improve reading comprehension deeper if the instructional design is well planned. The present study corroborates these conclusions and highlights the need to combine digital media with systematic remedial instruction and individualised teacher support for students with learning difficulties.

Taken together, the results indicate that the intervention was not successful because of the use of digital technology itself, but because of the combination of interactive multimedia, structured remedial instruction, repeated guided practice, and intensive teacher scaffolding. The two cycles of continuous planning, implementation, observation, and reflection allowed students to gradually overcome reading difficulties and obtain the expected learning outcomes. The overall improvement of about 50.5 percentage points from 37% in the preliminary stage to 87.5% in Cycle II, shows that an interactive digital media based remedial programme is an effective instructional strategy for improving the reading and reading comprehension skills of slow learner students in inclusive junior secondary classrooms.

CONCLUSION

The result of this classroom action research shows that the implementation of remedial program based on interactive digital media using Canva can improve the reading and reading comprehension skills of the seventh grade slow learner students at SMPN 2 Long Mesangat effectively. The intervention was implemented systematically using the stages of planning, action, observation and reflection, with improvements made in Cycle II from the evaluation of Cycle I. These improvements included more intense teacher scaffolding, structured reading comprehension practice, reading materials in context and optimized use of interactive digital media. As a result, students showed significant growth in reading fluency, literal and inferential comprehension, identifying main ideas, and retelling texts. Students also showed increased engagement, participation, attention, and motivation to learn. The average reading achievement of the students rose from 37% in the preliminary stage to 64% in Cycle I and reached 87% in Cycle II, an increase of approximately 50 percentage points in total. The learning activity also increased from 39% to 89%, surpassing the established success criterion. The findings suggest that the combination of interactive digital media and structured remedial instruction is an effective approach to support slow learner students to develop literacy. It is therefore recommended that teachers incorporate the use of interactive digital media in remedial reading lessons, schools improve technological infrastructure and support innovative literacy programs and students use digital learning resources to cultivate independent reading habits. Suggestions for future research include testing similar interventions with larger samples, different levels of education or different digital media to further validate and extend these findings.

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