

Feasibility of Digital Comic Media in Enhancing Early Reading Skills for First-Grade Elementary School Students

Vadila Nurista Ananda1*, Kadek Yudiana², Putu Rahayu Ujianti3 🝺

1,2,3 Universitas Pendidikan Ganesha, Singaraja, Indonesia

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ABSTRAK

Tidak semua siswa baru mampu memahami huruf atau bacaan dengan baik. Di kelas satu sekolah dasar, masih banyak siswa yang mengalami kesulitan dalam belajar membaca. Penelitian ini bertujuan untuk mengembangkan media pembelajaran berupa komik digital yang dirancang untuk meningkatkan keterampilan membaca siswa kelas I Sekolah Dasar, khususnya pada topik "Saling Memaafkan." Jenis penelitian ini adalah penelitian pengembangan yang menggunakan model ADDIE (Analysis, Design, Development, Implementation, and Evaluation). Subjek penelitian terdiri atas ahli materi, ahli media, dan praktisi pendidikan. Uji coba dilakukan pada siswa kelas I SD, meliputi uji coba perorangan dengan tiga siswa dan uji coba kelompok kecil dengan sembilan siswa. Metode pengumpulan data menggunakan skala penilaian (rating scale), dengan instrumen berupa kuesioner skala penilaian. Teknik analisis data yang digunakan adalah analisis deskriptif kuantitatif dan kualitatif. Hasil penelitian menunjukkan bahwa hasil perhitungan uji materi dan uji media dengan menggunakan rumus Aiken's V mencapai persentase 98%, yang dikategorikan dalam kualifikasi "sangat baik." Hasil analisis data uji praktisi juga menunjukkan persentase 100% dengan kualifikasi "sangat baik." Uji coba perorangan menghasilkan persentase 100% dengan kualifikasi "sangat praktis." Berdasarkan temuan tersebut, disimpulkan bahwa media pembelajaran komik digital layak digunakan dalam pembelajaran untuk meningkatkan keterampilan membaca siswa kelas I Sekolah Dasar.

ABSTRAK

Not all new students are able to understand letters or reading materials effectively. Many first-grade elementary school students still face challenges in learning to read. This study aims to develop a digital comic learning media designed to improve the reading skills of first-grade elementary school students, particularly on the topic of "Forgiveness." The research type is developmental research using the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). The research subjects included material experts, media experts, and educational practitioners. The trial subjects consisted of first-grade students, involving an individual trial with three students and a small group trial with nine students. Data collection methods utilized a rating scale with a questionnaire as the instrument. The data analysis technique employed both quantitative and qualitative descriptive analysis. The results of the study showed that the evaluation of the material and media tests using Aiken's V formula yielded a percentage of 98%, categorized as "very good." Additionally, the practitioner test analysis indicated a 100% percentage with a "very good" qualification. The individual trial results showed a 100% score, categorized as "very practical." Based on these findings, it can be concluded that digital comic learning media is feasible to be used in learning to enhance the reading skills of first-grade elementary school students.

1. INTRODUCTION

Education is a process of self-development aimed at sustaining life. It plays a crucial role in building high-quality human resources capable of competing in the era of globalization through quality education (Elisa et al., 2019; Iswantiningtyas & Wulansari, 2018). The quality of human resources is essential for

Indonesia's development, which underscores the significant role of teachers in implementing learning programs to achieve the desired educational objectives (Syariful Anam & Elya Umi Hanik, 2020; Ulfasari & Fauziah, 2021). The quality of human resources can be observed through the cultivation of good character, highlighting the expectation for teachers to instill positive values in students, particularly in elementary schools (Nur Utami & Mustadi, 2017; Ahmad Yasar Ramdan & Fauziah, 2019). This aligns with the goals of Indonesian education, which emphasize the development of individual potential and the formation of noble character to benefit the nation. Through quality education, students gain well-structured learning experiences that optimize their abilities, which are pivotal in society (Listiawati, 2018; A.Y Ramdan & Fauziah, 2019). Based on these considerations, it can be asserted that education is expected to enhance the quality of students, enabling them to excel and develop their innate potential.

In fostering students' potential, learning activities must be optimally designed. Learning is an activity or process that occurs between teachers and students, systematically designed and evaluated to achieve predetermined learning objectives (Asmawati & Bintang Kejora, 2020; Rais et al., 2019). Learning activities should create a comfortable environment for students, ensuring they do not feel pressured during classroom activities (Asmara et al., 2019; Radjabani et al., 2021). Elementary school students, particularly first graders, are expected to develop the ability to recognize letters and comprehend reading materials. Reading involves the recognition of letters or sounds through visual observation, formation, or auditory processes, which are then combined to form words (Jang & Protacio, 2020; Rajab & Al-Sadi, 2015). In essence, reading is a highly complex activity as it encompasses physical, mental, and comprehension processes (Magableh & Abdullah, 2022; Setyowati & Sugirin, 2020). Students can read effectively if they possess the ability to clearly recognize letters, move their eyes fluidly, and accurately interpret reading symbols. Reading is a fundamental learning process consistently practiced by students in the classroom. This process begins with vocabulary acquisition, followed by word recognition, and ultimately, paragraph comprehension (Azis, 2019; Harahap et al., 2021). To read proficiently, students need to develop reading readiness.

However, the current issue is that not all new students are able to comprehend letters or reading materials effectively. Previous research findings also confirm that many students struggle with learning to read, which significantly impacts the effectiveness of the learning process (Azis, 2019; Rusmono & Alghazali, 2019; Salsabilah et al., 2020). Based on observations and interviews conducted at SD Muhammadiyah 2 Denpasar with first-grade homeroom teachers and the school principal, several recurring problems were identified. First, students have difficulty expressing information verbally, with unclear pronunciation. Second, students are not yet fluent in reading books and still struggle to recognize letters. Third, students show limited responsiveness when teachers ask questions. Fourth, teachers rarely utilize learning media, particularly tools that assist students in understanding reading materials, leading to boredom during classroom activities. This boredom negatively affects the learning process, resulting in poor reading comprehension and underdeveloped reading skills among students (Debyo et al., 2018; Marliana & Subrata, 2023).

To address these issues, an effective solution is for teachers to implement innovative learning media that can enhance reading skills among first-grade elementary school students. Reading skills can be developed through consistent practice with various sentences, helping students become more fluent in reading texts (Debyo et al., 2018; Halawa et al., 2020). Reading activities should not be confined to the school environment but should also be encouraged outside of school to cultivate a reading habit among students. Early reading education is crucial to foster a lifelong love for reading (Indrivani & Kelana, 2021; Nani & Hendriana, 2019). Learning media serve as an effective tool for teachers, making it easier to deliver information in a concrete and comprehensible manner (Johan & Ghasya, 2018; Tamo et al., 2019). The more engaging the media, the more motivated students will be to engage in reading activities. One innovative medium that can be developed to boost students' reading motivation is digital comics. Digital comics consist of sequential images created using computer software and published in digital formats (Megantari et al., 2021; Pinatih et al., 2021). These comics should be designed creatively to spark students' interest in learning (Aeni & Yusupa, 2018; Handayani, 2021). The visual appeal of digital comics is one of their key advantages compared to other digital learning media, as they incorporate engaging characters that align with students' interests. Digital communication media can be effectively integrated into learning activities, as they combine elements of color, images, and text that stimulate students' imagination.

Previous studies have also revealed that digital comics can foster students' enthusiasm for learning (Azizul et al., 2020; Syahmi et al., 2022; Wijaya et al., 2020). Other research findings indicate that digital comics can enhance students' learning motivation by incorporating storylines that are easy for students to understand, thereby effectively conveying educational messages (Kanti et al., 2018; Sukmanasa et al., 2017; Supartayasa & Wibawa, 2022). Based on these findings, it can be concluded that digital comics can support the development of reading skills, particularly among first-grade elementary school students. However,

there has been limited research on the use of digital comic-based learning media to improve the reading skills of first-grade elementary school students, especially on the topic of forgiveness. Therefore, the objective of this study is to develop digital comic-based learning media aimed at enhancing the reading skills of first-grade elementary school students, with a specific focus on the theme of forgiveness. It is expected that the developed digital comics will contribute to improving students' reading abilities at the elementary level.

2. METHOD

This research is a development study employing the ADDIE model, which consists of five stages: Analyze, Design, Development, Implementation, and Evaluation (Tegeh, 2010). In the analysis stage, a learning needs analysis is conducted to identify existing problems and learning requirements. The design stage focuses on conceptualizing the digital comic product. During the development stage, the digital comic product is created and refined. The implementation stage involves testing the digital comic product, which includes validation by experts and trials with students. Evaluation is conducted at each stage to ensure the product's effectiveness and quality. The research subjects include content experts, media experts, and practitioner experts. The trial subjects consist of first-grade elementary school students, with individual trials involving three students and small group trials involving nine students. Data collection is carried out using a rating scale method, and the data collection instrument is a rating scale. The instrument grids are presented in Table 1, Table 2, and Table 3.

Table 1. Content Expert	Validation Instrument	Grid for Digital Comic Media
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No	Aspect		Dimension
1	Content/Material	1.	Completeness and clarity in presenting identity
		2.	Clear presentation of learning objectives
		3.	Clear delivery of content
2	Language/Communication	1.	Appropriateness of language rules usage
		2.	Use of language that is easily understood by students
3	Presentation	1.	Coherence in content presentation
		2.	Integration in content presentation

Table 2. Media Expert Validation Instrument Grid

No	Aspect	Dimension
1	Audio and Text	1. Clearly presented text
		2. Clearly presented audio
2	Visuals	1. Clearly presented illustrations
		2. Attractive background design
		3. Harmonious use of colors
3	Characterization	1. Selection of characters
		2. Appeal of characters
4	Overall Display	3. Integration of the overall visual display

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5	Visuals	1.	Clearly presented illustrations
		2.	Attractive background design
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6	Characterization	1.	Selection of characters
		2.	Appeal of characters
7	Overall Display	1.	Integration of the overall visual display

Table 3. Practitioner Response Instrument Grid

The developed instrument will be validated by experts using Gregory's formula. The techniques employed for data analysis include both quantitative and qualitative descriptive analyses. Quantitative descriptive analysis is used to analyze the scores obtained from the evaluation sheets provided to experts, teachers, and students by applying Aiken's validity index formula. Qualitative descriptive analysis is utilized to examine the feedback gathered from the evaluation sheets completed by experts, teachers, and students.

3. RESULT AND DISCUSSION

Results

This study resulted in the development of a digital comic-based learning medium on the topic of forgiveness using the ADDIE model. The development process consists of the following stages: First, Analysis. The analysis revealed several key findings: (1) students exhibited unclear articulation and pronunciation when conveying information orally; (2) students faced difficulties in reading books fluently and had limited letter recognition skills; (3) students showed minimal responses when teachers posed questions; and (4) teachers rarely utilized learning media, particularly those that could assist students in understanding reading materials, leading to boredom during classroom activities. Based on these issues, there is a need for a medium that can enhance the reading skills of first-grade students through digital comics.

Second, Design. This stage involved designing the development of a digital comic-based learning medium on the topic of forgiveness. The comic features dialogues between characters discussing the relationship between force and motion in daily life, tailored for first-grade elementary students. The structure of the digital comic includes the cover, introduction, content, and conclusion. The comic's design and layout are illustrated in Figure 1.



Figure 1. Digital Comic Design

Third, Development. The development stage resulted in a digital comic-based learning medium on the topic of forgiveness, structured according to the previously designed framework. The digital comic consists of a cover, introduction, content, and conclusion. The cover includes the title, grade level, institution name, and author's name. The introduction presents the basic competencies, indicators, learning objectives, and instructions for using the digital comic. The content section introduces the characters, with pages 5 to 23 containing dialogues between characters that narrate the story. The conclusion summarizes the story and conveys moral messages related to appropriate attitudes and behaviors. The final developed media is presented in Figure 2.



Figure 2. Results of Digital Comic Development

Fourth, Implementation. After the development of the digital comic on the topic of forgiveness, the media was evaluated by experts. Based on the calculations from the material and media tests using Aiken's formula, the obtained percentage was 98%. When converted to a five-point scale table, this percentage falls

within the "very good" qualification. The analysis of expert data indicated that both material experts provided a score of 98%, which also categorized the media as "very good" on the five-point scale. Subsequently, assessments were conducted by practitioners and students to determine the practicality of the developed media. The results from the practical test showed a percentage range of 90-100. Based on the evaluation criteria and conversion to a five-point scale, the outcome achieved a 100% score, categorized as "very good." The individual calculations yielded a 100% score, indicating that the product is classified as "very practical" based on the five-point scale conversion. Based on the data analysis, it can be concluded that the digital comic development product is valid and can be effectively used in the learning process. The results of the evaluations are presented in Table 4.

No	Subject	Result (Score)	Remarks
1	Learning Material Expert	98%	Very Good
2	Learning Media Expert	98%	Very Good
3	Teacher Evaluation	100%	Very Good
4	Student Evaluation	100%	Very Good

Discussion

The data analysis results indicate that the digital comic media on the topic of forgiveness received a "very good" qualification, making it suitable for use in teaching. This outcome is attributed to several factors. Firstly, the digital comic media on the topic of forgiveness is deemed appropriate for implementation in teaching because it motivates students. The use of digital comics effectively stimulates students' interest, making the learning activities more enjoyable (Handayani, 2021; Megantari et al., 2021). This aligns with the objective of learning media, which is to enhance students' interest and motivation (Aeni & Yusupa, 2018; Asnawi et al., 2023). Educational activities must be conducted as effectively as possible to create a conducive learning environment that enhances students' motivation (Azizul et al., 2020; Supartayasa & Wibawa, 2022). This highlights the need for appropriate and creative learning media that can engage students in learning, particularly in reading. As a result, reading activities, which were previously perceived as difficult by students, have become more enjoyable due to the use of digital comics tailored to students' characteristics and the subject matter.

Secondly, the digital comic media on the topic of forgiveness is suitable for improving students' reading abilities. Students' reading skills can be enhanced through engaging learning media, as it positively influences students (Artini et al., 2019; Megantari et al., 2021). Learning media facilitates the transmission of information from teachers to students, making it easier for students to learn (Amini & Suyadi, 2020; Puadah & Rustini, 2022). Moreover, the developed digital media presents attractive illustrations, making the content more tangible and easier for students to comprehend. This emphasizes the importance of teachers being able to creatively utilize and implement learning media correctly, thereby impacting students' knowledge. The use of media as a learning resource simplifies students' ability to manage the information presented, ensuring that learning objectives are maximized (Aprita & Kurniah, 2021; Syahrowardi & Permana, 2016). This is consistent with the role of media, which provides clarity to students, simplifying complex and abstract concepts (Afrianti & Wirman, 2020; Anggraini & Efendi, 2022).

Thirdly, the digital comic media on the topic of forgiveness is considered suitable for implementation due to its high practicality. The developed digital comic is easy to use, making it particularly practical for first-grade elementary school students. Furthermore, this digital comic presents a systematic storyline, making it easy for elementary school students to understand (Asnawi et al., 2023; Megantari et al., 2021; Syahmi et al., 2022). The digital comic includes the instillation of positive character values and moral messages. The moral lessons presented in the digital comic are effective in shaping positive character traits in students. The dialogues in the comic are accompanied by appropriate images, enhancing the clarity of verbal messages. In the reading process, students feel more focused in understanding the messages being conveyed. Moreover, the digital comic can be accessed anytime and anywhere, allowing students to read it wherever they are (Handayani, 2021; Megantari et al., 2021; Rohmanurmeta & Dewi, 2019; Sukmanasa et al., 2017).

Previous studies also highlight that digital comics are highly practical and engaging (Asnawi et al., 2023; Megantari et al., 2021). Digital comics facilitate learning for students (Indriasih et al., 2020; Laksmi & Suniasih, 2021). The design of this media is as creative as possible to create an enjoyable learning experience. The visual appeal of the developed digital comic is one of its strengths, as it is unique and distinct from other digital media. This digital comic takes into account the characteristics of students and aligns with their needs, motivating them to engage in learning. This is especially evident in first-grade elementary students, who are at a developmental stage of operational cognition, making it easier for them to understand

concepts through experiential learning. These concrete experiences are provided to students through the use of the digital comic media. However, a limitation of this study is that it does not extend to the stage of testing effectiveness. Nonetheless, the developed media is deemed suitable for use in educational settings. The implication of this research is that the digital comic media on the topic of forgiveness can be used by teachers to enhance the reading skills of elementary school students.

4. CONCLUSION

The data analysis results indicate that the digital comic media on the topic of forgiveness received an excellent qualification from experts, teachers, and students. It is concluded that the digital comic media on the topic of forgiveness is suitable for use in teaching. The digital comic media on this topic facilitates student learning, resulting in an increased understanding among students.

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