

Development of Interactive Learning Media Based on Smart Apps Creator for Narrative Text Writing in Fourth-Grade Elementary School

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ABSTRACT

This study was motivated by the limited use of interactive learning media in narrative text writing instruction at elementary schools, which caused students to experience difficulties in generating ideas and organizing stories systematically. This study aimed to develop Smart Apps Creator-based interactive learning media that are valid, practical, and effective for teaching narrative text writing to fourth-grade elementary school students. This study employed a Research and Development (R&D) approach using the Plomp model, consisting of the preliminary research, development and prototyping phase, and assessment phase. The research instruments included validation sheets, practicality questionnaires, and learning achievement tests. The results indicated that the developed media achieved material validity of 92%, media validity of 96%, and language validity of 96%, all categorized as very valid. The practicality results showed that the media were categorized as very practical, with percentages of 88.67% in the one-to-one evaluation and 89% in the small group evaluation. In addition, teacher and student responses also indicated a very practical category. The effectiveness results based on N-Gain analysis showed a moderate category. Therefore, the Smart Apps Creator-based interactive learning media were considered valid, practical, and effective for use in narrative text writing instruction for fourth-grade elementary school students.

Informasi Artikel

Kata Kunci:

Media pembelajaran interaktif;
Smart Apps Creator;
Teks narasi;
Sekolah dasar.

ABSTRAK

Penelitian ini dilatarbelakangi oleh kurang optimalnya penggunaan media pembelajaran interaktif dalam pembelajaran menulis teks narasi di sekolah dasar, sehingga peserta didik mengalami kesulitan dalam mengembangkan ide dan menyusun cerita secara sistematis. Penelitian ini bertujuan untuk menghasilkan media pembelajaran interaktif berbasis Smart Apps Creator yang valid, praktis, dan efektif untuk pembelajaran menulis teks narasi pada peserta didik kelas IV sekolah dasar. Penelitian ini merupakan penelitian dan pengembangan yang menggunakan model Plomp, yang terdiri atas tahap preliminary research, development and prototyping phase, dan assessment phase. Instrumen penelitian meliputi lembar validasi, angket praktikalitas, dan tes hasil belajar. Hasil penelitian menunjukkan bahwa media yang dikembangkan memperoleh validitas materi sebesar 92%, validitas media sebesar 96%, dan validitas bahasa sebesar 96% dengan kategori sangat valid. Hasil praktikalitas menunjukkan bahwa media berada pada kategori sangat praktis dengan persentase 88.67% pada tahap one-to-one evaluation dan 89% pada tahap small group evaluation. Selain itu, respons guru dan peserta didik juga menunjukkan kategori sangat praktis. Hasil efektivitas berdasarkan analisis N-Gain menunjukkan kategori sedang. Dengan demikian, media pembelajaran interaktif berbasis Smart Apps Creator dinyatakan valid, praktis, dan efektif untuk digunakan dalam pembelajaran menulis teks narasi pada peserta didik kelas IV sekolah dasar.

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1. Introduction

Narrative text writing is an essential language skill that should be developed in elementary school because it enables students to express ideas, experiences, and imagination through a coherent sequence of events [1][2]. However, narrative writing remains one of the most challenging language skills for elementary school students, as it requires the ability to generate ideas, organize plot structures, and communicate events coherently in written form [3][4]. Previous studies have reported that elementary school students frequently experience difficulties in developing story ideas, determining plot structures, and composing coherent narrative texts [5][6].

These challenges were also identified through observations and interviews conducted at SDN 30 Cengkeh, SDN 14 Koto Lalang, and SDN 05 Kapalo Koto. The findings revealed that fourth-grade students still encountered difficulties in generating story ideas, organizing plot sequences, and composing narrative texts systematically. Furthermore, the learning process was predominantly based on textbooks and lecture-oriented instruction, resulting in low student participation and limited meaningful learning experiences. This condition was reflected in the low percentage of students achieving mastery in narrative text writing across the three schools, as presented in Table 1.

Table 1 Percentage of Learning Mastery in Narrative Text Writing of Fourth-Grade Students

No	School	Number of Student	Mastery	Non-Mastery	Mastery Percentage
1.	SDN 30 Cengkeh	26	12	14	46,15%
2.	SDN 14 Koto Lalang	24	7	17	29,16%
3.	SDN 05 Kapalo Koto	22	10	12	45,45%

Source: Preliminary observation data (2026)

Based on Table 1, the percentage of students achieving mastery in narrative text writing remained below 50% in all three schools. The lowest mastery percentage was found at SDN 14 Koto Lalang (29.16%), while the highest was recorded at SDN 30 Cengkeh (46.15%). These findings indicate that students still experienced substantial difficulties in narrative text writing and highlight the need for instructional innovations that can provide more engaging, meaningful, and supportive learning experiences.

One potential solution to address this issue is the use of interactive learning media. Previous studies have demonstrated that interactive learning media can improve students' motivation, engagement, and learning outcomes by integrating visual, audio, animation, and interactive elements into the learning process [7][8]. One platform widely used for

developing interactive learning media is Smart Apps Creator, an application that enables educators to design multimedia-based learning media without requiring programming skills [9]. Smart Apps Creator allows the integration of text, images, audio, animation, and interactive exercises into a single digital learning environment, making learning more accessible and attractive for young learners. Several recent studies reported that learning media based on Smart Apps Creator effectively improved learning outcomes in various elementary school subjects, including science, mathematics, and literacy [10][11]. In addition, Iftiyana Fatimatuz Zuhroh reported that Smart Apps Creator-based learning media for narrative text writing achieved high levels of validity, practicality, and effectiveness [12]. However, the developed media primarily focused on content presentation and learning exercises and provided limited structured support throughout the narrative writing process. Specifically, insufficient attention has been given to supporting idea generation, vocabulary development, narrative organization, and self-review during writing activities.

Therefore, a research gap remains in the development of Smart Apps Creator-based interactive learning media that function not only as instructional content delivery tools but also as structured scaffolding systems that guide students throughout the narrative writing process. Addressing this gap is important to facilitate students' writing development and create more meaningful learning experiences.

The novelty of this study lies in the development of Smart Apps Creator-based interactive learning media that provide structured support throughout the narrative writing process through the integration of four interactive features: Story Creation Machine, Word Bank, Imagination Studio, and Story Detective Post. Unlike previous Smart Apps Creator-based media that primarily emphasized content presentation and practice activities, these features were specifically designed to assist students in generating story ideas, enriching vocabulary, organizing narrative structures, and independently reviewing their writing. Consequently, the developed media offer more comprehensive support for narrative writing instruction.

Therefore, this study aimed to develop Smart Apps Creator-based interactive learning media for narrative text writing materials in fourth-grade elementary school and to evaluate its validity, practicality, and effectiveness in improving students' narrative writing skills.

2. Method

2.1 Research Design

This study employed the Research and Development (R&D) method to develop interactive learning media based on Smart Apps Creator for narrative text writing materials for fourth-grade elementary school students. This study adopted the Plomp

model because it provides systematic development procedures and is considered suitable for developing learning media [13].

The Plomp model consists of three phases, namely preliminary research, development or prototyping phase, and assessment phase [14]. In the preliminary research phase, needs analysis, student characteristic analysis, curriculum analysis, and material analysis were conducted. This phase aimed to identify problems and students' needs in narrative text writing instruction so that the developed media would be appropriate to the learning conditions in elementary schools.

In the development or prototyping phase, the learning media were designed and developed based on Smart Apps Creator [15]. At this stage, self-evaluation was conducted to examine the suitability of the content, appearance, and functions of the media before expert validation. The media were then validated through expert review involving material experts, media experts, and language experts. Based on the validators' suggestions and feedback, the learning media were revised to better meet instructional needs. The revised media were subsequently tested through one-to-one evaluation and small group evaluation at SDN 30 Cengkeh to determine their initial practicality.

In the assessment phase, field testing was conducted at SDN 30 Cengkeh as the trial school and at SDN 14 Koto Lalang and SDN 05 Kapalo Koto as the implementation schools. This phase aimed to determine the practicality and effectiveness of the developed learning media in narrative text writing instruction for fourth-grade elementary school students.

2.2 Data Collection Methods

Data collection in this study was carried out systematically at each stage of development to obtain information related to the validity, practicality, and effectiveness of the developed learning media. The data collection methods employed in this study included observation, interviews, validation sheets, practicality questionnaires, and learning outcome tests.

Observations and interviews were conducted during the preliminary research phase at SDN 30 Cengkeh, SDN 14 Koto Lalang, and SDN 05 Kapalo Koto. Observation was used to identify classroom learning conditions, students' difficulties in writing narrative texts, and the use of learning media during the instructional process. Meanwhile, interviews with fourth-grade teachers were conducted to obtain information regarding the challenges encountered in teaching narrative text writing and the need for interactive learning media.

During the development or prototyping phase, validation sheets were used to collect data from material experts, media experts, and language experts to evaluate the validity of the developed learning media based on aspects of material feasibility, media design quality, and language appropriateness.

During the product testing stage, practicality questionnaires were administered to teachers and students to evaluate the ease

of use, visual attractiveness, and usefulness of the learning media. Product testing consisted of one-to-one evaluation, small group evaluation, and field testing. The one-to-one evaluation involved three students, while the small group evaluation involved six fourth-grade students selected heterogeneously based on high, medium, and low academic abilities.

Field testing was conducted at SDN 30 Cengkeh, SDN 14 Koto Lalang, and SDN 05 Kapalo Koto. The participants in the field testing stage consisted of 26 fourth-grade students from SDN 30 Cengkeh, 24 students from SDN 14 Koto Lalang, and 22 students from SDN 05 Kapalo Koto. Furthermore, learning outcome tests in the form of pre-tests and post-tests were administered to measure the effectiveness of the developed learning media in improving students' narrative text writing skills.

2.3 Data Analysis Technique

Validity Analysis

Validity analysis was conducted to determine the feasibility of the developed learning media. The validity data were obtained from validation sheets completed by material experts, media experts, and language experts. The assessed aspects included material feasibility, media design quality, and language appropriateness. The validation scores were analyzed using a percentage formula and then categorized based on the validity criteria.

The validity percentage was calculated using the following formula:

$$P = \frac{\sum x}{\sum xi} \times 100\%$$

Description :

P = percentage score

$\sum x$ = total obtained score

$\sum xi$ = maximum score

The calculation results were then categorized based on the validity criteria presented in Table 2.

Table 2 Validity Criteria

Percentage	Criteria
$85\% < x$	Very Valid
$70\% < x \leq 85\%$	Valid
$55\% < x \leq 70\%$	Less valid
$40\% < x \leq 55\%$	Invalid
$x < 40\%$	Very Invalid

Practicality Analysis

Practicality analysis was conducted to determine the ease of use of the learning media during the learning process. Practicality data were obtained through teacher and student response questionnaires. The assessed aspects included ease of use, visual attractiveness, material clarity, and usefulness of the

media in supporting learning activities.

The practicality percentage was calculated using the following formula:

$$P = \frac{\sum x}{\sum xi} \times 100\%$$

Where:

P = percentage score

$\sum X$ = total obtained score

$\sum Xi$ = maximum score

The calculation results were then categorized based on the practicality criteria presented in Table 3.

Table 3 Practicality Criteria

Percentage	Criteria
86%–100%	Very Practical
76%–85%	Practical
60%–75%	Fairly Practical
55%–59%	Less Practical
00%–54%	Impractical

Effectiveness Analysis

Effectiveness analysis was conducted to determine the improvement in students' learning outcomes after using the Smart Apps Creator-based interactive learning media. The effectiveness data were obtained from pre-test and post-test results during the field testing stage. The improvement in learning outcomes was analyzed using the N-Gain formula to measure students' learning improvement before and after the implementation of the learning media.

The N-Gain formula used in this study is as follows:

$$N - Gain = \frac{Posttest\ Score - Pretest\ Score}{Maximum\ Score - Pretest\ Score}$$

The N-Gain results were then categorized based on the effectiveness criteria presented in Table 4.

Table 4 Effectiveness Criteria

Percentage	Criteria
$-1,00 \leq N-Gain < 0,00$	Decreased
$N-Gain = 0,00$	Constant
$0,00 < N-Gain \leq 0,30$	Low
$0,30 \leq N-Gain < 0,70$	Moderate
$0,70 \leq N-Gain < 1,00$	High

1. Results and Discussion

3.1 Results

3.1.1 Preliminary Research Phase

The preliminary research phase consisted of needs analysis,

student characteristics analysis, curriculum analysis, and material analysis. This phase was conducted to obtain an initial overview of narrative text writing instruction and students' needs for the learning media to be developed.

The needs analysis was carried out through observations and interviews with fourth-grade teachers at SDN 30 Cengkeh, SDN 14 Koto Lalang, and SDN 05 Kapalo Koto. The findings revealed several problems in narrative text writing instruction. Students experienced difficulties in generating story ideas, organizing plot sequences, and expressing ideas coherently in written form. In addition, classroom instruction was still dominated by textbooks and lecture-based methods, resulting in low student participation and limited meaningful learning experiences. These findings indicate the need for instructional innovation that can support students in understanding learning materials in a more engaging and interactive manner.

The student characteristics analysis showed that fourth-grade elementary school students were more interested in learning activities involving visual displays, illustrations, animations, and interactive elements. Students tended to understand learning materials more easily when the instructional process was presented attractively and involved active participation.

The curriculum analysis referred to the Merdeka Curriculum for fourth-grade Indonesian language learning in elementary school. The analysis showed that students were expected to understand the structure and elements of narrative texts and write narrative texts according to appropriate language conventions. Therefore, the developed learning media were designed in accordance with the applicable learning outcomes and learning objectives.

The material analysis identified several essential components to be included in the learning media, namely the definition and characteristics of narrative texts, narrative text structures, narrative elements, steps in writing narrative texts, conjunctions, and examples of narrative texts. To support students throughout the writing process, the learning media were also equipped with four interactive features: Story Creation Machine, Word Bank, Imagination Studio, and Story Detective Post. These features were designed to help students generate story ideas, enrich vocabulary, organize narrative structures, and independently review their writing.

3.1.2 Development or Prototyping Phase

a. Design and Development of Prototype I

At this stage, the Smart Apps Creator-based interactive learning media for narrative text writing materials for fourth-grade elementary school students were designed and developed into Prototype I. The learning media were developed by integrating text, images, audio, animations, and interactive exercises to create a learning experience that was more

engaging, interactive, and easier for students to understand. In addition, the media were equipped with several interactive features specifically designed to assist students in generating ideas and composing narrative texts systematically.

The developed Prototype I consisted of several main interfaces, namely the opening page, main menu, learning material menu, narrative writing mission menu, and evaluation menu. The overall visualization of the developed learning media is presented in Figures 1–10.

The opening page (cover) displayed the title of the learning media, learning identity, and a navigation button leading to the main menu. This interface was designed using attractive color combinations and illustrations to increase students' attention and motivation at the beginning of the learning process, as shown in Figure 1.



Figure 1 Opening Page Display

The main menu functioned as the central navigation interface, providing access to usage instructions, learning materials, narrative writing missions, and evaluation sections. The navigation system was designed to be simple and systematic to enable students to access each section independently and efficiently (Figure 2).



Figure 2 Main Menu Display

The learning material menu contained instructional content related to narrative text writing, including the definition, characteristics, structure, elements, conjunctions, and examples of narrative texts. The materials were presented using simple language supported by illustrations and visual elements to facilitate students' understanding of the concepts (Figure 3).



Figure 3 Learning Material Menu Display

In the narrative writing mission menu, the media were equipped with four main interactive features, namely Story Creation Machine, Word Bank, Imagination Studio, and Story Detective Post (Figure 4). These features were designed to support each stage of the narrative writing process in a gradual and structured manner.



Figure 4 Narrative Writing Mission Menu Display

The Story Creation Machine feature functioned during the pre-writing stage to help students generate story ideas through rotating themes and picture sequences (Figure 5). The resulting picture sequences served as visual stimuli for students to develop narrative plots systematically (Figure 6).



Figure 5 Story Creation Machine Display (Pre-Writing Stage)



Figure 6 Picture Series Display (Result of Story Creation Machine)

The Word Bank feature provided vocabulary support to assist students in selecting appropriate words and constructing sentences more easily during the writing process (Figure 7). Furthermore, the Imagination Studio feature guided students in organizing narrative text structures consisting of orientation, complication, resolution, and coda (Figure 8).



Figure 7 Word Bank Display (Vocabulary Development)



Figure 8 Imagination Studio Display (Writing Stage)

During the revising and editing stages, the Story Detective Post feature functioned as a checklist to help students review the completeness of content, story structure, and language accuracy in their written narrative texts (Figure 9).



Figure 9 Story Detective Post Display (Revising and Editing Stage)

The evaluation menu provided interactive exercises that automatically displayed students' scores after task completion. This feature was intended to help students independently evaluate their understanding of the learning materials (Figure 10).

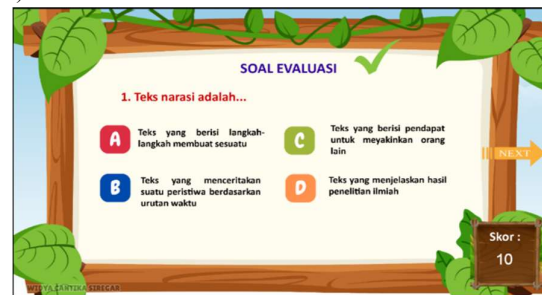


Figure 10 Evaluation Menu Display

b. Self Evaluation

At the self-evaluation stage, an initial review of the developed learning media was conducted. The evaluation focused on the suitability of the material, media appearance, language use, navigation button functions, and the usability of the media in the learning process. The results of the self-evaluation indicated that several parts of the media still required improvement, including text layout arrangement, consistency of color usage, and the functionality of several navigation buttons. After revisions were made based on the evaluation results, the learning media were continued to the expert validation stage.

c. Expert Review

The expert review stage involved material experts, media experts, and language experts to determine the validity level of the developed learning media. The material validation results obtained a percentage score of 92% and were categorized as very valid. The media validation at the first stage obtained a percentage score of 70.66% with a valid category. After revisions were made based on the validator's suggestions, the score increased to 96% and was categorized as very valid. Furthermore, the language validation results obtained a percentage score of 96% with a very valid category.

Overall, the average validity score of the developed learning media was 94.67%, which falls into the very valid category, as presented in Table 5. These results indicate that the Smart Apps Creator-based interactive learning media were feasible for implementation in the product trial stage.

Table 5 Overall Validity Results

No	Expert	Aspect	Percentage	Validity Criteria
1.	Dr. Habibi, M.Pd.	Material Aspect	92%	Very Valid
2.	Fikhen Tri Wulandari, M.Pd.	Media Aspect	96%	Very Valid
3.	Dr. Nur Azmi Alwi, S.S., M.Pd.	Language Aspect	96%	Very Valid
Overall Average			94.67%	Very Valid

d. One-to-One Evaluation

The one-to-one evaluation stage was conducted at SDN 30 Cengkeh on April 23, 2026, involving three fourth-grade students. This stage aimed to determine the ease of use of the learning media and identify obstacles experienced by students while using the media. The average practicality result at the one-to-one evaluation stage obtained a percentage score of 88.67% with a very practical category.

e. Small Group Evaluation

The small group evaluation stage was conducted on April 25, 2026, at SDN 30 Cengkeh involving six fourth-grade students selected heterogeneously based on high, medium, and low academic abilities. At this stage, students learned using the learning media collaboratively in small groups to determine the practicality level of the media in small-group learning activities. The practicality test results at the small group evaluation stage obtained a percentage score of 89% with a very practical category. Students appeared enthusiastic and actively participated while using the interactive learning media based on Smart Apps Creator.

3.1.3 Assessment Phase

The assessment phase was conducted to determine the practicality and effectiveness of the interactive learning media based on Smart Apps Creator in narrative text writing instruction for fourth-grade elementary school students. This phase was implemented through a field test conducted at SDN 30 Cengkeh on April 27, 2026, as the trial school, as well as at SDN 14 Koto Lalang on April 28, 2026, and SDN 05 Kapalo Koto on May 6, 2026, as the research schools.

Learning Media Practicality Results

The practicality of the learning media was obtained through teacher and student response questionnaires administered after the implementation of the learning media in the learning process. The results of the learning media practicality assessment are presented in Table 6.

Table 6 Learning Media Practicality Results

School	Teacher Response	Category	Student Response	Category
SDN 30 Cengkeh	90%	Very Practical	90.18%	Very Practical
SDN 14 Koto Lalang	92%	Very Practical	88.33%	Very Practical
SDN 05 Kapalo Koto	86%	Very Practical	89.81%	Very Practical

Based on the practicality results, the interactive learning media based on Smart Apps Creator obtained a very practical category. These findings indicate that the learning media were easy to use, visually attractive, and capable of helping students understand narrative text writing materials more easily and enjoyably. In addition, students showed enthusiasm and active participation during the learning process using the developed learning media.

Learning Media Effectiveness Results

The effectiveness of the learning media was determined through pre-test and post-test results analyzed using the N-Gain score. The effectiveness results of the learning media are presented in Table 7.

Table 7 Learning Media Effectiveness Results

School	N-Gain Score	Category
SDN 30 Cengkeh	0.59	Moderate
SDN 14 Koto Lalang	0.61	Moderate
SDN 05 Kapalo Koto	0.69	Moderate

Based on the N-Gain calculation results, the interactive learning media based on Smart Apps Creator were categorized as moderate or fairly effective. These results indicate that the use of the learning media was able to improve students' learning outcomes in narrative text writing materials for fourth-grade elementary school students.

3.2 Discussion

The results of this study indicate that the interactive learning media based on Smart Apps Creator for narrative text writing

materials in fourth-grade elementary school fulfilled the criteria of validity, practicality, and effectiveness. The development of the learning media was based on the results of the needs analysis, which showed that narrative text writing instruction was still dominated by the use of textbooks and lecture methods, causing students to experience difficulties in developing ideas, organizing story plots, and expressing ideas in written form [16]. Therefore, interactive learning media integrating text, images, audio, animations, exercises, and interactive features were developed to help students understand the material in a more engaging and enjoyable way [17].

The validation results indicated that the developed learning media achieved a very valid category in terms of material, media design, and language aspects. The high level of validity suggests that the media were developed in accordance with the learning objectives, the characteristics of elementary school students, and the requirements of narrative text writing instruction. This finding indicates that the integration of text, images, audio, interactive exercises, and learning features supported the presentation of learning materials in a clear, systematic, and understandable manner. Furthermore, the use of communicative language and an attractive interface facilitated students' comprehension of the learning content. According to learning media development principles, a learning medium can be considered valid when it fulfills the criteria of content appropriateness, presentation quality, language suitability, and graphical design [18]. Therefore, the developed media were considered appropriate for use in narrative text writing instruction. These findings are consistent with the study conducted by Ifityanah Fatimatuz Zuhroh, which reported that Smart Apps Creator-based learning media achieved a very valid category and were suitable for narrative text writing instruction in elementary schools [19].

The practicality results indicated that the developed learning media achieved a very practical category. The high level of practicality suggests that the media were easy to use for both teachers and students during the learning process. The practicality of the media was influenced not only by its attractive design but also by the interactive features specifically developed to support each stage of narrative text writing. The Story Creation Machine feature assisted students in generating and developing story ideas, while the Word Bank feature helped enrich students' vocabulary for writing activities. In addition, the Imagination Studio feature guided students in organizing narrative structures systematically, whereas the Story Detective Post feature enabled students to review and evaluate their writing independently. These features provided instructional scaffolding throughout the writing process, allowing students to learn more independently and systematically. Therefore, the developed media functioned not only as a learning resource but also as a tool that facilitated the development of students' narrative writing skills. These findings are consistent with

previous studies reporting that Smart Apps Creator-based learning media can increase student engagement and provide more interactive learning experiences [20].

The effectiveness analysis indicated that the developed learning media were able to improve students' learning outcomes in narrative text writing. This improvement suggests that the media not only attracted students' attention but also facilitated a deeper understanding of the learning materials. The systematic presentation of content, integration of multimedia elements, and active student participation during the learning process enabled students to develop a better understanding of narrative text structures and components. Furthermore, the interactive learning activities provided opportunities for students to practice, explore ideas, and engage in more meaningful learning experiences. These findings indicate that technology-based learning media can support a more effective learning process and contribute positively to students' learning outcomes. [21].

The findings of this study are also supported by constructivist learning theory, which states that students construct knowledge through active learning experiences. Through the interactive features provided in the learning media, students were able to interact directly with the learning materials, making the learning process more meaningful [22]. Furthermore, multimedia theory explains that the combination of text, images, audio, and animations can help students understand learning materials more effectively compared to conventional learning methods [23]. The use of interactive learning media was also able to increase students' engagement and learning motivation during the learning process [24][25].

Although the developed learning media fulfilled the criteria of validity, practicality, and effectiveness, this study still had several limitations. The research was only conducted on narrative text writing materials for fourth-grade elementary school students and involved only three schools; therefore, the results cannot yet be generalized broadly. In addition, the learning media had not been equipped with a feature for storing students' writing results, indicating that further development is still needed to improve the developed learning media.

Overall, the interactive learning media based on Smart Apps Creator can be used as an alternative learning medium for narrative text writing materials in fourth-grade elementary school because they are capable of creating more engaging and interactive learning experiences and helping improve students' writing skills [9].

4. Conclusion

The Smart Apps Creator-based interactive learning media developed in this study fulfilled the criteria of validity, practicality, and effectiveness for narrative text writing instruction in fourth-grade elementary school. The integration of

interactive features, including the Story Creation Machine, Word Bank, Imagination Studio, and Story Detective Post, supported students in generating ideas, organizing narrative structures, enriching vocabulary, and reviewing their writing independently. As a result, the developed media contributed to more engaging learning experiences and improved students' narrative writing performance. Therefore, the media can serve as an alternative digital learning resource for narrative text writing instruction in elementary schools. Future studies are recommended to expand the implementation of the media to different grade levels and learning contexts and to incorporate additional features that enable students' writing products to be stored and monitored digitally.

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Daftar Pustaka

- [1] I. Ijirana, M. R. Saraswati, and R. AR, "Meningkatkan Keterampilan Menulis Menggunakan Media Interaktif pada Siswa Kelas II SDN 25 Palu," *PTK: Jurnal Tindakan Kelas*, vol. 5, no. 1, pp. 165–179, Nov. 2024, doi: 10.53624/ptk.v5i1.498.
- [2] J. D. Auranisa and S. Nuryanto, "The Development of Smart Apps Creator Learning Media to Improve Narrative Writing Skills of Students," *Jurnal Prima Edukasia*, vol. 13, no. 2, pp. 201–212, 2025, doi: 10.21831/jpe.v13i2.84629.
- [3] A. Rahmayani, A. Suriani, E. Sukma, and N. F. Azima, "Peningkatan Keterampilan Menulis Teks Narasi Menggunakan Model Pembelajaran Picture and Picture Di Kelas IV SDN 04 Cubadak Air Kota Pariaman," *Jurnal Edu Research*, vol. 6, no. 2, pp. 953–965, 2025.
- [4] R. Maileondri and A. Adrias, "Peningkatan Keterampilan Menulis Teks Narasi Menggunakan Model Problem Based Learning (PBL) Di Kelas IV SDN 20 Gumarang Kabupaten Agam," *Jurnal Ilmiah PGSD STKIP Subang*, vol. 10, no. 02, pp. 234–244, 2025.
- [5] A. W. Hasibuan, C. Chandra, H. Habibi, and S. Safitri, "Peningkatan Keterampilan Menulis Teks Narasi Menggunakan Model Pembelajaran Picture And Picture Di Kelas V Sdn 18 Air Tawar Selatan Kota Padang," *Pendas : Jurnal Ilmiah Pendidikan Dasar*, vol. 11, no. 02, pp. 220–228, 2026.
- [6] S. Fauzia, A. Suriani, C. Chandra, and M. Muhammadiyah, "Peningkatan Keterampilan Menulis Teks Narasi Menggunakan Model Circuit Learning di Kelas IV SDN 20 Indarung Kota Padang," *Indo-MathEdu Intellectuals Journal*, vol. 6, no. 5, pp. 8227–8241, Aug. 2025, doi: 10.54373/imeij.v6i5.4044.
- [7] D. Novela, Ari Suriani, and Sahrun Nisa, "Implementasi Pembelajaran Inovatif melalui Media Digital di Sekolah Dasar," *Journal of Practice Learning and Educational Development*, vol. 4, no. 2, pp. 100–105, Jun. 2024, doi: 10.58737/jpled.v4i2.283.
- [8] L. Y. Akmal, R. Anjelina, N. A. Alwi, and I. Kharisma, "Pengaruh penggunaan media pembelajaran interaktif terhadap pembelajaran siswa sekolah dasar," *Jurnal Nakula: Pusat Ilmu Pendidikan, Bahasa dan Ilmu Sosial*, vol. 3, no. 4, pp. 265–272, 2025.
- [9] N. P. Gemalla and M. Masniladevi, "Efektivitas Pengembangan Media Interaktif Berbasis Smart Application Creator Materi Menulis Teks Narasi di Kelas IV Sekolah Dasar," *e-Jurnal Inovasi Pembelajaran Sekolah Dasar (e-JIPSD)*, vol. 12, no. 2, pp. 232–246, 2024, doi: 10.24036/e-jipsd.v12i2.
- [10] U. P. Efendi and M. Muhammadiyah, "Development of smart apps creator learning media on pancasila material as life value in the fifth-grade of elementary school," *Journal Of Teaching And Learning In Elementary Education*, vol. 6, no. 2, p. 210, Aug. 2023, doi: 10.33578/jtlee.v6i2.8050.
- [11] Y. Herliana and Y. Witanto, "Smart apps creator-based media to enhance addition and subtraction learning outcomes," *Al-Jabar : Jurnal Pendidikan Matematika*, vol. 16, no. 1, pp. 377–390, Jun. 2025, doi: 10.24042/ajpm.v16i1.26584.
- [12] I. F. Zuhroh and H. Hendratno, "Pengembangan Media Gambar Berseri Melalui Aplikasi Smart Apps Creator (SAC) Untuk Keterampilan Menulis Teks Narasi Peserta Didik Kelas IV Sekolah Dasar," *Jurnal Pendidikan Guru Sekolah Dasar (JPGSD)*, vol. 12, no. 5, pp. 894–903, 2024.
- [13] T. Plomp, N. Nieveen, J. van den Akker, A. E. Kelly, and B. Bannan, *Educational design research*. SLO, 2013.
- [14] M. Fernandes and H. Syarifuddin, "Pengembangan Perangkat Pembelajaran Pecahan Berbasis Model Penemuan Terbimbing untuk Kelas IV SD," *ELSE (Elementary School Education Journal) : Jurnal Pendidikan dan Pembelajaran Sekolah Dasar*, vol. 4, no. 1, p. 20, Feb. 2020, doi: 10.30651/else.v4i1.4011.
- [15] S. Y. Friska, E. Estuhono, and R. K. Fitri, "Pengembangan E-Modul Research Based Learning Menggunakan Lectora Inspire Application Pada Pembelajaran Ips Untuk Mendukung Mendeka Belajar Siswa Sekolah Dasar," *Didaktik : Jurnal Ilmiah PGSD FKIP Universitas Mandiri*, vol. 09, no. 02, pp. 6073–6077, 2023.
- [16] L. A. Harahap and A. Pane, "Keterampilan Menulis Teks Narasi Siswa Kelas IV Sekolah Dasar," *Jurnal Pustaka Cendekia Hukum dan Ilmu Sosial*, vol. 3, no. 3, pp. 287–293, 2025, [Online]. Available: <https://pchukumsosial.org/index.php/pchs>
- [17] D. Darmawati and B. Herdiana, "Pemanfaatan Smart

- Apps Creator sebagai Media Pembelajaran dalam Menulis Surat resmi Siswa Kelas V SDIT Unggulan Harith Foundation Tahun Pelajaran 2024/2025,” *Jurnal Vokatif: Pendidikan Bahasa, Kebahasaan dan Sastra*, vol. 2, no. 1, pp. 9–19, 2025.
- [18] F. Zakaria, L. Dama, M. S. Hamidun, E. Nusantari, and I. H. Husain, “Pengembangan Media Crossword Puzzle Berbasis Puzzle Maker sebagai Alat Evaluasi Siswa pada Materi Perubahan dan Pelestarian Lingkungan,” *Biocaster: Jurnal Kajian Biologi*, vol. 5, no. 4, pp. 975–984, Oct. 2025, doi: 10.36312/biocaster.v5i4.745.
- [19] I. Fatimatuz Zuhroh, “Pengembangan Media Gambar Berseri Melalui Aplikasi Smart Apps Creator Untuk Keterampilan Menulis Teks Narasi Peserta Didik Kelas IV Sekolah Dasar,” *JPGSD*, vol. 12, no. 5, pp. 894–903, 2024.
- [20] Y. W. Ningsih, A. Suriani, A. Adrias, and N. F. Azima, “Pengembangan Media Pembelajaran Interaktif Pada Keterampilan Menulis Teks Narasi Menggunakan Articulate Storyline Di Kelas IV Sekolah Dasar,” *Jurnal Edu Research Indonesian Institute For Corporate Learning And Studies (IICLS)*, vol. 6, no. 1, pp. 84–93, 2025.
- [21] Q. Syadida and Y. Erita, “Pengembangan Media Pembelajaran Menggunakan Aplikasi Smart Apps Creator pada Pembelajaran Tematik Terpadu Kelas IV Sekolah Dasar,” *Journal of Practice Learning and Educational Development*, vol. 2, no. 1, pp. 17–26, Mar. 2022, doi: 10.58737/jpled.v2i1.31.
- [22] A. Ali, S. D. Fenica, W. Aini, and A. F. Hidayat, “Efektivitas Media Pembelajaran Interaktif dalam Meningkatkan Minat dan Motivasi Belajar Siswa Sekolah Dasar,” *Journal of Information System and Education Development*, vol. 3, no. 1, pp. 1–6, 2025.
- [23] A. Ali, L. C. Maniboey, R. Megawati, C. F. Djarwo, and H. Listiani, *Media Pembelajaran Interaktif: Teori Komprehensif dan Pengembangan Media Pembelajaran Interaktif di Sekolah Dasar*. PT. Sonpedia Publishing Indonesia, 2024.
- [24] I. Khoirunnisa *et al.*, “Peran Media Pembelajaran Interaktif Dalam Meningkatkan Minat Belajar Peserta Didik Sekolah Dasar,” *Journal of Innovative and Creativity*, vol. 5, no. 2, pp. 6172–6178, Jun. 2025, [Online]. Available: <https://joecy.org/index.php/joecy>
- [25] S. Sapitri and A. Suriani, “Efektivitas Media Pembelajaran Interaktif dalam Meningkatkan Minat Belajar Siswa SD,” *Pragmatik: Jurnal Rumpun Ilmu Bahasa Dan Pendidikan*, vol. 3, no. 3, pp. 282–292, 1844.

