# Adjective Adventure: Development of Canva-Based 2D Animation Media to Improve English Learning Outcomes Among Elementary School Students

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**Abstract**
This study aimed to develop and evaluate *Adjective Adventure*, a Canva-based two-dimensional (2D) animation medium designed to improve English adjective learning outcomes among fifth-grade students at Elementary School. The study employed a research and development approach using Branch's ADDIE model, consisting of Analyze, Design, Develop, Implement, and Evaluate. The development process included classroom observations, interviews, needs analysis, preparation of learning materials, and media design. *Adjective Adventure* integrates animated illustrations, vocabulary, audio, and contextual examples related to people, animals, and familiar objects. Product feasibility was assessed through expert validation, while learning outcomes were measured using pretest and posttest scores from 30 students. The media validation obtained 71 out of 75 points (94.67 percent), indicating a very valid category. Student achievement improved substantially, with the mean score increasing from 50.00 (standard deviation of 14.86) on the pretest to 80.00 (standard deviation of 10.83) on the posttest, representing a 30-point increase. The average normalized gain was 0.603, indicating a moderate improvement. As the paired difference scores did not meet the Shapiro–Wilk normality criterion, the Wilcoxon signed-rank test was applied and revealed a statistically significant difference between pretest and posttest scores, with a W statistic of 0 and a p-value below .001. These findings indicate that *Adjective Adventure* is highly feasible and supports improved English learning outcomes, making it a promising audiovisual medium for teaching adjectives in elementary school.

## 1. Introduction

English language learning at the elementary school level requires learning experiences that are concrete, engaging, and closely connected to students' everyday lives. At this stage, learners benefit from learning resources that help them connect unfamiliar words with recognizable objects, people, animals, and situations. Vocabulary acquisition is particularly important because vocabulary knowledge supports learners' ability to understand spoken and written language and to express meaning in simple communicative contexts. Therefore, English instruction for young learners should not rely exclusively on verbal explanations and written materials but should also provide meaningful representations that help learners establish connections between linguistic forms and their meanings (Fa'uni et al., 2026; Octhavia & Astutik, 2026).

Multimedia learning provides opportunities to combine verbal information with visual representations to support the learning process. According to the Cognitive Theory of Multimedia Learning, learners process information through verbal and visual channels, each of which has limited processing capacity (Mayer, 2021). Learning materials should therefore help learners select relevant information, organize it into coherent mental representations, and integrate it with existing knowledge. In vocabulary instruction, the coordinated presentation of words, illustrations, narration, and examples can facilitate connections between linguistic forms and their meanings. However, multimedia effectiveness depends not merely on the number of visual and auditory elements but on how these elements are organized to support learning objectives. Principles such as segmenting, pre-training, and modality emphasize presenting information in manageable sequences and coordinating visual and verbal information appropriately (Mayer & Fiorella, 2021; Brame, 2016).

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One English language topic that particularly benefits from visual and contextual support is the adjective or descriptive word. Adjectives enable learners to describe characteristics, qualities, sizes, appearances, and conditions of people, animals, and objects. Words such as *big, small, beautiful,* and *clever* may be familiar to elementary students, but learners still require opportunities to understand their meanings, distinguish their uses, and apply them in simple sentences. Visual representations can make these linguistic concepts more concrete by connecting descriptive words with recognizable characteristics and contexts. Such representations also provide repeated exposure to target vocabulary and support students in constructing meaningful associations between words and their referents (Anafi & Mulyani, 2026; Kayyis et al., 2023; Khusnah et al., 2025). Research on children's screen-media experiences also indicates that educational content and media design play important roles in supporting vocabulary learning rather than screen exposure alone (Jing et al., 2023).

Preliminary observations conducted in Grade V Elementary School revealed a practical need to strengthen students' learning of English adjectives. Of the 22 students observed, only six met the learning criterion on the initial assignment, indicating that many students had not yet demonstrated the expected level of achievement. This condition provided an empirical basis for developing a learning resource that could present adjective vocabulary in a more concrete, visually supported, and engaging manner. Learning materials that integrate recognizable objects, animals, people, and organized visual information may help students understand descriptive vocabulary more effectively while providing learning experiences suited to the characteristics of elementary school learners.

Digital learning media provide opportunities to integrate text, images, audio, colors, and animation into a single instructional resource. Canva has been widely discussed as a practical platform for developing visually oriented instructional materials because its features enable developers to organize illustrations, typography, layouts, and audiovisual elements according to specific learning objectives (Agustiyani et al., 2024; Marhamah et al., 2023). In addition, two-dimensional animation enables visual storytelling, sequencing, repetition, and attention guidance through animated characters, objects, text, and transitions. Nevertheless, the instructional quality of digital media depends on the appropriate selection and organization of these elements. Based on these considerations, *Adjective Adventure* was developed as a Canva-based 2D animation medium integrating animated illustrations, written vocabulary, audio, and contextual examples involving familiar people, animals, and objects (Aqila et al., 2025; Pomalingo et al., 2025).

From the perspective of educational technology, instructional media development involves more than producing an attractive digital product. It requires systematic efforts to facilitate learning and improve performance through the creation, utilization, and management of appropriate technological processes and resources (Januszewski & Molenda, 2008). Therefore, the development of *Adjective Adventure* employed the ADDIE model proposed by Branch (2009), consisting of five interconnected stages: Analyze, Design, Develop, Implement, and Evaluate. The Analyze stage identified instructional needs and learner characteristics; Design organized learning objectives, content, and media sequences; Develop involved producing and validating the media; Implement introduced the product into classroom learning; and Evaluate examined its quality and learning outcomes. This systematic framework ensured that the media development process remained aligned with the identified instructional needs and intended learning objectives.

Previous studies have demonstrated the potential of two-dimensional animation and Canva-based digital media in educational contexts. Mufarrohah and Rukmi (2020), for example, developed two-dimensional animated video media for poetry-writing instruction, while Shulahunnisa and Insani (2024) examined two-dimensional animated media using computing and slideshow approaches for folklore material. Agustiyani et al. (2024) also reviewed the use of Canva-based learning media in elementary education. These studies demonstrate the growing application of animation and digital design platforms for instructional purposes. However, findings from media developed for different subjects, learner characteristics, and learning outcomes cannot automatically be generalized to English adjective instruction (Risma & Tursina, 2026). Therefore, a specific need remains for a systematically developed Canva-based 2D animation medium that integrates visual, textual, and auditory representations specifically for teaching English adjectives to Grade V elementary school students.

Accordingly, the present study developed and evaluated *Adjective Adventure*, a Canva-based two-dimensional animated learning medium specifically designed for English adjective instruction among Grade V Elementary School. The novelty of the study lies in integrating animated illustrations, written vocabulary, audio, and contextual examples within a systematically developed medium based on the ADDIE framework and evaluating it through both expert validation and classroom implementation. Media validation was conducted to determine product feasibility, while pretest and posttest data from 30 students were analyzed to examine changes in learning outcomes. The mean student score increased from 50.00 before instruction to 80.00 after instruction, and the Wilcoxon signed-rank test showed a statistically significant difference between pretest and posttest scores ($p < .001$). Thus, this study provides evidence concerning both the feasibility of *Adjective*

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*Adventure* as an instructional medium and the improvement in students' English adjective learning outcomes following its classroom implementation.

# 2. Method

This study employed a Research and Development (R&D) approach using (Branch, 2009) instructional design model. The model consists of five stages: Analyze, Design, Development, Implementation, and Evaluation. It was used to ensure that the development of Adjective Adventure proceeded systematically, from identifying instructional needs to implementing and evaluating the product.

The Analyze stage involved classroom observations, interviews with the teacher, preliminary student questionnaires, content analysis, and analysis of learner characteristics. The findings indicated that adjective instruction required learning media capable of presenting visual examples, colors, sound, and animation. The fifth-grade students were approximately 8–10 years old and showed a tendency to benefit from concrete examples and visual representations when learning the material.

The Design stage involved formulating learning objectives, organizing the content, developing the presentation sequence and storyboard, and selecting illustrations, text, audio, animation, and exercises. The instructional content focused on the definition of adjectives, the identification of various descriptive words, and the use of adjectives in simple sentences related to humans, animals, and nouns. During the Development stage, Adjective Adventure was produced using Canva. This stage also included consultation, expert validation, revisions, and product refinement before classroom implementation.

The Implementation stage was conducted at Elementary School, where Adjective Adventure was used in English instruction focusing on adjectives. The available score transcript contains paired pretest and posttest scores for 30 students. The pretest was administered before instruction and the posttest after instruction using the learning medium. The data were analyzed as paired observations from the same cohort. The transcript supplied for analysis does not identify separate experimental and control groups; therefore, the results reported here describe within-cohort change and are not presented as a comparison between two groups. Classroom documentation and other research records supported the description of implementation.

The media validation instrument used a five-point Likert scale, ranging from 1 to 5. The assessment indicators covered content and objectives, technical quality and presentation, layout, music, text, illustrations, animation, resolution, flexibility, the learning process, positive impact, and ease of access. The media validator identified in the instrument was Hirnanda Dimas Pradana, S.Pd., M.Pd. Product validity was calculated by comparing the score obtained with the maximum possible score and expressing the result as a percentage. The validity criteria specified in the research proposal were as follows: 81–100% indicated very valid, 61–80% indicated valid, 41–60% indicated moderately valid, and scores below 40% indicated invalid.

Learning outcomes were analyzed descriptively using the number of students, mean, and standard deviation for pretest and posttest scores. Individual normalized gain was calculated as (posttest − pretest)/(maximum score − pretest), assuming a maximum score of 100. Because the Shapiro–Wilk test on the paired difference scores indicated a departure from normality ($W = 0.916$, $p = .021$), the pretest–posttest comparison was examined using the nonparametric Wilcoxon signed-rank test. The test-item validity and instrument reliability procedures described in the research design were separate from this analysis; no new validity or reliability coefficients are claimed here because such results were not provided in the score transcript.

The Evaluation stage was intended to assess the feasibility of the developed medium and identify areas requiring improvement based on expert validation and classroom implementation. The evaluation also considered the learning-outcome data collected through the pretest and posttest. The interpretation of the product's effectiveness, however, was to be based on the actual statistical analysis rather than on the validity score alone.

# 3. Results and Discussion

## 3.1. Results of Media Development

The research findings indicate that *Adjective Adventure* was developed through five stages: Analyze, Design, Development, Implementation, and Evaluation. The final product is a Canva-based 2D animated learning medium containing learning objectives, an introduction to adjectives, object-based examples, and visual and audio presentations designed to support students' understanding of the learning material. The development process considered the needs of fifth-grade students, particularly their need for more concrete and engaging instructional presentations.

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The media screenshots show that *Adjective Adventure* combines text, illustrations, animation, and vocabulary examples. This presentation was designed to help students associate adjectives with the objects or characters that provide their context. Thus, the medium does not merely present the definition of an adjective but also helps students connect word forms with their visualized meanings.

The resulting product is a Canva-based 2D animated learning medium for teaching adjectives. It includes an opening screen, learning objectives, an explanation of the concept of adjectives, examples of adjective usage, object illustrations, and instructional content presented through a combination of text, images, audio, and animation. The visual design considers the characteristics of elementary school students by incorporating illustrations related to their everyday environment. The opening screen and identity of the developed *Adjective Adventure* learning medium are presented in Figure 1

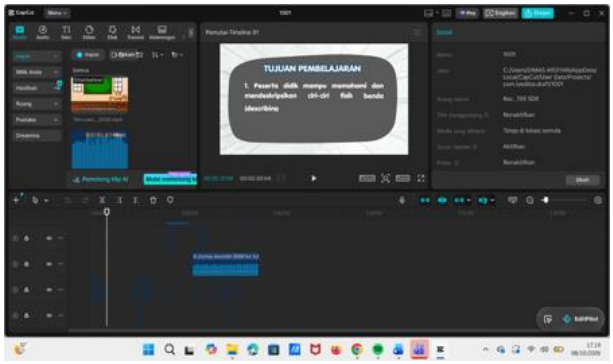



**Figure 1. Opening Screen and Identity of the *Adjective Adventure* Learning Medium.**

Figure 2 shows how the learning objectives are presented in the *Adjective Adventure* learning medium.

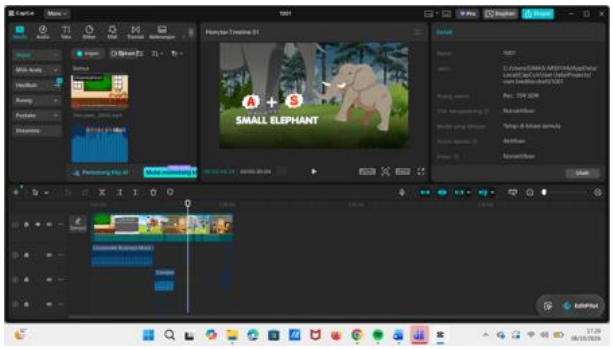



**Figure 2. Presentation of Learning Objectives in the 2D Animated Medium.**

Figure 3 illustrates how the developed learning medium presents adjective concepts and examples.

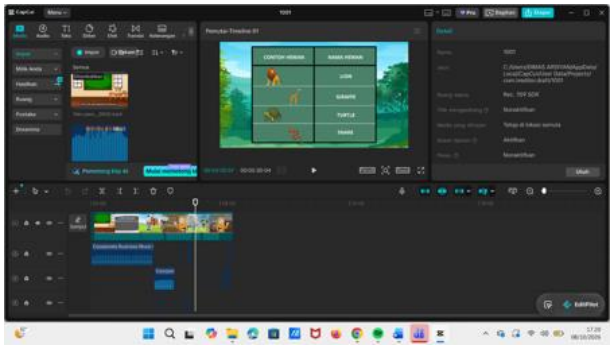


**Figure 3. Examples of Adjectives Illustrated Through Animals and Objects.**

The visualization of adjective vocabulary through animated objects and contextual examples is presented in Figure 4.

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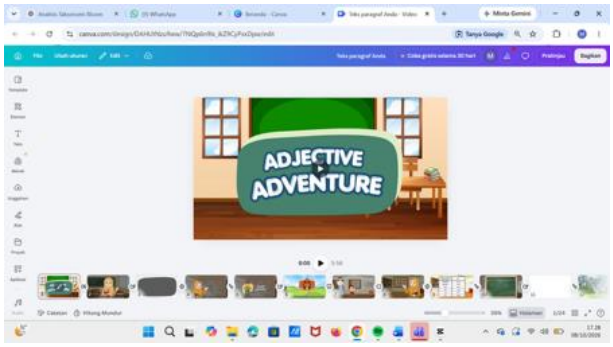



**Figure 4. Design Interface of the Learning Medium Developed Using Canva.**

The integration of visual elements, text, and animation in the learning content can be seen in Figure 5.

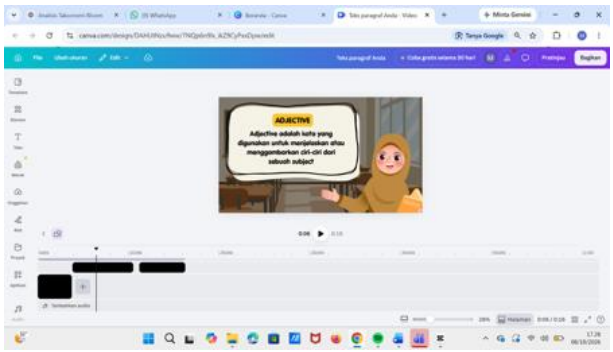



**Figure 5. Explanation of the Concept of Adjectives Through Animation and Illustrations.**

The classroom implementation of Adjective Adventure with Grade V students is documented in Figure 6.

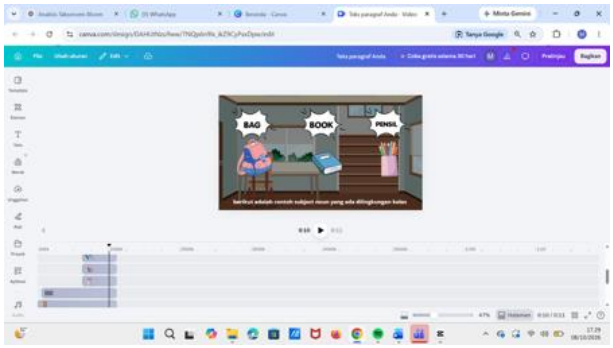



**Figure 6. Examples of Adjective Vocabulary Associated with Objects in Students' Surroundings.**

Figures 1–6 illustrate the main components of the developed product. The medium presents the *Adjective Adventure* identity, learning objectives, explanations of adjectives, examples of adjective usage, object illustrations, and vocabulary related to students' everyday experiences. This presentation helps transform linguistic concepts into more concrete visual experiences and may support student engagement during the learning process.

## 3.2. Media Validation Results

The validation results indicate that *Adjective Adventure* obtained a total score of 71 out of a maximum possible score of 75, equivalent to 94.67%. Based on the validity criteria used in this study, this percentage falls within the very valid category. Three indicators received a score of 4, while the remaining twelve indicators received a score of 5. The assessment covered alignment with learning outcomes, material sequencing, animation presentation, background design, music and sound effects, font size and type, illustrations, resolution, animation selection, flexibility of use, instructional support, positive learning impact, and smooth video playback. Table 1 presents the results of the media expert validation.

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**Table 1. Results of the Validation of the 2D Animated Learning Medium**

| Assessment aspect | Number of indicators | Score obtained | Category |
|---|---|---|---|
| Content/objectives and presentation quality | 7 | 32 | Very valid |
| Illustrations, animation, and resolution | 4 | 20 | Very valid |
| Instructional quality and accessibility | 4 | 19 | Very valid |
| Total | 15 | 71/75 (94.67%) | Very valid |

The validation score of 94.67% indicates that *Adjective Adventure* met the assessed criteria for media feasibility in terms of presentation, technical quality, and instructional function. The high scores for material sequencing, illustrations, resolution, and smooth playback suggest that the product was designed not only to be visually appealing but also to function as a supporting instructional medium. These validation results provided a basis for proceeding to classroom implementation.

## 3.3. Classroom Implementation

The implementation of *Adjective Adventure* was conducted at Elementary School after the product had undergone development and validation. Research documentation shows that the medium was displayed on a classroom screen and used as part of the instructional activities. The teacher or researcher introduced the lesson and facilitated students while the medium was presented. Students participated in the learning activities, completed tasks, and interacted throughout the instructional process.

## 3.4. Learning Outcomes

Learning outcomes were assessed through pretest and posttest scores for 30 students. The mean pretest score was 50.00 (SD = 14.86), while the mean posttest score was 80.00 (SD = 10.83). The mean increase was 30.00 points. The average individual normalized gain was 0.603 (SD = 0.188), and the gain calculated from the group mean scores was 0.600. The Shapiro–Wilk test on difference scores was significant ($W = 0.916$, $p = .021$); accordingly, the Wilcoxon signed-rank test was used to compare paired scores. The test showed a statistically significant difference ($W = 0$, $p < .001$), with posttest scores higher than pretest scores for all 30 students. The comparison of students' pretest and posttest scores is presented in Table 2.

**Table 2. Descriptive Statistics and Paired Pretest–Posttest Analysis for 30 Students**

| Analysis | N | Pretest mean (SD) | Posttest mean (SD) | Mean N-gain | Test result |
|---|---|---|---|---|---|
| Paired cohort | 30 | 50.00 (14.86) | 80.00 (10.83) | 0.603 | Wilcoxon $W = 0$; $p < .001$ |
| Mean change | 30 | — | 30.00-point increase | 0.600* | Significant increase |

The results show a clear increase in students' scores after instruction using Adjective Adventure. The mean score rose by 30 points, from 50.00 to 80.00, and the Wilcoxon signed-rank test indicated that the paired difference was statistically significant ($p < .001$). The mean normalized gain of 0.603 also indicates a moderate improvement under commonly used N-gain categories. These results are consistent with the intended instructional role of the medium, which presents adjectives through coordinated illustrations, text, audio, and animation. Because the transcript provides one set of paired scores and does not label separate experimental and control groups, the findings should be interpreted as a significant pretest–posttest improvement among the recorded students rather than definitive evidence from a controlled group comparison.

From a pedagogical perspective, *Adjective Adventure* provides a more concrete representation of adjective material. Adjectives that might otherwise be introduced solely through written text or oral explanations are visualized through objects, characters, colors, movement, and sound. This integration is consistent with the principles of multimedia learning, which suggest that combining words and images can support meaningful learning when information is presented in a relevant manner that does not unnecessarily overload cognitive processing (Mayer, 2021; Mayer & Fiorella, 2021). Research on multimedia vocabulary learning has also indicated that relevant nonverbal information may support the acquisition of productive vocabulary knowledge (2024).

The development of *Adjective Adventure* demonstrates the potential of digital learning media to support English vocabulary instruction in elementary schools. The product was developed using the ADDIE instructional design model, consisting of Analysis, Design, Development, Implementation, and Evaluation. This systematic framework enables instructional media developers to identify learning needs, formulate objectives, organize content, produce learning resources, implement the product, and evaluate its quality. Applying a structured development process is particularly important because instructional media should respond to learner characteristics and instructional objectives rather than focus solely on visual attractiveness (Fridayanti et al., 2022).

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The initial observation identified a learning challenge among Grade V students. Of the 22 students observed, only six met the learning criterion on the initial assignment. This finding provided an empirical basis for developing a learning medium that could offer a more varied and visually supported approach to introducing English adjectives. The importance of vocabulary support at the elementary level is consistent with research indicating that appropriate visual and contextual learning resources can facilitate young learners' vocabulary acquisition (Kayyis et al., 2023).

In response to this condition, *Adjective Adventure* was designed as a Canva-based two-dimensional animated learning medium combining illustrations, written vocabulary, audio, and animation. Rather than presenting adjectives exclusively as isolated words, the medium connects vocabulary with visual examples involving animals, people, and familiar objects. The integration of visual and verbal representations can facilitate vocabulary learning by helping learners establish meaningful associations between linguistic forms and their referents (Jing et al., 2023).

The media validation results provide evidence of the product's feasibility. The validator awarded 71 out of 75 points, equivalent to 94.67%, placing the product in the very valid category. This result indicates that *Adjective Adventure* fulfilled the media-quality indicators assessed during expert validation. Validation is an important stage in instructional media development because expert judgment provides a basis for determining the appropriateness of a product before classroom implementation and identifying components that may require improvement (Fayrus & Slamet, 2022).

The distinction between media feasibility and learning outcomes is also important in interpreting the findings. The validation score of 94.67% demonstrates that *Adjective Adventure* received a very valid assessment, while student assessment data showed an increase in the mean score from 50.00 on the pretest to 80.00 on the posttest. The paired analysis also revealed a statistically significant difference (Wilcoxon $W = 0$, $p < .001$). These findings indicate that the product was considered highly feasible and that students demonstrated improved learning achievement following its classroom implementation. Previous studies similarly indicate that appropriately designed digital and audiovisual learning media can contribute positively to students' learning experiences and achievement (Fathin & Sya, 2022).

The integration of visual, verbal, and auditory elements represents one of the main characteristics of *Adjective Adventure*. Multimedia learning emphasizes that learners construct understanding through coordinated processing of verbal and visual information. In elementary English instruction, visual representations can make unfamiliar vocabulary more concrete by connecting words with recognizable objects, animals, people, and situations. Educational video research also emphasizes that relevant visual and auditory information should be integrated carefully to direct learners' attention toward essential instructional content (Brame, 2016).

The visual component is particularly relevant to adjective instruction because adjectives describe characteristics, qualities, sizes, appearances, and conditions rather than merely naming objects. Students need to understand what a descriptive word means and how one characteristic differs from another. Illustrations allow learners to compare characteristics such as *big* and *small* and associate descriptive vocabulary with observable examples. Visual and contextual representations can therefore support learners in constructing meaningful associations between unfamiliar English vocabulary and its meaning (Khusnah et al., 2025).

Audio also contributes to the instructional design because English vocabulary learning involves relationships among written forms, spoken forms, and meanings. By hearing a word while viewing its written form and corresponding illustration, students receive multiple forms of exposure to the target vocabulary. Audio can also support teachers in directing attention to pronunciation and encouraging students to repeat newly introduced words. Nevertheless, effective audiovisual learning requires appropriate synchronization between spoken and visual information as well as opportunities for students to practice the language being introduced (Fa'uni et al., 2026; Setiawan & Fediyanto, 2026).

The presentation of *Adjective Adventure* also reflects principles for managing cognitive processing in multimedia learning, including segmenting, pre-training, and modality. Segmenting allows instructional content to be divided into manageable units, while pre-training introduces important concepts before students encounter more complex examples. In this medium, students are introduced to the concept of adjectives before encountering various examples and contextual applications. Such organization can help students process learning content systematically and reduce unnecessary cognitive demands during multimedia learning (Mayer & Fiorella, 2021).

The inclusion of multiple multimedia elements, however, does not automatically guarantee better learning. Excessive animation, decorative images, background sounds, or large amounts of text may compete with essential instructional information. Therefore, the visual and auditory components of *Adjective Adventure* should direct students toward relevant vocabulary and examples rather than merely function as decorative

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features. Effective educational videos should minimize extraneous information and direct learners' cognitive resources toward content that supports the intended learning objectives (Brame, 2016).

Learning English adjectives also requires more than memorizing lists of words and their translations. Students need opportunities to recognize vocabulary, distinguish its meaning from related words, and apply it appropriately within meaningful contexts. Connecting adjective vocabulary with familiar people, animals, and objects provides concrete representations from which students can construct understanding. Contextualized vocabulary instruction is particularly relevant to young learners because it helps establish stronger relationships between lexical forms, meanings, and recognizable situations (Anafi & Mulyani, 2026).

The medium can also be incorporated into interactive classroom activities rather than being limited to passive viewing. After viewing an example, students can identify the adjective presented, compare two objects, answer questions, or construct simple sentences such as "The book is big" and "The pencil is small." These activities encourage learners to retrieve and apply vocabulary rather than merely recognize words displayed on the screen. Active learning accompanying educational videos can increase their instructional value because students are encouraged to process and use the information presented (Brame, 2016).

The distinction between receptive and productive vocabulary is therefore relevant to the implementation of *Adjective Adventure*. Animated presentations may facilitate initial vocabulary exposure and recognition, whereas productive vocabulary requires students to retrieve and use words independently. Teachers can facilitate this process through repetition, oral descriptions, sentence completion, exercises, and corrective feedback. Vocabulary learning can be strengthened when students receive repeated opportunities to encounter and actively use target words in meaningful learning situations (Kayyis et al., 2023).

The use of Canva as the production platform also contributes to the development of the digital learning resource. Canva provides tools for arranging text, illustrations, backgrounds, colors, animation, audio, and other visual components into a coherent instructional presentation. These features can assist developers in maintaining visual consistency while adapting instructional content to learning objectives and learner characteristics. Previous research has also identified Canva as a practical platform for developing visually oriented instructional materials in elementary education (Agustiyani et al., 2024; Marhamah et al., 2023).

In *Adjective Adventure*, however, Canva functions as a development platform rather than the primary determinant of instructional effectiveness. The educational value of the medium lies in the selection of vocabulary, organization of content, correspondence between words and illustrations, integration of audiovisual components, and opportunities for students to interact with the target language. This distinction is consistent with multimedia-learning research emphasizing that technology itself does not guarantee learning; instructional effectiveness depends substantially on how relevant information is selected, organized, and presented to learners (Mayer & Fiorella, 2021).

The animated format provides students with a more varied learning experience than instruction based solely on written explanations. Movement, illustrations, narration, and scene changes can attract learners' attention while presenting vocabulary through different forms of representation. In *Adjective Adventure*, these components are designed to make adjective learning more engaging and accessible to elementary learners. Research examining children's screen-media experiences indicates that educationally designed media can positively contribute to vocabulary development when the content and learning conditions are appropriately structured (Jing et al., 2023).

The teacher nevertheless remains essential in mediating students' interaction with the developed medium. Teachers can introduce learning objectives, activate students' prior knowledge, pause animations at relevant points, repeat vocabulary, ask questions, and provide corrective feedback. Therefore, *Adjective Adventure* is most appropriately positioned as an instructional resource that complements teacher-guided learning rather than replacing the teacher. Educational multimedia becomes more meaningful when digital resources are integrated with active instructional activities and appropriate guidance from teachers (Brame, 2016).

Repeated exposure to adjective vocabulary through the medium can also be combined with retrieval practice, contextual application, and teacher feedback. Students who experience difficulty recognizing particular adjectives can revisit relevant sequences, while students who demonstrate stronger understanding can engage in more challenging activities involving comparison and sentence construction. Repeated encounters with vocabulary in meaningful contexts provide learners with opportunities to strengthen lexical knowledge and use newly acquired vocabulary more independently (Kayyis et al., 2023).

The learning-outcome data provide empirical evidence concerning students' achievement following the implementation of *Adjective Adventure*. Across 30 paired records, the mean score increased by 30 points, from 50.00 on the pretest to 80.00 on the posttest, while the average individual normalized gain reached 0.603. The

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Wilcoxon signed-rank test also demonstrated a statistically significant difference between pretest and posttest scores ($W = 0$, $p < .001$). These results demonstrate improved student performance following the learning activities involving the developed medium and are consistent with research indicating the potential of animated and audiovisual media to facilitate learning outcomes (Aqila et al., 2025; Pomalingo et al., 2025).

The statistical procedure was selected according to the characteristics of the collected data. Because the same 30 students completed both the pretest and posttest, the observations constituted paired measurements. The Shapiro–Wilk test indicated that the paired differences did not meet the normality assumption ($W = 0.916$, $p = .021$); therefore, the Wilcoxon signed-rank test was applied. The resulting value ($W = 0$, $p < .001$) confirms a statistically significant difference between students' scores before and after implementation. Appropriate selection of statistical procedures is important in educational research because the analytical technique should correspond to the distribution and structure of the collected data (Ghasemi & Zahediasl, 2012).

The normalized gain analysis further complements the pretest–posttest comparison. The average individual N-gain was 0.603, while the value calculated from the group mean scores was 0.600, indicating a moderate level of improvement. When considered together with the 30-point increase in mean scores and the statistically significant Wilcoxon result, the normalized gain provides additional evidence of positive changes in students' learning achievement following classroom implementation. Thus, the findings provide quantitative support for the use of *Adjective Adventure* as an audiovisual resource for English adjective learning, while interpretation should remain consistent with the characteristics of the research design (Aqila et al., 2025).

## 3.5. Implications

The findings of this study have practical implications for English instruction at the elementary school level. The high media-validation score and improvement in students' learning outcomes indicate that *Adjective Adventure* can be incorporated as an audiovisual learning resource for teaching adjective vocabulary. Teachers can use the medium not only to introduce new words but also as a stimulus for questioning, object comparison, sentence construction, and guided speaking activities. The integration of animation, text, illustrations, and audio can help transform descriptive vocabulary into more concrete representations, which is particularly relevant for young learners who benefit from contextual and visually supported learning experiences (Jing et al., 2023; Khusnah et al., 2025).

The findings also have implications for the design and development of digital instructional media. Accessible digital platforms such as Canva can be utilized to create structured learning resources when their technological features are aligned with pedagogical objectives. The educational value of digital media does not depend merely on attractive animation or visual appearance but on the systematic organization of learning objectives, content, examples, audiovisual components, and learning activities. Therefore, teachers and educational-media developers can adapt the design principles applied in *Adjective Adventure* to other English vocabulary materials while considering learners' characteristics and principles of multimedia learning (Agustiyani et al., 2024; Marhamah et al., 2023).

The implementation of *Adjective Adventure* also reinforces the importance of integrating digital media with teacher-guided classroom activities. Animation can provide visual and auditory representations of vocabulary, but teachers remain responsible for directing students' attention, explaining concepts, providing opportunities for practice, and giving feedback. Consequently, the medium can be integrated with activities such as identifying adjectives, comparing objects, completing sentences, and describing familiar objects. Such integration can encourage students to move from vocabulary recognition toward more active and productive use of English words (Brame, 2016).

## 3.6. Limitations

Several limitations should be considered when interpreting the findings of this study. First, the learning-outcome analysis was based on paired pretest and posttest data from 30 students without a separate comparison group. Although the analysis demonstrated a statistically significant increase in student achievement, other instructional factors occurring during classroom implementation may also have contributed to the observed improvement. Therefore, future research could involve a comparison group to provide additional evidence concerning differences in learning outcomes between students using the developed medium and those experiencing other instructional approaches (Jing et al., 2023).

Second, the study was conducted within a specific elementary education context and focused specifically on English adjective learning among Grade V students. Therefore, the findings should be generalized cautiously to students at other grade levels, educational contexts, vocabulary categories, or English language skills. Further studies involving larger and more diverse samples could provide broader evidence regarding the applicability of Canva-based 2D animated learning media in English instruction (Agustiyani et al., 2024).

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Third, the evaluation primarily focused on media feasibility and changes in students' learning outcomes measured through pretest and posttest scores. Additional evaluation could investigate students' and teachers' responses regarding usability, clarity, attractiveness, accessibility, and ease of implementation. Future studies could also employ delayed posttests to determine whether students retain adjective vocabulary over a longer period and whether they can transfer their understanding to new objects and contexts that were not explicitly presented in the animation. Such evaluation would provide more comprehensive evidence regarding vocabulary retention and transfer following multimedia-supported instruction (Jing et al., 2023).

## 4. Conclusion

The implementation of Adjective Adventure, a Canva-based 2D animated learning medium developed using the ADDIE model, demonstrated positive results in supporting English vocabulary learning among fifth-grade elementary school students. The media validation score reached 94.67%, indicating that the product met the validity criteria and was suitable for classroom learning activities. Students' learning outcomes also improved after implementing the media, as shown by an increase in the mean score from 50.00 on the pretest to 80.00 on the posttest, a 30-point improvement. The mean normalized gain (N-gain) was 0.603, indicating a moderate level of improvement, while the Wilcoxon signed-rank test showed a statistically significant difference between pretest and posttest scores ($W = 0$, $p < .001$). These findings indicate that students achieved better learning outcomes after participating in learning activities supported by Adjective Adventure. The integration of animated visuals, colors, movement, audio, and concise learning content provides a more concrete and accessible way of presenting English adjectives to elementary school students while supporting teachers in creating varied and engaging learning experiences. Therefore, Adjective Adventure can be considered a valid and useful instructional resource for supporting English vocabulary learning and improving students' learning outcomes.

## Author Contributions

All authors contributed equally to this paper. All authors have read and approved the final manuscript.

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## Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

## Declaration on AI Use

The authors declare that no artificial intelligence (AI) or AI-assisted tools were used in the preparation of this manuscript.

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