PROJECT
(Professional Journal of English Education)
Volume 9, No. 6, November 2026
p–ISSN 2614-6320
e–ISSN 2614-6258

Developing AI-Based Picture Series for Teaching Descriptive Writing to Junior High School Students

Dinda Nurfitri Fadilah[1], Siska Rizkiani[2], Lukman Arif Rachman[3]

IKIP Siliwangi
[1] nurfitridinda6@gmail.com , [2]siska.rizkiani@ikipsiliwangi.ac.id ,
[3]lukmanarifrachman@ikipsiliwangi.ac.id

Abstract

Artificial Intelligence (AI) has provided new opportunities to develop innovative instructional media for English language learning. Previous studies have commonly used conventional picture series as teaching media; however, these media are often limited in visual variation, contextual relevance, and students' engagement, and they are rarely designed specifically to support descriptive writing activities. In addition, research on the development of AI-based picture series for junior high school students remain limited. Therefore, this study aimed to investigate the development process, feasibility, and students' responses toward the use of AI-based picture series in teaching descriptive writing. This study employed a Research and Development (R&D) method using the Borg and Gall model because it provides systematic stages for designing, validating, revising, and testing educational products. The participants were 32 seventh-grade students of Mts An-Nur. Data were collected through observation, expert validation consisted of one instructional media expert and one English subject matter expert. The findings showed that the AI-based picture series was highly feasible as an instructional medium. The product obtained a feasibility score of 98.7% from the media expert and 90.7% from the subject matter expert, with an average score of 94.7%, indicating that it is highly feasible for classroom use. Students reported that the media helped them generate ideas, improve vocabulary, organize descriptive texts, understand object characteristics, and become more active in writing activities. Interview findings also indicate increased learning motivation, easier idea generation, vocabulary improvement, and better organization of descriptive texts. It can be concluded, the AI-based picture series is a feasible and appropriate medium for teaching descriptive writing in junior high school. This study contributes to English language teaching by showing that AI-based instructional media can improve students' engagement and support descriptive writing learning more effectively.

Keywords : AI-Based Picture Series; Descriptive Writing; Instructional Media; Junior High School; Research and Development

INTRODUCTION

Writing is one of the essential language skills that students need to master in English learning because it enables learners to communicate ideas, information, and experiences through written form. Writing is not only the process of arranging words into sentences, but also involves generating ideas, organizing information, selecting appropriate vocabulary, and applying correct grammatical structures. According to Harlena et al. (2020) as cited in Reswita et al. (2026), writing is a complex and productive skill because learners need to simultaneously consider grammar, vocabulary, content knowledge, organization, and coherence when producing a text. These component indicate that writing is not merely an acitivity of arranging words but also a process of constructing meaningful communication. Likewise, Zohbie and Bhowmik (2024) argued that effective writing instruction should help learners understand the communicative purpose, audience, and organizational features of different text genres while simultaneously developing their language proficiency. In addition, Hendrawan (2024) stated that writing instruction, particularly descriptive writing, provides opportunities for students to

describe objects, express ideas, and create meaningful texts trough language use. Similiarly, Eslit (2025) emphasized that effective writing instruction should engage students in meaningful learning activities that encourage idea expression, critical thinking, and communication through written language. Seloni (2025) further explained that writing is a purposeful communicative activity in which learners need to consider audience, context, and meaning while constructing written texts. Moreover, Ye and Yan (2026) highlighted that vocabulary development is closely related to learners ability to build comprehension and meaningful communication, while Bin Damash emphasized that writing development requires learners to integrate grammatical accuracy, appropriate vocabulary, organization of ideas, and effective communication supported by continuous feedback and well-designed instructional strategies.

However, many students still experience difficulties in writing descriptive texts. They often have limited vocabulary, weak grammar, difficulty generating ideas, and problems organizing their writing. Reswita et al. (2026) reported that these factors make writing difficult for students, while Syifa et al. (2022) similarly found that limited vocabulary, weak grammar, and lack of writing practice are the main causes of students writing difficulties. These findings indicate that students need appropriate instructional support to help them generate ideas and organize their writing effectively.

One instructional medium that can support students writing is picture series. Picture series provides visual guidance that helps students generate ideas, organize information, and develop written texts. Yugafiati and Laila (2023) found that picture series improves students motivation and confidence in writing descriptive texts because it helps them develop vocabulary and ideas. Likewise, Mayer explained that visual representations support meaningful learning by helping learners organize information, connect verbal and visual information, and reduce cognitive load. Although effective, most previous studies used conventional picture series consisting of fixed images that are less flexible and cannot easily be adapted to different leaning.

The rapid development of Artificial Intelligence (AI) offers new opportunities to create more innovative instructional media. UNESCO (2023) emphasized that AI should enhance creativity, personalized learning, and student engagement while maintaining the teacher's central role. Holmes and Tuomi (2022) also stated that digital technology has changed how students interact with learning materials. In writing instruction, AI-generated picture can provide richer and more contextual visual prompts. Hendrawan (2024) explained that AI-generated picture help students produce richer descriptions, improve vocabulary use, and organize their ideas more effectively. Unlike conventional picture series, AI-generated pictures can be designed based on specific learning objectives, student characteristics, and descriptive writing topics, making them more flexible and engaging.

Although previous studies have shown that picture series can improve writing skills and other studies have explored the use of AI in language learning, these studies have generally examined the two approaches separately. Picture series studies mainly focused on conventional visual media, while AI studies discussed the use of AI for learning support in general. Few studies have integrated AI-generated picture series as a learning medium specifically for teaching descriptive writing at the junior high school level.

Therefore, the novelty of this study is development of an AI-based picture series specifically designed for teaching descriptive writing to junior high school students. Unlike previous instructional media, this product integrates AI-generated contextual picture with structured

descriptive writing activities to help students generate ideas, develop vocabulary, organize information, and produce descriptive texts more effectively.

This study aims to develop an AI-based picture series as a teaching medium for descriptive writing for junior high school students. The develop product is expected to provide an alternative learning medium that helps students generate ideas, organize their writing, and produce meaningful descriptive texts. To achieve this objective, this study addresses the following research questions :

1. How is the process of developing an AI-based picture series for teaching descriptive writing to junior high school students?
2. How feasible is the AI-based picture series for teaching descriptive writing to junior high school students level?
3. What are students responses to the use of the AI-based picture series for teaching descriptive writing to junior high school students level?

METHOD

This study employed a Research and Development (R&D) method using the Borg and Gall development model. This method was chosen because the purpose of this study was to develop AI-based picture series as a learning medium for teaching writing descriptive text at junior high school level. Based on Zendrato et al., (2025) R&D is a process used to develop and validate educational products through systematic procedures before being implemented in the learning process. In addition, Therefore, R&D is important because it helps researchers create learning materials that are suitable, effective, and can support students needs in the classroom. Prayati et al. (2020) state that there are tenth steps of research and development (R&D) in developing a product, namely : Research and information collecting, Planning, Develop Preliminary Form of Product, Preliminary field testing, Main Product Revision, Main Field Testing, Operational Product Revision, Operational Field Testing, Final Product Revision, and Dissemination and Implementation. All ten stages were completed in this study.

The first stage, Research and information collecting, was conducted through classroom observation to identify students' difficulties in writing descriptive texts and their learning needs. The second stage, Planning, involved determining the learning objectives, descriptive texts materials, and characteristics to be presented in the AI-based picture series. The third stage, Develop Preliminary Form of Product, involved developing the initial AI-based picture series and preparing the supporting writing activities. The fourth stage, Preliminary field testing, was conducted on a limited basis to observe students' use of the product and identify initial problems. The fifth stage, Main Product Revision, involved revising the product based on the findings from the preliminary field testing. The sixth stage, Main Field Testing, was conducted with 32 students of class VII D MTs An-Nur to examine the use of the revised AI-based picture series in teaching descriptive writing. The seventh stage, Operational Product Revision, involved improving the product based on the findings from the main field testing. The eight stage, Operational Field Testing, was conducted to examine students' responses after using the AI-based picture series. At this stage, students were interviewed 9 questions to obtain information about their experiences, perceptions, difficulties, and suggestions regarding the product. The ninth stage, Final Product Revision, involved revising the product based on the result of expert validation, field testing, and students' responses. The tenth stage, Dissemination and Implementation, involved preparing the final AI-based picture series as a learning medium that can be used to support descriptive writing instruction.

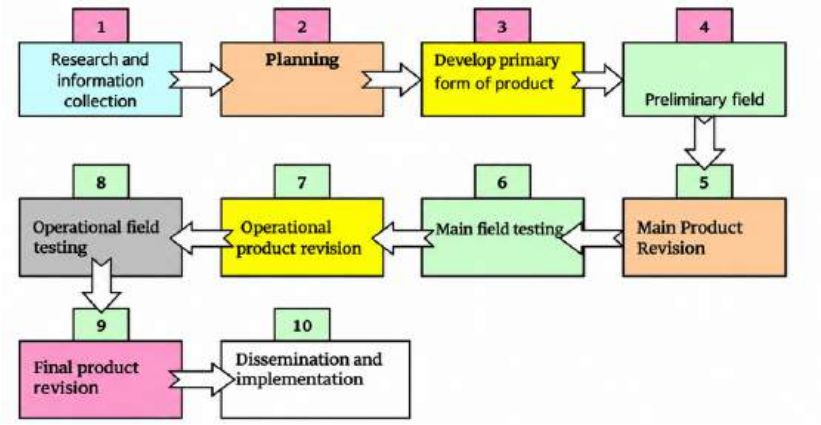

Figure 1. Borg and Gall Development Model

The participants were selected using purposive sampling based on the needs and objectives of the research. The participants consisted of 32 students from class VII D at MTs An-Nur. They were approximately 12-13 years old and consisted of male and female students who learned English as a compulsory subject. Class VII D was selected because the initial observation showed that the students experienced difficulties in developing ideas and using vocabulary when writing descriptive texts. The students participated in the implementation of the AI-based picture series and were interviewed after using the product to obtain their responses and experiences.

An English teacher at MTs An-Nur was also involved in the research during the research and information collecting stage. The teacher was an English teacher who taught junior high school students and had experience teaching English at the school. Two experts, consisting of a material expert and a media expert, were involved as product validators. The material expert assessed the content, while the media expert assessed the design and technical aspects of the product.

Three instruments were used in this study, namely observation, validation sheet, and interview guide. The observation was used to identify students' writing difficulties, learning activities, use of learning media, and students' responses during the learning process. The validation sheet was used to assess the feasibility of the AI-based picture series. The validation aspects included content, design, language, technical, and instructional feasibility. The interview guide consisted of 9 questions and was administered to the students after they used the AI-based picture series. The questions focused on students' experiences, writing difficulties, the role of picture series in generating ideas, usefulness of the product, students' responses, and suggestions for improvement.

Table 1. Research Instruments and Indicators

Instrument	Purpose	Indicators
Observation	To identify students' learning conditions and difficulties	Writing difficulties, learning activities, vocabulary difficulties, use of learning media, and students' responses
Validation Sheet	To assess the feasibility of the product	Content, design, language, technical, and instructional feasibility

Interview Guide	To identify students' responses toward the product	Learning experiences, role of pictures, writing difficulties, usefulness, responses, and suggestions

The validation sheet consisted of 15 indicators covering five aspects : content feasibility, design feasibility, language feasibility, technical feasibility, and instructional feasibility. The interview guide consisted of 9 questions for the students. Before being used, the instruments were through expert judgment to ensure that the indicators and questions were relevant to research objectives. The validity instruments was established through expert judgment. The material and media experts reviewed the validation sheet to ensure that its indicators were relevant to the research objectives. The material expert assessed the content, learning objectives, language, and instructional aspects, while the media expert assessed the design, picture quality, layout, technical quality, and practically of the product. The validation criteria covered content suitability, language accuracy, picture quality, design, technical quality, and usefulness in supporting students' descriptive writing. The reliability of the validation sheet was considered based on the consistency of the assessments given by the two experts across the validation indicators.

The qualitative data from students interview were analyzed using thematic analysis. The researcher reviewed the responses, identified important statements, grouped similar responses, assigned codes, and organized them into themes. The themes covered students' experiences, the role of pictures, picture attractiveness and clarity, enjoyment and confidence in writing, difficulties, realism and suitability of the AI-based picture series, willingness to the use the media again, and suggestions for improvement. The themes were then interpreted to describe students' responses toward the AI-based picture series. The observation data were analyzed descriptively to identify students' writing difficulties , learning activities, use of learning media, and responses during the learning process. The validation sheet were analyzed based on the scores given by the material and media experts. The feasibility percentage was calculated using the following formula :

Feasibility Percentage = (Total Score Obtained / Maximum Score) x 100%

The percentage was interpreted based on the predetermined feasibility criteria. A higher percentage indicated a higher level of product feasibility. The results of observation, validation, and student interviews were used to support the development, revision, and finalization of the AI-based picture series.

RESULTS AND DISCUSSION

Results

1. The Process of Developing AI-Based Picture Series for Teaching Descriptive Writing to Junior High School Students

The AI-based picture series was developed using the ten stages of the Borg and Gall Research and Development (R&D) model. The development process began with identifying students' difficulties in writing descriptive texts and continued through planning, product development, field testing, revision, validation, and implementation. The ten stages are summarized in Table 2.

Table 2. Development Process of the AI-Based Picture Series

Stage	Development Stage	Main Activities
1	Research and Information Collecting	Classroom observation was conducted to identify students' difficulties and learning needs in writing descriptive texts.
2	Planning	Learning objectives, descriptive text materials, students' characteristics, and picture content were determined.
3	Develop Preliminary Form of Product	The initial AI-based picture series, vocabulary support, guided writing activities, example text, and writing exercises were developed.
4	Preliminary Field Testing	The initial product was tried out on a limited basis to observe students' use of the product and identify initial problems.
5	Main Product Revision	The product was revised based on the findings from the preliminary field testing.
6	Main Field Testing	The revised product was implemented with 32 students of class VII D at MTs An-Nur.
7	Operational Product Revision	The product was improved based on the findings from the main field testing.
8	Operational Field Testing	The product was implemented to obtain students' responses through interviews conducted after the learning activities.
9	Final Product Revision	The product was revised based on expert validation, field testing, and students; responses.
10	Dissemination and Implementation	The final product was prepared as a learning medium to support descriptive writing instruction.

The development process showed that the product was developed gradually based on students' needs, field findings, expert feedback, and students' responses. The initial needs analysis indicated that the students experienced difficulties in generating ideas, selecting appropriate vocabulary, constructing sentences, and using grammar in descriptive writing. These findings became the basis for designing a picture series that could provide visual support and help students organize ideas before writing.

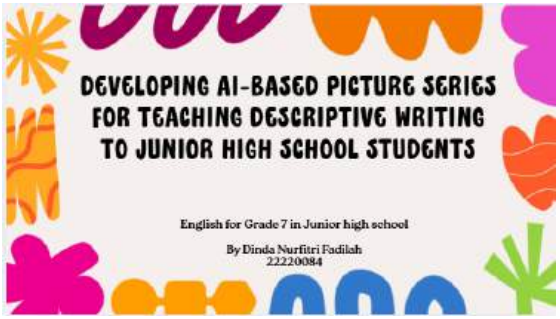

Figure 2. Prototype of AI-Based Picture Series

Present the initial prototype of the AI-based picture series developed to support descriptive writing instruction for junior high school students. The prototype incorporates colorful visual materials to engage students and provide support for idea generation.



Figure 3. Revised Prototype of the AI-Based Picture Series

Presents the revised prototype of the following the initial development stage. The revision incorporates clearer instructions and additional visual materials to facilitate students' understanding of the descriptive writing task.

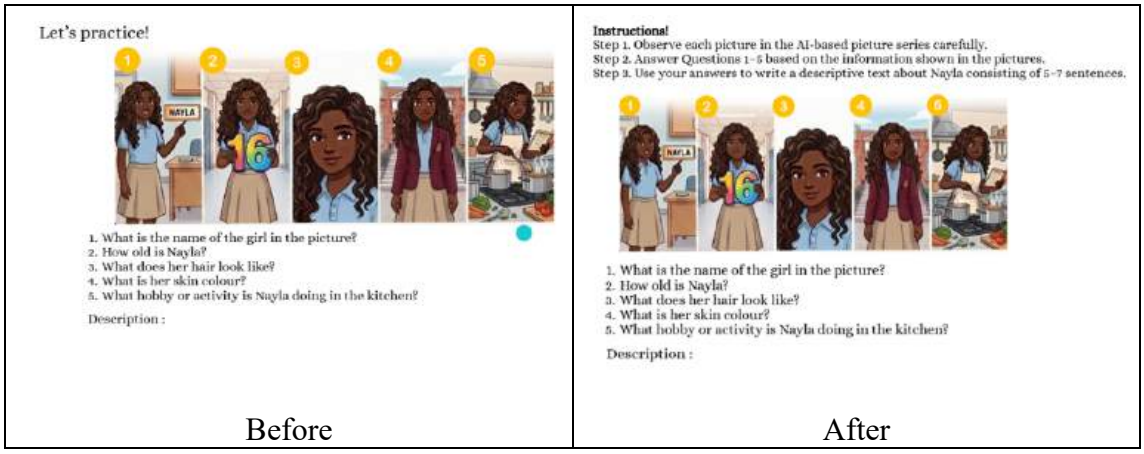

Figure 4. Product Revission Before and After

Illustrates the product before and after revision. The revised version demonstrates improvements in the organization of visual materials, clarity of instructions, and supporting information provided to students.



Figure 5. Final Product of The AI-Based Picture Series

Presents the final version of the AI-based picture series. It includes pictures, clear instruction, a word bank, and an example to guide students in developing their descriptive writing.

The development process resulted in an AI-based picture series designed to support junior high school students in writing descriptive texts. The product presents a sequence of AI-generated pictures related to descriptive text topics, including name, age, hair, skin color, and hobbies. The picture series is accompanied by vocabulary support, guided writing activities, an example of a descriptive text, and writing exercises.

The pictures were generated using Gemini AI and ChatGPT. The prompts were designed based on the learning objectives and the characteristics of descriptive texts that students needed to describe. The prompts specified the characteristics to be represented in each picture, such as the character's age, hair, skin color, physical appearance, and hobby. The prompts were also designed to produce clear and relevant visual information that could be arranged into a logical picture sequence. For example, one of the prompts used in this study was :

"Create a realistic picture of a 13 years old junior high school student with short straight black hair, tan skin, wearing a red badminton jersey, and playing badminton on a school court"

The prompts were developed by identifying the key descriptive characteristics required in the learning objectives and translating them into specific visual descriptions. Details such as age, hair, skin color, physical appearance, clothing, and hobbies were included to ensure that the generated pictures provided clear and relevant information for students to use in their descriptive writing.

After the pictures were generated, the researcher selected and arranged the most appropriate pictures according to the learning objectives and writing activities. The picture series was designed to help students observe visual information, identify relevant vocabulary, and develop the information into descriptive sentences. The picture series supports each stage of the writing process. At the pre-writing stage, the picture helps students generate and organize ideas by providing concrete visual information. During the drafting stage, the vocabulary support and guided writing activities help students develop their ideas into descriptive sentences. The example of a descriptive text provides a model of text organization and language use. Finally, the writing exercises allow students to apply the vocabulary and writing patterns they have

learned to produce their own descriptive texts. Thus, the AI-based picture series functions as visual and linguistic support that facilitates students' development of descriptive writing from idea generation to text production.

2. The Feasibility of The AI-Based Picture Series for Teaching Descriptive Writing to Junior High School Students

The feasibility of the AI-based picture series was evaluated by a media expert and a material expert. The media expert obtained a score of 74 out of 75 (98.7%), while the material expert obtained a score of 68 out of 75 (90.7%). The average score was 71 out of 75 (94.7%), which was categorized as highly valid.

Table 3. Validation Results

Validator	Score	Percentage	Category
Media Expert	74/75	98.7%	Highly valid
Material Expert	68/75	90.7%	Highly valid
Average	**71/75**	**94.7%**	**Highly valid**

The media expert gave a higher score than the material expert because the product received strong ratings on aspects related to visual presentation, picture quality, picture sequence, instruction clarity, and practically. These aspects were directly related to the visual and technical characteristics of the product. Meanwhile, the material expert gave slightly lower scores on several aspects related to content suitability, language, learning activities, and support for writing, indicating that some instructional aspects still required improvement.

The qualitative comments from validators also provided important information for product revision. The media expert stated that the product was already good but suggested adding a word bank to make it easier for students to use the picture series in writing descriptive texts. Meanwhile, the material expert stated that the product was already good but suggested adding clearer step by step instructions to help students follow the writing activities. These suggestions were used as a basis for revising the product before the final version was prepared.

The validators also provided positive comments and suggestions for improvement. The media expert stated :

"After reviewing the product, I think it is sufficient to help students construct sentences, especially because the use of AI makes the pictures more unique and diverse."

The media expert also commented :

"It helps prevent student boredom and makes learning English easier through the use of these picture series, great!"

The material expert also gave positive feedback about the suitability of the material :

"The material is appropriate for teaching descriptive writing and is suitable for the students' learning needs."

The material expert also provided feedback on the revised instructions :

"The instructions are clearer and more systematic, so students can follow the writing activities step by step."

These comments show that the AI-based picture series was considered useful for helping students construct sentences, making learning more interesting, and supporting descriptive writing. The comments also showed that the material was considered suitable for students' learning needs. However, clearer instructions were still needed to help students follow the writing activities. These suggestions were considered in revising the product before the final version was prepared. Overall, the validation results showed that the AI-based picture series was highly valid and feasible to support the teaching of descriptive writing.

3. The Students' Responses toward The AI-Based Picture Series for Teaching Descriptive Writing to Junior High School Students

Students' responses were obtained through interviews conducted after they used the AI-based picture series in the descriptive writing activities. The interview consisted of nine questions concerning students' opinions of the media, understanding of the descriptive writing activity, enjoyment, difficulties, confidence, perceptions of the pictures, willingness to use the media again, and suggestions for improvement. The results showed that the students generally responded positively to the use of the AI-based picture series. Most students stated that the picture series were good, interesting, clear, and easy to understand. The pictures helped students understand the descriptive writing activity by providing visual information about the characters and their characteristics. One student stated, **"Good and easy to understand."** Another student explained that the picture series helped because they could **"Imagine the picture to make it easier to answer."** These responses indicate that the picture series provided visual support that helped students understand the task and develop ideas for their descriptive texts.

The students reported that the use of the AI-based picture series made the writing activities more enjoyable. Some students described the activities as **"very pleasant"** and considered the pictures interesting. This finding indicates that the use of visual media made the English writing activities more engaging and helped reduce students' boredom during the learning process.

Regarding vocabulary, the students indicated that they had experienced difficulties in finding appropriate words when writing descriptive texts. However, after using the AI-based picture series, particularly the word bank provided in the product, students found it easier to identify the vocabulary needed to describe the pictures and use the words to construct sentences. One student mentioned that they sometimes had difficulty with words, while the pictures and word bank made the activity easier. This finding indicates that the word bank provided practical vocabulary support and helped students overcome their previous difficulty in selecting appropriate words for descriptive writing.

Although the students liked the AI-based picture series and found the activities enjoyable, several students still experienced difficulties in using grammar correctly when writing descriptive texts. One student stated, **"I still find grammar difficult when making sentences."** Another student explained that they were sometimes unsure about the correct verb form and sentence structure. This finding indicates that the AI-based picture series mainly supported students in generating ideas, understanding vocabulary, and identifying descriptive details from the pictures. However, grammatical accuracy requires additional language knowledge and practice, such as understanding sentence patterns, the use of to be, adjectives, and simple

present tense forms. Therefore, teacher guidance and further grammar practice were still needed even though the students responded positively to the media.

The students also reported feeling more confident after using the media. The combination of visual information and vocabulary support helped students understand what they wanted to describe and made it easier for them to develop their ideas into sentences. In addition, the students considered the AI-generated pictures realistic and appropriate to the topic. They also expressed willingness to use similar media in other English lessons because the pictures made the learning materials easier to understand. One student stated**, "**Yes, because it's easier to understand."

Overall, the interview findings from 32 students indicated that the AI-based picture series received positive responses. The students found the pictures interesting, clear, realistic, and easy to understand. The media helped students understand the writing task, generate ideas, and feel more confident in writing descriptive texts. In particular, the word bank helped students overcome their previous difficulty in finding appropriate vocabulary and made it easier for them to construct descriptive sentences. The students also considered the learning activities enjoyable and expressed their willingness to use similar media in other English lessons.

Discussion

In terms of the development of the AI-Based Picture Series was developed using the Borg and Gall Research and Development (R&D) model. The first stage was research and information collecting. The needs analysis showed that students had difficulties generating ideas, using vocabulary, and writing descriptive texts. The teacher also explained that learning media in the classroom were still limited. Therefore, the AI-based Picture Series was developed as an alternative learning medium. This finding is consistent with Jia et al. (2022), who stated that AI-based learning media provide authentic learning experiences and support students' language development. Similarly, Peter and Murshid (2025) explained that AI-assisted learning helps students generate ideas and supports the writing process. In this study, the pictures help students generate ideas because they provided clear visual information that students could observe and describe. For example, details about age, hair, skin color, and hobbies gave students ideas about what to write. Thus, the pictures worked not only as illustrations but also as brainstorming tools. This shows that AI-generated pictures can help students start the writing process more easily.
The second stage was planning. The researcher designed the learning objectives, selected the materials, and prepared vocabulary support and writing activities based on students' needs. The word bank and guided writing activities were provided to help students with limited vocabulary and difficulties starting their writing. This is consistent with what Stefaniak et al. (2025), who stated that learning media should be designed based on learning objectives and students' characteristics. The pictures provided the ideas, while the word bank helped students express those ideas in English. The guided activities then helped students develop the ideas into descriptive sentences, Therefore, the media supported students from generating ideas to producing written texts.

The next stage was product development and validation. The product was evaluated by two expert validators and obtained an average feasibility percentage of 94.7%, indicating that it was very feasible for classroom use. This result is in line with Hendrawan and Aminin (2025), who discovered that AI-generated picture series help students organize ideas and support their writing skills. Compared with conventional picture series, AI-generated pictures offer greater flexibility because they can be created based on the characteristics needed in the learning

materials. This flexibility allows the pictures to be more closely connected to the learning objectives. However, AI-generated pictures may contain innaccurate or inconsistent details. Therefore, teachers still need to check the pictures before using them in the classroom.

The next stages included preliminary field testing, product revision, operational field testing, final product revision, and dissemination. During the implementation, students used the AI-Based Picture Series to identify people's characteristics and develop descriptive texts. The students gave positive responses and said that the pictures were realistic, interesting, and easy to understand. The media also helped them generate ideas and increased their confidence in writing. The pictures may also have reduced students' difficulties when starting to write because students did not have to create all ideas from their imagination. They could observe the pictures, identify characteristics, use the word bank, and develop the information into sentences, This made the writing process more manageable and helped students feel more confident.
These findings support Hakim's (2022) assertion that picture series improve students' participation and confidence in writing. Similarly, Alfarah et al. (2022) found that digital picture series make writing activities more interesting. Furthermore, Lazarovic (2022) explained that picture-based writing activities help students express their ideas more confidently. However, this study shows more specifically that the pictures supported writing not only because they were interesting, but also because they helped students brainstorm ideas and organize information before writing. The word bank and guided activities then helped students turn these ideas into English sentences.

The findings also show the potential of the media for AI-assisted language learning. In this study, AI was used to create learning materials, not write the students' texts. Students still had to observe the pictures, choose information, use vocabulary, organize ideas, and write their own sentences. Therefore, AI functioned as a learning support rather than a replacement for students' writing. This suggest that AI can support language learning when it is combined with teacher guidance and activities that require students to actively use English.

In general, the findings show that the AI-Based Picture Series is a feasible and supportive medium for teaching descriptive writing. The main contribution of the media is that it combines AI-generated pictures, a word bank, and guided writing activities to support students' brainstorming, vocabulary use, and writing confidence. The main advantage of AI-generated pictures is their flexibility in presenting specific characteristics compared with conventional picture series. However, the pictures still need to be checked for accuracy and consistency. Since this study focused on development, feasibility, and students' responses, the findings show that the AI-Based Picture Series can support students in descriptive writing. Thus, the study contributes to AI-assisted English language learning by showing that AI-generated visual materials can be used as practical support to help students generate ideas, organize information. And develop descriptive texts. Therefore, the AI-Based Picture Series can be used as an alternative medium to support students in

CONCLUSION

The current study contributes to the development of an AI-based picture series as a teaching tool for junior high school descriptive writing. Using AI-generated visual resources, the produced media helps students organize descriptive texts, expand their vocabulary, and generate ideas. The development of the AI-based picture series employed the Borg and Gall Research and Development (R&D) model through ten stages, from research and information collecting to dissemination and implementation. During the development process, data were

collected through observation, expert validation, and interviews with students. The findings showed that students gave positive responses to the developed media, indicating that the AI-based picture series was interesting, practical, and helpful in supporting descriptive writing activities. Furthermore, the expert validators evaluated the product as highly feasible for classroom use, although several minor revisions were suggested to improve the learning instructions and the presentation of vocabulary support.

Theoretically, this study contributes to the use of AI-generated visual media as learning support for descriptive writing. The findings show that AI-generated pictures can function as visual prompts that help students generate ideas, while the word bank and guided activities support vocabulary use and the development of ideas into descriptive texts. Practically, the developed media can help English teachers provide students with clear visual support and structured activities, especially for students who have difficulties starting their writing and generating ideas.

However, this study has a limitation because the product was tested in only one school and focused on development, feasibility, and students' responses. Therefore, the findings cannot be generalized to all junior high school contexts. Future research is recommended to conduct experimental studies with a larger number of participants and different schools to examine the effectiveness of the AI-Based Picture Series in improving students' writing achievement. Future researchers may also develop and investigate AI-based learning media for other English language skills and text genres.

Overall, the AI-Based Picture Series can be considered a feasible alternative medium for supporting junior high school students in descriptive writing, particularly in generating ideas, developing vocabulary, and organizing their writing.

REFERENCES

Al Halim, M. L., & Arifin, M. (2022). The effect of picture series on teaching English writing. Pioneer: Journal of Language and Literature, 14(2), 409–422.

Alfarah, L. L. I. W., Yuvita, Y., & Rofiudin, R. (2022). The effectiveness of digital picture series to improve students' writing ability in narrative text. In Proceeding Pancasakti International Seminar on English Language Teaching (PISELT) (pp. 40–50).

Bin Dahmash, N. F. (2025). The analytic use of rubrics in writing classes by language students in an EFL context: Students' writing model and benefits. Frontiers in Education, 10, Article 1588046. https://doi.org/10.3389/feduc.2025.1588046

Eslit, E. R. (2025). Pedagogy in practice: A qualitative exploration of English language teaching (ELT) for graduate school using narrative inquiry, instructional material analysis, and observational inquiry. Frontiers in Education, 10, Article 1671532. https://doi.org/10.3389/feduc.2025.1671532

Hendrawan, W. (2025). The effect of SeaArt AI-generated imagery in enhancing junior high school students' ability to describe objects in descriptive writing. Journal of Innovation and Technology in MBKM, 1(2), 80–84.

Hendrawan, W., & Aminin, Z. (2026). The effectiveness of Gemini AI-generated imagery towards junior high school students' writing skills. Journal of English Language and Education, 11(4), 87–96.

Holmes, W., & Miao, F. (2023). Guidance for generative AI in education and research. UNESCO Publishing.

Holmes, W., & Tuomi, I. (2022). State of the art and practice in AI in education. European Journal of Education, 57(4), 542–570. https://doi.org/10.1111/ejed.12533

Islami, A. N., & Shofi, A. T. (2025). Developing digital picture series as media in teaching writing of recount text. PROJECT (Professional Journal of English Education), 8(6), 1379–1390.

Jia, F., Sun, D., Ma, Q., & Looi, C. K. (2022). Developing an AI-based learning system for L2 learners' authentic and ubiquitous learning in English language. Sustainability, 14(23), Article 15527. https://doi.org/10.3390/su142315527

Laila, L., & Yugafiati, R. (2023). Writing skills in descriptive text through picture series: The motivation and self-confidence. PROJECT (Professional Journal of English Education), 6(5), 841–847.

Lazarovic, R. (2022). Using picture-writing with students who are English language learners: A case study. Journal of Classroom Research in Literacy, 12.

Mayer, R. E. (2024). The past, present, and future of the cognitive theory of multimedia learning. Educational Psychology Review, 36(1), Article 8. https://doi.org/10.1007/s10648-023-09842-1

Orunbon, N. O., & Nwogu, U. B. (2026). Artificial intelligence in education: Opportunities and ethical concerns. Journal of Artificial Intelligence in Education, 2(1), 19–25.

Peter, S., & Murshid, V. H. (2025). Employing AI in ESL classrooms: Assumptions, development, and the use of AI-integrated writing tasks. International Journal of AI in Language Education, 2(3), 69–82.

Rahma, R. A., & Anwar, K. (2021). Picture series to increase writing skill of EFL junior high school students. Journal Universitas Muhammadiyah Gresik Engineering, Social Science, and Health International Conference (UMGESHIC).

Reswita, F. (2025). Exploring similarities between AI-generated writing and students' writing in producing descriptive text at Hamzanwadi University [Doctoral dissertation, Universitas Hamzanwadi].

Rohmah, K. N. R., & Zuniati, M. (2024). Developing picture story book for reading comprehension activity at junior high school. Bulletin of English Language Teaching in Higher Education, 1(1), 32–47.

Sari, B. J. (2024). The use of series of picture in student's writing ability at Senior High School PGRI Pekanbaru [Doctoral dissertation, Universitas Islam Negeri Sultan Syarif Kasim].

Seloni, L. (2025). Towards a raciolinguistically informed GELT paradigm in teaching multilingual writing. Journal of Second Language Writing, 70, Article 101258.

Suttrisno, S., Yulia, N., & Ibrahim, B. B. (2025). Development of interactive worksheets with artificial intelligence for students based on Bojonegoro local wisdom towards literacy skills of Madrasah Ibtidaiyah students. Journal of Elementary Educational Research, 5(1), 110–134. https://doi.org/10.30984/jeer.v5i1.1456

Ye, G., & Yan, S. (2026). Multimodal instruction with AI-generated images for noun retention: Exploring semantic scene and materiality effects. PLOS ONE, 21(4), e0334778. https://doi.org/10.1371/journal.pone.0334778

Zendrato, D. A., Zebua, E. P., Maru'ao, N., & Harefa, A. T. (2025). Developing culture-based English learning at the ninth grade student in UPTD SMP Negeri 2 Gunungsitoli in 2024/2025. Journal of English Development, 5(1), 227–235. https://doi.org/10.25217/jed.v5i1.5196

Zohbie, A., & Bhowmik, S. (2024). Using a genre-based approach to teach writing to elementary ESL students: A boon or a barrier? TESOL Journal, 15(4), e819. https://doi.org/10.1002/tesj.819

สหรัฐ ลักษณะสุต. (2024). The pedagogical impact of ChatGPT on high-school students' creative writing skills: An exploration of generative AI-assisted writing tools. วารสารการทดสอบและการประเมินทางการศึกษาระดับชาติ, 5(1), 17–34.