

Integration of Artificial Intelligence into Creative Writing Learning Models: A Literature Review of Approaches and Effectiveness

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Abstract	Article Info
Technological advancements in the Society 5.0 era have driven the integration of artificial intelligence (AI) into various aspects of education, including creative writing learning. AI functions as a tool to assist students in generating ideas, structuring their writing, and receiving adaptive feedback. However, the implementation of AI in writing education still faces several challenges, such as the potential for grammatical inaccuracies, limited emotional depth, and a tendency to generate overly simplistic texts. This study aims to review various AI-based learning approaches and improve their effectiveness in developing the creative writing skills of students. A Systematic Literature Review (SLR) method and using Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines was employed by analyzing previous studies related to the integration of AI in creative writing education. The findings of this study indicate that the ChatGPT platform is widely utilized in the development of creative writing, particularly short stories. ChatGPT has proven effective in enhancing the writing skills of students by facilitating idea generation and supporting information exploration. Moreover, AI proves most effective when used as a collaborative tool within pedagogically grounded models, rather than as a replacement for human creativity. This study contributes to the enhancement of student creative writing skills by mapping current AI developments, identifying the most effective instructional models, and providing evidence-based recommendations for integrating AI to improve student performance in creative writing education.	Article History <i>Received :</i> <i>April 28, 2025</i> <i>Revised :</i> <i>May 03, 2025</i> <i>Accepted :</i> <i>June 28, 2025</i> Keywords: <i>Learning Model,</i> <i>Creative Writing,</i> <i>Artificial</i> <i>Intelligence</i>
Published by	Yayasan Payungi Smart Madani
ISSN	2776-4303
Website	https://journal.payungi.org/index.php/ijcep
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INTRODUCTION

The advancement of information and communication technology has led to significant transformations across various aspects of human life, including the field of education. One emerging paradigm in response to this technological development is Society 5.0, a vision of a future human-centered society that seamlessly integrates advanced technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), and big data into everyday life (Martini et al., 2024). One of the main challenges in 21st-century education is the development of creative writing skills, particularly in

the context of Indonesian language education. In Indonesian language learning, the ability of students to express original ideas, imagination, and emotions through coherent and engaging written texts remains a critical yet complex task (Encil et al., 2024). Creative writing demands a combination of divergent thinking, mastery of grammar and narrative structure, emotional sensitivity, and contextual awareness, which collectively enable students to produce various literary forms such as rhymes, poetry, short stories, and novels (Amal et al., 2025; Khoiriah et al., 2023; Sunaryo & Fajar Andalas, 2019).

Creative writing skills require divergent thinking, mastery of narrative structure, and sensitivity to linguistic style and emotional nuances in written expression. The use of AI technology in writing learning is starting to receive serious attention as an effort to overcome challenges in creative writing. AI is a field of computer science that develops systems capable of performing human-like tasks, including natural language processing, data analysis, and decision-making (Hidayah, 2023). AI has algorithms that can solve problems in the world of education. Some AI platforms that are commonly used in creative writing learning include ChatGPT, Gemini, AI Chat, and AI chatting, which function as aids in learning activities. AI platforms can support independent learning, accelerate and expand access to information, provide automatic feedback, suggest improvements to writing structures, and facilitate the development of ideas adaptively and quickly (Faizah et al., 2024; Umam & El Amin, 2023; Imaduddin & Astuti, 2022). AI can also address the limitations of learning resources by providing relevant instructional materials and compensating for the shortage of teaching personnel in certain regions. In addition, AI can also adjust the learning model and is able to provide learning methods according to student needs (Putra et al., 2024).

The implementation of AI in creative writing learning is not without challenges. Several studies have shown that the capacity of AI to understand deep meaning, cultural context, and emotional nuance remains limited (Fitriana et al., 2024). In addition, concerns about the negative impact of AI on students result in the inhibition of the development of creativity and thinking. Therefore, the approach of applying AI to students is very important to ensure continuous support for the development of character and literacy competencies holistically. Considering these challenges, the implementation of AI-based learning models must be carefully designed.

A learning model serves as a conceptual framework that outlines the processes, approaches, and strategies employed in educational activities to achieve clearly defined learning objectives (Reksiana, 2018). AI-based learning models refer to the systematic integration of artificial intelligence technology into instructional design, with the aim of improving the effectiveness of the learning process, especially in the development of creative writing skills. The effectiveness of AI-based learning models must be evaluated objectively. In this context, effectiveness refers to the use of various types of AI in creative writing learning and their ability to significantly enhance student learning outcomes across cognitive, affective, and psychomotor domains (Nujum & Hadi, 2025).

Research on the integration of AI in Indonesian Language learning continues to grow and attract academic attention. Current research widely explores AI-based learning models. In particular, AI-based learning models have the potential to serve as effective tools for improving the creative writing skills of students. According to (Andriana, 2021), AI-based deep learning models offer innovative teaching strategies

that can improve writing skills of students. In addition, Amal et al., (2024) emphasize that creative writing skills depend not only on grammatical accuracy and sentence construction, but also on the capacity of students to articulate ideas with artistic and emotional depth. Wooo & Kai, (2024) further emphasize the use of AI-generated texts in short story writing as a stimulus for idea generation. Nevertheless, the use of AI revealed a number of significant challenges, including grammatical inconsistencies, incoherent narratives, and a lack of emotional nuance (Fang et al., 2023). Therefore, further investigation is required to systematically examine the mechanisms through which AI-based learning models contribute to the development of creative writing, particularly in relation to linguistic quality and emotional expression. This study aims to contribute to that discourse by providing a comprehensive review and assessment of AI-supported approaches in creative writing education. The findings are expected to guide educators in selecting and optimizing AI tools that not only enhance language proficiency but also foster critical and creative thinking in students. In addition, this study provides a reference for future research on the optimization of AI-based learning models that can preserve the emotional depth and coherence of creative writing.

Theoretical Review

AI is machine learning (ML) that has complex algorithms and methods for problem management by grouping, categorizing, and predicting data. The most important components of AI are machine learning, natural language processing (NLP), speech recognition systems, and large language models (LLMs) (Alqahtani et al., 2023). ML functions as the "brain" responsible for analyzing and determining the right problem-solving strategy. NLP supports breaking sentences into easily recognizable patterns and producing effective information. Some types of NLP-based AI software are Google Translate, Grammarly, BunCho, The Poetry Machine, and Google Assistant. The speech recognition system enables AI to process spoken language, facilitating interaction between humans and machines in both educational and business applications. LLMs represent a revolution in AI-driven conversation, initially developed through pre-training on human-curated data and subsequently refined to generate diverse, human-like text output (Parasuraman, 2024). Some LLM-based AI software includes ChatGPT, Google Bard (Gemini), Perplexity AI, and Claude.

The Chat Generative Pre-trained Transformer (GPT) is among the most widely adopted AI tools for supporting students in the learning process. ChatGPT has several models, including ChatGPT 3.5 and 4.0. ChatGPT 3.5 has 175 billion parameters, while ChatGPT 4.0 has larger parameters (O'Leary, 2023). ChatGPT is able to increase student engagement and interaction. ChatGPT facilitates the learning experience through conversation, answering questions, and providing real-time feedback. According to Alshahrana (2023), ChatGPT increases motivation and cognitive engagement, thereby enhancing student learning outcomes. However, there are many concerns about the use of GPT Chat in the student learning process. ChatGPT provides information that is either unsupported by sources or based on inaccurate references, thereby raising ethical concerns. Several countries, including Italy, North Korea, Iran, Russia, and China, have banned the use of ChatGPT due to privacy concerns. In addition to ChatGPT, Google has also developed an AI tool called Bard, which is based on the PaLM model comprising 520 billion parameters (Calonge et al., 2023).

The effectiveness and implications of using AI in the creative writing process

are reviewed based on the types of platforms employed and the learning models implemented. According to Loeckx (2016), AI can reduce the burden on both teachers and students by facilitating a more effective learning process. Similarly, du Boulay (2016) states that the Intelligent Tutoring System (ITS) learning model utilizes AI to create a reactive and adaptive learning environment. However, teachers have expressed concerns about the effectiveness of learning models in maintaining the creativity and originality of student work.

METHOD

This study uses the systematic literature review (SLR) method to examine the integration of AI in creative writing learning. The SLR method was chosen to review various previous studies using organized, transparent, and repeatable steps so that it becomes a standard method for tracing previous research that discusses the use of AI in helping students create written works, especially creative writing.

Research Questions:

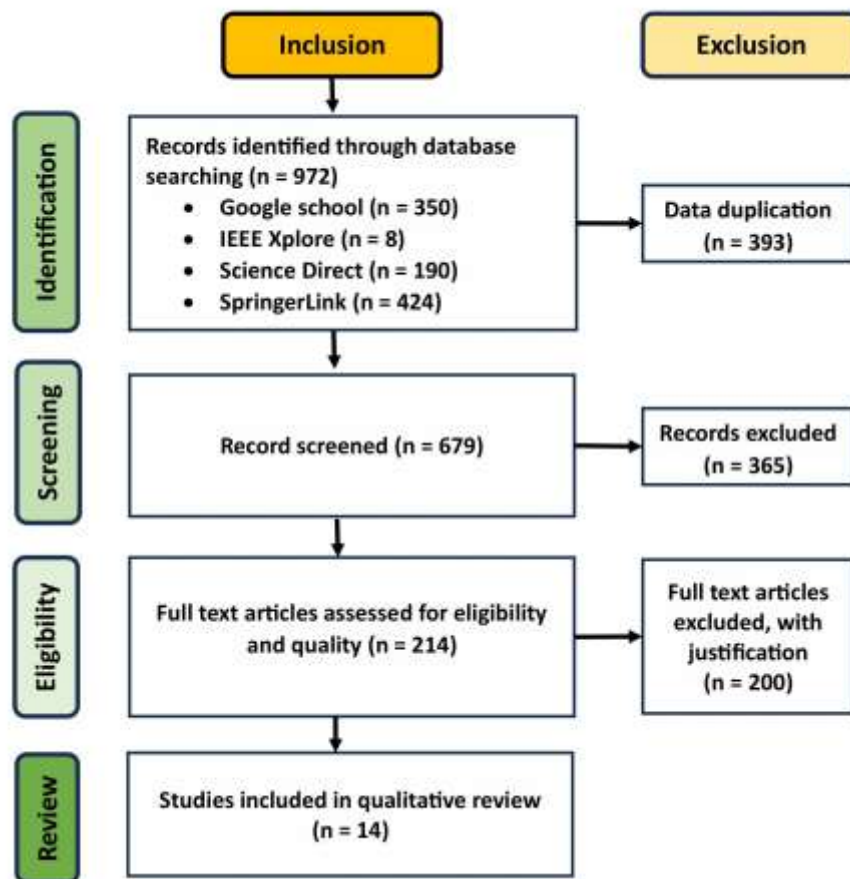
1. What approaches have been used to integrate Artificial Intelligence into creative writing learning models?
2. How effective are AI-integrated creative writing learning models in enhancing the writing skills and creativity of students?
3. What are the benefits and limitations of using AI tools in the context of creative writing education?

The literature was selected based on its relevance to the topic, credibility, and availability in accredited journals in the period 2018-2025. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) search flow for the integration of AI in the creative writing process is presented in Figure 1. The PRISMA flow is a systematic guideline used to write review reports, which aims to increase the transparency and completeness of reports (Castillo-Martínez et al., 2024). The PRIMA flow has four phases, namely identification, screening, eligibility, and review. Relevant articles selected for further analysis are shown in Table 1.

Table 1. Inclusion and Exclusion Criteria

Inclusion creteria	Exclusion creteria
Articles published with the time frame of 2018 to 2025.	Articles published before 2018.
Published in indexed journals.	Publications from non-indexed journal (review articles, book chapters, conference prosidings, theses, prefaces, opinion pieces).
Written in the English language	Written in languages other than English
Focused on specific applications in creative writing learning.	Focused on general applications unrelated to creative writing, such as technical writing, academic writing, journalism, or other non-creative writing contexts.

Figure 1. PRISMA flow diagram



This service uses the participatory action research (PAR) method, which is carried out in a participatory manner to learn to overcome problems and meet the practical needs of the community.

Identification

Data collection was carried out by searching for articles in major databases such as Google Scholar, IEEE Xplore, Science Direct, and SpringerLink using the keywords presented in Table 2. Boolean operators (AND, OR) were applied to refine the search results and ensure their relevance Rao & Moon, (2021). The discovery process was carried out based on the title of the article, the total search results produced 972 articles. The selection process began with an initial screening based on article titles (n = 972). Subsequently, 393 articles were excluded due to duplication and inaccessibility.

Table 2. Article keywords for SLR.

Data base	Keywords	Result (2018 – 2025)
Google Scholar	"artificial intelligence" AND "creative writing" AND (education OR "learning model").	350
IEEE Xplore	"artificial intelligence" AND "creative writing" AND (education OR "learning model").	8
Science Direct	"artificial intelligence" AND "creative writing"	190

	AND (education OR "learning model").	
SpringerLink	"artificial intelligence" AND "creative writing" AND (education OR "learning model").	424
	Total	972

Screening

Based on Figure 1, the screening process was conducted on 679 articles identified during the initial search. Articles included in the screening phase were limited to those published in indexed journals and excluded review articles, book chapters, conference proceedings, theses, prefaces, and opinion pieces. Only English-language publications were considered to avoid complex translation processes and reduce the risk of misinterpretation. Studies were included regardless of their country of origin, ensuring a comprehensive and globally representative review. The selected articles were identified through a review of titles and abstracts, based on relevance to the integration of artificial intelligence in creative writing learning. As a result of the screening process, 365 articles were excluded for not meeting the eligibility criteria.

Eligibility

During the eligibility phase, a comprehensive review of each article was conducted based on the predefined criteria and objectives of the study. A total of 214 articles, resulting from the screening process, were assessed through an examination of their titles, abstracts, methodologies, results, and discussions. The review revealed that 200 articles did not meet the eligibility criteria, primarily due to the absence of a clearly defined learning model and a lack of specification regarding the type of creative writing addressed in the study.

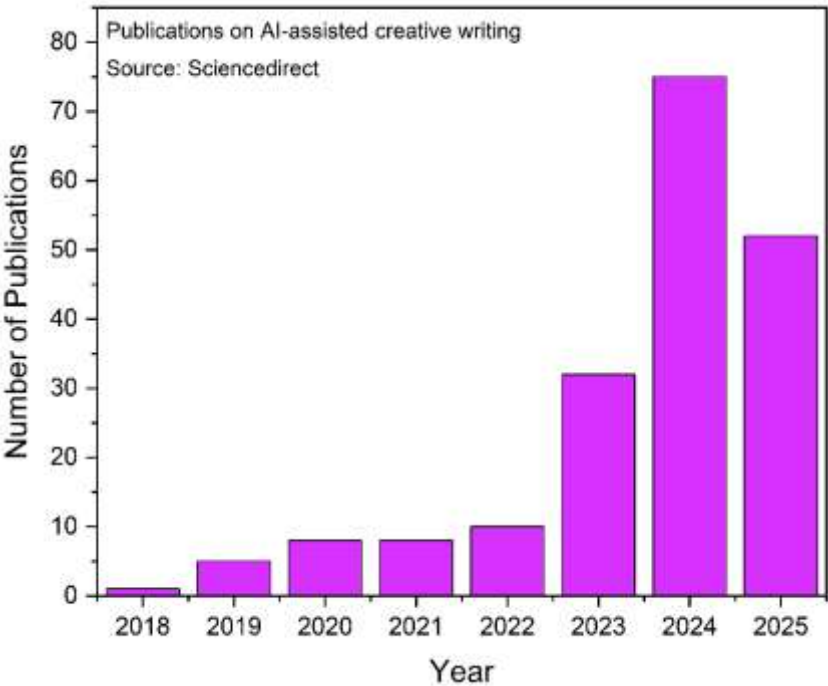
Review

A total of 14 articles met the inclusion criteria. During the review stage, each article was analyzed in depth with respect to the AI platforms utilized, the type and role of creative writing involved, and the effectiveness and impact of AI in facilitating creative writing instruction for students. The analysis also considered the implications of AI integration not only for students but also for teachers, particularly in identifying and implementing optimal AI-based learning models.

RESULT

The findings from the literature study are presented in a manner relevant to the formulated research questions. The systematic compilation and description process of the search results based on themes and concepts identified through qualitative analysis. In addition, each source is critically evaluated to ensure the validity and reliability of the reported data. In the period 2018-2025, research publications related to the use of AI in the creative writing process continue to increase. The increase in the number of studies based on ScienceDirect data is illustrated in the curve presented in Figure 2. The literature review examined the use of various types of AI, associated learning models and their effectiveness, as well as the impact of AI on creative writing activities.

Figure 2. Research publications related to the use of AI in the process of writing creative writing.



Platforms and the Role of AI used in Creative Writing Learning

Table 3. Types and roles of AI in the creative writing process

Type of creative writing		AI platform	The role of AI	Ref.
Short story		ChatGPT, Google Bard	Edit and revise stories, generate new narratives, and provide feedback on sentence structure, word choice, and writing style.	(Salihu et al., 2024)
Narrative stories	short	Text Generator (natural language generation (NLG))	Offer guidance on the development of words, sentences, and paragraphs, while serving as a supportive partner in the creative ideation process.	(Wooa & Kai, 2024)
Narrative text		Chat GPT (Open AI)	Generate ideas for story development, organize sentences and specific elements within the narrative structure, and provide examples of various storytelling frameworks.	(Khaibut et al., 2024)
Narrative stories	short	Chat GPT Premium	Assist in the development of story outlines, offer suggestions for content	(Laksanasut, 2024)

			revisions, and provide real-time feedback throughout the writing process.	
Short stories, descriptions, creative essays, and thematic narratives	Natural language processing (NLP) (AI-based grammar checker, AI-powered plot twist generator, descriptive language generator)		Generate story prompts and style suggestions, enhance narrative structure, and provide real-time feedback on grammar, vocabulary, and sentence structure.	(Zhao, 2025)
Graphic short stories and poetry	ChatGPT (via Poe), Rytr, Midjourney, Stable Diffusion, Craiyon.		The tasks involve providing ideas and inspiration through creative prompting, offering guidance on narrative structure, vocabulary, and style, as well as producing illustrations to support and enhance the story.	(Tsao & Nogues, 2024)
Poetry	The Poetry Machine		Co-creative partner	(Kantosalo & Riihiahio, 2019)
Poetry	GPT-2 Model Natural Language Generation (NLG)		Automatic poetry writer	(Köbis & Mossink, 2021)
Synopsis	BunCho		Artificial intelligence functions as a collaborative partner in the writing process.	(Osone et al., 2021)
Short stories	Chat GPT, Google Bard		Automatic story generator and assistant, offering critique, identifying flaws, and revising based on feedback.	(Karadogan, 2023)
Creative fiction story	Chat GPT		Making an initial draft of the writing.	(Behrens et al., 2024)
Short essays	Chat GPT (Ghost Writer)		The tasks include correcting students' texts in terms of grammar, syntax, and spelling, providing comments on the strengths	(Fokides & Peristeraki, 2025)

and weaknesses of their writing, and compiling final feedback along with assigning a score on a scale of 1 to 10.

AI-based creative writing learning model and effectiveness

Table 4. AI-Based creative writing learning models and effectiveness.

Learning model	Research object	Learning model objectives	Learning outcomes	Ref.
Pretest–posttest quasi-experimental design	English literature student	To measure the effectiveness of using AI in improving creative writing skills. Phase 1: AI is used to revise previously created work. Phase 2: AI is used to create a short story.	The overall score showed an improvement from 64.03 to 79.81. Furthermore, all components (image, voice, characterization , and story) demonstrated statistically significant increases, with p-values less than 0.05.	(Salihu et al., 2024)
Learn independently	English-speaking students aged 12-17	Developing an AI-based creative writing approach and evaluating its impact using a creativity rubric (elaboration, flexibility, originality).	AI is effective when used critically, and complemented by students' basic writing and creative thinking skills.	(Wooa & Kai, 2024)
Quasi-experimental pretest-posttest with communicative language teaching (CLT)	High school students	Measuring the improvement of creative writing skills before and after using AI.	The average score increased from 11.46 to 22.72	(Laksan asut, 2024)
Learning management system with integrated AI	English literature student (age 20-28 years)	Measuring the effectiveness of AI tools in improving	The increase in score from 23.41 to 40.24 (p < 0.001)	(Zhao, 2025)

		language accuracy, summarizing content, and facilitating creative writing.		
The concept of the “third thing” (equality, freedom, and collective exploration) from the philosophical framework of intellectual emancipation	English literature student (S1 and S3)	Encouraging intellectual emancipation and enhancing creativity, ethical awareness, and critical thinking through creative collaboration with AI.	Develop AI literacy by crafting effective prompts, critically evaluating AI-generated outputs, adapting results to align with personal creative vision. Utilize generative AI as catalyst for creativity, not a replacement for original thinking.	(Tsao & Nogues, 2024)
Communicative Language Teaching (CLT)	High school students	Train students' creative writing skills, including structure, vocabulary, and story content.	The overall average score increased from 11.46 to 22.72	(Woo et al., 2024)
Within-subject design	Elementary school students	Find a creative writing learning pattern that has aspects of fun, Enjoyment, Expressiveness, Outcome Satisfaction, Ease of Writing, Collaboration, Ownership.	Social engagement and AI assistance enhance children's motivation to continue writing.	(Kantola & Riihiahon, 2019)
Project-based (AI writing-self reflection-peer review)	Undergraduate student	Improving ethics in writing, educating responsible use of AI, developing	Knowledge of AI and ethics increased (from 2.17 to 2.51, $p < 0.001$), positive	(Behrens et al., 2024)

	critical thinking and writing	attitudes toward AI improved (from 3.78 to 4.20, $p < 0.001$), use of AI for full-text writing slightly decreased (from 1.40 to 1.36).
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The impact of AI on creative writing skills

Table 5. Positive and negative impact of AI on creative writing skills.

AI platform	Positive impact	Negative impact	Ref.
AI writing assistants (AWAs): grammarly, turnitin, hemingway editor	Increase confidence in technical writing	Lead to excessive dependence, thereby hindering the development of critical thinking skills	(Salman et al., 2024)
ChatGPT	Improve creativity, ability to organize ideas, and writing confidence.	-	(Laksanasut, 2024)
AI-based grammar checker, plot twist generator, and descriptive language generator	Supported idea generation and creative story writing, improved narrative structure, description, and creativity.	-	(Zhao, 2025)
ChatGPT (via Poe), Rytr, Midjourney, Stable Diffusion, Craiyon	Demonstrated increased confidence and self-reflection in their own creative processes, underwent a shift in role from passive user to active collaborator.	-	(Tsao & Nogues, 2024)
ChatGPT and Google Bard	Improved writing skills and writing motivation, understanding the reflective revision process.	-	(Salihu et al., 2024)
Chat GPT	Easier to start and develop stories, motivated to write.	-	(Khaibut et al., 2024)
Text generator	Completed complex writing tasks with support in idea development and narrative structure.	The potential risks associated with reliance on artificial intelligence.	(Wooa & Kai, 2024)
The Poetry Machine	Increase enjoyment and	Writing with AI is	(Kantosalo

	motivation, offers additional creative elements (rhymes, alliteration, and word suggestions) that enhance the quality of writing.	perceived as less enjoyable and interactive, ideas generated by AI are perceived as less relevant compared to those provided by peers, AI provides limited support in collaboratively composing or interpreting poetry.	& Riihiho, 2019)
ChatGPT	Understand AI ethics and its shortcomings, think critically about AI results and actively revise their own work.	-	(Behrens et al., 2024)
ChatGPT	AI can expand access to detailed feedback, especially in English.	Poses a risk of spreading misinformation in non-English languages	(Fokides & Peristeraki, 2025)

DISCUSSION

AI-based creative writing learning utilizes various AI platforms, both paid and free. Table 3 presents the types of creative writing, the AI platforms employed, and their corresponding roles in the writing process, as identified in the literature review. Based on Table 3, the most common forms of AI-assisted creative writing are short stories and poetry, followed by short essays or synopses, and picture stories. ChatGPT is the most commonly utilized among these AI platforms, especially for composing, revising, and developing narrative texts. AI is also able to provide specific responses to sentence structure, word choice, and writing style. In addition to Chat GPT, the Google Bard platform also helps in the process of editing, revising, and producing new stories. Based on research by Albtoush & Ibrahim (2024), Chat GPT and Google Bard are powerful generative AI tools with unique strengths and limitations. Google Bard is able to provide conceptual responses, offer visual output, and is able to answer difficult questions, while ChatGPT has the ability to produce diverse and original content. ChatGPT has a paid version that has the advantage of being able to provide real-time feedback throughout the writing process, including helping to compile a story outline and providing suggestions for revising the content created. The study by Salihu et al. (2024) demonstrated that AI is capable of providing feedback on sentence structure, word choice, and writing style.

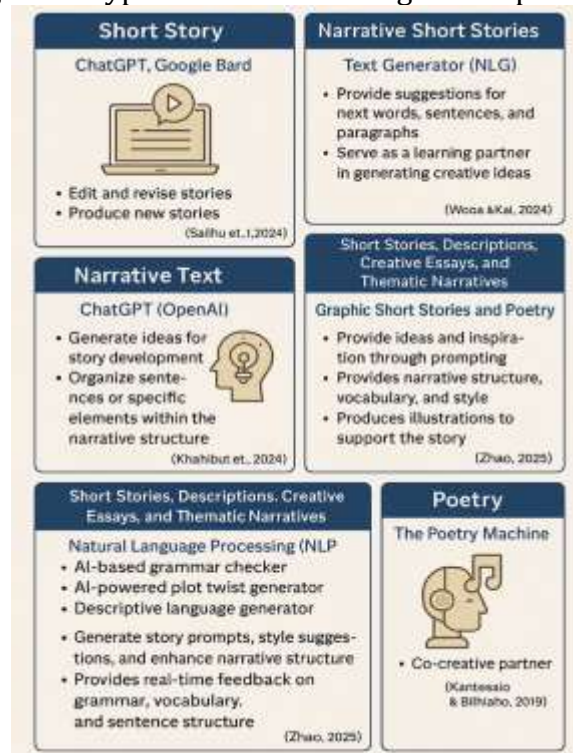
The role of AI in the context of narrative writing is as a learning partner that offers advice on the development of ideas, organizing narratives, and providing examples of various story structures. Based on research by Wooo & Kai (2024), AI has a role in compiling plots and paragraphs. AI platforms such as Grammar Checker can also

provide corrections to narrative structure, vocabulary, and grammar, which enriches the overall quality of writing. Midjourney and Crayon are recognized as relevant AI platforms for generating illustrations, while The Poetry Machine is specifically designed to automatically produce poetry.

The results presented in Table 3 provide a more detailed overview of the performance of each AI platform at various stages of the creative writing process within the educational context. These findings complement the study conducted by Mei et al. (2025), which elaborates on the role of various AI platforms in the creative writing process, extending beyond the use of the ChatGPT platform alone. In contrast, the study by Creely & Blannin (2025) does not clearly articulate the role of AI across the stages of creative writing, such as pre-writing (idea generation and outlining), drafting, and post-writing (revision and editing).

Overall, AI functions not only as a technical aid in creative writing but also as a collaborative partner that supports the writing process from the planning stage to the evaluation phase. Similar to the study by Osone et al. (2021), the BunCho platform is utilized as a collaborative tool for writing synopses. The adaptive role of AI to the type of writing makes it a potential tool in supporting the development of creative literacy in various levels of education. However, the use of AI must ensure that users remain critically engaged, allowing AI to serve as a facilitator rather than a substitute for human creativity. The different types of AI and their roles are illustrated in Figure 3.

Figure 3. Type of creative writing and AI platform.

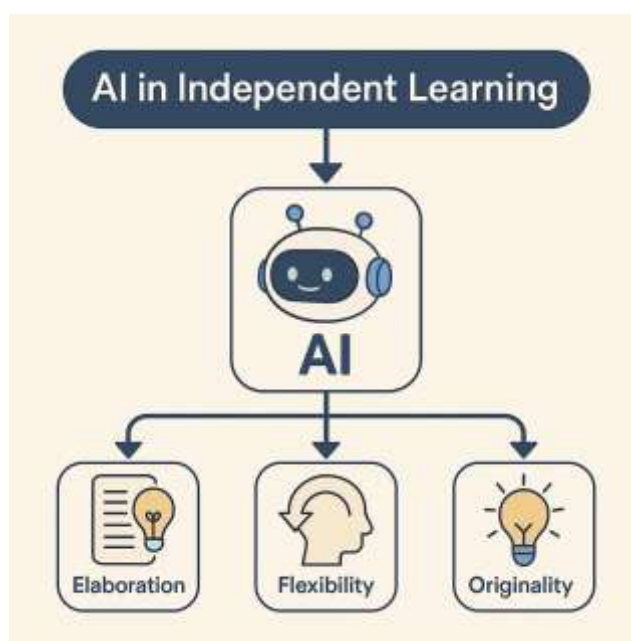


Various learning models are used in the learning process of creating creative writing learning based on AI. AI can be utilized by individuals of all ages, ranging from elementary school students to doctoral candidates. Based on Table 4, the application of AI has generally been shown to improve the ability of students in producing creative writing. The role of AI in the creation of written works is that of a collaborator, rather than the primary source of creativity. In the study of Salihu et al. (2024), the use of AI in

creating short stories was able to significantly increase the score from 64.03 to 79.81, there was an increase in the aspects of imagination, characteristics, and storyline.

In independent learning models, AI has contributed to enhancing student creativity in terms of elaboration, flexibility, and originality, as illustrated in Figure 4. Elaboration is the ability to present ideas in detail and the ability to design works in detail and perfectly. The elaboration process includes the process of creating stories that are carried out concretely (Hendrik et al., 2022). Flexibility is a component in the learning process that contributes to critical thinking skills, helps in connecting information, avoids rigid thinking processes, and improves the ability to understand and evaluate deeply (Hikmawati & Mohammad, 2025). Originality is the nature or quality of a work, idea, or thought that is new, authentic, and does not imitate or copy the work of others (Luo (Jess), 2024). The effectiveness of AI depends on users who are critical and selective, as well as on the skills of students in writing and creative thinking. Table 4 and Figure 4 also highlight the active involvement of AI in the creative writing process, in contrast to the study by Habib et al. (2025), which focuses primarily on the contribution of AI to the enhancement of student creative thinking. However, the study does not explicitly describe the learning model employed to support the development of these skills.

Figure 4. The role of AI in the independent learning process



The studies by Laksanasut (2024) and Woo et al. (2024) demonstrated that learning through Communicative Language Teaching (CLT) resulted in a significant improvement, with scores increasing by up to twofold. CLT is a combination of various language concepts, including sociolinguistics, functional linguistics, semantics, and pragmatics. Students are encouraged to develop their communicative competence by using language in real situations (Qasserras, 2023). CLT learning emphasizes the importance of fluency compared to accuracy. The integration of the CLT learning model with AI can enhance structural elements, vocabulary, and the content of stories in creative writing. In addition to CLT-based learning, there is AI-based Learning

Management System (LMS) learning which is used for creative writing learning that has language accuracy and summarizes content. LMS is a web-based learning model such as presenting information, course materials, and evaluating student work (Oguguo et al., 2021). LMS accommodates students in online discussions and provides a place to submit assignments. Based on the research by Zhao (2025), the implementation of LMS-based learning for students aged 20 to 28 years led to a significant increase in scores, rising from 23.41 to 40.24. These findings indicate that AI-based online learning has a positive impact on student quality. Tsao & Nogues (2024) explored the application of AI through the concept of the “third thing”, which emphasizes equality, freedom, and collective exploration in collaboration with AI. Their study demonstrates that the active involvement of undergraduate and doctoral students in formulating prompts, critically evaluating AI-generated outputs, and aligning the results with their personal vision fosters the development of AI literacy while promoting creativity and ethical awareness. A critical evaluation of AI-generated outputs and their alignment with one's personal vision is essential to ensure that the use of AI contributes to the development of AI literacy, as well as the promotion of creativity and ethical awareness. The study by Kantosalo & Riihiäho (2019) indicates that the use of AI, when balanced with social interaction, is effective in increasing student motivation to produce more effective writing and in positioning AI as a creative partner. Learning models that incorporate AI demonstrate significant potential in supporting the development of creative writing skills. Their effectiveness depends on the pedagogical approach employed, the context of the learners, and the use of AI as a collaborative tool rather than a replacement for human creativity. The comparison of learning models for AI-assisted creative writing presented in Table 4 represents an advancement over previous studies. For example, the study by Rabello-Mestre et al. (2025) discusses the application of learning models aimed at enhancing student creative thinking but does not specify the AI platforms employed.

The use of AI platforms to support creative writing skills has various impacts, both positive and negative, depending on the type of tool and how it is used, the positive and negative impacts of AI are presented in Table 5. AI Writing Assistants (AWAs) such as Grammarly, Turnitin, and Hemingway Editor have been shown to enhance student confidence in creative writing by providing immediate corrections and suggestions. However, Salman et al. (2024) revealed that excessive dependence on AI can hinder the development of critical thinking skills. ChatGPT has proven to be an effective platform in increasing creativity, the ability to organize ideas, and writing motivation. The studies by Laksanasut (2024), Salihu et al. (2024), and Khaibut et al. (2024) showed that the use of ChatGPT facilitates students in initiating and developing stories, as well as in understanding the revision process. Behrens et al. (2024) added that ChatGPT supports users in understanding AI ethics and promotes critical reflection on the generated output, thereby encouraging students to revise their work. Research by Tsao & Nogues, (2024) also demonstrates platforms such as ChatGPT (via Poe), Rytr, Midjourney, Stable Diffusion, and Craiyon not only support the creative process but also promote a shift in the user role from passive recipient to active collaborator. The combination of AI tools such as grammar checkers, plot twist generators, and descriptive language generators supports the development of ideas and improves the quality of narrative structure and description in story writing (Zhao, 2025).

However, the use of AI in the process of producing work also has negative impacts. Wooa & Kai (2024) show that the Text Generator platform has been proven to help

complete creative writing work, concerns that excessive dependence on AI can trigger independent thinking skills. Fokides & Peristeraki (2025) caution that while ChatGPT expands access to detailed feedback in English, it also poses a risk of disseminating misinformation in non-English languages, which may be detrimental to users in multilingual contexts.

In the context of creative learning for children, Kantosalo & Riihiäho (2019) highlighted the use of The Poetry Machine, which has been shown to enhance enjoyment and motivation in writing through features such as rhyme and alliteration. However, some students perceived the writing experience with AI as less interactive, and the ideas generated as less relevant compared to input from peers. This indicates that AI has not yet fully replaced the social and collaborative dimensions of the creative process. Overall, various AI platforms have demonstrated substantial benefits in improving the technical, motivational, and creative aspects of writing. Nevertheless, a key challenge lies in the potential for dependency and the limitations of AI in providing support that is contextually appropriate and socially meaningful. Therefore, the integration of AI in education must be guided by a critical and ethical pedagogical approach to optimize its advantages while minimizing potential drawbacks.

In contrast to previous studies that tend to examine the effectiveness of individual AI tools in isolation or focus solely on specific linguistic aspects (Lee et al., 2024; Tsao & Nogues, 2024; Zhao, 2025), the main findings of this study demonstrate that the use of multiple AI platforms such as grammar checkers, story idea generators, and visual tools can enrich student creative thinking and expression. These findings also reflect a shift in approach, from reliance on a single AI tool to an integrated model, in which students are not merely passive users of AI output but are actively engaged in the writing process. Therefore, the primary contribution of this study lies in identifying an interactive and comprehensive model of AI use in creative writing, which has not been explored in depth in prior research.

This review has several important limitations related to the approach and perspective adopted. Although it maps various types of AI platforms, learning models, and their impact on the student learning process in producing creative writing, it does not fully account for contextual diversity. Specifically, this review does not consider factors such as cultural background, levels of digital literacy, or differences in educational systems. It also does not evaluate the long-term effectiveness of AI-based learning models. Furthermore, this review is classified as qualitative in nature, and it lacks quantitative theoretical measurements that could more accurately assess the effectiveness of AI implementation.

Despite these limitations, the review provides a useful contextual example that illustrates the role of AI in current educational developments and offers a foundation for future research. In addition, it may serve as a source of inspiration for educators in designing appropriate learning models.

CONCLUSION

This literature review highlights that the integration of Artificial Intelligence (AI) into creative writing learning models has shown considerable growth and effectiveness between 2018 and 2025. AI tools such as ChatGPT, Google Bard, and Grammarly have supported students across various educational levels by enhancing narrative development, language use, and revision processes. When aligned with pedagogical models like Communicative Language Teaching (CLT) and Learning Management

Systems (LMS), AI contributes to the improvement of elaboration, flexibility, and originality in students' creative output. AI's role is most effective as a collaborative partner that complements human creativity. However, its use must be critically guided to avoid overdependence and ensure contextual and ethical relevance. Ultimately, AI-integrated learning models offer promising support for creative writing education, provided they are implemented with pedagogical awareness and learner engagement at the forefront.

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