



Development of contextual and AI-based e-learning media to increase poetry writing creativity

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ABSTRACT

This study aims to develop contextual-based and artificial intelligence (AI)-based e-learning media to enhance the poetry writing creativity of Grade X vocational school students. The background of this study stems from the low ability of students in writing poetry, particularly in terms of diction, imagination, and the use of figurative language. The research employed a 4D development model (define, design, develop, disseminate). The media was developed in the form of an interactive module using Articulate Storyline, equipped with AI features that provide automatic feedback. Validation was conducted by six experts in content, language, and media. Practicality was tested using questionnaires administered to both teachers and students, while effectiveness was assessed through pretest and posttest results. Validation results indicated a high level of validity, with scores exceeding 96 percent. Practicality tests showed results of 92 percent from teachers and 93.36 percent from students. Effectiveness analysis revealed a classical completeness score of 92.86 percent. Based on these findings, the developed e-learning media is categorized as highly valid, practical, and effective for use in poetry writing instruction for Grade X vocational students.

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ABSTRAK

Penelitian ini bertujuan untuk mengembangkan media e-learning berbasis kontekstual dan berbasis artificial intelligence (AI) guna meningkatkan kreativitas menulis puisi peserta didik kelas X SMK. Latar belakang penelitian ini adalah rendahnya kemampuan menulis puisi peserta didik, terutama dalam hal diksi, imajinasi, dan pemanfaatan gaya bahasa. Penelitian ini menggunakan model pengembangan 4D (define, design, develop, disseminate). Produk media dikembangkan dalam bentuk modul interaktif berbasis Articulate Storyline dan dilengkapi fitur AI untuk memberikan umpan balik otomatis. Validasi dilakukan oleh enam validator yang terdiri atas ahli materi, bahasa, dan media. Uji kepraktisan dilakukan melalui angket kepada pendidik dan peserta didik, sedangkan uji keefektifan dilakukan melalui pretest dan posttest. Hasil validasi menunjukkan bahwa media tergolong sangat valid dengan tingkat kevalidan di atas 96 persen. Hasil uji kepraktisan menunjukkan persentase sebesar 92 persen dari pendidik dan 93,36 persen dari peserta didik. Hasil uji keefektifan menunjukkan ketuntasan klasikal sebesar 92,86 persen. Berdasarkan hasil tersebut, media e-learning yang dikembangkan tergolong sangat layak, sangat praktis, dan sangat efektif digunakan dalam pembelajaran menulis puisi di kelas X SMK.

Kata Kunci: AI; e-learning; media pembelajaran; menulis puisi; pembelajaran kontekstual

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INTRODUCTION

Writing skills, especially in learning Indonesian, are an important aspect that not only hone critical thinking skills, but also foster students' creativity and self-expression. To support this process, effective learning media is needed, because media not only conveys material, but also helps students interact actively and build a more meaningful understanding (Kaniawati, 2023). However, the reality shows that students still have difficulties in exploring ideas, choosing poetic words, and organizing poetry in an interesting way. This indicates that learning media is needed that can facilitate the needs and characteristics of students in learning to write poetry. Previous research shows that the right learning media can significantly improve the ability to write poetry (Kiuk et al., 2021). However, the media used are still conventional and have not optimally integrated digital technology.

In facing these challenges, learning media play a strategic role as a tool that can facilitate the needs of students in achieving their learning objectives. Learning media not only function as a tool for delivering material, but also as an interactive means that allows students to actively and meaningfully build their understanding (Kiuk et al., 2021). The right media helps students understand the structure of poetry, explore inspiration, and express ideas aesthetically. Students' difficulties in writing poetry are often caused by a lack of understanding of the elements of poetry, resulting in their writing resembling prose. Therefore, an approach that encourages students' creativity and imagination is needed to make learning more effective and meaningful (Fazri & Abror, 2025).

The development of information and communication technology (ICT) has given rise to various learning platforms, including Zoom, WhatsApp, Google Classroom, and web-based e-learning media, which further facilitate the distance learning process (Bawamenewi & Waruwu, 2023). E-learning offers teachers the opportunity to act as facilitators and encourage students to be active participants in their learning (Guntoro et al., 2022). Digital features, such as learning videos, quizzes, interactive slides, and discussion rooms, are considered capable of increasing student motivation and participation in learning (Dewi, 2021). Apart from that, e-learning also supports the strengthening of 21st-century skills, such as collaboration, communication, critical thinking, as well as creativity and innovation. For students' active involvement in learning to be optimal, an approach is needed that can effectively link learning to the realities of their lives. One relevant approach is contextual learning. This approach links teaching materials to students' real experiences, making the learning process more meaningful and relevant. This method has been proven to arouse students' enthusiasm and interest in writing poetry because the learning media used come from the environment around them (Rindiani et al., 2023).

Technological advances also open up opportunities for integrating Artificial Intelligence (AI) into learning media. AI plays a role in providing automatic feedback on the diction, structure, and language style of poetry written by students and can suggest improvements in a personalized and adaptive manner (Rusdiana & AR, 2024). This is believed to increase students' confidence and motivation in their creative endeavors. The combination of e-learning, contextual approach, and AI becomes a great potential in supporting a more modern, personalized, and fun literature learning process. This research offers novelty in developing e-learning media that specifically integrates contextual approaches and Artificial Intelligence (AI) technology in learning to write poetry at the vocational level. This concept is still rarely found in the literature. Thus, the problem formulation in this research is how to develop contextual and AI-based e-learning media that are valid, practical, and effective in improving poetry writing creativity.

Based on this description, this research aims to develop context-based e-learning media and AI that are valid, practical, and effective in enhancing the creativity of writing poetry among grade X vocational students.

LITERATURE REVIEW

Learning Media

Learning media is a crucial component in creating an interactive, engaging, and meaningful teaching and learning process. Media not only function as a tool for delivering information from teachers to students, but also as a means of bridging active interaction in understanding concepts more concretely (Kaniawati, 2023). In today's digital education era, the presence of innovative and technology-based learning media is significant because it can create a more engaging, interactive, and adaptive learning experience. The use of e-learning platforms tailored to the characteristics of students has been proven to increase active participation and enthusiasm for learning, as well as better prepare students to face future challenges (Shofia & Prasetyo, 2024). Saleh et al., in their book named *"Media Pembelajaran"* mention that learning media also play a role in forming a systematic learning environment and supporting the achievement of learning objectives. This aligns with behavioristic learning theory, which emphasizes the importance of visual and auditory stimuli in strengthening students' learning responses.

Saleh et al., in the same book, also mention that classifying learning media based on their characteristics provides educators with guidelines for choosing the right media to deliver teaching materials. Auditive, visual, and audiovisual media offer their advantages in stimulating students' senses to be more focused and active in the learning process. In today's digital age, the use of e-learning has become an integral part of the learning process at the vocational high school level. Teachers are expected to be able to design and implement digital learning media that align with students' needs and support 21st-century skills such as critical thinking, creativity, collaboration, and communication. The development of e-learning media at the vocational high school level requires contextual content planning, training for educators in technology proficiency, and active student engagement to ensure optimal learning outcomes (Shofia & Prasetyo, 2024).

E-Learning

Rusli et al. in their book named *"Memahami E-learning: Konsep, Teknologi, dan Arah Perkembangan"* mention that e-learning is an educational innovation that utilizes advances in digital technology to create flexible, interactive, and accessible learning anytime and anywhere. In the context of modern learning, e-learning emerges as a strategic solution to address the challenges of distance education, lifelong learning, and individualized, needs-based training. E-learning consists not only of teaching materials but also includes aspects of learning design and interactive technologies, such as multimedia content, e-tutoring, virtual classes, and automatic feedback systems, that allow learners to participate actively. In addition, the existence of Learning Management Systems (LMS), Content Management Systems (CMS), and interactive software such as PowerPoint, Articulate Storyline, or educational platforms like Quizizz and Kahoot becomes an important component in structuring a more personalized and enjoyable learning experience. Thus, e-learning can encourage maximum student involvement, accommodate diverse learning styles, and make the learning process more meaningful. According to the theory of cognitivism, e-learning supports the process of information internalization by providing learners with flexible learning control.

Rusli et al., in the same book, also mention that the function of e-learning in the learning process includes its role as a supplement, complement, or replacement for face-to-face learning. As a supplement, e-learning is optional and can provide additional insight for students who access it independently. As a complement, it serves as reinforcement or remediation for students according to different learning outcomes. As a replacement, e-learning plays a role in providing complete flexibility in online learning, especially in the context of higher education or adult learning. In addition to advantages such as time and cost savings, expanded geographical access, and strengthened learning independence, e-learning also

has weaknesses, including limited social interaction and low digital literacy among some students. Therefore, the use of e-learning must be accompanied by innovation and improvements in infrastructure and digital competencies to ensure that learning can take place optimally and inclusively in the current digital era (Wirahyuni et al., 2021). This is particularly important considering that learning is currently still limited to general classroom meetings, even though students' abilities to understand the material vary; therefore, adaptive strategies and media, such as web-based e-learning, are needed (Hakiki & Fadli, 2021).

Contextual Approach

Contextual Teaching and Learning (CTL) is a learning strategy that connects teaching materials to students' real lives, making learning more meaningful, relevant, and functional. In this approach, students do not just passively receive information; they actively build knowledge through learning experiences that align with their world. This approach encourages students' emotional and intellectual engagement through activities such as projects, problem-solving, and teamwork, which allow students to internalize concepts and skills more deeply (Muhartini, 2023). The link between Indonesian language learning and everyday experiences enables students to understand concepts more deeply and apply them in various real-life situations, both individually and in society (Alamsyah et al., 2024).

The use of innovative and contextually relevant learning media is crucial in supporting poetry writing skills. The right media helps students understand the structure of poetry, explore inspiration, and express ideas aesthetically. Students' difficulties in writing poetry are often caused by a lack of understanding of the elements of poetry, so that the resulting writing resembles prose. Therefore, an approach is needed that encourages students' creativity and imagination so that learning becomes more effective and meaningful (Fazri & Abror, 2025). The contextual approach is considered to be able to increase learning motivation and strengthen students' memory because the learning they experience feels real and relevant. Despite its many advantages, CTL also faces challenges, such as a longer implementation duration, the need for teacher skills in managing the classroom, and a high intensity of assistance (Rahmadani et al., 2022). Therefore, the implementation of CTL requires careful planning, institutional support, and increased teacher capacity so that learning truly reflects the real-world context of students optimally.

Artificial Intelligence (AI)

Eriana & Zein, in their book named *"Artificial Intelligence (AI)"*, mention that Artificial Intelligence (AI) is a technology that enables computer systems to mimic the way humans think and act through data processing, experiential learning, and automated decision-making. In practice, AI includes various approaches such as machine learning, neural networks, and natural language processing that allow computers to recognize patterns and perform complex actions without direct human intervention. AI is a technological advancement that enables systems to perform tasks previously only possible for humans and is now widely used in various industrial fields (Inzaghi et al., 2024). In the context of education, AI also plays a role in creating a more personalized and adaptive learning experience, as well as encouraging the development of creativity and critical thinking in students, particularly in learning to write poetry in line with the spirit of the Merdeka Curriculum (Patindra et al., 2024).

The development of AI aims not only to mimic human intelligence but also to improve the quality of life through automation and the strengthening of data-driven work systems. Among the main goals of AI are understanding human cognitive processes, creating autonomous systems capable of making independent decisions, and producing coherent solutions in human-machine communication (Mustika et al., 2024). In addition, Rusli et al., in their book named *"Memahami E-learning: Konsep, Teknologi, dan Arah*

Perkembangan” mention that AI is designed to support humans in thinking faster and more deeply, solving everyday problems flexibly, and efficiently storing and managing information for long-term learning.

Writing Creativity

Creative writing is a vital aspect of visual literacy that not only supports students' ability to express their ideas and thoughts but also shapes character, develops critical thinking skills, and increases sensitivity to meaning in multimodal texts, whether in print, audio, or digital form (Afifah & Suryani, 2025). In line with this, writing is not only a technical skill, but also a complex thinking process that involves planning, drafting, and revising (Ivan et al., 2022). Writing creativity is not just about pouring out thoughts, but also requires attention to techniques such as choosing unique themes, exploring diction, and composing engaging narratives, so that writing has both aesthetic and communicative value. In addition, in the context of the Merdeka Curriculum, creativity in writing needs to be strengthened through a contextual and communicative approach, as part of the revitalization of reading and writing literacy in Indonesian language learning, which aims to revive students' enthusiasm for learning and enrich their literacy experience (Pontjowulan, 2024).

In practice, the creative writing process does not depend only on inspiration. However, it can be developed through structured strategies, starting from idea generation, data collection, framework creation, draft writing, revision, and the final editing stage. Writing skills are a crucial means of conveying ideas and intellectual contributions to the broader community (Ilham et al., 2025). Various learning approaches tailored to individual needs and abilities have proven to support the development of writing skills, as they provide students with space to express their ideas in their own style. This flexibility has a positive impact on their creativity and learning outcomes (Susanto et al., 2022). Creative writing skills are part of higher-order thinking skills that require ongoing training to enable students to express their ideas in an original and meaningful way (Raga et al., 2024).

Poetry

Aulia et al., in their book entitled *“Cerdas Cergas Berbahasa dan Bersastra Indonesia”* (Smart and Agile in Indonesian Language and Literature), state that poetry is a form of literary work that utilizes language in an aesthetic, concise, and meaningful way as a means of expressing the feelings, thoughts, and imagination of the author. The beauty of poetry lies in the power of diction, imagery, rhythm, and language style that create a deep emotional experience for readers. Poetry not only conveys messages but also invites readers to reflect on meaning through the use of symbols, metaphors, and wordplay. In learning, poetry offers significant benefits, as it can enhance students' critical thinking skills, creativity, and language awareness (Wibawa et al., 2025).

Types of poetry, such as narrative, lyric, and descriptive, enable writers to express a range of emotional and social dimensions, from expressions of love to critiques of life's realities. In the context of education, poetry has strategic benefits in fostering students' interest in literature, training creative and critical thinking skills, and serving as a reflective medium that encourages the exploration of imagination and personal potential (Rahayu & Kurniawan, 2021). Additionally, poetry education plays a crucial role in developing students' understanding of elements such as diction, imagination, and language style, which are essential for refining their aesthetic sensitivity (Rahmawati et al., 2025).

METHODS

This research is a type of research and development (R&D). Rayanto and Sugianti, in their book entitled *"Penelitian Pengembangan Model ADDIE dan R2D2: Teori dan Praktek,"* state that the ADDIE model consists of five systematic stages: Analysis, Design, Development, Implementation, and Evaluation. This model was chosen because it is suitable for developing e-learning-based educational media that are designed contextually and integrated with Artificial Intelligence technology. ADDIE also provides a coherent framework for designing, implementing, and sustainably evaluating products (Waruwu, 2024).

The first stage, analysis, was conducted by identifying the needs of Grade X students of SMK Abdi Negara Tuban in writing poetry through surveys, interviews with teachers, as well as studies on curriculum and technology infrastructure. The design stage involves formulating learning objectives, creating storyboards, and designing interactive media interfaces using Articulate Storyline. At the development stage, the media was validated by material experts, linguists, and media professionals, and then improved based on feedback from these validators. The implementation stage was carried out through limited and field trials on 28 students to determine the response and practicality of using the media. During the evaluation stage, the validity, practicality, and effectiveness of the media were assessed formatively through questionnaires, observations, interviews, and a pretest-posttest design. The data obtained were analyzed using quantitative and qualitative descriptive techniques. Effectiveness analysis was carried out through comparison of pretest and posttest results to see the increase in students' poetry writing creativity.

Data Analysis

The data analysis technique consists of quantitative and qualitative descriptive analysis. Quantitative data were obtained from the results of media validation by experts and the results of student and teacher questionnaires, which were calculated using the percentage formula:

$$P = \frac{n}{N} \times 100\%$$

Description:

P = Percentage Number (%)

n = Number of Scores Earned

N = Maximum Number of Scores

The level of media validity is categorized into very feasible (90-100%), feasible (75-89%), quite feasible (65-74%), less feasible (55-64%), and not feasible (<55%). At the same time, practicality data is classified into efficient (85.01-100%), reasonably practical (70.01-85%), less practical (50.01-70%), and not practical (0-50%).

Effectiveness data were analyzed by comparing pretest and posttest scores using the classical completeness formula as follows.

$$KK (100) = \frac{\sum ST}{n} \times 100\%$$

Description:

KK (100) = Classical Completeness

$\sum ST$ = Number of Students Completing

n = Number of All Students

The effectiveness results were declared complete if $\geq 75\%$. Meanwhile, qualitative data were analyzed thematically from the results of observations, interviews, and documentation to provide an in-depth understanding of the quality of media use in the writing poetry learning process.

RESULTS AND DISCUSSION

This research produces contextual-based e-learning media and Artificial Intelligence (AI) to improve the creativity of writing poetry of grade X students of SMK Abdi Negara Tuban. The development was conducted through the ADDIE model, which includes the stages of analysis, design, development, implementation, and evaluation. The development results are presented as follows.

Analysis Result

The results of the needs analysis, curriculum, and technology reveal the urgency of developing context-based e-learning media and AI to enhance poetry writing creativity among class X students of SMK Abdi Negara Tuban. Based on observations and interviews, it was found that learning is still predominantly dominated by conventional methods and printed teaching materials, while students show an increasing interest in digital learning. In addition, there are still many students who have not achieved the minimum passing criteria and have difficulty understanding the material on writing poetry. Curriculum analysis reveals that the material on writing poetry in the Merdeka Curriculum requires mastery of diction, rhyme, theme, and expressive delivery techniques, all of which necessitate a creative, interactive, and technology-based learning approach.

In terms of technology, schools have basic infrastructure, such as projectors, laptops, and Wi-Fi networks; however, their utilization is not optimal because teachers have not received intensive training in the use of digital media, and students still have limited access to personal devices. This challenge highlights the importance of developing learning media that is easily accessible, user-friendly, and capable of bridging the gap between online and offline learning needs. The contextual and AI-based e-learning media developed in this research are expected to address these needs while accommodating the learning objectives in the curriculum by emphasizing exploratory, reflective, and expressive aspects in creative writing poetry.

Design

In the design stage, researchers developed context-based e-learning media and Artificial Intelligence (AI) to enhance creativity in poetry writing among class X students at SMK Abdi Negara Tuban. Media design is carried out systematically based on the results of needs analysis, curriculum, and technology. The design aims to create media that is interactive, personalized, and relevant to the lives of learners, utilizing the Articulate Storyline application that is able to present attractive and accessible digital content. The learning objective set is to increase creativity in writing poetry through a contextual approach, where students are directed to write poetry based on personal experiences. The design process is outlined in the form of storyboards and prototypes that illustrate the learning sequence, including the introduction of poetry elements, exercises, and evaluation. Interactive features, such as drag-and-drop functionality, navigation buttons, animations, and AI support for automatic feedback in assessing poetry structure and diction, were added to enable students to learn actively and independently.

Table 1. E-Learning Media Creation Design

No	Planning Stage	Results Obtained
1	Selection of media	The media developed is context-based e-learning media and Artificial Intelligence to enhance the creativity of writing poetry by class X students of SMK Abdi Negara Tuban.
2	Learning Material Design	Researchers collected and designed materials by the Merdeka Curriculum. The material includes poetry writing theory, diction selection, rhyme, typography, and techniques for reading and responding to poetry. The sources used include the

No	Planning Stage	Results Obtained
3	Developing Learning Media Design	<p>Ministry of Education and Culture book, the Grade X Indonesian teacher's book, and other supporting references.</p> <p>Media design includes:</p> <ol style="list-style-type: none"> 1. The Front Page presents an attractive opening visual display, with a "Start" button. 2. The Learner Identity page contains fields to input the full name and school origin. 3. The Home Page displays the main navigation, which consists of: Introduction, Let's Learn, Let's Practice, Educational Games, Information, and AI Features. 4. The Introduction menu contains instructions for using the media as well as a general description of the learning outcomes and learning objectives. 5. Let's Learn menu consists of six subsections: simulation, problem identification, presentation material, results, and conclusion. 6. The Let's Practice menu presents an interactive quiz in the form of multiple choice questions whose results are immediately known to students. 7. The Educational Games menu presents interactive games such as drag-and-drop, as well as quizzes from the Educaplay and Wordwall platforms. 8. The Information menu contains the media developer profile and bibliography 9. The AI Features menu is a simple Artificial Intelligence-based automatic guidance that provides feedback on diction selection, poetry structure, and suggestions for improvement.
4	Preparation of Assessment Instruments	<p>Researchers designed a media validation instrument that included a response questionnaire for educators and learners to assess aspects of feasibility, effectiveness, ease of use, and student involvement in using the media.</p>

Source: Research 2025

Table 1 shows the planning stages of developing context-based e-learning media and Artificial Intelligence, which are carried out systematically, starting from selecting the type of media, designing materials according to the Merdeka Curriculum, preparing visual designs and interactive features, and planning assessment instruments to assess the quality and effectiveness of media in improving poetry writing creativity.

After preparing the home page and learners' identities, the next step is to design the main menu page as the central navigation point in the e-learning media. This page is designed to facilitate learners to access all learning features systematically and intuitively, as well as to represent the learning flow structure that has been designed.



Figure 1. Main Menu Page Display of E-Learning Media
Source: Author's Documentation 2025

This page displays six main menus consisting of: Introduction (*Pendahuluan*), Let's Learn (*Mari Belajar*), Let's Practice (*Ayo Berlatih*), Educational Games (*Game Edukasi*), Information (*Informasi*), and AI Features (*Fitur AI*). Each menu is equipped with attractive and functional visual icons, making it easier for learners to explore the materials and exercises independently. The menus are also organized to support a sequential learning process, from concept understanding to creative poetry writing exercises with technological guidance. AI also supports the achievement of educational goals, such as critical thinking skills, creativity, and independent problem-solving skills, with proper direction (Adnin et al., 2024).

Development

The context-based e-learning media and Artificial Intelligence (AI) developed in this research have been published online and can be accessed at the following address: <https://puisi.smkan.sch.id>. This media is designed to support the learning of poetry writing for Grade X students of SMK Abdi Negara Tuban, utilizing an interactive, contextual, and adaptive approach tailored to student needs.



Figure 2. Main Menu Page Display of E-Learning Media
Source: Author's Documentation 2025

The media features a user-friendly interface with intuitive navigation, consisting of six main menus: Introduction, Let's Learn, Let's Practice, Educational Games, Information, and AI Features. Each menu contains learning content organized by the stages of critical and creative thinking. In addition to contextualized poetry material, this product also incorporates an artificial intelligence (AI) feature that provides automatic feedback on student-written poems, focusing on aspects such as diction, structure, and language style. Thus, this media not only supports an enjoyable learning process, but also increases learners' engagement and ability to write creatively independently.

The results of validation by material experts show that the context-based e-learning media and Artificial Intelligence developed are deemed very feasible for use in learning. The validation was conducted by lecturers of Universitas PGRI Ronggolawe Tuban and Indonesian language teachers of SMK Abdi Negara Tuban on May 19 and 21, 2025. Based on the assessment results, the feasibility scores were 96% and 97.33%. This high score reflects the suitability of the media about the learning outcomes of the Merdeka Curriculum, its alignment with the initial competencies of students, and its ability to encourage directed and progressive improvement in poetry writing creativity. From the presentation aspect, this media is rated

very well because it presents material systematically, with clear instructions for use and a user-friendly interface. Most of the indicators obtained the maximum score, indicating that the media can support independent learning interactively and engagingly. Although there are some suggestions for improvement related to the addition of illustrations and strengthening of self-learning instructions, these notes are minor. They can be improved at the next stage of development. In terms of content, this media also received high appreciation for the use of language that is communicative, clear, and by the characteristics of vocational students. Content presentation is coherent and consistent, with visual support and AI features that enrich the learning experience. Overall, the validation results demonstrate that this e-learning medium is highly feasible for learning to write poetry that is contextual, innovative, and aligned with the demands of 21st-century learning. This finding shows that the quality of media lies not only in the completeness of features, but also in the integration of content and technology that can facilitate students' creative thinking process.

Implementation

During the implementation stage, researchers conducted two main tests of contextual and AI-based e-learning media: practicality tests and effectiveness tests. The practicality test involved Indonesian language subject teachers and all students of class X SMK Abdi Negara Tuban. The assessment was conducted on May 21, 2025, through distributing questionnaires to both groups of respondents. The results of the questionnaire showed that the teacher gave a practicality score of 92%, while the average score of 28 students was 93.36%. This finding demonstrates that the media is easy to use, visually appealing, clear in terms of instructions, and flexible for use in various learning contexts. Furthermore, the effectiveness test was conducted in two stages: limited trials and field trials. The limited trial involved five students to measure the initial effectiveness of the media, yielding results of 80% classical completeness and an average score of 78. After that, a field trial was conducted involving 28 students to compare the results of the pretest and posttest. The pretest results showed completeness of only 35.71% with an average score of 69.45. However, after the use of the media, the posttest results increased sharply to 92.86% completeness with an average score of 83.93, indicating a significant improvement in students' poetry writing skills. The increase of 14.48 points from pretest to posttest reflects the real contribution of the media to the improvement of poetry writing skills. This proves that the developed media is not only practical but also highly effective. Based on learning effectiveness criteria, media is considered adequate if classical mastery reaches a minimum of 75% (Mardiana & Hajron, 2024). Thus, this contextual and AI-based e-learning media has proven to be suitable for implementation in the Indonesian language learning process at vocational schools, particularly in the context of poetry writing materials.

Evaluation

At the evaluation stage, researchers analyzed quantitative data obtained from the results of the poetry writing skills test, as well as the questionnaire responses of educators and students, regarding context-based e-learning media and Artificial Intelligence. This evaluation was conducted to assess the effectiveness and practicality of the media in supporting the learning process. The effectiveness criteria are determined based on the classical completeness of students, which is at least 75% with a KKM limit of 75. The practicality is assessed from the questionnaire results, with a practical category if the response score reaches at least 55%. These data provide an overall picture of the quality of the media implementation developed.

Based on the evaluation results, as many as 26 out of 28 students (92.86%) were declared complete in the poetry writing skills test, indicating that the media was very effective in improving students' abilities. In addition, the educator's response to the media received a practicality score of 92%, and the learners' response reached 93.36%, both of which fell within the convenient category. These results demonstrate

that the e-learning media developed not only support the achievement of learning outcomes significantly, but are also easy to use and attractive to users. Thus, the development of this media not only answers the problem of low poetry writing skills but also provides a model of technology integration in Indonesian language learning that can be replicated in other schools.

Discussion

The validity of contextual and Artificial Intelligence-based e-learning media was assessed by six validators, comprising two material experts, two linguists, and two media experts. The validation was conducted using a four-point Likert scale-based instrument, and the results showed that all aspects obtained a very high score. The material aspect achieved an average of 96.67%, the language aspect achieved 96.36%, and the media aspect achieved 97.5%. The assessment was conducted by PGRI Ronggolawe University lecturers and SMK Abdi Negara Tuban teachers as part of an academic collaboration with field practitioners. Based on the validation criteria proposed, a learning medium is considered highly valid if it obtains a minimum score of 81% from expert assessment (Fatayah et al., 2022). The validation results for the developed e-learning media indicate that this media meets the criteria, making it highly suitable for use in Indonesian language learning, particularly in poetry writing skills. The high validation score reflects that the integration of contextual approaches and AI technology in this media has been systematically designed and aligned with the characteristics and needs of vocational high school students.

Table 2. Average E-learning Media Validation Results

Validation Aspect	Lecturer Validator	Teacher Validator	Average %
Material	96%	97,33%	96,67%
Language	96,36%	96,36%	96,36%
Media	96,67%	98,33%	97,50%

Source: Research 2025

The contextual approach in media development can increase active student involvement and provide meaningful learning experiences (Alamsyah et al., 2024). Furthermore, according to Eriana & Zein in their book named “*Artificial Intelligence (AI)*”, the integration of AI is considered effective in providing adaptive feedback according to students' abilities and needs. The practicality aspect of the media was measured through a questionnaire distributed to one educator and 28 students after they used the e-learning media in learning activities. The questionnaire results showed that the educators gave a score of 92%, while the learners gave a score of 93.36%. This means that media is categorized as very practical if it obtains a score of 85% or higher.

The high practicality score indicates that this media is easy to use, has straightforward navigation, and aligns with the learning needs of students. In addition, the features support independent learning efficiently and enjoyably.

Table 3. E-learning Media Practicality Results

Respondents	Number of Statements	Score Earned	Percentage (%)
Educator	10 items	46/50	92%
Learners	10 x 28 students	1307/1400	93,36%

Source: Research 2025

These results align with the principles of digital learning media development namely ease of access, interactivity, attractive visualization, and the ability to stimulate optimal student learning independence (Muhartini, 2023).

The effectiveness of the media was evaluated through a poetry writing skills test administered to 28 learners after they had used the media. The test results showed that 26 learners (92.86%) achieved a score of ≥ 75 , by the Minimum Completeness Criteria (KKM). This result indicates that the media can effectively improve students' writing poetry competence. Learning is declared effective if the classical completeness rate reaches at least 75% (Affandi et al., 2020). Therefore, this e-learning media falls into the highly effective category. In addition to improving learning outcomes, the AI feature also helps learners in choosing diction, building poetry structure, and enhancing creativity through interactive automatic guidance.

Table 4. E-learning Media Effectiveness Results

Number of Students	Student Completion	Incomplete Students	Completeness (%)
28	26	2	92,86%

Source: Research 2025

The application of artificial intelligence in education can create a more personalized and adaptive learning experience, encouraging the development of students' creativity and critical thinking, especially in learning to write poetry (Patindra et al., 2024).

CONCLUSION

Based on the study's results, it can be concluded that the contextual and Artificial Intelligence-based E-learning media developed proved to be valid, practical, and effective in improving creativity in poetry writing, as demonstrated by expert validation, user responses, and students' learning outcomes. This finding confirms that integrating a contextual approach with AI technology can encourage learners to think creatively and express themselves more optimally. In line with this, it is recommended that similar media development be extended to other Indonesian learning materials, with more interactive AI features such as automatic feedback. Educators are also encouraged to adapt this innovative media in learning and to conduct further research to test its long-term effectiveness on learners' critical thinking and language skills.

AUTHOR'S NOTE

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