

“MALAM SAJAK”: A Digital Learning Media Application Integrating Madurese Poetic Texts at Indonesian Language Learning in Junior High School

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Article Info	Abstract
Article history: Received: February 24, 2026 Accepted: April 21, 2026 Published: April 30, 2026 Keywords: Application Learning media Malam sajak Poetry text Madurese This article is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License. © 2026 Vidya Karya	This research aims to identify the components of local wisdom contained in the application, as well as the feasibility and practicality of the learning media, which was evaluated through student responses of the "Malam Sajak" (<i>Madura dalam Sajak</i>) learning media application for teaching folk poetry texts with Madurese local wisdom to VII grade junior high school students. The research method used is the 4D development model, which includes (1) define, (2) design, (3) develop, and (4) disseminate. The study involved two groups of participants: the first group consisted of media, design, and language validators who evaluated the content and interface of the application, while the second group consisted of junior high school students who tested the usability and learning practicality of the digital learning media. The resulting learning media product contains material and practice questions related to folk poetry texts. The application media was deemed highly feasible with a total implementation score of 89.5%. The detailed validation results are as follows: material validation scored 91%, language validation scored 87.5%, and design validation scored 90%. The practicality of the media usage was 87%, as evidenced by students' responses supporting the ease of use of the application in learning poetry texts for junior high school students.
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INTRODUCTION

The rapid advancement of technology has brought significant impacts across various aspects of life, particularly in the field of education. The integration of technology into education has been widely implemented, as evidenced by the availability of platforms such as Platform Merdeka Mengajar, Rapor Pendidikan, ARKAS, and SIPLah. These platforms can be utilized by teachers to enhance their performance as educators. Without the utilization of technology in the learning process, teachers may lag behind in accessing new information and innovative teaching methods (Ambarwati et al., 2022). The integration of technology is therefore expected to improve the quality of education and ensure its relevance to the demands of the modern era. The use of technology in learning, such as e-learning, has a positive and significant effect on the effectiveness of digital learning (Sahusilawane et al., 2024). Technology has a strong capacity to redesign the language classroom as an ideal context for social justice education. It can facilitate deeper instruction on various social injustices, enhance social justice awareness alongside students' language

development, and foster transformation at the individual, societal, and global levels (Yilmaz & Söğüt, 2022).

The integration of technology in education undeniably requires the active role of teachers as both developers and users of technology within classroom instruction. The use of technology in learning can provide new learning experiences for students, focusing not only on content mastery but also on fostering technological proficiency. However, in practice, teachers often face challenges in selecting appropriate technologies for use in learning. The effective use of digital technology in teaching depends not only on the tools themselves but also on teachers' beliefs, professional competence, and the availability of adequate training and support in the development of educational technology (Clark, et al., 2020). Interviews with teachers at SMPN 2 Tanjung Bumi revealed that the selection of technology should align with teachers' competencies in utilizing and developing technology-based instruction. Schools that implement the use of digital devices or learning platforms can directly enhance teachers' digital competence, making them more adaptive to technology and mitigating technostress (Li et al., 2025). Furthermore, students' learning styles, the subject matter being taught, school conditions, and the availability of facilities and infrastructure must also be taken into consideration when selecting technology. This is in line with Surani (2019), who states that adequate facilities supporting the use of technology in schools can significantly facilitate the teaching and learning process.

One form of technology utilization that teachers can develop in learning is through the creation of applications. Applications are software programs that can be designed according to the developer's needs. Teachers can combine audio, visual, and audiovisual elements into a single medium. Aslami (2021) asserts that applications can serve as an alternative for distance learning by offering convenience and engaging features. Students can utilize mobile devices or computers to support learning activities and overcome challenges in their learning processes (Rahmawati et al., 2020). The development of educational applications needs to consider information quality, system quality, service quality, and mobile self-efficacy so that the impact of intention to use on actual usage can function effectively (Pitafi & Ali, 2023).

The development of technology as an educational tool represents one of the positive impacts of globalization that can be leveraged. However, globalization also has negative consequences, particularly for students' character development, as they tend to abandon local culture due to the influence of modernization (Wulandari et al., 2024). The spread of foreign cultures in society—especially among students—poses a threat to the preservation of national identity. Foreign cultures, which are easily accessed through digital media, can influence students' behaviors and perspectives (Fitrah & Hartati, 2021). Therefore, the implementation of character education based on local wisdom can be applied in formal education as an effort to preserve cultural values (Zulkarnaen, 2022).

At present, the integration of local culture in education remains minimal (Riyanto & Dwijayanto, 2021). This condition necessitates curative solutions to prevent a national identity crisis among students. In maintaining national identity, teachers play a crucial role in incorporating elements of local culture into the learning process through appropriate approaches, methods, media, and learning materials. The main challenge lies in students' low awareness of local culture, which is caused by limited understanding and the lack of relevant teaching materials that incorporate cultural elements. Therefore, teachers must enhance the quality of learning that supports the strengthening of national identity. By learning about local culture, schools not only introduce culture to students but also contribute to its preservation, thereby fostering students' sense of nationalism.

In response to these challenges, the researcher developed a learning media application that presents folk poetry texts incorporating Madurese local wisdom. Folk poetry was chosen because Madura possesses a rich tradition of folk poetry known as *paparegan*. *Paparegan* serves not only as a medium of communication but also as a vehicle for

conveying noble values. This tradition continues to be preserved and consists of three types—Karmina, Talibun, and Saloka—each of which contains educational, ethical, moral, and religious values characteristic of Madurese culture (Sama', 2018). Drawing upon the values embedded in Madurese folk poetry or *paparegan*, the researcher sought to design a learning media application integrated with Madurese local culture. The local cultural values contained in the Madurese locality can be used as a foundation for character education, which will be beneficial for students' lives in the future (Sulaiman, 2017). The content and illustrations in this medium are expected to strengthen students' understanding of local culture and promote positive attitudes toward local wisdom within the learning process. Moreover, poetry texts are part of the Indonesian language curriculum for seventh-grade junior high school students.

The content applied to this media will also be very beneficial for the development of competence in reading narrative stories. Where the activity of reading and sharing narratives/stories is related to the development of social-emotional competence (e.g. empathy, understanding perspective)—a mechanism that bridges how local literature/poetry can influence character formation (Grøver et al., 2023).

This study aims to develop a learning media application entitled *Malam Sajak (Madura dalam Sajak/ Madura in Verse)* as a response to field issues related to the utilization of technology as a learning resource and the integration of Madurese local wisdom as an effort to strengthen national identity. In this research, the author elaborates on the forms of Madurese local wisdom embedded in the application and conducts feasibility and practicality tests to evaluate the application's usability, user comprehension, and alignment with learning objectives. The application was designed by adapting the technology acceptance model and the theory of planned behavior, which can help explain users' attitudes and intentions toward digital technologies.

METHODS

This study employed a Research and Development (R&D) design using the 4D model proposed by Thiagarajan et al. (1974), consisting of *define*, *design*, *develop*, and *disseminate* stages. The research was conducted from August to December 2024 at SMPN 2 Tanjung Bumi. In the define stage, a needs analysis was conducted through classroom observations and semi-structured interviews with Indonesian language teachers and grade VII students. The data collected were qualitative in the form of field notes and interview results, and analyzed descriptively to identify the need for digital learning media integrating Madurese local wisdom.

In the design stage, the prototype of the “Malam Sajak” application was developed through documentation studies of Madurese folk poetry (pantun, gurindam, paparegan) and curriculum analysis. This stage included designing the content, layout, interface, and evaluation components. Data were analyzed using content analysis techniques.

In the develop stage, the product was validated by three experts (material, language, and media design) and tested on 19 Grade VII students. Data were collected using validation sheets (Likert scale) and student response questionnaires (Yes/No). Content and construct validity were ensured through expert judgment, while reliability was calculated using percentage agreement. Quantitative data were analyzed using percentage formulas and categorized into feasibility levels, while qualitative data from expert suggestions were analyzed descriptively.

In the disseminate stage, the final product was revised, registered for copyright (HKI), and distributed to Indonesian language teachers. Feedback from users was analyzed descriptively to support further improvement.

The subjects of this research consisted of two main groups who were involved in the validation and product testing stages of the *Malam Sajak (Madura in Verse)* learning media application. The first group included three expert validators representing different areas of

expertise: a material expert specializing in Madurese poetry content, a media expert focusing on digital learning media design, and an instructional design expert assessing the pedagogical aspects of the application. These experts were responsible for evaluating the content accuracy, media quality, interface design, and overall feasibility of the product prior to its classroom implementation.

The second group of subjects comprised nineteen seventh-grade students from SMPN 2 Tanjung Bumi, who participated in the limited-scale product trial. These students were the intended users of the Malam Sajak application and were involved to assess its practicality and usability in supporting the learning process. Their responses, learning outcomes, and user experience provided essential feedback for determining the application's level of feasibility and educational impact.

The object of this research was the Malam Sajak learning media application developed to facilitate the teaching of local Madurese poetry texts at the junior high school level. The investigation focused on several core aspects of the product, including the accuracy and relevance of its content, the visual and interactive quality of its interface, the appropriateness of its instructional features, and its overall practicality in enhancing students' understanding of Madurese poetry. Additionally, the research examined the validation scores from experts, student response data, and the learning achievement results obtained after using the application. All collected data served as the basis for determining both the feasibility and educational practicality of the developed media.

The data obtained in this study consisted of both quantitative and qualitative data. Quantitative data included numerical scores generated from expert validation questionnaires and student response questionnaires. These data reflected the feasibility level of the Malam Sajak learning media as well as students' perceptions of its usability and practicality. Qualitative data were derived from suggestions and comments provided by expert validators, which offered insights into aspects of content accuracy, language clarity, visual design, and instructional quality requiring improvement.

The data sources in this research were two groups of respondents. The first source consisted of three expert validators, each representing material expertise, language expertise, and media design expertise. Their evaluations provided essential information regarding the feasibility of the learning media. The second source consisted of nineteen seventh-grade students from SMPN 2 Tanjung Bumi, who served as users during the product trial and contributed data on their learning experience and responses to the media.

Two main data collection techniques were employed in this study: expert validation questionnaires and student response questionnaires. The expert validation questionnaires were administered to material, language, and media design experts to assess the feasibility of the Malam Sajak application in terms of accuracy, clarity, usability, and visual presentation. Meanwhile, the student response questionnaire was used to evaluate the practicality and applicability of the media from the users' perspective.

These instruments were adapted and developed according to the needs of the research, aligning with the procedures suggested by Hamzah & Susanti (2020). The questionnaires served as structured tools for gathering comprehensive and relevant data regarding both product feasibility and user experience.

The data analysis techniques applied in this study involved quantitative descriptive analysis and qualitative descriptive analysis. Quantitative data from expert validation and student response questionnaires were analyzed by calculating percentages, mean scores, and feasibility categories. The results were then classified into appropriate interpretation categories to determine the level of validity and practicality of the learning media.

Qualitative data, obtained from expert comments and suggestions, were analyzed through descriptive interpretation. This process involved identifying key themes, categorizing feedback, and summarizing recommendations that supported product revision

and improvement. The combination of these analyses provided a comprehensive evaluation of the feasibility and practicality of the Malam Sajak learning media application.

RESULTS AND DISCUSSION

Forms of Madurese Local Wisdom in the Malam Sajak Learning Media Application

The forms of Madurese local wisdom embedded in the application include content and illustrations. The content presented consists of examples of Madurese folk poetry, which serve as stimuli for students to compose their own poems. The illustrative images featured in the application represent distinctive characteristics of the Madurese region, encompassing city icons, traditional foods, arts, and batik motifs. The following section provides a detailed description of the various forms of Madurese local wisdom incorporated into the application.

Table 1 Recapitulation of the forms of local wisdom

No	Form	Description
1	Poetry text content in the application	<i>Mon ajhamo copaaghi</i> <i>Mon tatemmo sapaaghi</i> Meaning: <i>If you drink herbal medicine, spit it out</i> <i>If you meet someone, greet each other politely</i> <i>Ngala' mrongghi ngeba are</i> <i>Mon la soghi jha re' cerre'</i> Meaning: Picking moringa leaves using a sickle If you are wealthy, do not be stingy <i>Da' cakanca raja bhan kini'</i> <i>Jha' amosoawan ban atokaran.</i> <i>Sebhab panjenengan ngarte dhibi'</i> <i>Reng atokaran kancana setan.</i> Meaning: To all friends, both old and young Do not be hostile or quarrel some Because you already know, Those who fight are friends with the devil <i>Geddhang sabha ampon nongkol</i> <i>Ghadhebbhungnga jha' ca-cacca</i> <i>Bila dhika apol-kompol</i> <i>Pate-ngate se acaca</i> Meaning: The banana tree in the field has already bloomed Do not destroy its trunk. If you are gathered together Be careful with your words and speech. <i>Kalambi kotang èjhài'</i> <i>Sè ngarang orèng bâluto</i> <i>Sè lebbi ghâmpang aberri'</i> <i>Sè korang senneng èbhânto</i> Meaning: The singlet shirt is sewn

No	Form	Description
		The maker is a Baluto person Those who are more capable should give Those who are in hardship should be helped. <i>Namen maghi' tombu sokon</i> <i>Cabbhi jhamo neko rokon</i> <i>Oreng odi' kodhu rokon</i> <i>Kabbhi pasarmo jha' tokaran</i> Meaning: Planting tamarind seeds grows into a breadfruit tree Even chili and herbs live in harmony Humans must live in harmony All relationships should avoid conflict.
2	Illustrations in the application	The media display features elements of Madurese traditional culture, including traditional attire (<i>Sakera</i> and <i>Marlena</i>), traditional arts such as <i>bull racing (kerapan sapi)</i> and <i>traditional dances</i>, traditional weapons such as the <i>clurit</i>, and the <i>batik</i> tradition found in Madura, as well as the <i>Suramadu Bridge</i> as a regional icon. The purpose of these illustrations is to introduce Madurese culture to students through visual representations. Additional illustrations include depictions of: - Madurese traditional food: <i>satay (sate)</i>. - Madurese traditional weapon: <i>clurit</i>. - Madurese traditional art: <i>bull racing (kerapan sapi)</i>.

Feasibility of the Malam Sajak Learning Media Application

The feasibility results of the *Malam Sajak* learning media application were obtained through validation questionnaire data, which included material, language, and design validation. Table 1 presents a recapitulation of the validation results.

Table 2 Recapitulation of validation results

No	Validation Aspect	Percentage	Category
1	Material	91%	Highly feasible
2	Language	87.5%	Highly feasible
3	Design	90%	Highly feasible
	Average	89.5%	Highly feasible

Practicality of the Malam Sajak Learning Media Application

The practicality results of the *Malam Sajak* learning media application were obtained through a student response questionnaire administered after using the application. The questionnaire consisted of ten questions regarding the use of the application, with a total of 19 student respondents. The results of student responses to the use of the *Malam Sajak* learning media application are presented in the following Table 3.

Table 3 Recapitulation of student response questionnaire results

No	Questionnaire Item	Number of Students	
		Yes	No
1	Is the <i>Malam Sajak</i> application-based learning media easily accessible to students?	18	1
2	Does the <i>Malam Sajak</i> application-based media have easy-to-use features?	17	2
3	Does learning to write folk poetry become more enjoyable when using the <i>Malam Sajak</i> application-based learning media?	16	3
4	Are you enthusiastic about learning to write folk poetry using the <i>Malam Sajak</i> application-based learning media?	17	2

No	Questionnaire Item	Number of Students	
		Yes	No
5	In your opinion, is the <i>Malam Sajak</i> application-based learning medium aligned with the folk poetry text material?	16	3
6	Does the <i>Malam Sajak</i> application-based learning media make it easier for you to write folk poetry texts?	16	3
7	Does using the <i>Malam Sajak</i> application-based learning media, which incorporates local wisdom, help you develop ideas in writing folk poetry texts?	14	5
8	Does the <i>Malam Sajak</i> application-based learning medium have an attractive layout and design?	18	1
9	Is the language used in the <i>Malam Sajak</i> application-based learning media clear and easy to understand?	17	2
10	In your opinion, is the <i>Malam Sajak</i> application-based learning media incorporating local wisdom feasible for classroom implementation?	18	1
Total		167	23

The development of the “*Malam Sajak*” learning application for local Madurese poetry utilizes the concept of information poetics proposed by Beals (2024) as an important theoretical foundation. Beals argues that concrete poetry functions as a system of communication in which meaning emerges not only from the words themselves but also from the combination and arrangement of textual and visual elements. This perspective emphasizes the importance of structure, layout, and interactivity in conveying poetic meaning. In the context of “*Malam Sajak*,” these principles can be applied to the digital presentation of Madurese poetry, where the organization of verses, interactive features, and visual cues within the application can enhance students’ understanding and engagement. The content developed in the application includes examples of Madurese folk poetry, commonly known as *paparegan*. The examples of folk poetry were obtained through document studies conducted by the researcher. The function of these Madurese folk poetry examples is to serve as stimuli for students to determine the explicit and implicit meanings contained within *pantun*, *gurindam*, or *syair* (traditional verse forms). After identifying the meanings, students can develop them into complete poems. According to Salamet et al., (2023), oral literature such as *paparegan* found in Madura contains numerous moral and character education values. These values can serve as a foundation for strengthening students’ character, which is integrated into the *Malam Sajak* learning media application. Through poetry, spiritual, moral, and social values can serve as a medium for fostering students’ character education (Putra et al., 2025). Local culture and traditional technology have scientific value that can make school learning more contextual and connected to students’ real-life experiences (Hairida, 2012). An example of the application content is shown in Figure 1.

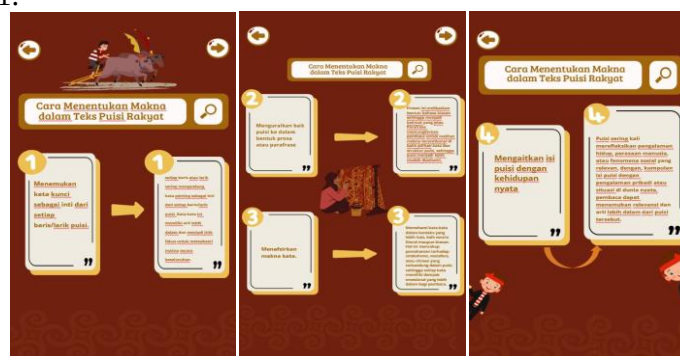


Figure 1 Example of application content

In Figure 1, the researcher presents an example of how to determine meaning in the Madurese folk poems displayed in the application. The results of students' meaning analyses are not only intended to fulfill academic tasks but also function as a means of character building and a foundation for generating poetic ideas. The meanings contained in the examples of folk poetry within the application include values such as greeting others politely, sharing, helping one another, avoiding conflict, speaking courteously, and maintaining harmony in the community. The folk poetry examples presented in the application are expected to strengthen students' character. This is consistent with Susilo (2019), who asserts that learning based on local wisdom can cultivate students who are not only academically intelligent but also morally grounded. The integration of local culture provides a strong foundation for character development, helping to shape moral resilience and cultural identity among students in the midst of globalization (Ruswinarsih et al., 2025). In line with Shakargy (2020) which demonstrates that poetry in the digital age has evolved into new forms of expression no longer confined to printed texts but distributed across various digital platforms that expand access, forms, and reader engagement creatively, this is relevant to the present study. The development of the 'Malam Sajak' learning application utilizes digital media to present local Madurese folk poetry to junior high school students. Thus, 'Malam Sajak' not only introduces poetry content but also supports digital poetry literacy, in accordance with findings that digital media can enhance students' engagement and creativity in interacting with poetry.

Empirical research shows that integrating local wisdom into the learning process—including the use of oral traditions and regional poetry—practically instills character values in students. An ethnopedagogical case study in Yogyakarta demonstrated that utilizing local wisdom in learning activities can increase cultural awareness and shape students' moral character (Sakti et al., 2024). Furthermore, research across educational contexts confirms that local fairy tales, songs, and literary texts are often used by teachers and parents as effective media for teaching moral concepts and pro-social behavior (Birhan et al., 2021). In addition, experimental and correlational studies in the field of literature show that engagement with fictional narratives—including texts that present social and moral experiences—is associated with increased ability to understand the feelings and perspectives of others (theory of mind/empathy), namely competencies that underlie pro-social behavior and character development (Kidd & Castano, 2013). Therefore, the inclusion of Madurese paparegan examples in the Malam Sajak application is not merely aesthetic material. The illustrations in the *Malam Sajak (Madura dalam Sajak)* learning media application feature visual representations related to Madurese local culture (see Figure 2).



Figure 2 Example of application illustrations

In Figure 2, the illustrations depict Madurese traditional clothing (Marlena and Sakera), the traditional weapon (*clurit*), traditional cuisine (satay), traditional arts (bull racing or *kerapan sapi*), and the Madurese batik tradition. These images represent cultural elements

familiar to students. Media-based learning using multimodal features such as images, text, audio, or video can enhance students' critical literacy skills (Shen et al., 2025). A well-planned technology-based pedagogical design not only enhances students' digital literacies but also supports self-regulation skills and positive perceptions of learning (Blau, et al., 2020). The inclusion of such illustrations serves to introduce students to Madurese local culture through visual engagement. Using local wisdom as a context in learning not only helps in understanding scientific concepts but also can become an effective strategy to strengthen the character of cultural heritage conservation in students (Yasir et al., 2024). The use of contextual illustrations within learning applications can serve as a stimulus for developing poetry. This aligns with the findings of Dutton & Rushton (2021), which indicate that poetry learning through translanguaging helps students draw upon their full repertoire of languages to express their identities and personal experiences through creative texts, rather than merely adhering to standard language rules.

Material validation was conducted to determine the relevance of the application's content to the intended learning objectives. The designed application aims to assess the poetry-writing skills of seventh-grade junior high school students. The material validation was carried out by an Indonesian language lecturer with approximately three years of teaching experience. The assessment details are presented as follows in Table 4.

Table 4 Results of material validation

Assessment Indicator	Assessment Item	Score			
		P (1)	F (2)	G (3)	E (4)
A. Relevance of Material to Learning Outcomes (CP)	1. Completeness of material				√
	2. Breadth of material				√
	3. Depth of material				√
B. Accuracy of Material	4. Accuracy of concepts and definitions			√	
	5. Accuracy of data and facts				√
	6. Accuracy of examples				√
	7. Accuracy of terminology			√	
	8. Accuracy of notations, symbols, and icons			√	
	9. Accuracy of references			√	
C. Currency of Material	10. Relevance of material to scientific developments				√
	11. Real-life examples relevant to students' experiences				√
	12. Currency of references			√	
D. Encouraging Curiosity	13. Encourages students' curiosity				√
	14. Develops students' questioning skills				√
Total score				51	
Percentage				91%	

Information: E: Excellent

G: Good F: Fair

P: Poor

The material validation yielded a total score of 51 out of 56, resulting in a percentage of 91%, which falls under the “highly feasible” category. The validation covered four aspects: material relevance to learning outcomes, accuracy, currency, and ability to foster curiosity. The purpose of this validation is to ensure that the designed application contains material consistent with the curriculum and Indonesian language learning standards for seventh-grade students.

Language validation was conducted to assess whether the language used in the application facilitates students' understanding of the material and ease of use. This validation was carried out by an Indonesian language lecturer specializing in linguistics. The assessment details are as follows in Table 5.

Table 5 Results of language validation

Assessment Indicator	Assessment Item	Skor			
		SK (1)	K (2)	B (3)	SB (4)
A. Conciseness	1. Accuracy of sentence structure			√	
	2. Effectiveness of sentences			√	
	3. Appropriateness of terminology			√	
B. Communicativeness	4. Comprehension of messages or information				√
C. Dialogical and Interactive	5. Ability to motivate students				√
	6. Ability to encourage critical thinking				√
D. Suitability with Students' Development	7. Conformity with students' intellectual development				√
E. Conformity with Language Rules	8. Accuracy of grammar			√	
	9. Accuracy of spelling			√	
F. Use of Terms, Symbols, or Icons	10. Consistency in the use of terminology				√
Total skor				35	
Persentase				87.5%	

The language validation obtained a total score of 35 out of 40, resulting in a percentage of 87.5%, categorized as "highly feasible." The aspects assessed included clarity, communicativeness, dialogic and interactive qualities, suitability for students' development, compliance with linguistic conventions, and consistency in the use of terms, symbols, or icons. This validation ensures that the language used in the application is clear, easily comprehensible, and user-friendly, supported by consistent linguistic symbols.

Design validation was conducted to assess the attractiveness and usability of the application. The Malam Sajak application adopts a theme highlighting Madurese local culture, represented through visual elements, a consistent dark-red color scheme, legible typography, and user-friendly navigation buttons. The validation was carried out by an Indonesian language lecturer experienced in developing instructional media. The assessment details are as follows in Table 6.

Table 6 Results of design validation

Assessment Indicator	Assessment Item	Score			
		P	F	G	E
A. Media Design	Appearance of layout elements on the media front page				√
	Presents a good focal point				√
	Harmonious layout colors that clarify content				√
	Fonts used are attractive and easy to read			√	
	Does not use too many font combinations			√	
	Illustrations that match the theme				√
	Layout consistency			√	
	Harmonious layout elements			√	
	Creative and dynamic				√

Assessment Indicator	Assessment Item	Score			
		P	F	G	E
	Accurate and proportional forms				√
	Total score			36	
	Percentage			90%	

The design validation resulted in a total score of 36 out of 40, yielding a percentage of 90%, categorized as “highly feasible.” The validation covered aspects such as appearance, color harmony, layout, illustrations, typography, and creativity in design. The purpose of this validation is to ensure that the application is visually appealing and that its features are easy to operate for users. The visual appeal and multimedia design of learning media play a significant role in increasing student engagement and understanding. Meta-meta-analyses and systematic reviews show that media designed according to multimedia principles (e.g., multimodality, contiguity, signaling) and containing emotional design elements tend to increase students' conceptual understanding, motivation, and retention of material (Noetel et al., 2022; Çeken & Taşkın, 2022; Mutlu-Bayraktar, 2024). This is further supported by (Hwang et al., 2015), who found that visually structured digital media improve students' learning performance and engagement in technology-enhanced environments.

The results of the student response questionnaire indicate that the majority of students responded “yes” to positive statements supporting the Malam Sajak learning media application. A total of 19 students participated in the product trial. Students provided 167 positive responses out of a possible 200 points, resulting in a percentage of 83.5%. The questionnaire consisted of ten items: Items 1–2 assessed the ease of use of the application. Items 3–6 evaluated the learning experience in writing poetry. Items 8–9 examined the attractiveness of the media in terms of language and design. Items 7 and 10 measured aspects of Madurese local wisdom integration. Questions related to ease of use received positive responses from 17–18 students; items related to poetry writing assistance received 16–17 positive responses; the media's attractiveness received 17–18 positive responses; and the integration of Madurese local wisdom received 14–18 positive responses. The distribution of responses across questionnaire items shows that ease of use, attractiveness, and cultural relevance are key factors influencing student acceptance, which aligns with the findings of Alrasheedi et al., (2015) that usability and perceived usefulness are strong predictors of successful mobile learning implementation.

The Malam Sajak learning media application was designed with an evaluation feature to assess students' poetry-writing skills, allowing teachers to conduct immediate assessments after students use the application. The use of applications or mobile learning has educational potential to enhance student engagement in assessment activities (Hamzah & Sosnovsky, 2023). Furthermore, the use of applications or mobile learning technology has a positive effect on the development of computational thinking skills (Connolly et al., 2021). Based on student responses, most students were able to compose original poems using the content and illustrations provided within the application. This finding aligns with Ulfah et al., (2023), who stated that the use of digital learning media can improve students' writing skills. The use of mobile devices for learning that are easily accessible to students can enhance student engagement in the learning process (Ahmed et al., 2025). Mobile applications are not merely supplementary tools, they can serve as multifunctional learning spaces in education, supporting the delivery of content, skills practice, and social interaction within the learning process (Kyrylovaa et al., 2024). Additionally, the use of digital learning can also hinder the effectiveness of implementing a paperless classroom (Msiza, et al., 2021).

Furthermore, the application incorporating Madurese local wisdom fosters students' creativity and idea generation in writing poetry. The Madurese folk poetry content serves

as a stimulus for students to develop their ideas. The local wisdom elements are attractively packaged with colorful illustrations, legible text, and easily understandable language. After receiving positive responses from the trial subjects, the researcher revised the application for further improvement and subsequently obtained copyright (HKI) for the *Malam Sajak (Madura dalam Sajak)* learning media application.

CONCLUSION

This study concludes that the development of the “*Malam Sajak*” learning media application successfully integrates Madurese local wisdom into the teaching of folk poetry texts for grade VII students, aligning with the research objective of producing a feasible and practical digital learning medium. The application was categorized as highly feasible based on expert validation results (content 91%, language 87.5%, and design 90%) and practical based on student responses (83.5%), indicating its effectiveness in facilitating poetry learning and supporting students in generating ideas for writing. However, this study is limited by its small-scale trial involving only one school and a limited number of participants, as well as the absence of effectiveness testing on learning outcomes. Therefore, future research is recommended to conduct large-scale implementation, examine the effectiveness of the application on students’ learning achievement, and further develop the media with more advanced features, such as 3D illustrations and broader cultural content integration.

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest.

AUTHOR CONTRIBUTIONS STATEMENT

MP: Responsible for conceptualization of the research, designing the methodology, performing the main investigation and data curation, writing the original draft, reviewing and editing the manuscript, and providing supervision for the project. DIS: Contributed to the methodology design, conducted field investigation, performed data curation and analysis, and assisted in reviewing and editing the manuscript. NC: Contributed to the conceptualization of the study and wrote substantive parts of the original draft, and participated in the review and editing process.

AI DISCLOSURE STATEMENT

The author used Mendeley during the preparation of this work for reference. After using the tool/service, the author thoroughly reviewed and edited the content as needed and takes full responsibility for the content of the publication. The authors declare that this research was prepared, researched, written, and edited without the aid of artificial intelligence (AI) techniques.

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