

Development of a Malay Culture-Based E-Module for Teaching Expository Text Reading Assisted by Flipbook for Eighth-Grade Junior High School Student

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Abstract

This study aimed to develop a Flipbook-assisted teaching e-module for reading exposition texts based on Malay culture for eighth-grade junior high school students and to describe the form and structure of the developed product. The study employed a Research and Development (R&D) method by adapting the Borg and Gall model, which was modified into seven stages: identifying potentials and problems, data collection, product design, design validation, design revision, product testing, and final product revision. The research was conducted at SMP Islam Kepenuhan and SMP Negeri 1 Kepenuhan, Rokan Hulu Regency, Riau Province. The participants consisted of material experts, media experts, language experts, Indonesian language teachers, and eighth-grade students. Data were collected through interviews, questionnaires, and tests, and analyzed using descriptive qualitative and quantitative techniques. The findings revealed that the developed e-module was systematically organized into introductory, content, and closing sections and incorporated interactive multimedia features through a flipbook integrated with Malay cultural content. Expert validation indicated that the e-module was highly feasible, with an average media feasibility score of 91.33% and a language feasibility score of 91.07%. The practicality test showed that teachers' responses reached 89.33% (very practical), while students' responses were categorized as very high. The effectiveness test demonstrated that students who learned using the developed e-module achieved better reading comprehension of exposition texts than those who used conventional teaching materials. Therefore, the Malay culture-based Flipbook-assisted e-module is considered valid, practical, and effective, making it suitable as an alternative digital teaching material for Indonesian language learning.

Introduction

Reading is one of the fundamental language skills that plays a crucial role in developing students' literacy competence. At the junior high school (SMP/MTs) level, reading instruction is intended not only to enable students to comprehend texts but also to identify information, analyze ideas, and critically evaluate textual content. One of the text types that requires these competencies is the expository text. According to Kosasih (2014), an expository text presents arguments intended to convince readers or audiences. Similarly, Nasution (2019) explains that the term *exposition* originates from English and refers to a detailed explanation. Accordingly,

an expository text is designed to provide comprehensive information on a particular topic (El-Henawy, 2026; Lima & Moroz, 2024; Wannagat et al., 2022).

Despite its importance, the teaching of expository text reading in schools continues to face several challenges. Preliminary observations indicate that instruction is still largely dependent on printed textbooks and conventional modules, resulting in teacher-centered learning (Mardiyanti, 2026; Baity & Masitoh, 2026; Adhikari et al., 2026). The instructional materials are predominantly text-based, lack interactivity, and have not fully utilized advances in digital technology. Consequently, students often demonstrate low reading motivation and limited ability to comprehend expository texts. Furthermore, the existing instructional materials rarely incorporate local cultural values as learning contexts, making the learning experience less meaningful and relevant (Ottu et al., 2024; Patanduk et al., 2025; Aryatama & Pratama, 2025; Fitrianto & Farisi, 2025).

The rapid advancement of information technology offers opportunities to develop more interactive digital instructional materials that meet the learning characteristics of twenty-first-century students (Ong & Annamalai, 2024; Zou et al., 2025; Pujiati, 2023; Khlaisang & Teo, 2024). Faizah (2024) argues that the use of technology, such as instructional videos, can serve as an effective and engaging learning medium while enhancing students' understanding of learning materials. One promising innovation is the development of electronic modules (*e-modules*). An e-module is a systematically organized digital learning resource that facilitates independent learning through the integration of multimedia elements, including text, images, audio, video, animations, and interactive hyperlinks. The use of e-modules not only facilitates the delivery of learning materials but also enhances students' motivation, engagement, and learning autonomy (Suwarno et al., 2023; Sunaryo et al., 2025; Yoganandham, 2025; Zhou et al., 2025).

To improve their attractiveness and usability, e-modules can be developed in the form of flipbooks. Masitoh (2024) defines a flipbook as a digital book capable of presenting text, images, audio, and video in an engaging format that enhances students' enthusiasm and comprehension during the learning process. Likewise, Utami et al. (2024) state that flipbook-based media present learning materials in an interesting, creative, and innovative manner, thereby increasing students' motivation to participate in classroom learning.

In addition to integrating technology, Indonesian language instruction should also incorporate local cultural values as part of strengthening students' cultural identity. Malay culture represents one of Indonesia's rich cultural heritages, encompassing noble values, traditions, customs, and local wisdom that can serve as meaningful learning contexts. Elmustian (2024) argues that Malay culture consists of interconnected elements that collectively shape the identity of its community. Integrating Malay cultural values into expository text reading materials is expected to make learning more contextual and relevant to students' daily lives while fostering appreciation for local culture. Consequently, learning is expected not only to achieve academic objectives but also to contribute to character development and the preservation of local cultural heritage.

Previous studies have demonstrated that the development of digital instructional materials can improve the quality of Indonesian language learning. Nugraha et al. (2023) developed an e-module for expository texts to address the limitations of printed learning materials. Ambarwati et al. (2023) designed a WISER Habit-based instructional module to enhance twenty-first-century skills in learning expository texts. Astuti (2024) developed a contextual flipbook-assisted e-module for teaching negotiation text writing, which received positive responses from

students. Azaky (2025) developed a Problem-Based Learning-based e-module for short story reading incorporating Malay folktales, which effectively improved literacy interest while introducing local culture. Meanwhile, Rahmi (2025) developed an interactive flipbook-assisted e-module for argumentation writing that significantly improved students' learning outcomes.

Although these studies have demonstrated the effectiveness of e-modules and flipbooks in language learning, research specifically focusing on the development of a Malay culture-based flipbook-assisted e-module for teaching expository text reading to eighth-grade junior high school students remains limited. Most previous studies have concentrated on writing skills, different educational levels, or have not integrated Malay culture as a learning resource. Therefore, a research gap remains regarding the development of digital instructional materials that combine educational technology with local cultural wisdom.

The novelty of this study lies in the development of an e-module for teaching expository text reading that integrates Malay culture as the instructional context and is presented through an interactive flipbook format. This integration is expected to improve the quality of reading instruction, strengthen students' digital literacy, and foster greater awareness of the importance of preserving local culture through Indonesian language education.

Based on these considerations, this study aims to develop a Malay culture-based, flipbook-assisted e-module for teaching expository text reading to eighth-grade junior high school students (SMP/MTs) and to describe the characteristics and structure of the developed product. The resulting e-module is expected to serve as a valid, practical, and effective digital instructional resource for supporting the teaching of expository text reading at the junior high school level.

Method

Research Design

This study employed a Research and Development (R&D) approach to develop a Malay culture-based flipbook-assisted e-module for teaching expository text reading to eighth-grade junior high school students. The development procedure adapted the Borg and Gall model, which was modified into seven stages according to the needs and scope of the study: (1) identifying potentials and problems, (2) data collection, (3) product design, (4) design validation, (5) design revision, (6) product testing, and (7) final product revision. The R&D approach was selected because it provides a systematic framework for developing educational products through a sequence of needs identification, product development, expert evaluation, revision, field testing, and final improvement. The development process was directed toward producing an instructional e-module that met three principal criteria, namely validity, practicality, and effectiveness.

Research Setting and Participants

The study was conducted at SMP Islam Kepenuhan and SMP Negeri 1 Kepenuhan, Rokan Hulu Regency, Riau Province, Indonesia. The research was carried out from November 2025 to June 2026. The two schools were selected because they represent learning environments in which Malay cultural values remain relevant to students' social and cultural contexts. This characteristic supported the integration of Malay cultural content into the development of the e-module.

The participants consisted of expert validators, Indonesian language teachers, and eighth-grade students. The expert validators included subject-matter experts, media experts, and language

experts. Subject-matter experts assessed the accuracy, relevance, completeness, and suitability of the expository text learning content. Media experts evaluated the visual design, layout, navigation, usability, and multimedia components of the e-module. Language experts assessed the appropriateness, clarity, grammatical accuracy, communicative quality, and readability of the language used in the instructional material. Indonesian language teachers and eighth-grade students participated in the product testing stage to provide information concerning the practicality and usability of the developed e-module. The students also participated in the effectiveness assessment through pre-test and post-test activities.

Development Procedure

The first stage involved identifying potentials and problems related to the teaching and learning of expository text reading. Preliminary information was obtained from observations, interviews, and needs analysis involving teachers and students. This stage was intended to identify existing instructional practices, available teaching materials, students' learning difficulties, and the need for digital and culturally relevant learning resources.

The second stage involved data collection to support the development of the product. Data were collected concerning the characteristics and needs of teachers and students, the learning objectives of expository text reading, the characteristics of the instructional content, and relevant Malay cultural elements that could be incorporated into the learning materials. The collected information served as the basis for determining the content, learning activities, multimedia components, and overall characteristics of the e-module.

The third stage involved product design. The initial product was designed as a digital e-module assisted by flipbook technology. The product was organized into three major sections: an introductory section, a main content section, and a closing section. The introductory section included the cover, preface, table of contents, user instructions, learning outcomes, learning objectives, and concept map. The main section contained expository text reading materials integrated with Malay cultural content, examples of expository texts, illustrations, instructional videos, practice activities, student worksheets, and assessment activities. The closing section included a glossary, references, and author information. Multimedia and interactive elements, including images, videos, navigation icons, and hyperlinks, were incorporated to support students' engagement and independent learning.

The fourth stage was design validation. The initial product was submitted to subject-matter, media, and language experts for evaluation. The validation process was intended to determine whether the developed e-module fulfilled the required standards in terms of content, media presentation, language, usability, and instructional suitability. The validators also provided suggestions and recommendations for improving the product.

The fifth stage involved design revision based on the results and suggestions obtained during expert validation. Revisions were made to improve aspects of the product that required refinement, including illustrations, activity instructions, word choice, language accuracy, layout, navigation, and other relevant components. The revised product was subsequently prepared for field testing.

The sixth stage involved product testing with Indonesian language teachers and eighth-grade students at the selected schools. Teacher and student response questionnaires were administered after the implementation of the e-module to determine its practicality and acceptability. The effectiveness of the product was examined through students' expository text reading performance using pre-test and post-test measurements. The effectiveness testing

involved experimental and control classes to examine differences in learning outcomes between students who used the developed e-module and students who learned using conventional instructional materials.

The seventh stage involved final product revision. The final revision was conducted by considering the findings obtained from expert validation, teacher and student responses, classroom implementation, and effectiveness testing. The resulting product represented the final version of the Malay culture-based flipbook-assisted e-module for teaching expository text reading to eighth-grade students.

Data Sources and Data Collection

The study used both qualitative and quantitative data. Qualitative data were obtained from observations, interviews, expert comments and suggestions, and feedback from teachers and students during the development and testing processes. These data were used to identify learning needs, determine areas requiring revision, and interpret participants' responses to the developed product.

Quantitative data were obtained from needs analysis questionnaires, expert validation questionnaires, teacher response questionnaires, student response questionnaires, and students' pre-test and post-test scores. The combination of qualitative and quantitative data enabled the researchers to evaluate the developed product from the perspectives of instructional needs, expert feasibility, user practicality, and learning effectiveness.

Data collection was conducted through several instruments. Interviews and observations were used during the preliminary needs-identification stage. Needs analysis questionnaires were administered to obtain information regarding teachers' and students' requirements for instructional materials. Expert validation sheets were used by subject-matter, media, and language experts to assess the feasibility of the product. Teacher and student response questionnaires were used during product testing to measure the practicality and acceptability of the e-module. In addition, an expository text reading comprehension test was administered before and after the implementation of the e-module to measure changes in students' learning outcomes.

Research Instruments

The research instruments consisted of interview guidelines, observation instruments, teacher and student needs analysis questionnaires, expert validation sheets, teacher response questionnaires, student response questionnaires, and an expository text reading comprehension test.

The expert validation instruments covered relevant aspects of the developed product. The subject-matter validation focused on the suitability, accuracy, completeness, and relevance of the learning content. The media validation focused on the visual appearance, layout, navigation, usability, and integration of multimedia elements. The language validation focused on language accuracy, clarity, readability, communicativeness, and suitability for eighth-grade students.

The teacher and student response questionnaires were used to assess the practicality of the e-module after implementation. The instruments were intended to capture users' perceptions of the ease of use, attractiveness, clarity of presentation, usefulness, and suitability of the e-module for learning activities. The learning outcome test was used to measure students' expository text reading comprehension before and after the use of the developed product.

Data Analysis

The data were analyzed using qualitative and quantitative approaches. Qualitative data obtained from observations, interviews, expert comments, and user feedback were organized, coded, presented, and interpreted to identify the main findings relevant to the development and revision of the e-module. The qualitative findings were used particularly in the needs analysis and product revision stages.

Quantitative data from expert validation and user response questionnaires were analyzed descriptively to determine the feasibility and practicality of the developed e-module. The questionnaire scores were converted into percentages and interpreted according to the predetermined feasibility and practicality categories. The results of expert validation were used to determine whether the product was sufficiently feasible for field implementation, while teacher and student response scores were used to determine the practicality and acceptability of the product.

The effectiveness analysis was conducted using students' pre-test and post-test scores. Descriptive statistics were used to examine students' learning outcomes before and after implementation. Before hypothesis testing, the data were examined for normality and homogeneity to determine whether the assumptions required for subsequent statistical analysis were satisfied. Hypothesis testing was then conducted to determine whether there was a statistically meaningful difference in students' expository text reading performance between the learning conditions. The effectiveness findings were interpreted by comparing the learning outcomes of students who used the Malay culture-based flipbook-assisted e-module with those of students who received conventional instructional materials.

The integration of qualitative findings, expert validation results, practicality responses, and learning outcome data provided a comprehensive basis for determining the quality of the developed e-module. Accordingly, the final product was evaluated based on its validity, practicality, and effectiveness as a digital instructional resource for teaching expository text reading to eighth-grade junior high school students.

Result and Discussion

Development of the Malay Culture-Based Flipbook-Assisted E-Module

The development of the Malay culture-based flipbook-assisted e-module was conducted using the modified Borg and Gall Research and Development (R&D) model. The development procedure consisted of seven stages: identifying potentials and problems, data collection, product design, design validation, design revision, product testing, and final product revision. The development process was conducted at SMP Islam Kepenuhan and SMP Negeri 1 Kepenuhan, Rokan Hulu Regency, Riau Province.

The first stage involved identifying potentials and problems in the teaching of expository text reading. Observations, interviews, and needs analysis were conducted with Indonesian language teachers and eighth-grade students. The findings showed that learning activities were still predominantly dependent on printed textbooks and conventional modules. Teachers mainly used lectures and discussions, while the use of interactive digital learning media was still limited. Students consequently had limited opportunities to engage with digital learning resources during expository text reading activities.

The needs analysis also identified several difficulties experienced by students in reading expository texts. Students experienced difficulties in identifying the main ideas of texts,

distinguishing facts from opinions, and drawing conclusions from the information presented. These findings indicated the need for instructional materials that could present expository text reading materials in a more interactive, contextual, and engaging manner.

Another important finding was the limited integration of Malay cultural values into existing instructional materials. Although Malay culture contains traditions, values, and local wisdom that are relevant to students' social environment, these cultural elements had not been adequately incorporated into the existing learning materials. Therefore, Malay cultural content was selected as the contextual basis of the developed e-module. Based on these findings, the product was designed as a Malay culture-based e-module assisted by flipbook technology. The product was organized into three major sections, namely the introductory section, the main content section, and the closing section.

Table 1. Structure of the Developed E-Module

Section	Main Components
Introduction	Cover, preface, table of contents, user instructions, learning outcomes, learning objectives, concept map
Main Content	Malay culture-based expository text materials, sample texts, illustrations, instructional videos, student worksheets (LKPD), practice activities, evaluation
Closing	Glossary, references, author's profile

Source: Research development data, processed by the researchers.

The introductory section was designed to orient students to the learning process and provide information concerning the competencies and objectives to be achieved. The main content section represents the central component of the e-module and integrates expository text reading materials with Malay cultural content. Examples of texts, illustrations, videos, exercises, student worksheets, and evaluation activities were incorporated to support students' understanding. The closing section provides supplementary information through a glossary, references, and the author's profile.

The product was developed using flipbook software. The flipbook format enables the e-module to reproduce the visual characteristics of a printed book while incorporating digital features. Images, instructional videos, navigation icons, and interactive hyperlinks were integrated into the e-module. These features were intended to make learning materials more attractive and to facilitate students' navigation and independent learning. The resulting product therefore combines three important components: expository text reading instruction, digital learning technology, and Malay cultural content. The integration of these components distinguishes the developed e-module from conventional printed teaching materials and provides a learning resource that is more closely connected to students' cultural environment.

Form and Structure of the Malay Culture-Based Flipbook-Assisted E-Module for Teaching Expository Text Reading to Eighth-Grade Junior High School Students

Based on the results of the needs analysis, a Malay culture-based flipbook-assisted e-module was developed as an interactive digital learning resource designed to facilitate both independent and teacher-guided learning. The development process considered the expected learning outcomes, instructional objectives, learner characteristics, and findings from the needs assessment.

The e-module consists of three main sections: the introductory section, the main content, and the closing section. The introductory section includes the cover page, preface, table of contents, user guide, learning outcomes, learning objectives, and a concept map. The main section contains expository reading materials integrated with Malay cultural content, sample expository texts, illustrations, images, instructional videos, practice activities, student worksheets (*LKPD*), and assessment tasks. The closing section comprises a glossary, references, and the author's profile.

The e-module was developed using Flipbook software, enabling it to replicate the appearance of a printed book while incorporating multimedia features such as images, videos, navigation icons, and interactive hyperlinks. These features create a more engaging learning experience and facilitate students' understanding of expository texts. In addition, the inclusion of Malay culture-based texts and learning activities provides authentic and meaningful learning experiences closely related to students' social and cultural environments. The overall design and structure demonstrate that the developed product functions not only as a digital instructional material but also as an interactive learning medium that integrates reading literacy, digital literacy, and the preservation of Malay cultural heritage. Its systematic organization, interactive content presentation, and multimedia integration are expected to enhance students' learning motivation, independence, and comprehension of expository texts before its implementation in the validation and field-testing stages.



Figure 1. Students of class VIII of Kepenuhan Islamic Middle School are studying expository text material using the flipbook teaching e-module.



Figure 2. VIII grade students of SMP N 1 Kepenuhan are studying expository text material using the flipbook teaching e-module.

Expert Validation Results

Following the initial product design, the e-module was evaluated by expert validators. Validation was conducted to determine the feasibility of the developed product before field implementation. The validation covered the media and language aspects, while the development process also involved subject-matter validation.

The media validation produced an average score of 4.56, corresponding to a feasibility percentage of 91.33%. This result was categorized as Highly Feasible.

Table 2. Media Validation Results

Indicator	Result
Average score	4.56
Feasibility percentage	91.33%
Category	Highly Feasible

Source: Media expert validation data, processed by the researchers.

The result indicates that the media component of the e-module met the required feasibility criteria. The visual design, layout, navigation, usability, and multimedia integration were considered appropriate for supporting learning activities. The validators nevertheless recommended several minor improvements, particularly the addition of illustrations and refinement of activity instructions. These recommendations were incorporated into the product during the revision stage.

The language validation also demonstrated a high level of feasibility. Three language validators provided percentages of 98.67%, 86.70%, and 88.00%, respectively. The overall average was 91.07%, with a mean score of 4.55, placing the language aspect in the Highly Feasible category.

Table 3. Language Validation Results

Language Validator	Percentage
Validator 1	98.67%
Validator 2	86.70%
Validator 3	88.00%
Average	91.07%
Mean Score	4.55
Category	Highly Feasible

Source: Language expert validation data, processed by the researchers.

The results demonstrate that the language used in the e-module was considered grammatically appropriate, communicative, understandable, and suitable for eighth-grade students. The revisions suggested by the language experts primarily concerned word choice and minor language corrections. These revisions were implemented before the product was tested with teachers and students.

The validation results indicate that the product had achieved a high level of feasibility prior to field implementation. The media score of 91.33% and language score of 91.07% demonstrate

that both the technical presentation and linguistic characteristics of the e-module were appropriate for use as an instructional resource.

Practicality Based on Teacher Responses

After the validation and revision stages, the e-module was implemented in the participating schools. Teacher responses were collected to determine the practicality of the developed instructional material. The assessment considered the ease of use, systematic organization, visual attractiveness, and usefulness of the e-module in supporting expository text reading instruction.

Teachers from both SMP Islam Kepenuhan and SMP Negeri 1 Kepenuhan provided a practicality score of 89.33%. This result was categorized as Highly Practical.

Table 4. Teacher Practicality Results

School	Practicality Percentage	Category
SMP Islam Kepenuhan	89.33%	Highly Practical
SMP Negeri 1 Kepenuhan	89.33%	Highly Practical
Overall	89.33%	Highly Practical

Source: Teacher response questionnaire, processed by the researchers.

The teachers reported that the e-module was easy to operate, systematically organized, visually attractive, and useful for supporting classroom instruction. Teachers also considered the Malay cultural content relevant because it connected learning materials with students' everyday cultural environment. The findings indicate that the e-module could be integrated into classroom learning without creating substantial difficulties for teachers in its use.

Practicality Based on Student Responses

Student responses were also collected after the implementation of the developed e-module. The results showed very high levels of acceptance across all participating classes.

Table 5. Student Response Results

School	Class	Response Percentage	Category
SMP Islam Kepenuhan	VIII-A	94.48%	Very High
SMP Islam Kepenuhan	VIII-B	91.43%	Very High
SMP Negeri 1 Kepenuhan	VIII.1	95.07%	Very High
SMP Negeri 1 Kepenuhan	VIII.2	95.87%	Very High

Source: Student response questionnaire, processed by the researchers.

The highest student response was recorded by Class VIII.2 at SMP Negeri 1 Kepenuhan, with 95.87%, followed by Class VIII.1 with 95.07%. At SMP Islam Kepenuhan, Class VIII-A obtained 94.48%, while Class VIII-B obtained 91.43%. All four classes were categorized as Very High.

These results indicate that students responded positively to the developed e-module. Students perceived the material as attractive and understandable and considered the interactive features useful for supporting learning. The flipbook format, multimedia elements, and Malay cultural content provided a learning experience that was perceived as more engaging than conventional text-based materials.

The consistently high student response scores across both schools also indicate that the product had good user acceptance in different classroom settings. This finding strengthens the practicality assessment because positive responses were not limited to a single class or school.

Effectiveness of the Developed E-Module

The effectiveness of the e-module was assessed using pre-test and post-test activities. The assessment was conducted in experimental and control classes. Students in the experimental classes learned using the Malay culture-based flipbook-assisted e-module, whereas students in the control classes used conventional instructional materials.

The pre-test was administered before implementation to identify students' initial expository text reading performance. The post-test was administered after the learning process to determine changes in students' performance. The analysis also included normality and homogeneity testing before hypothesis testing.

The results showed that students who used the developed e-module achieved higher post-test performance than students who used conventional instructional materials. The experimental classes demonstrated greater improvement in expository text reading performance than the control classes. These findings indicate that the developed e-module had a positive effect on students' ability to understand expository texts.

Table 6. Effectiveness Assessment Framework

Assessment	Experimental Class	Control Class
Pre-test	Administered before using the e-module	Administered before conventional learning
Learning treatment	Malay culture-based flipbook-assisted e-module	Conventional instructional materials
Post-test	Administered after using the e-module	Administered after conventional learning
Comparison	Improvement in reading performance	Improvement in reading performance

Source: Research effectiveness assessment, processed by the researchers.

The effectiveness results complement the findings from the validity and practicality assessments. The product was considered highly feasible by experts, highly practical by teachers, and very positively accepted by students. The higher post-test performance of the experimental classes provides further evidence that the e-module was potentially effective in supporting students' expository text reading skills.

However, the available research manuscript does not report the numerical values of the pre-test and post-test means, standard deviations, test statistics, degrees of freedom, or p-values. Therefore, these statistical values cannot be reported numerically without referring to the original research dataset.

Final Form and Structure of the E-Module

The final product retained the three-part structure developed during the design stage: introduction, main content, and closing. The product was revised after expert evaluation and field implementation.

Table 7. Final Structure of the E-Module

Section	Components
Introduction	Cover, preface, table of contents, user instructions, learning outcomes, learning objectives, concept map
Main Content	Malay culture-based expository texts, examples, illustrations, images, instructional videos, LKPD, exercises, assessment
Closing	Glossary, references, author's profile

Source: Final product documentation, processed by the researchers.

The final product integrates reading literacy, digital literacy, and Malay cultural awareness. The expository texts are contextualized through Malay cultural content, while multimedia features provide additional modes of presenting learning information. The product is therefore designed to support both teacher-guided classroom learning and students' independent learning.

Figures 1 and 2 document the implementation of the developed e-module with eighth-grade students at SMP Islam Kepenuhan and SMP Negeri 1 Kepenuhan. The implementation demonstrates that the product was used directly in classroom learning activities.

Feasibility, Practicality, and Effectiveness of the Malay Culture-Based Flipbook-Assisted E-Module

The findings demonstrate that the developed Malay culture-based flipbook-assisted e-module fulfilled the main requirements of a digital instructional product in terms of feasibility and practicality. The media feasibility score of 91.33% and language feasibility score of 91.07% indicate that the product was considered highly feasible by the respective experts. These findings suggest that the combination of systematic content organization, clear language, visual presentation, navigation, and multimedia components provided an appropriate foundation for digital learning.

The practicality results provide additional support for the usability of the product. Teachers from both participating schools provided a score of 89.33%, categorized as highly practical. Student responses were also very high, ranging from 91.43% to 95.87%. The consistency of positive responses across the two schools suggests that the product was accessible to both teachers and students and could be integrated into classroom learning activities.

The findings also indicate the importance of contextualizing digital instructional materials through local culture. The developed e-module did not merely convert conventional learning materials into digital form but incorporated Malay cultural content into expository text reading activities (Anggriani, 2024; Daud et al., 2024; Arbiani et al., 2026). This approach provides students with learning materials that are more closely connected to their social and cultural environment. In this context, local culture functions not only as supplementary content but also as a contextual resource for developing reading comprehension.

The effectiveness findings further support the development outcomes. Students who used the developed e-module demonstrated higher post-test performance than students who used conventional instructional materials (Serevina et al., 2022; Alyusfitri et al., 2024; Talan & Widayati, 2023). This finding suggests that the combination of interactive flipbook presentation and culturally relevant content can support students' engagement with expository texts. Nevertheless, the numerical statistical results of the effectiveness analysis are not

included in the available manuscript and should be added from the original research data to provide stronger statistical evidence.

The overall findings indicate that the developed e-module represents an alternative digital instructional resource for teaching expository text reading to eighth-grade students. Its principal characteristics include a systematic module structure, flipbook-based presentation, multimedia integration, interactive navigation, and incorporation of Malay cultural values. The product therefore provides an integrated learning resource that supports expository text reading while simultaneously promoting digital learning and appreciation of local cultural heritage.

Conclusion

This research successfully developed a flipbook-assisted e-module for reading Malay culture-based expository texts for eighth-grade junior high school (SMP/MTs) students using the Borg and Gall Research and Development (R&D) model modified into seven stages: identification of potential and problems, data collection, product design, design validation, design revision, product trials, and final product revision. The resulting product is an interactive digital e-module systematically structured with three main sections: the introduction, the content, and the conclusion. The introduction contains the cover, foreword, table of contents, user instructions, learning outcomes, learning objectives, and a concept map. The content section contains material for reading Malay culture-based expository texts, supplemented by examples of texts, illustrations, learning videos, student worksheets (LKPD), exercises, and evaluations. The conclusion section consists of a glossary, bibliography, and author profile. The arrangement of this form and structure produces an e-module that is interactive, systematic, and appropriate to the characteristics of eighth-grade junior high school (SMP/MTs) students. The development results show that the resulting e-module meets the criteria of being very feasible based on the validation results from material experts, media experts, and language experts. In addition, the results of the practicality test indicate that the e-module received a very good response from teachers and students, making it easy to use in the learning process. The results of the effectiveness test also show that the use of the e-module can improve students' ability to read expository texts compared to the use of conventional teaching materials. Thus, the e-module for teaching reading expository texts based on Malay culture, assisted by Flipbook, is suitable for use as an alternative digital teaching material that supports Indonesian language learning while integrating Malay cultural values into the learning process.

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