

# A Needs Analysis for Developing a Flipbook-Based E-Module Integrating Palembang Puppet Heritage in Grade 12 Indonesian Language Learning

Agung Prihatmoko<sup>1</sup>, Nurhayati<sup>2</sup>, Zahra Alwi<sup>3</sup>

<sup>1</sup> Universitas Sriwijaya, Palembang, Indonesia; [agungprihatmoko81@gmail.com](mailto:agungprihatmoko81@gmail.com)

<sup>2</sup> Universitas Sriwijaya, Palembang, Indonesia; [nurhayati@fkip.unsri.ac.id](mailto:nurhayati@fkip.unsri.ac.id)

<sup>3</sup> Universitas Sriwijaya, Palembang, Indonesia; [zahra\\_alwi@fkip.unsri.ac.id](mailto:zahra_alwi@fkip.unsri.ac.id)

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## ABSTRACT

Palembang Wayang is a local cultural heritage that is increasingly unfamiliar to younger generations. Integrating this heritage into Indonesian language instruction—especially Grade 12 historical narrative text learning—may strengthen cultural awareness while improving students' comprehension. This study employed a qualitative descriptive design as the needs-analysis stage of an R&D process. Data were collected at SMA Unggul Islam Al-Fahd, South Sumatra, through a semi-structured interview with one Indonesian language teacher and questionnaires (Likert-scale and open-ended items) completed by 57 Grade 12 students. Data were analyzed thematically to identify users' needs, deficiencies in existing resources, and desired features for digital learning media. Most students reported difficulties in learning historical narrative texts, particularly in identifying key information and interpreting values embedded in the text. Existing learning resources (textbooks and worksheets) were perceived as insufficiently engaging and not fully effective in supporting independent learning. Both students and the teacher strongly supported the development of an innovative, interactive e-module featuring Palembang Wayang historical narratives, enriched with attractive visuals, multimedia elements, clear learning guidance, and structured assessments. The findings indicate an urgent need for culturally contextualized digital teaching materials. A flipbook-based e-module is expected to enhance engagement and comprehension while supporting local cultural preservation, providing a grounded basis for subsequent design, development, and field testing stages.

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## Corresponding Author :

Nurhayati

Universitas Sriwijaya, Palembang, Indonesia ; [nurhayati@fkip.unsri.ac.id](mailto:nurhayati@fkip.unsri.ac.id)

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## 1. INTRODUCTION

In the context of rapid globalization and digital transformation, many young people are becoming less familiar with their local cultural heritage. This weakening cultural awareness can contribute to a gradual erosion of cultural identity, particularly when schools provide limited opportunities for students to encounter local traditions through formal learning experiences (Kismini et al., 2023). One

form of Indonesian local heritage that faces such challenges is Wayang Palembang—a traditional performing art that embodies historical memory, moral teachings, and local wisdom. Recent studies note that traditional puppet arts require stronger cultural communication strategies to remain visible and meaningful for contemporary audiences, especially younger generations (Fahrezi et al., 2023; Harahap et al., 2023). Research on Palembang heritage also indicates that the continuity of local arts depends not only on cultural communities but also on sustained educational attention (Nurhidayanti et al., 2022; Rochmiatun, 2021).

Education is widely recognized as a strategic arena for cultural preservation. Through classroom instruction, local culture can be introduced not merely as an extracurricular topic but as a meaningful context that supports academic learning and identity formation (Kismini et al., 2023). In language education, culturally grounded materials can help students develop literacy skills while engaging with narratives and values rooted in their own environment. This perspective aligns with culturally responsive teaching, which emphasizes the integration of learners' cultural backgrounds into instruction to enhance relevance, engagement, and learning outcomes (Gay, 2018; Ladson-Billings, 2022). When teaching materials reflect learners' cultural contexts, students may experience stronger motivation and a greater sense of belonging in the learning process (Gay, 2018).

For Indonesian language learning at the senior high school level, historical narrative texts represent an important genre because they require students to identify information, interpret meaning, and evaluate values embedded in a text. Such tasks relate to higher cognitive processes, including analysis and evaluation (Anderson & Krathwohl, 2001). However, historical narrative texts are frequently perceived by students as difficult, abstract, and disconnected from their lived experiences. When learning resources are predominantly textbook-based and presented in a one-way format, students may struggle to engage actively with the content and to practice skills such as extracting key information and interpreting implied messages. From a contextual teaching and learning perspective, learning becomes more meaningful when new knowledge is connected to students' real experiences, local environment, and cultural world (Berns & Erickson, 2001). Therefore, using local cultural narratives—such as stories related to Wayang Palembang—may provide a more accessible and authentic bridge between curriculum goals and students' everyday realities.

At the same time, digital learning media have become increasingly relevant in secondary education. The shift toward technology-enhanced learning creates opportunities to present texts and learning tasks in more engaging ways, including interactive navigation, multimedia integration, and self-paced learning support. Flipbook-based e-modules are one form of digital teaching material that can combine written text with images, videos, hyperlinks, and interactive exercises, potentially creating a richer learning experience than printed materials alone (Alessi & Trollip, 2001; Sucini et al., 2022). From the cognitive theory of multimedia learning, combining verbal information with relevant visual representations can support deeper understanding by optimizing how learners process information through multiple channels (Mayer, 2014). In addition, engagement theory highlights that technology-based learning should promote active participation and meaningful tasks, rather than passive consumption of content (Kearsley & Shneiderman, 1998). In language learning contexts, interactive e-modules may help students practice comprehension strategies, receive feedback through quizzes, and revisit materials independently—features that are often limited in conventional textbooks.

Despite the strong theoretical and practical rationale, research and development efforts that specifically integrate local cultural heritage into Indonesian language learning media—particularly for Grade 12 historical narrative texts—remain limited. Existing studies on Palembang cultural heritage tend to focus on cultural documentation, identity, acculturation, or preservation efforts rather than instructional design for language learning (Nurhidayanti et al., 2022; Rochmiatun, 2021). Conversely, studies on digital media in learning frequently emphasize general instructional innovation without systematically embedding local cultural narratives as the central learning context. This separation suggests an important gap: the need for structured, curriculum-aligned digital teaching materials that simultaneously support literacy competencies and cultural sustainability.

To address this gap, this study focuses on the initial stage of an R&D process: a needs analysis for developing a flipbook-based e-module that integrates Wayang Palembang historical narratives into Indonesian language instruction for Grade 12 students. Needs analysis is essential in instructional development because it clarifies learners' difficulties, teachers' expectations, and contextual constraints that shape the feasibility and relevance of the product (Dick et al., 2015). In multimedia development, understanding user needs also informs decisions about interactivity, navigation, visual design, and assessment features—elements emphasized in multimedia design approaches (Alessi & Trollip, 2001). By identifying what students and teachers require from a culturally contextualized e-module, the present study aims to provide a grounded foundation for subsequent design, development, validation, and testing stages.

Accordingly, the purpose of this study is to analyze teacher and student needs regarding (1) challenges in learning historical narrative texts, (2) limitations of existing learning resources, and (3) desired characteristics of a flipbook-based e-module featuring Wayang Palembang narratives. The findings are expected to contribute to two complementary goals: improving the quality of Indonesian language learning through more engaging and supportive digital materials, and strengthening cultural awareness by positioning local heritage as a meaningful learning context (Gay, 2018; Kismini et al., 2023). Ultimately, this needs analysis serves as an evidence-based starting point for developing interactive teaching materials that are pedagogically sound, culturally responsive, and aligned with the demands of 21st-century learning (Kearsley & Shneiderman, 1998; Mayer, 2014).

## 2. METHODS

### 2.1 Research Design

This study adopted a needs-analysis design as the first phase of a research and development (R&D) project aimed at preparing a culturally contextualized digital learning resource. The approach was primarily qualitative descriptive, supported by descriptive quantitative summaries (frequencies/percentages) from Likert-scale questionnaire responses. This design was selected to capture (a) learners' and teacher's perceived difficulties in historical narrative text learning, (b) limitations of existing instructional resources, and (c) user expectations for a flipbook-based e-module integrating *Wayang Palembang* heritage.

### 2.2 Setting and Participants

The research was conducted at SMA Unggul Islam Al-Fahd, South Sumatra, Indonesia. Participants comprised:

1. One Indonesian language teacher, selected purposively based on (a) actively teaching Grade XII and (b) having at least three years of teaching experience and familiarity with historical narrative text instruction.
2. Fifty-seven (57) Grade XII students, recruited as the target users of the intended e-module. Purposive selection was used to ensure participants were directly engaged with the instructional topic and could provide relevant feedback for product design.

### 2.3 Instruments

Data were collected using two instruments:

1. Semi-structured teacher interview guide, focusing on instructional practices, student learning challenges, adequacy of existing materials (textbooks/worksheets), and desired features for digital media integrating local culture.
2. Student questionnaire consisting of (a) closed-ended Likert-scale items to map students' learning experiences, digital media preferences, and perceived needs, and (b) open-ended questions to elicit specific expectations regarding content, visuals, interactivity, and assessment features. Questionnaire items were developed to align with Grade XII historical narrative text

competencies (e.g., identifying key information, interpreting values, and understanding structure).

#### **2.4 Data Collection Procedures**

Data collection was conducted in two stages. First, the teacher interview was carried out to obtain contextual and pedagogical insights and to refine the focus of student data collection. Second, the student questionnaire was administered in class under the researcher's supervision to ensure consistent instructions and completion. All responses were collected anonymously to reduce response bias and encourage honest feedback.

#### **2.5 Data Analysis**

Qualitative data (teacher interview transcript and open-ended questionnaire responses) were analyzed using thematic analysis through the following steps: familiarization with the data, initial coding, grouping codes into themes, reviewing and refining themes, and producing a narrative synthesis. Quantitative questionnaire data were analyzed descriptively by computing frequencies and percentages for each item to portray patterns of needs and preferences. Findings from both sources were then integrated through triangulation to identify convergent priorities for e-module design (content scope, cultural integration, interactivity, guidance, and evaluation tools).

#### **2.6 Trustworthiness**

To strengthen credibility, the study applied (1) source triangulation (teacher and student perspectives), (2) systematic documentation of coding decisions, and (3) peer discussion among researchers to reduce subjective interpretation. Results are reported with clear links between themes and supporting evidence from participants' responses.

#### **2.7 Ethical Considerations**

Permission to conduct the study was obtained from the school. Participation was voluntary, and respondents were informed about the study purpose, data use, and confidentiality. Student identities were not recorded; data were stored securely and used only for research purposes.

#### **2.8 Scope and Limitation**

This needs analysis involved one school, one teacher, and 57 students; therefore, the findings are context-specific and intended to inform the initial design of the e-module rather than to support broad generalization. Subsequent R&D stages should include expert validation, prototype testing, and wider field trials.

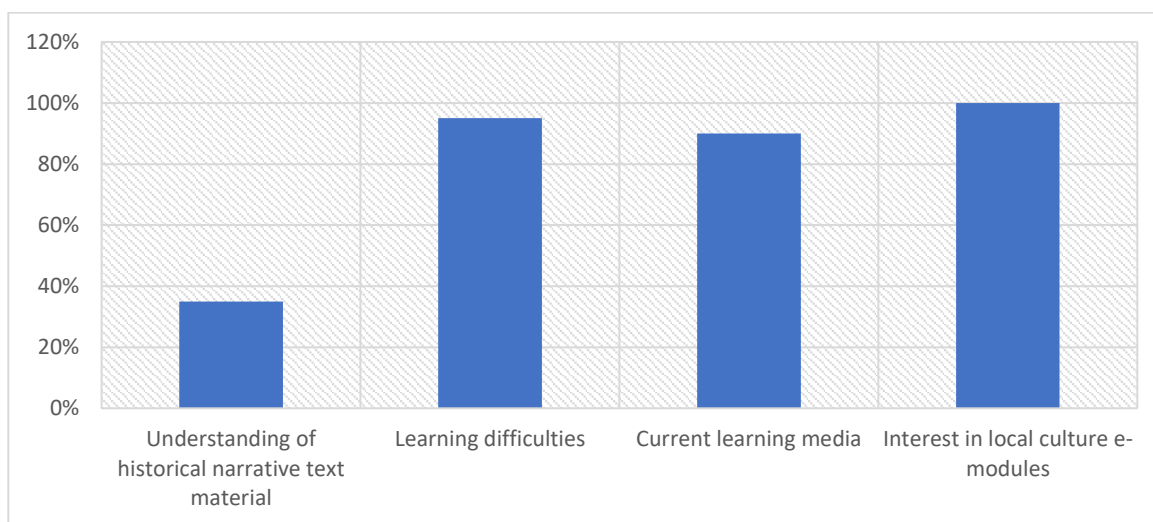
### **3. FINDINGS AND DISCUSSION**

This study uses a modified needs-based research and development model by combining the approaches of Dick, Carey, and Carey (Dick et al., 2015) with Alesi Trollip (Allesi & Trollip, 2001). The initial stage of the study includes identifying the needs of students and teachers to e-module in learning historical narrative texts. The identification process was carried out by collecting information through direct questionnaires distributed to 57 students and direct interviews with Indonesian language teachers at SMA Unggul Islam Al-Fahd. Analysis of student and teacher needs is focused on three main aspects, namely needs, deficiencies, and desires. The needs in question are ideal and effective e-modules. Deficiencies are weaknesses in teaching materials or teaching media that have been applied in the learning process. Desires are the desires of students and teachers for interactive and innovative e-modules, so that they can improve their skills in identifying information, especially in historical story text materials.

#### **3.1 Analysis of Student Needs**

Needs analysis was conducted on students using a questionnaire containing forty questions in the first part, nine questions in the second part and nine statements. This was done to determine the needs of students for the teaching materials developed by researchers. The following are the results obtained from the analysis of student needs along with their percentages.

### 3.1.1 Analysis Participant Needs Educate (Part One)

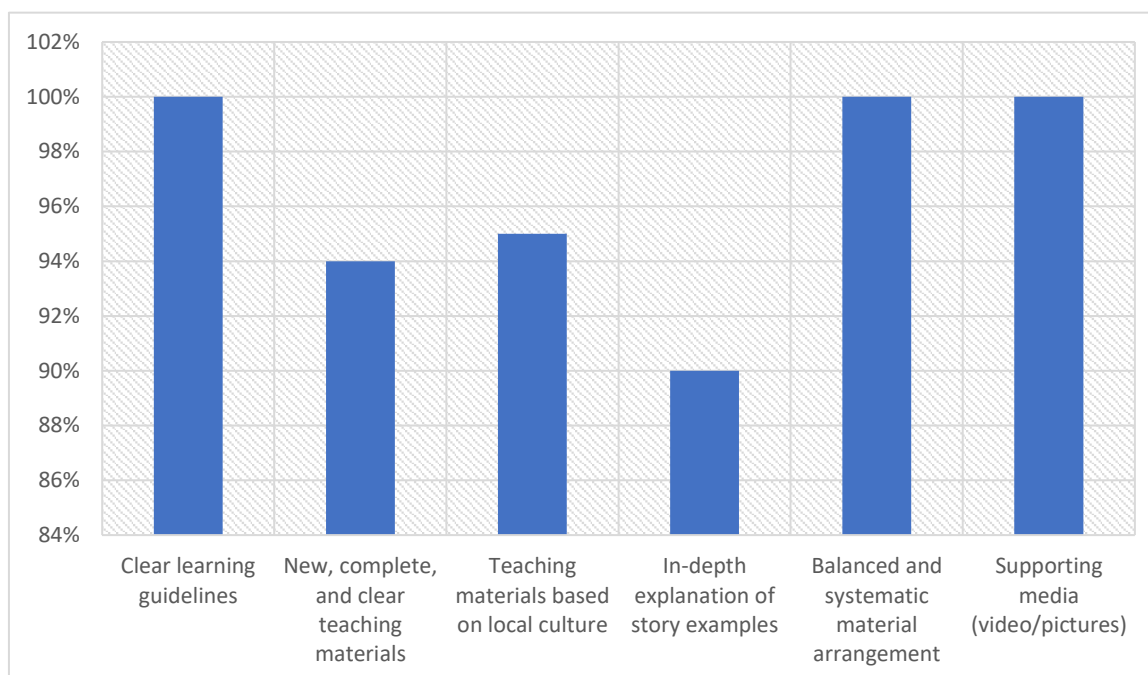


**Figure 1.** Key Trends in Analysis Results Participant Needs Educate (Part One)

Based on Figure 1, the first section of the student needs analysis indicates that engagement and comprehension in historical narrative text learning remain low: only 35% of students reported being able to identify important information in the text. Moreover, 95% of students experienced difficulties, suggesting an urgent need for instructional materials that simplify key concepts and present them in a more contextualized and engaging way. This pattern aligns with culturally responsive teaching, which emphasizes that embedding learners' cultural references in instruction can strengthen relevance, participation, and motivation (Gay, 2000). Integrating *Wayang Palembang* into learning materials may help students build a stronger connection to the content and support deeper understanding.

The findings also support the principles of contextual teaching and learning, which argue that learning becomes more meaningful when it is connected to students' everyday experiences and cultural environment (Berns & Erickson, 2001). Students' strong agreement with the development of a local culture-based e-module—equipped with clear learning guidance and structured evaluations—reflects their preference for interactive resources that promote independent learning. Prior studies similarly report that digital teaching materials combining interactivity and cultural elements can improve learning effectiveness and learner engagement (Ali et al., 2025; Baharuddin & Hatta, 2024; Rahmawati, 2019; Sugara & Sugito, 2022). Taken together, these results underscore the importance of developing an interactive flipbook-based e-module that is not only digital in format but also culturally grounded and contextually relevant to students' needs.

### 3.1.2 Analysis Need Participant Educate (Part Two)



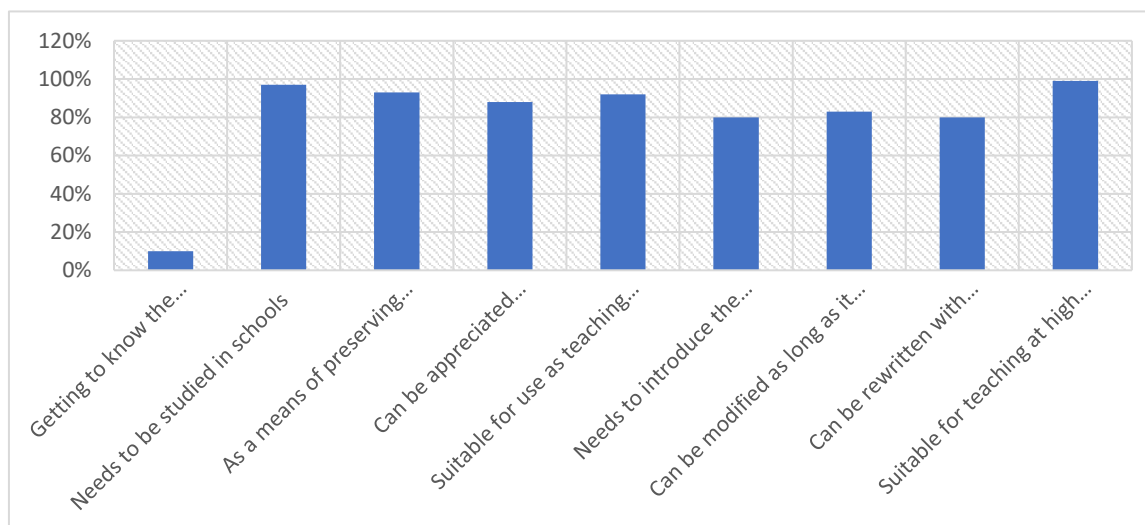
**Figure 2.** Key Trends in Analysis Results Participant Needs Educate (Part Two)

Based on Figure 2, students expressed a strong need for learning materials that are not only well-structured and comprehensive but also closely connected to their cultural context. This pattern is consistent with culturally responsive teaching, which highlights that instruction becomes more meaningful when learning resources acknowledge and integrate students' cultural backgrounds, thereby supporting engagement and comprehension (Gay, 2000).

In addition, students' preference for systematic content supported by visual media (e.g., images and videos) aligns with contextual teaching and learning, which emphasizes that learning is more effective when it is linked to learners' real experiences and environment (Berns & Erickson, 2001). Visual and contextual supports can help students grasp complex information more easily and sustain motivation during learning tasks.

These results are also in line with prior studies reporting that digital learning materials incorporating local cultural elements can strengthen learners' engagement and understanding (Rahmawati, 2019; Sugara & Sugito, 2022). Likewise, learner-centered and heritage-based approaches have been shown to reduce comprehension difficulties and enhance learning motivation, particularly when interactive features and meaningful cultural content are combined (Ali et al., 2025; Baharuddin & Hatta, 2024). Therefore, developing a flipbook-based e-module that integrates local culture and provides detailed explanations, visual supports, and structured activities represents a suitable strategy to address students' needs and improve the overall quality of learning in historical narrative text instruction.

### 3.1.3 Analysis Need Participant Educate on the material (Part Three)



**Figure 3.** Key Trends in Analysis Results Need Participant Educate about Wayang Palembang material

As illustrated in Figure 3, which pertains to the topic of the history of Palembang puppetry, the survey findings reveal that although the majority of students (90%) initially lacked knowledge about Palembang puppets, they expressed a high level of enthusiasm to learn about them. This underscores the significance of Culturally Responsive Teaching (CRT), which emphasizes the integration of students' cultural backgrounds into the learning process. When educational content reflects students' cultural heritage, it fosters a sense of value and belonging, thereby enhancing student engagement.

Incorporating local historical narratives, such as those surrounding Palembang puppetry, serves as a meaningful connection between students' lived experiences and academic content. This approach not only fosters engagement but also cultivates a sense of ownership over the learning process. The students' positive responses to opportunities for improvisation and creative expression indicate a preference for learning experiences that are relevant to their cultural context and personal interests. A contextualized learning approach, which links academic material to real-life experiences and local cultural heritage, proves to be particularly effective. Utilizing interactive digital media—such as videos or digital flipbooks—to present local historical content can enhance intrinsic motivation by making learning more enjoyable and contextually relevant.

Supporting this perspective, Sari and Rachmawati (2021) found that learning media grounded in local culture significantly improves comprehension and student enthusiasm. Similarly, Baharuddin and Hatta (2024) and Ali et al. (2025) argue that digital learning tools rooted in cultural heritage not only boost student engagement but also reinforce cultural identity in an increasingly globalized educational environment.

These findings support the constructivist approach, where students are actively involved in constructing understanding. Students not only receive the material, but also want to adapt and express it creatively, which reflects learner-centered learning. The data shows that although students are less familiar with the historical story of Palembang puppetry, they have a high interest in learning it, appreciating it, and making it part of their learning. This is in line with the principles of culturally responsive teaching and contextual learning, and supports previous findings on the effectiveness of heritage-based digital teaching materials. Therefore, the development of a flipbook-based e-module

with local cultural content is a strategic step to increase involvement, understanding, and preservation of culture through education.

### 3.2 Teacher Needs Analysis

The results of interviews with Indonesian language teachers indicate that the development of digital-based e-modules is urgently needed to improve the effectiveness of learning historical narrative texts. Teachers complained about the low interest of students in learning this material, which is considered monotonous and less relevant to their lives. Printed textbooks are considered less able to attract attention, so teachers expect alternative media that are more interactive and flexible. Teachers suggest that e-modules be equipped with multimedia features such as videos, animations, and quizzes, and presented with an attractive and comfortable visual design. In addition, the material in the e-module is expected to adjust to the curriculum, contain basic competencies, learning objectives, and contextual local examples.

This finding is supported by various previous studies. The study by Rohimah et al. (2022) showed that e-modules based on local culture have been proven to improve students' cultural literacy and writing skills. Other studies also confirm that contextual digital learning can improve students' motivation and conceptual understanding. (Chairad et al., nd). Meanwhile, the effectiveness of cultural heritage-based learning media in fostering a love of history and national identity (Irasuti & Bachtiar, 2024).

The development of an e-module based on the history of Palembang puppetry has great potential to be implemented. This *e-module* is expected not only to increase students' involvement and understanding, but also to serve as a means of preserving local culture that is relevant to the demands of 21st-century learning. This approach is in line with the principles of student-centered pedagogy and culture-based learning that make students active subjects in a contextual, creative, and meaningful learning process.

However, it should be acknowledged that this study was limited to a single school (SMA Unggul Islam Al-Fahd) with a relatively small number of participants (57 students and 1 teacher). Therefore, the findings are localized in nature and may not be directly generalized to other educational contexts. Further studies with larger and more diverse samples are required to test the validity of the proposed e-module on a national scale. In addition, including a mock-up or initial prototype of the flipbook-based e-module in future stages will strengthen the readiness and feasibility of implementation.

### Discussion

The needs analysis indicates a clear urgency to develop culturally grounded e-modules, particularly those that foreground *Wayang Palembang* historical narratives as learning resources for Grade 12 historical narrative text instruction. Both students and the teacher reported that this topic remains challenging in classroom practice: most students (95%) struggled to understand text structure and interpret embedded meanings, suggesting limited analytical engagement with historical texts. From a cognitive perspective, identifying key information, interpreting values, and evaluating meaning correspond to higher-order thinking processes—especially analysis and evaluation—which require learning experiences that are scaffolded, engaging, and contextually meaningful (Anderson & Krathwohl, 2001). When such skills are taught through decontextualized examples and one-way delivery, students may rely on surface-level reading rather than deeper comprehension strategies, leading to persistent difficulties.

Although textbooks and student worksheets (LKPD) were the most commonly used resources (90%), relatively few students (42%) perceived these materials as helpful. Teacher feedback reinforced this pattern by describing printed resources as largely linear, minimally interactive, and insufficiently connected to students' local experiences, which can reduce motivation and participation. This diagnosis is consistent with the logic of Contextual Teaching and Learning, which argues that learning

becomes more meaningful—and therefore more motivating—when concepts are tied to learners' everyday realities and cultural environments (Berns & Erickson, 2001). Within this framework, embedding local cultural narratives such as *Wayang Palembang* can serve as an authentic context that helps students relate textual elements (structure, information, and values) to familiar social meanings rather than treating historical narrative texts as abstract school tasks.

Importantly, students expressed strong acceptance of the proposed direction: all respondents supported the development of local culture-based electronic teaching materials, and they articulated concrete expectations for systematic organization, clear learning guidance, multimedia support (e.g., images and videos), and structured evaluation components. A notable finding is that even though most students (90%) initially reported limited familiarity with *Wayang Palembang*, nearly all (97%) endorsed its inclusion in learning as a form of cultural preservation that could be appreciated creatively. This pattern suggests that cultural unfamiliarity does not necessarily reduce interest; instead, it may reflect an unmet opportunity for schools to introduce local heritage in ways that are accessible and engaging. In this sense, the e-module is not only a tool for literacy instruction but also a curricular mechanism to connect students with local identity through purposeful learning tasks.

These findings align strongly with culturally responsive teaching, which emphasizes that learning becomes more relevant and engaging when instruction recognizes and incorporates learners' cultural references (Gay, 2000, 2018). When students encounter representations of local culture in academic content, they may experience increased personal relevance, feel that their cultural environment is valued, and become more willing to participate actively in learning (Gay, 2018). In the present context, situating historical narrative text learning within *Wayang Palembang* stories can potentially reduce perceived distance between the curriculum and students' lived worlds, supporting sustained engagement while strengthening cultural awareness.

Teacher expectations further clarify the design direction for the e-module. The interviewed Indonesian language teacher emphasized the need for a resource that is easily accessible, supports independent learning, and presents content through an attractive, interactive interface. The teacher also highlighted practical requirements—alignment with curriculum objectives, inclusion of learning outcomes, and built-in evaluation—indicating that the product must meet both pedagogical and implementation constraints. These priorities are consistent with systematic instructional design principles, where needs analysis informs learning objectives, assessment planning, content sequencing, and delivery strategies (Dick et al., 2015). They also align with multimedia design perspectives that stress interactivity, usability, and learner guidance as key features of effective digital learning materials (Alessi & Trollip, 2001). A flipbook-based format is therefore conceptually appropriate because it can integrate text with multimedia and interactive assessment elements while maintaining a structured, module-like progression.

The discussion is also supported by previous research suggesting that culture-based e-modules can strengthen engagement and literacy-related outcomes. For example, studies on culturally contextualized digital materials have reported improvements in learner involvement and skill development when cultural content is integrated into instructional design rather than treated as an add-on (Rahmawati, 2019; Rohimah et al., 2022; Sugara & Sugito, 2022). Research on contextual and digital learning similarly indicates positive effects on motivation and conceptual understanding when learning tasks are meaningful and supported by interactive resources (Aura Yolanda et al., 2024; Mulyanti & Fasya, 2024). Taken together, these bodies of evidence reinforce the interpretation that students' and teachers' demands in this study are theoretically grounded and empirically plausible: a culturally responsive, interactive e-module is likely to address both comprehension challenges and engagement barriers in historical narrative text learning.

Despite these promising implications, the findings should be interpreted within the study's limitations. The needs analysis was conducted in a single school with one teacher and 57 students, making conclusions context-specific rather than broadly generalizable. Moreover, this phase did not include a prototype or usability trial; therefore, claims about effectiveness cannot yet be made and

should be reserved for later R&D stages involving expert validation, iterative design revisions, and larger-scale field testing. Finally, because the manuscript targets reputable publication outlets, professional language editing and tighter academic reporting (clear instrument description, evidence-linked interpretation, and consistent APA style) will be necessary to ensure that the discussion is communicated with appropriate rigor and clarity.

#### 4. CONCLUSION

This needs analysis shows that Grade 12 students and their Indonesian language teacher still face substantial challenges in learning historical narrative texts, particularly in recognizing text structure and identifying key information and values, while existing textbooks and worksheets are perceived as insufficiently engaging and supportive; consequently, both groups strongly endorse the development of a culturally contextualized, interactive flipbook-based e-module featuring *Wayang Palembang* narratives as a promising resource to make learning more relevant and motivating and to support cultural awareness. However, the study is limited by its context-specific scope (one school, 57 students, and one teacher) and by the fact that it reports only the needs-analysis stage without a prototype, usability testing, or effectiveness evidence, so no causal claims about learning gains can yet be made. Future research should proceed with iterative e-module design grounded in these identified needs, include expert validation and pilot usability trials, and then conduct broader field testing across multiple schools and diverse student populations—ideally using stronger evaluation designs (e.g., pre-post measures and comparison groups) to determine the e-module's impact on comprehension, engagement, and learning outcomes before wider dissemination.

#### REFERENCES

- Agustiani, I. W. D., Attas, S. G., & Anoegrajekti, N. (2022). Efforts to preserve Palembang (Alus) Bebaso. *Fon: Journal of Indonesian Language and Literature Education*, 18(2), 177–189. <https://doi.org/10.25134/fon.v18i2.5177>
- Alessi, S. M., & Trollip, S. R. (2001). *Multimedia for learning: Methods and development*. Allyn & Bacon.
- Ali, A., Fenica, S. D., Aini, W., & Hidayat, A. F. (2025). The effectiveness of interactive learning media in increasing elementary school students' interest and motivation to learn. 3(1), 1–6.
- Alessi, S. M., & Trollip, S. R. (2001). *Multimedia for learning: Methods and development*. [https://csuglobal.blackboard.com/bbcswebdav/institution/FCC%20Content/csfiles/home\\_dir/externalFiles\\_20130401041211/library\\_\\_xid-1005\\_5/Textbook%20Reserve\\_\\_xid-13309\\_5/OTL\\_\\_xid-14610\\_5/OTL543\\_\\_xid-17718\\_5/OTL543\\_Module2\\_\\_xid-14582\\_5-2.PDF](https://csuglobal.blackboard.com/bbcswebdav/institution/FCC%20Content/csfiles/home_dir/externalFiles_20130401041211/library__xid-1005_5/Textbook%20Reserve__xid-13309_5/OTL__xid-14610_5/OTL543__xid-17718_5/OTL543_Module2__xid-14582_5-2.PDF)
- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Addison Wesley Longman, Inc.
- Aura Yolanda, Sihotang, M., Zebua, J. A., Hutasoit, M., & Sinaga, Y. L. (2024). Contextual learning strategies to improve elementary school students' conceptual understanding. *Pragmatics: Journal of Language and Education Sciences*, 2(3), 301–308. <https://doi.org/10.61132/pragmatik.v2i3.941>
- Baharuddin, & Hatta. (2024). Transformation of educational management: Integration of technology and innovation in improving learning effectiveness. *Journal of Education and Teaching Review (JRPP)*, 7(3), 7535–7544. <http://journal.universitaspahlawan.ac.id/index.php/jrpp>
- Berns, R. G., & Erickson, P. M. (2001). From behaviorism to constructivism and contextual teaching and learning. *The Highlight Zone Research @ Work*, 5, 1–9. <http://www.nccte.com/publications/infosynthesis/index>
- Cahyaningsih, E., Suprijati, H., & Azy, L. (2025). Integrating local cultural wisdom in project-based learning to improve science education: A study of the holy. 2(2), 66–77.
- Catya, K., & Ruci, W. H. N. (2025). Utilizing local culture in thematic learning for first grade elementary students. In *IJCah 2024*. Atlantis Press SARL. <https://doi.org/10.2991/978-2-38476-317-7>

- Cheng, C., Lay, K.-L., Hsu, Y.-F., & Tsai, Y.-M. (2021). Can Likert scales predict choices? Testing the congruence between using Likert scale and comparative judgment on measuring attribution. *Methods in Psychology*, 5, 100081. <https://doi.org/10.1016/j.metip.2021.100081>
- Chairad, M., Damanik, S. A., Hasibuan, B. S., & Putra, A. (n.d.). The importance of adaptive e-modules in 21st century education. <https://doi.org/10.4108/eai.17-9-2024.2352962>
- Dick, W., Carey, L., & Carey, J. O. (2015). *The systematic design of instruction* (8th ed.). Pearson.
- Digital flipbook in preparation for competency test in the field of pastry. (2024). <https://doi.org/10.2991/978-2-38476-198-2>
- Fahrezi, Z. A., Mubarat, H., & Halim, B. (2023). Visual communication design for promotion of Palembang shadow puppet arts. *Besaung: Journal of Art Design and Culture*, 8(1), 76–83. <https://doi.org/10.36982/jsdb.v8i1.2893>
- Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice*. Teachers College Press.
- Harahap, N. A. S., Munawarah, K., Usaida, E. A., & Nasution, P. P. (2023). Wayang kulit as a media to support Javanese and Indonesian languages. *Journal on Education*, 5(3), 6132–6139. <https://www.jonedu.org/index.php/joe/article/view/1382>
- Irasuti, & Bachtiar. (2024). Empowering Indonesian EFL teachers: The transformative impact of visual literacy training on teaching materials. *International Journal of Learning, Teaching and Educational Research*, 23(8), 116–136. <https://doi.org/10.26803/ijlter.23.8.7>
- Kearsley, G., & Shneiderman, B. (1998). Engagement theory: A framework for technology-based teaching and learning. *Educational Technology*, 38(5), 20–23.
- Skills, T., Text, M., & History, C. (2024). The effect of using audio visual media (short films) on the writing skills of personal history story texts of Class XII students of SMAN 7 Kediri in the 2023/2024 academic year.
- Kismini, E., Iswari, R., & Fajar, F. (2023). The role of education in preserving Javanese ethical values. *Komunitas*, 15(1), 99–107. <https://doi.org/10.15294/komunitas.v15i1.41691>
- Laksana, R. B., Rusdi, K. A. W., & Anjasprana, A. (2023). Workshop on learning character through wayang for elementary school teachers in Palembang City. *Journal of Community Service Nation*, 1(6), 567–572. <https://doi.org/10.59837/jpmba.v1i6.208>
- Ladson-Billings, G. (2022). *The dreamkeepers: Successful teachers of African American children*. Jossey-Bass.
- Ly, P., Bani, M., Hariana, V., & Meok, P. (2024). Development of e-modules for elementary students. *Pegem Journal of Education and Instruction*, 14(3), 300–310. <https://doi.org/10.47750/pegegog.14.03.28>
- Mayer, R. E. (2014). Cognitive theory of multimedia learning. In *The Cambridge handbook of multimedia learning* (2nd ed., pp. 43–71). <https://doi.org/10.1017/CBO9781139547369.005>
- Maya, S., Laksana, R. B., & Hera, T. (2023). The influence of the free expression method on students' creativity in making decorative works of Palembang shadow puppets. *Journal of Elementary Madrasah Research (JURMIA)*, 3(2), 196–210. <https://doi.org/10.32665/jurmia.v3i2.1938>
- Mulyanti, D., & Fasya, R. (2024). The influence of contextual learning approach on motivation to learn Islamic religious education in elementary schools. *GARUDA: Journal of Civic Education and Philosophy*, 2(1), 136–146.
- Ningrum, A. A. L., & Talib, J. (2023). Utilization of Canva for Education for making Indonesian language teaching material comics in limited face-to-face learning at SMA Negeri 1 Bantaeng. *Anterior Jurnal*, 22(1), 119–123. <https://doi.org/10.33084/anterior.v22i1.4188>
- Nurhidayanti, N., Shalifah, N., Syarifuddin, S., & Supriyanto, S. (2022). The existence of Palembang shadow puppet art 2000–2019. *Anuva: Journal of Cultural Studies, Libraries, and Information*, 6(1), 1–12. <https://doi.org/10.14710/anuva.6.1.1-12>
- Education. (2024). *PEDAGOGIC*, 2(2), 146–162.
- Purwatiningsih, Y. (2024). Improving the ability to write historical narrative texts using the discovery learning model for grade XII SMA. *Jurnal Educatio*, 10(1), 179–186.
- Rahmawati, Y., Jakarta, U. N., & Faustine, S. (2021). Development of science literacy and students' cultural identity through an ethno-pedagogical approach in science learning. *ES* (November 2020).

- <https://doi.org/10.15408/es.v12i1.12428>
- Rochmiatun, E. (2021). Acculturation of culture in the art of "Palembang Wayang." *Khazanah*, 11(1), 71–78. <https://doi.org/10.15548/khazanah.v11i1.522>
- Sucini, E., Nurhayati, N., & Saripudin, A. (2022). The use of flipbook-based e-modules in improving student's ability to write folklore drama texts. *Sawerigading*, 28(2). <https://doi.org/10.26499/sawer.v28i2.1052>
- Sugara, U., & Sugito. (2022). Ethnopedagogy: Ideas and opportunities for implementation in Indonesia. *Journal of Education and Culture*, 7(2), 93–104. <https://doi.org/10.24832/jpnk.v7i2.2888>
- Sugiyono. (2020). *Quantitative, qualitative, and R & D research methodology*.