



Nek Pung Dance E-Module Development Study: Practicality and Effectiveness in Learning

Studi Pengembangan E-Modul Tari Nek Pung: Kepraktisan dan Efektivitas dalam Pembelajaran

Abdul Wahid¹⁾ Ulfah Novianti¹⁾, Muhammad Toto Nugroho³⁾, Joje Mar P Sanchez⁴⁾

1) UIN Syarif Hidayatullah Jakarta, Jakarta, Indonesia

2) SDN 156/III Sukamaju, Jambi, Indonesia

3) SDN 035 Tanjung Jabung Barat, Jambi, Indonesia

4) Cebu Normal University, Filipina

Abstract

This study aims to develop a local wisdom-based e-module for fourth-grade elementary students by integrating the Nek Pung dance, a traditional art from Tebo Regency, Jambi Province. The dance reflects cultural values such as gratitude, resilience, and appreciation of life, which are increasingly unfamiliar to younger generations. Integrating this cultural heritage into learning is essential for both educational quality and cultural preservation. The research employed a Research and Development (R&D) method using the ADDIE model: analysis, design, development, implementation, and evaluation. In the development stage, the e-module was validated by two experts. The material aspect scored 3.6 and 3.5, the media aspect 3.7 and 3.3, and the language aspect 3.7 and 3.6, all falling within the "valid" to "very valid" category. Practicality testing by three expert practitioners resulted in total scores of 42, 42, and 43, with an average practicality level categorized as "very practical." In a small group trial with five students, the e-module received average ratings between 3.5 and 3.7, indicating strong usability. These findings suggest that the e-module is valid, practical, and effective in supporting learning and enhancing students' appreciation of local culture. This product demonstrates that integrating local wisdom in digital learning media is a meaningful strategy for education and cultural sustainability.

Keywords: E-Module, Local Wisdom, Nek Pung Dance, Education, Cultural Preservation.

Abstrak

Penelitian ini bertujuan untuk mengembangkan e-modul berbasis kearifan lokal untuk siswa sekolah dasar kelas IV dengan mengintegrasikan tari Nek Pung, seni tradisional dari Kabupaten Tebo, Provinsi Jambi. Tarian ini mencerminkan nilai-nilai budaya seperti rasa syukur, ketahanan, dan penghargaan terhadap hidup, yang semakin tidak dikenal oleh generasi muda. Mengintegrasikan warisan budaya ini ke dalam pembelajaran sangat penting bagi kualitas pendidikan dan pelestarian budaya. Penelitian ini menggunakan metode Penelitian dan Pengembangan (R&D) dengan model ADDIE: analisis, desain, pengembangan, implementasi, dan evaluasi. Pada tahap pengembangan, e-modul divalidasi oleh dua orang ahli. Aspek materi mendapat skor 3,6 dan 3,5, aspek media 3,7 dan 3,3, dan aspek bahasa 3,7 dan 3,6, semuanya masuk dalam kategori "valid" hingga "sangat valid". Uji praktikalitas oleh tiga praktisi ahli menghasilkan skor total 42, 42, dan 43, dengan tingkat praktikalitas rata-rata berkategori "sangat praktis." Dalam uji coba kelompok kecil dengan lima siswa, modul elektronik tersebut memperoleh peringkat rata-rata antara 3,5 dan 3,7, yang menunjukkan kegunaan yang kuat. Temuan ini menunjukkan bahwa modul elektronik tersebut valid, praktis, dan efektif dalam mendukung pembelajaran dan meningkatkan apresiasi siswa terhadap budaya lokal. Produk ini menunjukkan bahwa mengintegrasikan kearifan lokal dalam media pembelajaran digital merupakan strategi yang bermakna bagi pendidikan dan keberlanjutan budaya.

Kata Kunci: E-Modul, Kearifan Lokal, Tari Nek Pung, Pendidikan, Pelestarian Budaya.

Received (12 June), Revised (16 June), Accepted (17 May)

How to Cite: Wahid, A., Novianti, U., Nugroho, M., T., & Sanchez, J., M., P. (2017). Nek Pung Dance E-Module Development Study: Practicality and Effectiveness in Learning. *JEER: Journal of Elementary Educational Research* Vol 5 (1): 83-109.

*Corresponding author:

E-mail: abdulwahid@uinjkt.ac.id

INTRODUCTION

Local wisdom refers to noble values upheld within the social norms of a community, including the protection and sustainable management of the environment and natural resources. These values represent positive principles that are worthy of being internalized as daily life guidelines. Local wisdom emerges from the long-term experiences of individuals, which are then manifested in behavior (Wagiran, 2012). It also encompasses knowledge and habitual practices used by communities to solve contextual problems (Rezkiti, Nadziroh, & Marwanti, 2017). Furthermore, environmental sensitivity can be cultivated through the internalization of values embedded in local wisdom (Ilham, Riandi, & Sriyati, 2018). The diversity of local wisdom across Indonesian regions contributes to the nation's cultural richness and strengthens its national identity (Brata, 2016). In support of this, Islamudin (2014) affirms that "the presence of values in local wisdom can help preserve a nation's culture."

Local wisdom also embodies strategic practices that guide individuals to live morally and harmoniously within their communities (Desfandi, 2014). Therefore, preserving local wisdom is essential to ensure its sustainability and role as a unifying cultural asset. Each region in Indonesia possesses unique forms of local wisdom that reflect its cultural characteristics. A notable example is the local wisdom found in the province of Jambi, specifically the Nek Pung Dance originating from Tebo Regency. This traditional dance carries profound values such as the importance of not dwelling in sorrow and cultivating gratitude for what one has. These values are particularly relevant in shaping the character of students, especially within the context of basic education. Hence, it is imperative for communities and educational institutions to actively preserve such cultural heritage, particularly through school-based learning activities.

In an era marked by rapid globalization and technological advancement, the preservation of local wisdom faces increasing challenges. Without consistent and meaningful efforts, local cultural practices may gradually fade and be forgotten (Rohani et al., 2018). One viable strategy to counter this threat is by integrating local wisdom into formal education. Embedding local cultural values into the curriculum allows students to develop a stronger awareness of and appreciation for their national heritage (Setiawan et al., 2017). Such integration not only enriches the learning process but also reinforces cultural identity and supports character education.

One of the strategic roles of teachers in the education sector is the development of instructional materials, both in printed and electronic formats. The creation of teaching resources that incorporate elements of local wisdom is regarded as a concrete step toward preserving regional culture, which is increasingly at risk due to the pressures of globalization (Ja'far, Fianto, & Yosep, 2014). Teachers occupy a central position in the learning process, as they are a core component of education along with students, curriculum, learning materials, instructional objectives, and the learning process itself (Pertami, Agung, & Tegeh, 2017). This aligns with the perspective of Ghaliyah, Bakri, and Siswoyo (2015), who argue that the availability of adequate learning resources is a key factor in determining the success of instructional activities. Therefore, the development of contextual learning materials that respond to the needs of learners is an essential aspect of improving the overall quality of education.

Education serves not only as a medium for transferring knowledge but also as a means of cultural socialization, allowing learners to adopt cultural values as guiding principles in their thinking and behavior (Sukarman, 2017). At the elementary level, education is expected to holistically develop students' attitudes, skills, and knowledge, while integrating local wisdom into the instructional process (Shufa, 2018). This is supported by Juliyaniti (2017), who emphasizes that culture-based learning enables students to understand and internalize their own cultural identity. Implementing learning activities that are closely connected to students' immediate environments facilitates more meaningful and contextual learning experiences (Utari, Degeng, & Akbar, 2016). In this context, the local environment refers specifically to sources of indigenous cultural knowledge or local wisdom.

The values embedded in local wisdom resonate with students on both emotional and social levels, thereby enhancing their comprehension of academic content (Wijiningsih, Wahjoedi, & Sumarmin, 2017). In addition to providing a familiar context for learners, local wisdom can coexist with the demands of modernity without compromising its core values. This suggests that traditional cultural values need not be in conflict with technological and societal advancement; rather, they can complement one another to strengthen character-based education.

With the rapid advancement of information and communication technology (ICT), education has undergone significant transformation in recent years. ICT plays a critical role in reshaping various aspects of the educational process, including teaching methods,

instructional media, and access to information (Budiman, 2017). As a result, instructional design today must align with the evolving landscape of science and technology (Wahyono, Husamah, & Budi, 2020). The optimal integration of ICT into the learning environment is imperative to address the challenges of 21st-century education (Kuntarto, 2017). When implemented effectively, ICT serves as a powerful tool to enhance the quality and outcomes of the teaching and learning process.

The use of ICT-based media has been proven to enhance students' learning motivation (Halidi & Saehana, 2015). One notable application of ICT in education is the development of e-modules, which are digital instructional materials accessible in an interactive and flexible manner. In this context, 3D Pageflip Professional emerges as a relevant platform due to its capability to present visually engaging and interactive content, including integrated video, audio, and animations (Raihan et al., 2018). This technological advantage can be optimally utilized in learning processes, particularly in the development of teaching materials that embed elements of local wisdom. Therefore, the integration of local cultural content into e-modules through digital platforms offers an innovative strategy to support both cultural preservation and educational quality enhancement in the digital era.

A preliminary study was conducted at SD Negeri 112/I Muara Bulian through interviews with fourth-grade elementary school teachers. The teachers reported the existence of locally-based teaching materials; however, these were limited to printed formats such as teacher manuals, student books, and cultural texts available in the school library. Classroom observations indicated that digital instructional materials incorporating local wisdom had yet to be utilized. Nevertheless, positive classroom dynamics were observed, with active student participation and strong teacher-student interaction during lessons. This condition presents a promising opportunity for the introduction of more engaging, technology-based instructional tools that reflect the local cultural context.

Previous studies have addressed the development of culture-based instructional materials in various settings. Fahreza et al., (2024), for instance, introduced printed teaching materials incorporating local cultural content to promote regional heritage. Juliawan et al (2024) emphasized the importance of culturally based education to strengthen national identity, yet the approach remained in conventional formats. Research by Kuswandi (2025) demonstrated that integrating local culture into classroom

instruction could increase students' cultural awareness. Other studies on e-module development (Raihan et al., 2018; Wulandari, 2020) focused primarily on general subject matter without specifically integrating cultural content. To date, no research has been found that develops interactive e-modules featuring the local wisdom of Tari Nek Pung from Tebo Regency using the 3D Pageflip Professional application in the context of elementary school learning.

Accordingly, this study offers novelty by developing an interactive e-module based on local cultural heritage, specifically designed to convey the values of Tari Nek Pung through an engaging digital format. The use of 3D Pageflip Professional facilitates a dynamic presentation of content by combining text, images, audio, and video to actively engage students. Thus, this research contributes not only to the preservation of local culture but also to the innovation of instructional material development that is technologically enhanced and contextually aligned with the characteristics of elementary school learners.

Based on the aforementioned background, this study aims to develop a digital learning material—an interactive e-module—based on the local wisdom of Tari Nek Pung from Tebo Regency, utilizing the technological capabilities of 3D Pageflip Professional. The primary objective is to produce an e-module that is both culturally enriching and pedagogically effective for use in elementary school settings.

RESEARCH METHODS

This study employed a Research and Development (R&D) approach using the ADDIE model—Analyze, Design, Development, Implementation, and Evaluation—as proposed by Branch (2009). The model was selected due to its systematic structure and its emphasis on producing instructional materials that foster student independence (Putra, 2014). The research was conducted at SDN 112/I Muara Bulian, with fourth-grade teachers and students serving as the research subjects. Data collection involved both qualitative and quantitative methods, including interviews with cultural figures, community leaders, and representatives from the Tebo District Office of Education and Culture to explore the values embedded in the local wisdom of Tari Nek Pung. In addition, a preliminary study at the school and expert reviews provided supporting data.

Research instruments included validation questionnaires for content, media, and language experts, as well as practicality questionnaires for teachers. All instruments were developed using a Likert scale. Content validation focused on aspects of substance,

language, and presentation (Hastuti in Jafnihirda et al., 2019), while media and language validation referred to the standards set by BSNP (2012). Practicality assessments were conducted by experienced fourth-grade teachers, evaluating visual clarity, relevance, and ease of use (Asyar). A small-group trial was also carried out involving students, with evaluation criteria including content comprehension, language clarity, and attractiveness of the module (Handayani, 2013).

Following the validation process by subject matter experts in content, media, and language, the collected data were analyzed using a scoring rubric to determine the overall quality level of the developed product. The scoring scale and criteria were established to classify the module's validation outcomes into appropriate quality categories based on expert assessments.

Table 1. Expert Validation Scale

Range	Validity Category
1,00- 1,99	Not valid
2,00 -2,99	Less valid
3,00 -3,49	Valid
3,50- 4,00	Highly valid

This research was conducted at SDN 112/I Muara Bulian, with a practicality test with 3 teachers who have the best experience teaching in grade IV of elementary school. After conducting the validity test, the scores can be known to get what criteria by looking at the following table:

Table 2. Expert practitioner validation categories

Range	Validity Category
46-54	Not valid
37-45	Less valid
28-36	Valid
19-27	Highly valid
10-18	

In addition to conducting a practical test, the researcher also conducted a small group trial, the trial was to see the use of the E-Module. In the small group trial, the author used the Purposive Sampling system, by selecting 5 students with two students ranked highest, one student ranked medium and two students ranked low. It is hoped that these students can represent the target of the E-Module based on local wisdom that has been developed. from the E-Module that has been developed. The following are the categories used by the author :

Table 3. Small group trial scale

Range	Validity Category
1,00- 1,99	Not valid
2,00 -2,99	Less valid
3,00 -3,49	Valid
3,50- 4,00	Highly valid

After the practitioner validation questionnaire by the teacher is filled in and the results are available, it will be analyzed using descriptive statistical analysis in the calculation of mean, mode and median. Mean is the result of calculating the amount of data divided by the number of data. (Maharani, 2014). While the mode is the value with the most frequency in a series of values. (Suharsiwi & Musifudin, 2013). The median is the middle value of a series of values that have been sorted from the smallest to the highest number (Wedianto et al., 2016)

RESULTS AND DISCUSSION

Analysis Stage

In the analysis stage, the researcher began by conducting interviews with local cultural figures, community leaders, and representatives from the Department of Education and Culture of Tebo Regency. These interviews aimed to explore the cultural importance of Tari Nek Pung and its potential role in formal education. The stakeholders expressed strong support for integrating this traditional dance into the elementary curriculum as a means of preserving local wisdom. This cultural validation established a clear relevance for the instructional development process and strengthened the contextual grounding of the module.

Following the cultural analysis, an instructional material review was conducted at SDN 112/I Muara Bulian. The findings showed that fourth Grade students primarily used printed textbooks, with little exposure to digital or ICT-based learning resources. A learner analysis revealed that students demonstrated a preference for collaborative learning activities, highlighting the need for engaging and group-oriented instructional materials. Additionally, curriculum analysis was performed to align the local cultural content with existing themes, resulting in the identification of Theme 1, Subtheme 1, Lesson 1 as an appropriate entry point. This theme integrates Indonesian Language, Social Studies, and Science, providing an ideal framework for embedding the values and practices of Tari Nek Pung into meaningful learning experiences.

Design Stage

In the design stage, the researcher translated the findings from the analysis into a structured instructional framework. A detailed module blueprint was developed, outlining the sequence of content, learning objectives, activities, and assessments. The design emphasized the integration of cultural values from the Tari Nek Pung tradition into the learning materials, ensuring that the module would not only meet academic standards but also promote cultural awareness. Attention was given to aligning the instructional strategies with the characteristics of Grade IV learners, particularly their preference for interactive and collaborative learning.

The module was designed to incorporate multimedia elements and digital features to address the lack of ICT-based resources previously identified. Each component of the module—texts, images, activities, and evaluations—was carefully selected to enhance engagement and support active learning. The use of storytelling, local vocabulary, and thematic connections between subjects aimed to create an immersive and relevant learning experience. This stage resulted in a comprehensive instructional design that served as the foundation for the development of the actual e-module.

Development Stage

This design then served as the foundation for the Development phase, resulting in a completed e-module that aligned with pedagogical goals and cultural values. The next phase involved product Implementation and Evaluation through empirical testing.

During the Development stage, the researcher conducted a validation test involving three expert validators from the university. The results of this validation process for the e-module based on local wisdom in elementary education are presented in the following table:

Table 4. Results of the E-Module validity test

No.	Aspect	Validator		Category
		I	II	
1	Material	3,6	3,5	Very Valid
2	Media	3,7	3,3	Very valid and valid
3	Language	3,7	3,6	Very Valid

Based on Table 4, the validation results from expert reviewers indicate that for the content aspect, the first validator assigned a score of 3.6, while the second validator gave a score of 3.5. Both scores fall into the category of “very valid” or “highly appropriate.” For the media or

visual design aspect of the local wisdom-based e-module, the first validator awarded a score of 3.7 (categorized as very valid), while the second validator assigned a score of 3.3 (categorized as valid).

Regarding the language aspect, which was the final component assessed in the validation process, the first and second validators gave scores of 3.7 and 3.6, respectively. These results also place the e-module in the “very valid” category. Based on the validation results from the expert reviewers, the local wisdom-based e-module for Grade IV elementary students is deemed feasible for classroom implementation and further testing.

In addition to the expert validation, the researcher also conducted a practicality test by involving experienced Fourth Grade elementary school teachers who had demonstrated excellence in teaching at that level. The results of the practicality assessment for the local wisdom-based e-module are presented in the following section:

Table 5. Practicality Test of Local Wisdom-Based E-Modules

No	Expert Practitioner	Results Calculation			Total Score	Category
		Mean	Mode	Median		
1	Q	4,2	5	4	42	Very Practical
2	S	4,2	4	4	42	
3	R	4,3	5	4,5	43	

Based on Table 5, the practicality test results indicated that all three practitioners rated the e-module as practical, with total scores of 42, 42, and 43, respectively. The researcher also calculated the mean, mode, and median values for each evaluator. For the first practitioner, the mean score was 4.2, the mode was 5, and the median was 4. For the second practitioner, the mean was also 4.2, with a mode of 4 and a median of 4. Meanwhile, the third practitioner, referred to as R, gave an average score of 4.3, with a mode of 5 and a median of 4.5.

Implementation Stage

In the implementation stage, the developed e-module was tested through a small group trial involving Fourth Grade students at SDN 112/I Muara Bulian. This limited-scale implementation aimed to examine the practicality and initial effectiveness of the module in a real classroom setting. The trial focused on observing how students interacted with the module, particularly in terms of ease of use, engagement, and comprehension of the integrated cultural content. Data were collected through student response questionnaires and observational notes during the learning activities. Based on these practicality test results, it can be concluded that the local wisdom-based e-module is considered practical and feasible for use in Fourth Grade elementary school instruction. Following the practicality assessment, the researcher also

conducted a small group trial to further evaluate the e-module's usability and effectiveness. The results of this small group trial are presented in the following section.

Table 6. Small Group Trial

No	Name	Average	Category
1	BP	3,7	Very Valid
2	AZ	3,7	
3	SNA	3,6	
4	CEP	3,5	
5	AJ	3,6	

The developed e-module was tested with students through a small group trial. Table 6 presents the results of this trial. Based on the data in Table 6, it can be concluded that the students gave positive feedback on the e-module they used. The average scores provided by the five students were 3.7, 3.7, 3.6, 3.5, and 3.6, respectively. These scores fall into the "valid" category, indicating that the e-module is appropriate for use in the teaching and learning process, especially when the target users are students

Evaluation Stage

Evaluation was an integral part of each phase in the ADDIE model, serving both formative and summative purposes. Throughout the analysis, design, and development stages, formative evaluations were conducted through expert reviews and stakeholder feedback, which guided continuous improvements to the module's content and structure. During the implementation phase, summative evaluation focused on gathering student responses via questionnaires to assess the practicality, clarity, and engagement level of the e-module. These responses were analyzed using descriptive statistics, allowing the researcher to identify strengths and areas for revision. Although inferential statistical tests were not applied due to the small sample size in the trial phase, the evaluation results provided meaningful insights into the module's usability and instructional relevance. Overall, the evaluation process ensured that the module met both pedagogical standards and the goal of integrating local cultural values into elementary education.

In the development process, this local wisdom-based e-module is systematically arranged, covering all important components such as: cover page, foreword, table of contents, core competencies, basic competencies, pre-test section, learning materials, learning videos, evaluation section containing exercises, creative activities (crafts), bibliography, and author's biography. The following is the final result of the e-module layout that has been developed.

The cover page of the e-module includes the module title, target grade level, a description of the learning content related to Theme 1, and visual elements reflecting the local wisdom of the *Tari Nek Pung* tradition.

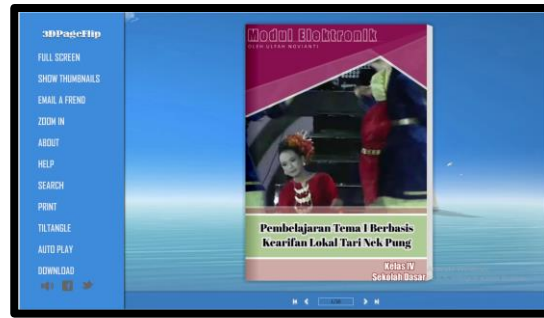


Figure 1. View of the Module cover

First and foremost, we express our gratitude for the successful completion of the development of this module as expected. This module integrates the local wisdom of the Nek Pung dance into the learning process for Fourth Grade elementary school students, specifically within Theme 1. By incorporating cultural heritage into the curriculum, this module aims to enrich students' understanding and appreciation of their local traditions while supporting the educational objectives.

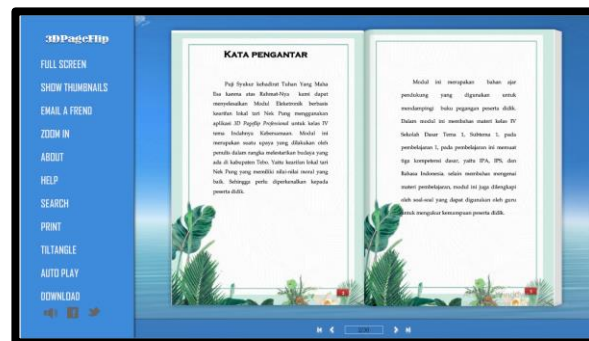


Figure 2. Display of the foreword

The table of contents provides an overview of the main sections of the developed electronic module and includes page numbers to help users easily find the material they are looking for.

DAFTAR ISI	
Kata pengantar	1
Daftar isi	2
Penerbitan penggunaan modul	3
Kompetensi inti	4
Kompetensi dasar dan indikator	5
Daftar Isi	6
Daftar Isi	7
Daftar Isi	8
Daftar Isi	9
Daftar Isi	10
Daftar Isi	11
Daftar Isi	12
Daftar Isi	13
Daftar Isi	14
Daftar Isi	15
Daftar Isi	16
Daftar Isi	17
Daftar Isi	18
Daftar Isi	19
Daftar Isi	20
Daftar Isi	21
Daftar Isi	22
Daftar Isi	23
Daftar Isi	24
Daftar Isi	25
Daftar Isi	26
Daftar Isi	27
Daftar Isi	28
Daftar Isi	29

Figure 3. Table of contents view

The module usage guide contains step-by-step instructions for using the module. This section is supplemented with images to assist users in understanding and navigating the module more easily.

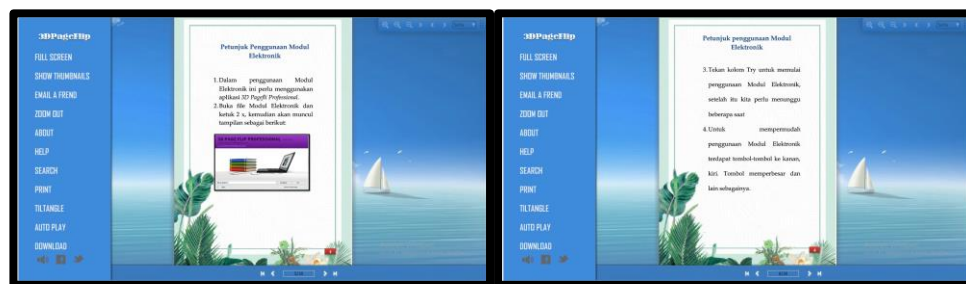


Figure 4. Display of module usage instructions

In the core competencies section, the researcher includes Competencies 1 through 4, which cover attitudes, knowledge, and skills competencies.

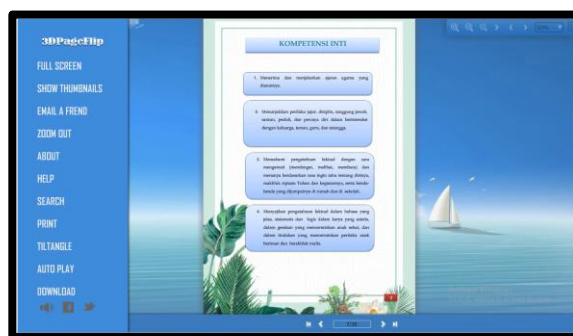


Figure 5. Core Competency Display

In the basic competencies section, the researcher includes the basic competencies for Science, Social Studies, and Indonesian Language, aligned with the Regulation of the Minister of Education and Culture (Permendikbud) Number 37 of 2018. These basic competencies are then further developed into indicators, which are constructed based on the Bloom's Taxonomy operational verbs.

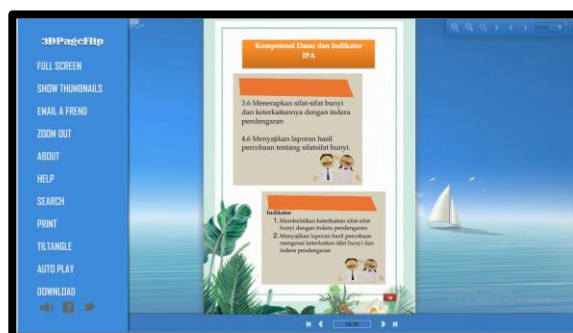
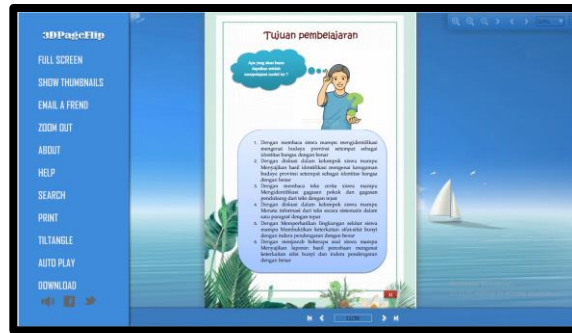


Figure 6. Display of basic competencies and indicators

The learning objectives section outlines six specific learning goals. The development of these objectives adheres to the established educational guidelines and is complemented by thinking animations to enhance students' cognitive engagement.



Gambar 7. Learning objectives display

In this section, the researcher explains the connection between one material and another through a creative diagram. This diagram serves as an illustration to help visualize and understand the materials to be studied.



Figure 8. Concept Map View

The pre-test section consists of initial questions designed to assess students' prior knowledge before the learning process begins.

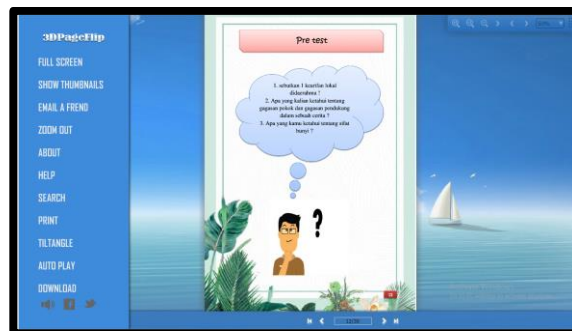


Figure 9. Pre-test section view

In this learning section, the researcher integrates a local wisdom video featuring the Nek Pung dance into the learning process, specifically within the Social Studies content. The video includes an introduction and closing presented by the researcher. This section also provides instructions for students to collaboratively analyze the video in groups.

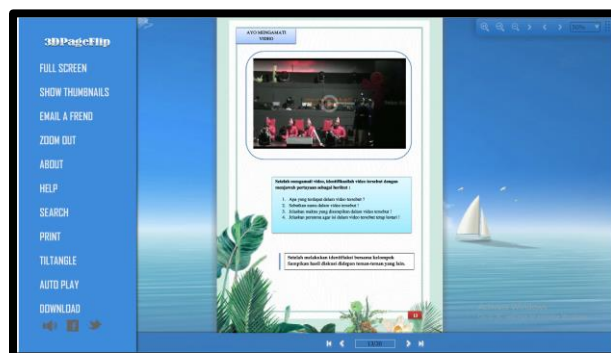


Figure 10. View of the learning video section

Several sections focus on student assignments, one of which involves identifying the main idea and supporting details within a text. This section is neatly organized using shapes to help students clearly distinguish between the main idea and supporting details.

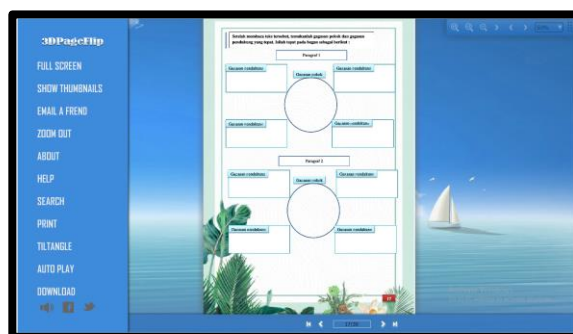


Figure 11. Indonesian Language Assignment Display

The learning material in this module includes content from the Indonesian language subject, featuring a story that incorporates the local wisdom of the Nek Pung dance. The development of the story is based on interviews conducted with traditional leaders and community figures in Sungai Keruh Village, Tebo Regency, who possess deep knowledge of the Nek Pung dance and its cultural significance.

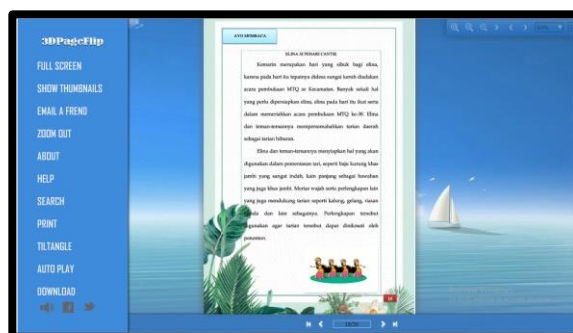


Figure 12. Display of learning materials

The worksheets included in this electronic module are based on the Grade IV teacher's and student's books for Theme 1, Subtheme 1, in Lesson 1.

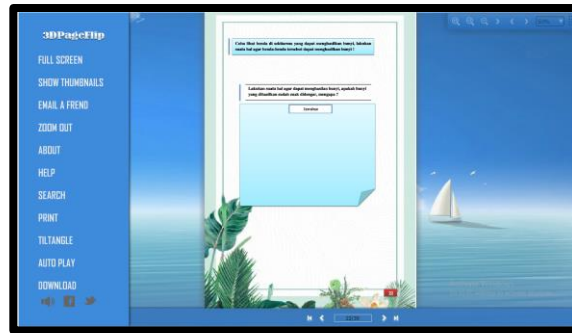


Figure 13. Display of Science Student Worksheet

In the craft activity, the researcher creates a project related to the local wisdom of the Nek Pung dance, specifically making ribbons as hair decorations for the dancers. This craft is intended to develop students' psychomotor skills.

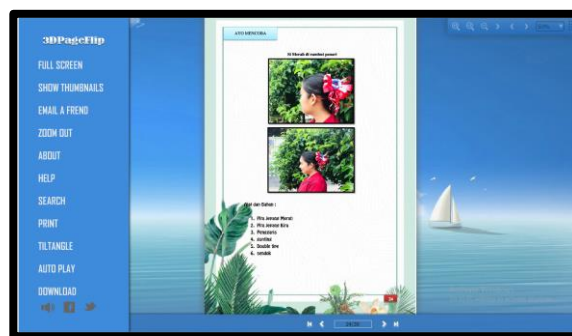


Figure 14. View of the Craft section

The glossary section contains terms that may be difficult to understand within the developed electronic module..

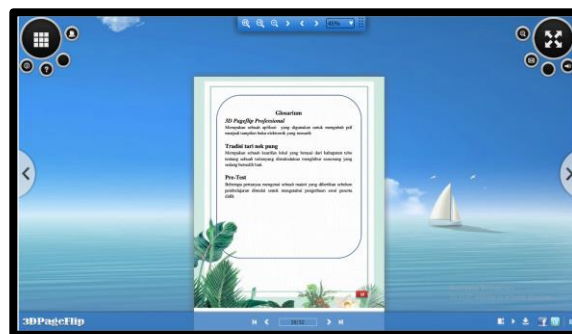


Figure 15. Glossary View

The references used by the researcher include the Grade IV elementary school teacher's and student's books for Theme 1, as well as a YouTube link related to the local wisdom of the Nek Pung dance.

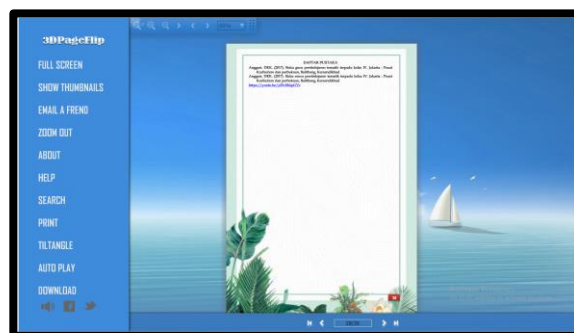


Figure 16. Reference list view

The development of a local wisdom-based e-module in this study demonstrates a significant contribution to creating a more contextual and meaningful learning process. The e-module, which integrates the values of the Nek Pung dance, was validated by experts and received very high validity ratings in terms of content, media presentation, and language. This assessment indicates that the developed material meets pedagogical feasibility standards and is relevant to the cultural context of the students. Furthermore, this e-module functions not only as a learning aid but also as a medium for preserving local culture, potentially strengthening students' identity and character. This success confirms that the use of technology in education impacts not only learning effectiveness but also the revitalization of local values increasingly threatened by globalization. These findings support Nuraini's (2018) argument that culture-based learning plays a strategic role in preserving cultural heritage while shaping student character.

The validity of the e-module was assessed through three main aspects: content, media presentation, and language use, all of which received a "very valid" rating from the expert validators. The content validity indicates that the learning material aligns with the curriculum and successfully integrates local cultural values in an authentic and educational manner. This supports content development theory as outlined by Tessmer & Richey (1997) which emphasizes the importance of contextual relevance and learner needs. The high media validity demonstrates that the visual design, navigation, and interactive elements of the e-module effectively enhance student engagement and comprehension. These findings align with Kirsh (2014) theory of multimedia learning, which highlights the role of well-structured visual design in supporting cognitive processing. The language component was also rated as highly valid, as the module employs sentence structures and diction appropriate for elementary school students, making the content easy to understand and free from ambiguity.

These findings reinforce Mussani et al.'s (2015) assertion that the quality of content, media presentation, and language use are fundamental components in the development of effective digital teaching materials. Based on the ADDIE development model, the high validity across all three aspects suggests that the product is ready for the next stages of practical implementation and effectiveness testing. Furthermore, the validation results reflect the application of sound instructional design principles as outlined by Dick and Carey (2001), emphasizing that each component of instructional media must be systematically designed, well-structured, and learner-centered. Thus, the e-module is not only technically and substantively appropriate but also aligned with key theoretical foundations in educational media development.

Besides validity, the practicality aspect of the e-module provides an important indication of the product's acceptability by users, in this case, Grade IV teachers. Based on practicality tests, teachers stated that the e-module is easy to use, requires no special technical training, and can be adapted to classroom needs. This is a crucial indicator that the developed teaching material corresponds with real classroom conditions in elementary schools, both technically and pedagogically. These findings align with the media development principles in the ADDIE model, which emphasize that a product must be not only content-valid but also user-friendly and implementable in the field (Branch, 2009). Practicality also shows that teachers have the flexibility to adopt innovative teaching materials without being burdened by technical difficulties, ultimately supporting a more dynamic learning process. Positive user acceptance is also a key prerequisite for the successful adoption of new media in formal education.

The effectiveness of the e-module in this study is demonstrated by increased student understanding of the material as well as a growing appreciation for the local cultural values embedded in the Nek Pung dance. Students showed high interest in the presented material, and their active participation during learning indicates that the e-module facilitates both cognitive and affective engagement. This aligns with Gillies' (2016) view that contextualized learning media involving cultural elements can create more meaningful learning experiences. More importantly, the e-module's effectiveness is reflected in changes in students' attitudes toward local culture, which was previously less known but became more appreciated and positively understood. This improvement is significant considering that education goals encompass not only knowledge acquisition but also the cultivation of character and social values. Thus, integrating local wisdom into

digital media is not only curriculum-relevant but also strategic for shaping students' cultural identity from an early age (Sharma, 2024; Manarfa & Lasaiba, 2024).

The effectiveness of the e-module can also be explained through Mayer's (2009) multimedia learning theory, which states that information processing is more effective when material is presented through a combination of text, images, audio, and interactivity. In the Nek Pung Dance e-module, these elements are harmoniously integrated using the 3D Pageflip Professional application, enabling a more engaging presentation that suits the learning characteristics of elementary school students. Besides enhancing visual appeal, the multimedia integration strengthens students' understanding of cultural content that might otherwise be abstract. Thus, the use of multimedia not only increases learning motivation but also aids the internalization of the cultural values conveyed (Mukti & Hwa, 2004). This demonstrates that technology can be optimally utilized to support local culture-based education, provided the design and presentation adhere to proper pedagogical principles. Therefore, this e-module succeeds not only technically but also in translating cultural values into an applicable and effective form of digital learning.

Although the e-module has shown a high level of effectiveness, reflection on the development process reveals room for improvement, particularly in the aspects of interactivity and media variety. Interactive elements such as quiz-based exercises, simulations, or student discussion forums have not been fully utilized in the module. However, interactivity in e-modules has been proven to enhance learning retention and create more personalized learning experiences (Clark & Mayer, 2016). Therefore, future versions should incorporate these features to increase the competitiveness of this e-module compared to other digital products. Strengthening interactivity will also help students become active participants in learning rather than passive information receivers (Blasco et al., 2013). With these improvements, the e-module will have greater value in supporting differentiated learning as mandated by the Merdeka Curriculum. This aligns with the needs of the digital generation, which favors visual and interactive approaches to learning.

Besides interactivity, it is important to consider students' responses from diverse cultural backgrounds toward the local wisdom-based content of this e-module. Although the module was developed based on the cultural values of Tebo, it is crucial to ensure that the material remains acceptable and appreciated by students from other regions or cultures. Previous research has shown that local culture-based learning has the potential

to strengthen student identity but must also be managed carefully to avoid cultural exclusivity (Wibowo, 2020). Therefore, further trials of this module in elementary schools with diverse cultural backgrounds are necessary to gauge student responses and content flexibility. This is important to broaden the module's applicability while avoiding cultural bias that may arise in developing culture-based teaching materials. If the module gains wide acceptance, its function as a cultural preservation tool and contextual learning medium will be optimized. In other words, cultural diversity within the national context can become an integrative strength in curriculum and teaching material design (Banks, 2015).

The development of this e-module also highlights the importance of active teacher participation in designing teaching materials relevant to the local context. Teachers, as facilitators, do not only act as users but also as developers and transmitters of cultural values to students. Field observations show that teachers involved in using the e-module demonstrate enthusiasm and ease in implementing it in the learning process. This indicates that with appropriate training and guidance, elementary school teachers can become key agents in preserving culture through ICT-based learning. Furthermore, teacher support for using local culture-based e-modules signals potential for systemic integration within the school curriculum. This is crucial, as the success of a learning media product depends not only on its quality but also on the extent to which it can be consistently adopted and utilized by educators (Eshetu, 2015).

From a curriculum development perspective, this study supports the importance of designing teaching materials that are contextual and aligned with students' learning environment. The Merdeka Curriculum provides teachers with the flexibility to adapt learning materials based on local needs and characteristics, making e-modules like this highly relevant to develop and implement. Integrating local wisdom into teaching materials not only enriches the learning content but also bridges cultural values with 21st-century competencies (Ahmar & Azzajjad, 2025). In this context, the Nek Pung Dance e-module not only delivers Indonesian language learning content but also teaches values of gratitude, simplicity, and perseverance reflected in the dance's story. These values are essential for character building and support the achievement of the Pancasila Student Profile outlined in national education policy. Thus, this e-module can be positioned as a product that strengthens local culture while supporting Indonesia's educational transformation toward a more rooted and competitive future.

Finally, the integration of technology and local culture in a single digital learning package like this e-module represents a new direction in developing context-based teaching media. The success of this e-module development proves that technology use does not have to erode traditional values but can serve as a modern platform to introduce culture to younger generations (Kawuryan et al., 2025). With the increasing adoption of ICT in education, learning products like this are essential to address the challenges of the digital era without losing the nation's cultural roots. This e-module also demonstrates that local culture-based approaches can be creatively harnessed with technological support to become effective, engaging, and relevant learning media. Therefore, similar developments in other regions are strongly recommended as part of a national movement to preserve culture through education. When technology aligns with culture, education functions not only as a means of knowledge transfer but also as an instrument for the sustainable inheritance of the nation's noble values (Bowers, 1995; Frondizi et al., 2019, Balo & Sanchez, 2025)

The use of the ADDIE development model in this study has proven effective in producing a systematic and measurable learning product. This model provides a clear framework, beginning with needs analysis and ending with evaluation, ensuring that each development phase is based on valid data and considerations. During the analysis phase, the researcher not only examined the material needs and learner characteristics but also explored local cultural sources from traditional leaders and relevant agencies, thereby strengthening the cultural and empirical foundation of the e-module content. The design and development processes were carried out based on these analytical findings, resulting in a module that not only meets curriculum standards but also reflects the living cultural values of the local community. Evaluation through validity and practicality tests demonstrated that the ADDIE model can be effectively utilized to develop learning media based on cultural values. The adaptation of the development model to local characteristics underscores the flexibility and advantage of the ADDIE approach within the context of culture-based education.

The main strength of this e-module lies in its successful integration of technology with rich cultural content. This product does not merely present information about the Nek Pung Dance but invites students to understand the symbolic meanings and moral values embedded within it. Learning goes beyond visual cultural recognition to engage students affectively through stories, movements, and values inherent in the dance. This

aligns with Juliyanti's (2017) view that culture-based learning facilitates students' understanding of contextual and relevant life values. Such an approach provides space for learners not only to know their culture but also to internalize its moral messages. In the context of character education, this is critical as students are expected not only to grasp concepts but also to embody attitudes and behaviors consistent with the nation's noble values.

The implications of this e-module development extend beyond improving learning quality at the elementary school level to making a significant contribution to local cultural preservation. Amid globalization and the overwhelming flow of information that tends to marginalize traditional culture, integrating local wisdom into education becomes a long-term strategy to strengthen national identity. E-modules like this offer a concrete solution to bridge modern learning needs and the urgency of cultural value preservation. When students are introduced to their culture through media perceived as attractive and relevant, the preservation process naturally unfolds through education. This reinforces educational policies that emphasize not only knowledge acquisition but also character building and national identity formation. Therefore, the findings of this study hold practical and strategic significance for curriculum planning and the development of locally based teaching materials across diverse regions.

In addition to its practical contributions, this study also holds significant theoretical potential for advancing research on culture-based education and digital media. Studies on the integration of learning technology with cultural values remain limited, especially within the context of primary education in Indonesia. The findings demonstrate that local wisdom values can be digitally packaged without losing their original cultural essence; in fact, they can be enhanced through visual and interactive approaches. This finding serves as a starting point for developing learning theories grounded in locality and contextuality within the Indonesian education system. Accordingly, this study provides empirical evidence to support strengthening educational approaches that not only rely on standardized national materials but also create space for curricula rooted in local values. This potential warrants further exploration in interdisciplinary studies involving education, culture, and technology.

As a closing remark, it is important to recognize several limitations inherent in this study that warrant consideration in future research and development efforts. The testing of the e-module was conducted on a limited scale, involving a small group of students from

only one educational institution, which restricts the generalizability of the findings. Additionally, the evaluation of the e-module's effectiveness was primarily descriptive in nature and did not incorporate advanced statistical methods to quantitatively measure its impact on student learning outcomes. To build a more robust evidence base, future research is recommended to adopt experimental or quasi-experimental designs with larger and more diverse participant samples. Expanding the research across various regions and school contexts would provide deeper insights into the effectiveness of the e-module in different educational settings. Moreover, it would be beneficial for future studies to examine how the cultural backgrounds of students influence their engagement with and perception of local wisdom-based instructional materials. Such investigations would not only improve the module's cultural relevance but also reinforce the broader goal of integrating character education and cultural preservation into the national curriculum.

In addition to these research-oriented recommendations, it is also necessary to reflect on the potential challenges teachers may face when implementing the e-module in real classroom settings. Despite its cultural richness and pedagogical design, teachers might encounter difficulties related to digital literacy, especially in regions with limited access to technological infrastructure. Furthermore, integrating local cultural content like the Nek Pung dance requires a degree of cultural familiarity and pedagogical confidence that some teachers may not yet possess. Professional development and targeted training may be required to ensure that teachers can effectively use the module, facilitate meaningful discussions around its content, and adapt it to the needs of their students. Addressing these practical concerns is crucial to ensure that the integration of local wisdom into digital learning does not merely remain an ideal but becomes an accessible and sustainable practice in everyday classroom instruction.

CONCLUSION

This study successfully developed a local wisdom-based e-module that integrates the cultural values of the Tari Nek Pung dance from Tebo Regency into the learning process for fourth-grade elementary school students. The results indicate that the e-module has a very high level of validity in terms of content, media, and language; it is practical for use by teachers and students; and effective in enhancing students' understanding of the material as well as their appreciation of local culture. This e-module is not only suitable as thematic teaching material but also serves as a medium for

preserving regional culture, packaged in a digital and interactive format. The integration of learning technology and local wisdom within this module represents a strategic innovation supporting the implementation of the Merdeka Curriculum, which emphasizes contextualization and differentiated learning. Thus, the development of local culture-based teaching materials through digital approaches like this has the potential to strengthen students' cultural identity while improving the quality of learning. Further research is recommended to examine the broader and long-term implementation of this module to more comprehensively measure its contribution to education and cultural preservation.

REFERENCES

- Ahmar, D. S., & Azzajjad, M. F. (2025). Empowering local wisdom for enhancing students' social skills in the global era. *Journal of Education, Social & Communication Studies*, 2(2), 112–127. <https://doi.org/10.71028/jescs.v2i2.120>
- Amirin, T. M. (2013). Implementation of Contextual Multicultural Education Approach Based on Local Wisdom in Indonesia. [in Bahasa] *Jurnal Pembangunan Pendidikan: Fondasi dan Aplikasi*, 1(1). <https://doi.org/10.21831/jppfa.v1i1.1047>
- Anggari, DKK. (2017). Integrated thematic learning teacher's book for fourth grade. [in Bahasa] Jakarta : Pusat Kurikulum dan perbukuan, Balitbang, Kemendikbud
- Anggari, DKK. (2017). Student book for integrated thematic learning for grade IV. [in Bahasa] Jakarta : Pusat Kurikulum dan perbukuan, Balitbang, Kemendikbud
- Asyar, R. (2012). Creativity in developing learning media. [in Bahasa] Gaung Persada (GP) Press Jakarta.
- Badan Standar pendidikan 2012. Elementary School Textbook Assessment Book Instrument Graphics component. [in Bahasa] Jakarta. Depdiknas
- Balo, V. T. M., & Sanchez, J. M. P. (2025). Evaluation of educational assessment module for flexible STEM education. *STEM Education*, 5(1), 130–151. <https://doi.org/10.3934/steme.2025007>
- Banks, J. A. (2015). *Cultural diversity and education: Foundations, curriculum, and teaching*. Routledge.
- Blasco-Arcas, L., Buil, I., Hernández-Ortega, B., & Sese, F. J. (2013). Using clickers in class. The role of interactivity, active collaborative learning and engagement in learning performance. *Computers & Education*, 62, 102–110. <https://doi.org/10.1016/j.compedu.2012.10.019>
- Bowers, C. A. (1995). *Educating for an ecologically sustainable culture: Rethinking moral education, creativity, intelligence, and other modern orthodoxies*. Suny Press.
- Branch, R. M. (2009). *Instructional design: The ADDIE approach* (Vol. 722). Springer Science & Business Media.
- Brata Ida Bagus. (2016). Local Cultural Wisdom Bonds National Identity. [in Bahasa] *Jurnal Bakti Saraswati*. Diakses Pada Hari Minggu 20 Juli 2019. Pukul 00.00 WIB, 05(01), 9–16. <https://doi.org/10.1007/s11104-008-9614-4>
- Budiman, H. (2017). The Role of Information and Communication Technology in Education. [in Bahasa] *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 8(1), 31. <https://doi.org/10.24042/atjpi.v8i1.2095>

- Desfandi, M. (2014). The Urgency of Local Wisdom-Based Disaster Education Curriculum in Indonesia. [in Bahasa] *Sosio-Didaktika: Social Science Education Journal*, 1(2), 191–198. <https://doi.org/10.15408/sd.v1i2.1261>
- Dick, W., Carey, L. (2001). *The systematic design of instruction* (5th ed.). Addison-Wesley Educational Publishers Inc.
- Eshetu, G. (2015). *Factors affecting instructional leaders' perception towards educational media utilization in classroom teaching*. Anchor Academic Publishing (aap_verlag).
- Fahreza, M. Y., Robbani, A., & Fahri, A. (2024). Uniting Tradition and Technology: Preserving Lampung Culture within the Framework of Sustainable Education in the SDGs Era. [in Bahasa] *Innovative: Journal Of Social Science Research*, 4(5), 1990–1998. <https://doi.org/10.31004/innovative.v4i5.15181>
- Fronidizi, R., Fantauzzi, C., Colasanti, N., & Fiorani, G. (2019). The Evaluation of Universities' Third Mission and Intellectual Capital: Theoretical Analysis and Application to Italy. *Sustainability*, 11(12), 3455. <https://doi.org/10.3390/su11123455>
- Ghaliyah, S., Bakri, F., & Siswoyo, S. (2015). Development of Electronic Modules Based on The Learning Cycle 7e Model on The Topic of Fluid Dynamics For Eleventh Grade High School Students. *Prosiding Seminar Nasional Fisika (E-JOURNAL)*, 4, SNF2015-II. Retrieved from <https://journal.unj.ac.id/unj/index.php/prosidingsnf/article/view/4998>
- Handayani, P. (2017). Efforts to Improve Students' Social Skills Through Traditional Congklak Games in Social Studies Subjects. [in Bahasa] *Premiere Educandum : Jurnal Pendidikan Dasar dan Pembelajaran*, 7(01), 39. <https://doi.org/10.25273/pe.v7i01.1245>
- Ilhami, A., Riandi, R., & Sriyati, S. (2019). Implementation of science learning with local wisdom approach toward environmental literacy. *Journal of Physics: Conference Series*, 1157(2). <https://doi.org/10.1088/1742-6596/1157/2/022030>
- Islamuddin, I. (2016). Development of Talang Mamak Tribe Culture as Local Wisdom Values in The Civic Culture Section (Ethnographic Study of the Talang Mamak Tribe Community in Rakit Kulim District, Indragiri Hulu Regency, Riau Province). [in Bahasa] *Jurnal Pendidikan Ilmu Sosial*, 23(2), 55. <https://doi.org/10.17509/jpis.v23i2.1619>
- Ja'far. Yanu, A., Fianto, A., & Yosep, S. P. (2014). *Creation of an illustrated book of traditional games as an effort to preserve local cultural heritage*. [in Bahasa] 3(1).
- Juliawan, I. N., Palguna, I. K. E., Ardiyasa, P., Yasa, I. K. A., & Wahyuni, I. G. A. D. (2024). Development of Augmented Reality-Based Art History Textbooks for Students of Arts And Religious Culture Education. [in Bahasa] *Jurnal Ilmiah Pendidikan Citra Bakti*, 11(4), 1212–1226. <https://doi.org/10.38048/jipcb.v11i4.4579>
- Juliyanti, T. T. (2017). Implementation of Local Wisdom-Based Curriculum in Sixth Grade of Sendangsari Pajangan Elementary School, Bantul, Special Region of Yogyakarta. *Prodi PGSD Universitas PGRI Yogyakarta*.
- Kawuryan, S. P., Wuryandani, W., Supartinah, S., Malagola, Y., & Umardianti, U. (2025). Digital Module of Pancasila Education and IPAS in Elementary School: Preliminary Research. Dalam I. Widiyanah, M. N. Ashar, A. Fakhrudin, A. A. Zawawi, S. Ledger, T. Loughland, A. Kristanto, M. N. B. A. Rahman, L. M. S. Harti, A. W. Kohar, & M. Nursalim (Ed.), *Proceedings of the 8th International Conference on Education Innovation (ICEI 2024)* (Vol. 888, hlm. 1021–1037). Atlantis Press SARL. https://doi.org/10.2991/978-2-38476-360-3_89

- Kirsh, D. (2014). Metacognition, distributed cognition, and visual design. In *Cognition, education, and communication technology* (pp. 147-179). Routledge. Form: <https://adrenaline.ucsd.edu/kirsh/Articles/Metacognition/metacognition.pdf>
- Kuswandi, K. (2025). Culturally Responsive Teaching Modules to Improve Reading Comprehension of Narrative Text for Elementary School Students. *Pedagogia : Jurnal Pendidikan*, 14(2), 131-160. <https://doi.org/10.21070/pedagogia.v14i2.1899>
- Kuntarto, Eko. (2017). The Effectiveness of Online Learning Models in Indonesian Language Lectures at Universities. [in Bahasa] *indonesian language education and liteartus (ILEAL, 3 (1)* 99-110. <http://dx.doi.org/10.24235/ileal.v3i1.1820>
- Maharani, H. R. (2014). Character Values in Project Based Learning of Junior High School Statistics Material. [in Bahasa] *Jurnal Pendidikan Matematika FKIP Unissula*, 2(2), 199-217.
- Manarfa, A., & Lasaiba, D. . (2024). Weaving the Cultural Mosaic: Assembling the Pluralism Puzzle with Ethnic Touch in Moderation Education. *Journal Of Global Learning And Teaching*, 1(1), 19-30. Retrieved from <https://ejournal.insightmediatama.co.id/jglt/article/view/4>
- Mentri pendidikan dan kebudayaan Republik Indonesia. (2018). Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 37 of 2017 concerning Amendments to the Regulation of the Minister of Education and Culture Number 24 of 2016 concerning Core Competencies and Basic Competencies of Subjects in the 2013 Curriculum in Primary and Secondary Education. [in Bahasa] Jakarta.
- Mukti, N., & Hwa, S. P. (2004). Malaysian perspective: Designing interactive multimedia learning environment for moral values education. *Journal of Educational Technology & Society*, 7(4), 143-152. http://www.ifets.info/journals/7_4/14.pdf
- Mussani., Susilawati, & Hadiwijaya, A. S. (2015). Development of High School Physics Teaching Materials Based on Learning Cycle (Lc) 3e on The Core Material of Kinetic Theory of Gas And Thermodynamics. [in Bahasa] *Jurnal Penelitian Pendidikan IPA*, 1(1). <https://doi.org/10.29303/jppipa.v1i1.10>
- Nuraini, L. (2019). Integration of Local Wisdom Values in Elementary School Mathematics Learning in The 2013 Curriculum. [in Bahasa] *Jurnal Pendidikan Matematika (KUDUS)*, 1(2). <https://doi.org/10.21043/jpm.v1i2.4873>
- Shufa, N. K. F. (2018). Local Wisdom-Based Learning in Elementary Schools: A Conceptual Framework. [in Bahasa] *INOPENDAS: Jurnal Ilmiah Kependidikan*, 1(1). <https://doi.org/10.24176/jino.v1i1.2316>
- Pemerintah Republik Indonesia. (2017). Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.34 /Menlhk/Setjen/Kum.1/5/2017 Concerning Recognition and Protection of Local Wisdom in the Management of Natural Resources and the Environment, Jakarta. [in Bahasa]
- Pertami, D., Agung, A. A. G., & Tegeh, I. M. (2017). *Development of Contextual Approach Modules in Science Subjects at SMP Negeri 1 Kerambitan*. [in Bahasa] 5, 39-49. <https://doi.org/10.23887/jeu.v5i1.11131>
- Putra, I. G. L. A. K., Tastra, I. D. K., & Suwatra, I. I. W. (2014). Development of learning video media with the ADDIE model in English learning at SDN 1 Selat. [in Bahasa] *Jurnal EDUTECH Undiksha*, 2(1). <https://doi.org/10.23887/jeu.v2i1.3939>

- Raihan, S., Haryono, & Ahmadi, F. (2018). Development of Scientific Learning E-Book Using 3D Pageflip Professional Program. *Innovative Journal Of Curriculum and Educational Technology*, 7(1), 7–14. <https://doi.org/10.15294/ijcet.v7i1.24793>
- Rezkita, Shanta, et al. "Profile of Students' Critical Thinking Skills in Developing Integrated Local Wisdom Learning Sets." [in Bahasa] *Taman Cendekia*, vol. 1, no. 2, 2017, pp. 121-126, doi:[10.30738/tc.v1i2.1946](https://doi.org/10.30738/tc.v1i2.1946).
- Rohani, Rohani, et al. "Analysis of Efforts to Preserve Cultural Values in the Malay Indigenous Community in Sungai Kakap District, Kubu Raya Regency." [in Bahasa] *Vox Edukasi*, vol. 9, no. 2, 2018, doi:[10.31932/ve.v9i2.174](https://doi.org/10.31932/ve.v9i2.174).
- Setiawan, B., Innatesari, D. K., Sabtiawan, W. B., & Sudarmin, S. (2017). The development of local wisdom-based natural science module to improve science literation of students. *Jurnal Pendidikan IPA Indonesia*, 6(1), 49–54. <https://doi.org/10.15294/jpii.v6i1.9595>
- Shaleha, M. A., & Purbani, W. (2019). Conference Paper Using Indonesian Local Wisdom As Language Teaching Material to Build Students' Character in Globalization Era. *International Seminar on Language, Education, and Culture, 2019*(2000), 292–298. <https://doi.org/10.18502/kss.v3i10.3910>
- Sharma, B. (2024). Local Curriculum in Basic Level Education: Cultural Connection Versus Academic Coherence. *Praghyaratna प्रग्यारतन*, 6(2), 161-173. <https://doi.org/10.3126/praghyaratna.v6i2.70604>
- Soesilo, A., & Munthe, A. P. (2020). Development of Eighth Grade Mathematics Textbooks Using the ADDIE Model. [in Bahasa] *Scholaria: Jurnal Pendidikan dan Kebudayaan*, 10(3), 231-243. <https://doi.org/10.24246/j.js.2020.v10.i3.p231-243>
- Suhartiwi, S., & Musifuddin, M. (2013). Mode and Format of Counseling Service Implementation in Understanding Cross-Cultural Clients. [in Bahasa] *Jurnal Konseling dan Pendidikan*, 1(1), 73–82. <https://doi.org/10.29210/11300>
- Sukarma, I. W. (2017). Development of Local Wisdom of Arts and Culture through Banjar-Based Education in Bali. [in Bahasa] *Proceeding of 2nd International Conference of Arts Language And Culture*, 21–32.
- Tessmer, M., & Richey, R. C. (1997). The role of context in learning and instructional design. *Educational technology research and development*, 45(2), 85–115. <https://doi.org/10.1007/BF02299526>
- Utari, U., Degeng, I. N. S., & Akbar, S. (2016). Local Wisdom-Based Thematic Learning in Elementary Schools in Facing the ASEAN Economic Community (AEC). [in Bahasa] *Jurnal Teori Dan Praksis Pembelajaran IPS*, 1(1), 39–44. <https://doi.org/10.17977/um022v1i12016p039>
- Wagiran (2012). Character Development Based on Local Wisdom Hamemayu Hayuning Bawana (Identification of Culturally Based Character Values). [in Bahasa] 120801. <https://doi.org/10.21831/jpk.v0i3.1249>
- Wahyono, P., Husamah, H., & Budi, A. S. (2020). Professional teachers during the COVID-19 pandemic: Review of implementation, challenges,. [in Bahasa] *Jurnal Pendidikan Profesi Guru*, 1(1), 51–65. <https://doi.org/10.22219/jppg.v1i1.12462>
- Wedianto, A., Sari, H. L., & H, Y. S. (2016). *Comparative Analysis of Gaussian, Mean and Median Filter Methods for Noise Reduction*. [in Bahasa] 12(1), 21–30. <https://doi.org/10.37676/jmi.v12i1.269>
- Widyoko. E.P (2020)"Research Instrument Preparation Techniques" [in Bahasa] *pustaka belajar : Yogyakarta*

- Wijiningsih, Ninik, et al. "Development of Thematic Teaching Materials Based on Local Culture." [in Bahasa] *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, vol. 2, no. 8, 1 Aug. 2017, doi:[10.17977/jptpp.v2i8.9760](https://doi.org/10.17977/jptpp.v2i8.9760).
- Yanu, A., Fianto, A., & Yosep, S. P. (2014). *Creation of an illustrated book of traditional games as an effort to preserve local cultural heritage*. [in Bahasa] 3(1).