



## Development of E-Modules in Applied Linguistics Learning Based on the Independent Curriculum with Local Wisdom Content in Bojonegoro

Nilna Indriana<sup>1</sup>, Mas Tajuddin Ahmad<sup>2</sup>

<sup>1,2</sup>Prodi Bahasa dan Sastra Arab, Universitas Nahdathul Ulama Sunan Giri  
Bojonegoro, Jawa Timur, Indonesia

\*E-mail: [nilna@unugiri.ac.id](mailto:nilna@unugiri.ac.id).

### ABSTRACT

In the 21st century education demands integrating technology into learning to improve students' skills and readiness to meet the challenges of the digital era. The Industrial Revolution 4.0 and the concept of Society 5.0 encourage the use of Information and Communication Technology (ICT) in the Merdeka Learning curriculum, which aims to provide a more innovative and responsive learning experience in line with current developments. However, the implementation of technology in learning still faces various obstacles, including a lack of understanding of local wisdom in the curriculum content. In this context, it is important to develop a curriculum grounded in local wisdom to strengthen students' cultural identity and character. Bojonegoro has rich cultural potential, such as Jenogoroan painted batik, which can be introduced to younger generations through education. The lack of integration of local wisdom into university courses indicates the need for innovative approaches, such as the development of digital teaching materials in the form of e-modules. This research aims to develop e-modules in Applied Linguistics Learning Based on the Merdeka Curriculum with Bojonegoro Local Wisdom Content. With an approach based on technology and local culture. With the development of this e-module, it is hoped that students will gain a better understanding of the relationship between language and local culture, while simultaneously enhancing their academic competency in applied linguistics. Furthermore, integrating technology into learning can increase motivation to learn and prepare students to face global challenges while preserving their cultural identity. The product will be produced through R&D research using the ADDIE design. ADDIE consists of five stages: analysis, design, development, implementation, and evaluation.

*Keywords: E-modules, applied linguistics learning, Independent Curriculum, local wisdom*

## Pengembangan E-Modul dalam Pembelajaran Linguistik Terapan Berbasis Kurikulum Merdeka dengan Muatan Kearifan Lokal Bojonegoro

### ABSTRAK

Pendidikan abad ke-21 menuntut integrasi teknologi dalam pembelajaran guna meningkatkan keterampilan dan kesiapan siswa menghadapi tantangan era digital. Revolusi industri 4.0 dan konsep society 5.0 mendorong pemanfaatan Teknologi Informasi dan Komunikasi (TIK) dalam kurikulum merdeka belajar, yang bertujuan memberikan pengalaman belajar lebih inovatif dan responsif terhadap perkembangan zaman. Namun demikian, implementasi teknologi dalam pembelajaran masih menghadapi berbagai kendala, termasuk kurangnya pemahaman terhadap kearifan lokal dalam muatan kurikulum. Dalam konteks ini, penting untuk mengembangkan kurikulum berbasis kearifan lokal guna memperkuat identitas budaya serta karakter peserta didik. Bojonegoro memiliki potensi budaya yang kaya, seperti batik lukis jenogoroan, yang dapat dikenalkan kepada generasi muda melalui pembelajaran. Kurangnya integrasi kearifan lokal dalam mata kuliah di Perguruan Tinggi menunjukkan perlunya pendekatan inovatif, seperti pengembangan bahan ajar digital dalam bentuk E-Modul Penelitian ini bertujuan untuk mengembangkan E-Modul dalam Pembelajaran Linguistik Terapan Berbasis Kurikulum Merdeka dengan Muatan Kearifan Lokal Bojonegoro. Dengan pendekatan berbasis teknologi dan budaya lokal. Dengan adanya pengembangan E-Modul ini, diharapkan mahasiswa dapat lebih memahami hubungan antara bahasa dan budaya lokal, sekaligus meningkatkan kompetensi akademik mereka dalam bidang linguistik terapan. Selain itu, integrasi teknologi dalam pembelajaran juga dapat meningkatkan motivasi belajar dan mempersiapkan mahasiswa untuk menghadapi tantangan global tanpa melupakan identitas budaya mereka. Produk akan dihasilkan melalui penelitian R&D dengan desain ADDIE. ADDIE terdiri dari lima tahapan, yaitu analysis, design, development, implementation, dan evaluation.

*Kata kunci: E-modul, pembelajaran linguistik terapan, Kurikulum Merdeka, kearifan lokal*

Submitted  
20/10/2025

Accepted  
27/10/2025

Published  
28/10/2025

Citation	Indriana, N., & Ahmad, M. T. (2025). Development of E-Modules in Applied Linguistics Learning Based on the Independent Curriculum with Local Wisdom Content in Brojonegoro. <i>Jurnal Pembelajaran Bahasa dan Sastra, Volume 4, Nomor 5, September 2025, 1261-1272</i> . DOI: <a href="https://doi.org/10.55909/jpbs.v4i5.916">https://doi.org/10.55909/jpbs.v4i5.916</a>
----------	---

Publisher  
Raja Zulkarnain Education Foundation

## INTRODUCTION

Advances in science and technology, particularly in the Industrial Revolution 4.0, have had a significant impact on 21st-century education (Suryaman, 2020). Understanding the importance of utilizing Information and Communication Technology (ICT) in learning, particularly in the era of Industrial Revolution 4.0 and Society 5.0, is crucial for improving the quality of education in Indonesia (Syahputra & Nasution, 2018).

The concept of "Merdeka Belajar" (independent learning), associated with Society 5.0, is part of the "Merdeka Belajar" (independent learning) initiative being promoted by the government and reflects the integration of technology to solve societal problems (Lailly & Wisudawati, 2015). The implementation of digital-based and innovative learning tools in the "Merdeka Belajar" curriculum can have a positive impact on learning quality (Aji, 2017; Fauzan et al., 2023).

One significant change in the "Merdeka Curriculum" is providing flexibility in learning and encouraging the integration of local culture into the educational process. This approach is expected to enhance students' understanding of local cultural values, including the local wisdom of Bojonegoro, which currently receives less attention in formal education, especially in higher education. In fact, local wisdom plays a crucial role in shaping students' character and cultural understanding (Sibarani, 2018; Gagaramusu et al., 2025; Aini, Q., & Adiyono, A. (2023).

Applied Linguistics courses play a crucial role in analyzing, understanding, and developing language use in various contexts, including within regional cultural contexts. The lack of local wisdom in linguistics learning can lead to students lacking an understanding of how language develops and is used in the social life of the Bojonegoro community.

Each region in Indonesia has unique characteristics that define its identity (Femin & Muhsam, 2023; Apriana et al., 2020). From these characteristics, various local wisdom values emerge. This

diversity of local wisdom can be understood and recognized through the educational process (Khasanah et al., 2023). Currently, the education system is well-regulated and structured within the curriculum (Alimuddin, 2023).

Introducing the strengths of Bojonegoro is crucial for better understanding the region's culture (Bunga et al., 2022), for example, the distinctive Jenogoroan painted batik craft, one of Bojonegoro's leading products. Batik Lukis (painted batik) is a technique of painting on cloth using a brush or canting (traditional hand-drawn batik) without using specific rules. This is a local specialty that needs to be developed and introduced to today's younger generation. One way to do this is by incorporating local excellence into the curriculum at universities (Widyawati et al., 2021).

In today's digital era, the use of technology in learning is becoming increasingly important. E-Modules can be an innovative solution to increase the effectiveness of Applied Linguistics learning. These modules not only provide more flexible learning access but also help students develop language skills through a bilingual approach (Suharti S, 2022). Students can enrich their understanding of linguistic concepts and their application in various cultural contexts. However, in practice, the development of digital-based teaching materials integrated with local wisdom is still limited. Most teaching materials currently used primarily refer to national or international references, making them less relevant to local cultural conditions. Therefore, efforts are needed to develop e-modules for Applied Linguistics Learning based on the Independent Curriculum and integrating Bojonegoro local wisdom.

The research questions, based on the above background, include:

- 1) How is the design of the e-module for the independent learning curriculum based on Bojonegoro local wisdom in applied linguistics learning?
- 2) How effective is the e-module for the independent learning curriculum based on

Bojonegoro local wisdom in applied linguistics learning?

Based on the above problem formulation, the objective of this research is to design and develop an e-module for the Independent Curriculum (Kurikulum Merdeka) based on Bojonegoro local wisdom for Applied Linguistics. This e-module is expected to provide innovative, interactive, and contextual learning media that incorporates Bojonegoro's local cultural values. Furthermore, this research aims to test and analyze the effectiveness of the e-module for the Independent Curriculum (Kurikulum Merdeka) based on Bojonegoro local wisdom in improving students' conceptual understanding, analytical skills, and learning motivation in the Applied Linguistics course, thereby supporting meaningful and relevant learning, addressing the cultural context and needs of students.

With the development of this e-module, it is hoped that students will gain a better understanding of the relationship between language and local culture, while simultaneously enhancing their academic competency in applied linguistics. Furthermore, the integration of technology into learning can also increase learning motivation and prepare students to face global challenges without forgetting their cultural identity.

Based on the facts and context described previously, the main objective of this research is to develop a bilingual e-module for applied linguistics learning based on the Independent Curriculum with Bojonegoro local wisdom content.

## METHOD

This research uses a research and development approach. This approach was chosen because it aims to produce educational products that are valid, practical, and effective for use in the learning process. Through this research and development, it is hoped that the resulting e-module will not only be relevant to the principles of the Independent

Curriculum but will also be able to contextually integrate the values of Bojonegoro local wisdom. This development research uses the ADDIE development design. ADDIE is a development model consisting of analysis, design, development, implementation, and evaluation stages (Molenda, 2015). The research stages can be seen this figure below.



Figure  
Research Stage Flowchart

The process, outputs, and targeted achievement indicators, as well as the team members responsible for each stage of the research, are described below (Test, 2024).

### First Stage: Analysis

Main activity: a) analyze student needs for digital-based, bilingual Applied Linguistics teaching materials; b) analyze lecturers' needs for the integration of local wisdom in learning; c) analyze learning outcomes (CPMK) to align with the Independent Curriculum; d) identify the forms and values of Bojonegoro local wisdom that are relevant to linguistic material.

Expected results: a) identify forms and values of Bojonegoro local wisdom relevant to linguistics material; b) data on student and lecturer needs; c) map of local wisdom integration in learning; d) results of curriculum analysis and learning needs.

### Second Stage: Design

Main activity: a) design the e-module structure (introduction, objectives, materials, activities, evaluation); b) compile content; c) design the e-module interface and navigation to be interactive and user-friendly; d) create a storyboard and concept map of the e-module content; e) determine the digital platform to be used.

Expected results: a) conceptual design of the e-module; b) storyboard and module content map; c) digital media implementation plan.

### Third Stage: Development

Main activity: a) develop the e-module according to the established design; b) integrate applied linguistics material with the context of Bojonegoro's local wisdom (e.g., painted batik, local traditions, regional languages); c) conduct validation by subject matter experts, media experts, and language experts; d) conduct revisions based on the validation results.

Expected results: a) produce a bilingual e-module based on local wisdom; b) expert validation results and product revisions.

### Fourth Stage: Implementation

Main activity: a) Implement the e-module for students in Applied Linguistics learning; b) provide short training to lecturers and students regarding the use of the e-module; c) collect data on practicality and user responses (students and lecturers).

Expected results: a) data on the practicality of the e-module; b) user responses to the e-module's usability, appearance, and usefulness.

### Fifth Stage: Evaluation

Main activity: a) conduct formative evaluation at each stage of development; b) conduct a summative evaluation after implementation to assess the effectiveness and feasibility of the e-module; c) conduct final revisions based on the evaluation results.

Expected results: a) results of the evaluation of the feasibility and effectiveness of the e-module;

b) the final e-module product is ready for use in learning.

The data in this study are divided into two categories: qualitative and quantitative. Qualitative data consist of suggestions for improvement, criticism, and comments provided by linguists and curriculum experts, written in questionnaires or expressed during interviews. Quantitative data are obtained from questionnaires completed by linguists and students.

The research was conducted in the Arabic Language and Literature Study Program, Nahdlatul Ulama Sunan Giri University (UNUGIRI) Bojonegoro.

The research period lasted six months, from April to September 2025, with the following details:

- 1) analysis and design phase: April–May 2025
- 2) development phase: June–July 2025
- 3) implementation phase: August 2025
- 4) evaluation and final revision phase: September 2025

Respondents in this study consisted of:

- 1) subject matter experts: lecturers in Applied Linguistics.
- 2) media experts: lecturers in Educational Technology.
- 3) linguists: lecturers in Linguistics and English.
- 4) students: 30 students in the Arabic Language and Literature Study Program currently taking Linguistics courses.
- 5) course lecturers: direct users of the e-module.

Respondents were selected using purposive sampling, based on their involvement and relevance to the use of e-modules in learning contexts.

Data collection was conducted through two methods: a questionnaire and interviews. The questionnaire was used to gather data on the e-module's material feasibility, design, readability, and practicality. Interviews were conducted with linguists, students, and curriculum experts to



obtain additional data on the e-module's feasibility not covered in the questionnaire.

The qualitative data obtained was analyzed through three stages: data condensation, data presentation, and data conclusion (Miles et al., 2014). Conclusions regarding suggestions for improvement, criticisms, and comments were then implemented in the follow-up revision of the e-module.

The quantitative data from the questionnaire were analyzed using classical theory, with the feasibility percentage obtained using the following formula:

$$\text{Feasibility Percentage} = \frac{\text{(score obtained)}}{\text{(maximum score)}} \times 100\%$$

The average score was then calculated using the following formula:

$$\text{Feasibility Percentage} = \frac{\text{(total scores)}}{\text{(number of assessors)}} \times 100\%$$

The calculation results were adjusted according to the feasibility criteria below (Sugiyono, 2013):

Percentage	Interpretation
81-100%	very feasible
61-80%	feasible
41-60%	fairly feasible
21-40%	less feasible
1-20%	very less feasible

## RESULTS

Based on two established research questions, namely (1) how to design an e-module for the Independent Curriculum based on Bojonegoro local wisdom in Applied Linguistics learning, and (2) how effective this e-module is in improving student learning outcomes, the results of this study can be described as follows:

### 1. Results of the Design and Development of the E-Module for the Independent Curriculum Based on Bojonegoro Local Wisdom

The development results indicate that the e-module for Applied Linguistics based on Bojonegoro local wisdom was successfully designed using the ADDIE (analysis, design, development, implementation, and evaluation) development model.

- 1) The analysis phase revealed that the majority of students (91%) experienced difficulty understanding linguistic concepts due to a lack of local context and relevant references. The lecturer also stated the need for a learning approach that integrates Bojonegoro culture to make it more contextual and meaningful.
- 2) The Design Phase produced an e-module containing the main learning components: curriculum information, linguistic materials (phonology, morphology, syntax, semantics), student activities, interactive visualizations, exploration of additional materials, and communicative language use. Each chapter includes linguistic examples from the Bojonegoro region.
- 3) The Development Phase produced an interactive digital e-module equipped with learning videos, an interactive glossary, and a reflective quiz. This e-module also showcases Bojonegoro cultural elements such as Kayangan Api and the Thengul Dance, which serve as local identities that strengthen the region's character. Validation by material, media, and cultural experts indicated that the module was suitable for use with some minor revisions.
- 4) The Implementation Phase was conducted at Nahdlatul Ulama Sunan Giri University (UNUGIRI) Bojonegoro, resulting in a positive response from students, with attitudes, interests, and connections to digital literacy and socio-culture reaching above 87%.

- 5) The Evaluation Phase demonstrated that the e-module met the criteria for appropriateness of content, presentation, and learning effectiveness.

Thus, the design results show that this e-module has innovative, interactive, contextual, and local wisdom-oriented characteristics, so that it is able to support the implementation of the Independent Curriculum in higher education. A number of articles published annually. This demonstrates the relevance of artificial intelligence to Indonesian researchers, who still need extensive research to support various aspects, especially language development.

A summary of research results based on the ADDIE development model (analysis, design, development, implementation, evaluation) is described below:

#### **First Stage: Analysis Result**

Description of Main Findings: a) identifying the needs of students and lecturers in Applied Linguistics learning; b) questionnaire results: 91% of students have difficulty understanding linguistic concepts due to a lack of local context; c) lecturers recommend integrating Bojonegoro culture; d) curriculum analysis shows the importance of strengthening the Pancasila student profile and digital literacy.

Output: a) the need for digital teaching materials based on local wisdom was found; b) the focus of the e-module was determined to strengthen linguistic concepts and cultural values of Bojonegoro.

#### **Second Stage: Design Result**

Description of Main Findings: a) developing an e-module structure: introduction, objectives, materials, activities, evaluation, reflection; b) designing a simple and contextual interface; c) incorporating local cultural elements such as Kayangan Api, Thengul Dance, and Bojonegoro batik; d) developing a storyboard and navigation flow.

Output: The bilingual e-module design based on Bojonegoro's local wisdom is ready to be developed

#### **Third Stage: Development Result**

Description of Main Findings: a) develop interactive digital e-modules with video features, glossaries, reflective quizzes, and exploratory links; b) conduct validation by material experts, media experts, and language experts; c) refine the results based on validator input.

Output: The average validation result for feasibility is 90% (very feasible category). - The e-module is ready to be implemented with minor revisions.

#### **Fourth Stage: Implementation Result**

Description of Main Findings: a) the trial was conducted at Nahdlatul Ulama Sunan Giri University (UNUGIRI) Bojonegoro; b) respondents: 20 Linguistics students; c) activities: training on the use of e-modules, limited and extensive trials, pre-test and post-test.

Output: a) positive student response (87–91%); b) improved learning outcomes: understanding of linguistic concepts: 33.5%; introduction to local wisdom: 46.2%; digital literacy: 32.8%.

#### **Fifth Stage: Evaluation Result**

Description of Main Findings: a) formative evaluation is conducted at every stage of development; b) summative evaluation assesses the effectiveness and feasibility of the final product; c) content feasibility: 92% (very feasible).

Output: a) content feasibility: 92% (very feasible); b) design/appearance: 88% (feasible); c) practicality: 90% (very feasible); d) average learning outcome increase of 37.5%; e) modules effectively support the Independent Curriculum.



## 2. Results of the Effectiveness of the Independent Curriculum E-Module Based on Bojonegoro Local Wisdom

The effectiveness of the e-module was tested through pre- and post-tests on 20 students who used the e-module in Applied Linguistics learning. The test results showed significant improvements in three main aspects:

Assessed Aspects Average	Pre-Test Score Mean	Post-Test Score Mean	Improvement (%)
Understanding of Linguistic Concepts	63.4	84.7	33.5%
Recognition of Local Wisdom	58.9	86.1	46.2%
Digital Literacy Skills	61.2	81.3	32.8%

In addition to improving academic grades, questionnaire results showed that students felt more motivated, understood the material more easily, and appreciated their regional cultural values more after using the e-module. The integration of local culture has been proven to strengthen contextual linguistic understanding and build students' cultural character.

### DISCUSSION

This research aims to develop an e-module for use in Applied Linguistics learning in accordance with the principles of the Independent Curriculum and incorporate elements of local wisdom from Bojonegoro Regency. This culture-based module was developed in accordance with cultural learning theory. Culture-based learning can be divided into four types: learning about culture, learning with culture, learning through culture, and learning with culture. Learning about culture places culture as a field of study, culture is studied in a specific study program, about culture, and for culture. Learning with culture occurs when culture is introduced to students as a way or method to learn a particular topic. This research focuses on learning through culture, namely the use of cultural products in the learning process. The use of local (ethnic) culture in learning is highly beneficial for the development of student understand-

ing and character, as it provides contextual learning experiences and apperception materials to understand scientific concepts within their local culture. Culture is integrated as a learning tool to motivate students to apply knowledge, work cooperatively, and perceive the interconnections between various courses. The local wisdom developed in learning utilizes four principles: 1) appropriateness to student development, 2) competency requirements, 3) flexibility in type, format, and timing, and 4) usefulness for national interests in facing global challenges.

Based on the two formulated problem statements, the results of the research and development of the Independent Curriculum e-module based on Bojonegoro local wisdom in Applied Linguistics learning are explained as follows.

- 1) Design of the Independent Curriculum e-module based on Bojonegoro local wisdom in Applied Linguistics learning. The e-module design was developed based on the ADDIE development model, which consists of five stages: analysis, design, development, implementation, and evaluation. The details are as follows:

- a. Analysis

This stage was conducted through a survey of 37 students, two lecturers, and a local cultural expert. Results showed that

91% of students struggled to understand the linguistics material due to a lack of local context and references. All lecturers agreed on the importance of a local approach in the Independent Curriculum.

b. Design

The design stage was conducted by researchers through a more in-depth study of the Bojonegoro Local Wisdom-Based Linguistics Learning Module. This module contains several core elements, as shown in the following per phase:

a) Curriculum Information Indicator:

There are objectives, basic competencies, and learning indicators)

b) Material Indicator: The material covers phonology, morphology, syntax, and semantics. The modules include audio features, an interactive glossary, and quizzes. Each chapter contains examples from the local Bojonegoro language.

c) Student Activity Indicator: The module contains student activities such as asking questions, discussing, and exploring student abilities and skills.

d) Material Visualization Indicator: The module is equipped with visualizations according to the material and human animations.

e) Material Exploration Indicator: There is additional information from the module which contains additional material from several references.

f) Language and Interest Module Indicator: The module is developed in accordance with EYD, contains effective and interactive sentences, in accordance with student characteristics.

After completing this design, the researcher conducted a review related to the objectives of developing the learning module. Based on this analy-

sis, the researcher added several syntax items to this learning model during the development stage.

3) Development

The development stage involved adding supporting videos accessible via QR codes to provide students with more in-depth information regarding Bojonegoro's local wisdom. This was based on the researcher's initial validation with a learning model expert, Miftahul Mufid, who provided the following suggestions:

Additional/supporting materials accessible to students for independent learning are needed.

a) Cover Indikator: The cover contains the title, class identity, pictures of Bojonegoro's natural wealth, namely Kayanagn Api, and cultural wealth, namely the Thengul Dance.

b) Curriculum Information Indicator: There are objectives, basic competencies, and learning indicators.

c) Subject Indicator: The material covers phonology, morphology, syntax, and semantics. The modules include audio features, an interactive glossary, and quizzes. Each chapter contains examples from the local Bojonegoro language.

d) Student Activity Indicator: Modul memuat kegiatan mahasiswa seperti bertanya jawab, berdiskusi, dan mengeksplorasi kemampuan dan ketrampilan mahasiswa.

e) Visual Materials Indikator: The module is equipped with visualizations according to the material and human animations.

f) Exploration of Indicator Material: There is additional information from the module which contains additional



material from several references via videos which can be accessed using the QR Code listed in the Module.

- g) Language Indicators and Module Interest: The module is developed in accordance with EYD, contains effective and interactive sentences, in accordance with student characteristics.

#### 4) Implementation

The implementation phase involved applying this inquiry development model at UNUGIRI Bojonegoro. The model's application generated a positive response from students. The student responses are described below:

- a) Aspects of students' attitudes towards linguistic modules based on local wisdom of Bojonegoro: 91%
- b) Aspects of student interest in linguistic modules based on local wisdom of Bojonegoro: 90%
- c) Aspects of the relationship between local wisdom modules and digital literacy skills: 87%
- d) Aspects of the relationship between local wisdom modules and students' socio-cultural literacy abilities: 90%

#### 5. Evaluation

The evaluation was conducted on 20 students. The trial results are as follows:

- a) Aspects of understanding linguistic concepts (pre-test of mean is 63,5 and post-test of mean is 84,7 the improvement is 33,5%)
- b) Aspects of introducing local wisdom (pre-test of mean is 58,9 and post-test of mean is 86,1 the improvement is 46,2%)
- c) Aspects of digital literacy skills (pre-test of mean is 61,2 and post-test of mean is 81,3 the improvement is 32,8%)

Trial results indicate that this bilingual e-module significantly improved students' understanding of Applied Linguistics material. This success is supported by a contextual approach based on local wisdom, which aligns with the principles of the Independent Curriculum.

## 2. Effectiveness of the Independent Curriculum e-Module based on Bojonegoro's local wisdom in Applied Linguistics learning

The effectiveness of the e-module was tested through limited implementation with Applied Linguistics students. The trial results showed that the e-module effectively improved students' understanding of the linguistic concepts taught. Students demonstrated improved linguistic analysis skills and a greater appreciation for Bojonegoro's local culture. Furthermore, questionnaire results indicated that students' satisfaction and learning engagement were in the very good category. Thus, this e-module has been proven to not only improve learning outcomes but also foster character values and cultural awareness in the Applied Linguistics learning process.

Questionnaire Results: Student Responses to the Independent Curriculum e-Module Based on Bojonegoro's Local Wisdom. The questionnaire was administered to 30 students who had used the e-module in Applied Linguistics learning. The questionnaire used a Likert scale with a value range of 1–5 (1 = strongly disagree, 5 = strongly agree). The aspects assessed along with indicators, mean scores, and categories are listed below; its mean are 66 (very good):

- 1) Material Suitability: The material is easy to understand and in accordance with learning outcomes indicator is 4.7 (very good)
- 2) Compliance with the Independent Curriculum: Content supports the principles of independent learning and the Pancasila student profile indicator is 4.6 (very good)
- 3) Integration of Local Wisdom: The material contains cultural values and the local

- context of Bojonegoro indicator is 4.8 (very good)
- 4) E-Module Design and Display: Attractive, easily accessible, and interactive display indicator is 4.5 (very good)
  - 5) Ease of Use: Navigation and structure of the e-modules are easy to use indicator is 4.6 (very good)
  - 6) Student Engagement: Increasing interest and motivation to learn in dicator is 4.7 (very good)
  - 7) Learning Benefits: Helps to understand applied linguistic concepts in a more contextual way indicator is 4.8 (very good)
  - 8) Effectiveness of Use: E-modules effectively improve student learning outcomes indicator is 4.6 (very good)
  - 9) Cultural and Academic Relevance: Connecting linguistic theory with Bojonegoro culture indicator is 4.7 (very good)
  - 10) Bilingual Language Integration: The use of two languages (Indonesian–English) facilitates understanding indicator is 4.5 (very good)

Based on the results of the questionnaire, student responses to the e-module indicated that the product developed had a very good level of feasibility and effectiveness. Students felt that the e-module helped them understand the Applied Linguistics material more deeply and gain an understanding of Bojonegoro's local culture. Furthermore, the interactive features and bilingual presentation were considered effective in increasing motivation and active engagement in learning.

This article does not use ADDIE modifications in developing teaching materials. Razak (2019) modified ADDIE to create a more systematic procedure, albeit with relatively many steps. The modifications are located in Procedures I and E. Procedure I was modified into two procedures: initial product trial and initial product evaluation and revision procedure. Procedure E was also modified into two procedures: revised product trial and revised evaluation and revision procedure.

## CONCLUSION

This research successfully developed an Applied Linguistics e-module based on the Independent Curriculum, incorporating Bojonegoro's local wisdom using the ADDIE model. The results indicated that students and lecturers needed contextual teaching materials that integrated local culture. The developed e-module included linguistic material (phonology, morphology, syntax, and semantics) with examples from Bojonegoro culture, as well as interactive features such as videos, a glossary, and quizzes. The pilot test demonstrated a very positive response, with a 33.5% increase in linguistic understanding, a 46.2% increase in recognition of local wisdom, and a 32.8% increase in digital literacy. Thus, this e-module has proven effective and suitable for use as an innovative teaching material that strengthens understanding of linguistic concepts while fostering appreciation for Bojonegoro's local wisdom.

## ACKNOWLEDGMENTS

The researcher expresses his deepest gratitude to all parties who have provided support and contributions to the implementation of this research. Thanks are extended to Nahdlatul Ulama Sunan Giri University (UNUGIRI) Bojonegoro and the UNUGIRI Institute of Language and Culture for the opportunity and facilities provided during the research process. Hopefully, the results of this research will benefit the development of applied linguistics learning and the preservation of local wisdom in Bojonegoro.

## REFERENCES

- Aini, Q., & Adiyono, A. (2023). Implementation of an Independent Curriculum in Supporting Students' Freedom to Create and Learn. *Journal of Scientific Research, Education, and Technology (JSRET)*, 2(3). <https://doi.org/10.58526/jsret.v2i3.187>



- Aji, S. D. (2017). Etnosains dalam Membentuk Kemampuan Berpikir Kritis dan Kerja Ilmiah Siswa. *Jurnal Imliah*, 1(1), 7–11.
- Alimuddin, J. (2023). Implementasi Kurikulum Merdeka di Sekolah Dasar. *Jurnal Ilmiah KONTEKSTUAL*, 4(02), 67–75. <https://doi.org/olah Dasar>.
- Apriana, E., Munandar, A., Rustaman, N. Y., & Surtikanti, H. K. (2020). Pengembangan Program Perkuliahan Biologi Konservasi dengan Pendekatan Kontekstual Berbasis Kearifan Lokal Aceh. *Visipena*, 11(1), 1-15. <https://doi.org/10.46244/visipena.v11i1.1086>
- Bunga, K. W., Laksana, D. N. L., & Kaka, P. W. (2022). Analisis Kebutuhan Sumber Belajar Berbasis Budaya Lokal bagi Guru Sekolah Dasar. *Jurnal Pendidikan Dasar Flobamorata*, 3(1), 248–255. <https://doi.org/10.51494/jpdf.v3i1.660>
- Fauzan, F., Ansori, R. A. M., Dannur, M., Pratama, A., & Hairit, A. (2023). The Implementation of the Merdeka Curriculum (Independent Curriculum) in Strengthening Students' Character in Indonesia. *Aqlamuna: Journal of Educational Studies*, 1(1), 136–155. <https://doi.org/10.58223/aqlamuna.v1i1.237>
- Femin, A., & Muhsam, J. (2023). Penerapan Model Kooperatif Murder (Mood, Understanding, Recall, Digest, Expand, Review) Berorientasi Kearifan Lokal Timor dalam Meningkatkan Hasil Belajar Siswa Kelas V Sekolah Dasar.
- Khasanah, L. A. I. U., Ningrum, I. E., & Huda, M. M. (2023). Pengembangan Game Edukasi Berbasis Kearifan Lokal Berorientasi dalam Peningkatan Kemampuan Membaca Permulaan di Sekolah Dasar. *Jurnal Basicedu*, 7(1), 760–770. <https://doi.org/10.31004/basicedu.v7i1.4539>
- Lailly, N. R., & Wisudawati, A. W. (2015). Analisis Soal Tipe Higher Order Thinking Skill (HOTS) dalam Soal UN Kimia SMA Rayon B Tahun 2012/2013. *Jurnal Kaunia*, 11(1), 27–39.
- Gagaramusu, Y. M. H., Zulfuraini, Z., Mufidah, M., Nuraini, N., & Sani, N. K. (2025). Analisis Penerapan Kurikulum Merdeka di Sekolah Dasar. *Visipena*, 15(2), 277-291. <https://doi.org/10.46244/visipena.v15i2.2901>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3rd ed.). SAGE.
- Molenda, M. (2015). In Search of the Elusive ADDIE Model. *Performance Improvement*, 54(2), 40–43.
- Muyassaroh, I., & Sunaryati, T. (2021). Urgensi Pengembangan Buku Dongeng Movable Berbasis Etnosains Sebagai Bahan Ajar Penunjang Pembelajaran IPA Siswa Kelas. *AR-RIAYAH: Jurnal Pendidikan Dasar*, 5(1), 13. <https://doi.org/10.29240/jpd.v5i1.2683>
- Puspasari, A., Susilowati, I., Kurniawati, L., Utami, R. R., Gunawan, I., & Sayekti, I. C. (2019). Implementasi Etnosains dalam Pembelajaran IPA di SD Muhammadiyah Alam Surya Mentari Implementation of Ethnoscience in Science Learning at Elementary School of. 3(1), 25-31. <https://doi.org/10.21070/sej.v3i1.2426>
- Razak, A. (2019). *Menggapai Mixed Methods Bidang Pembelajaran Bahasa Indonesia*. Edisi-1. Pekanbaru: Ababil Press.
- Sibarani, R. (2018). Kearifan Lokal sebagai Basis Pengembangan Pendidikan. *Jurnal Pendidikan*, 8, no, 120–132.
- Sugiyono, D. (2013). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.
- Suharti S, F. (2022). Pengembangan Kurikulum Muatan Lokal Kerajinan Gerabah Di Sekolah Dasar Inpres Waduwani Kabupaten Bima. *Pendidik Mandala*, 7(2), 433-442.

- Suryaman, M. (2020). *Orientasi Pengembangan Kurikulum Merdeka Belajar*. Prosiding Seminar Daring Nasional: Pengembangan Kurikulum Merdeka Belajar Program Studi Pendidikan Bahasa Indonesia, 21 Oktober 2020, 13–28.
- Syahputra, E., & Nasution, A. A. (2018). Konsep HOTS dan Model Pembelajaran yang Relevan. *Seminar Internasional Tahunan Ke-3 Tentang Pendidikan Transformatif Dan Kepemimpinan Pendidikan (AISTEEL)*, 504–507.
- Test, I. K. N. (2024). A Nonlinear Analytical Approach to Social Dynamics: Modeling the Impact of Moderate Da'wah on Promoting Tolerance and Social Cohesion in Indonesia. *Communications on Applied Nonlinear Analysis*, 32(3), 479–487. <https://doi.org/10.52783/cana.v32.2008>
- Widyawati, A., Dwiningrum, S. I. A., & Rukiyati, R. (2021). Pembelajaran Ethnoscience di Era Revolusi Industri 4.0 sebagai Pemacu Higher Order Thinking Skills (HOTS). *Jurnal Pembangunan Pendidikan: Fondasi dan Aplikasi*, 9(1), 66–74. <https://doi.org/10.21831/jppfa.v9i1.38049>
- Widyaningrum, R., & Prihastari, E. B. (2021). Integrasi Kearifan Lokal pada Pembelajaran di SD melalui Etnomatematika dan Etnosains (Ethnomathscience ). 5(2), 335-341.