

Development of Indonesian Language Teaching Module for Ecological Intelligence Oriented Independent Curriculum for High School Students in South Tapanuli District

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Abstract. The Merdeka Curriculum is a focal point in Indonesian education, but faces challenges like limited resources, lack of involvement, and difficulty adapting to individual schools. This study aims to create teaching materials for teachers and students. The materials will be validated by experts and tested in Tapanuli Selatan Regency high schools. The technology level is at 6, showing that the teaching materials have been validated and applied in relevant school environments. The project aims to address the challenges and support the full implementation of the Merdeka Curriculum in Indonesian education. This research is a Research and Development study using the ADDIE method developed by Dick & Carey via Sugiyono (2018). The specific goal is to produce teaching modules that accommodate the environmental and cultural ecology in South Tapanuli Regency. The integration of ecological intelligence in Indonesian language learning involves incorporating environmental and cultural knowledge into the curriculum to promote sustainability and critical thinking. It also deepens understanding of culture's influence on language.

Keywords: teaching module, ecological intelligence, highschool students, independent curriculum

1 Introduction

The Merdeka Curriculum becomes a new epicenter in student learning in Indonesia. It aims to produce graduates who are functional and independent, skilled in communication, and have positive knowledge and behavior. It also aims to develop student character, such as creativity, critical thinking, innovation, productivity, and integrity [1]. However, the implementation of the Merdeka Curriculum faces several challenges, including limited resources, lack of support from education stakeholders, difficulty in adapting the curriculum to the characteristics of each education unit, and a lack of understanding of the concept and principles of the Merdeka Curriculum.

To address the limitations, active stakeholder involvement is needed to provide understanding to school implementers, especially teachers. Universities can play a central role in bridging the gap between the curriculum program and teachers and students in schools for

effective and optimal implementation. Observations in some schools in South Tapanuli Regency found that Indonesian language teachers have difficulty implementing programs in the Merdeka Curriculum due to challenges in adapting to cultural characteristics.

The modernization experienced by humans still needs to be balanced with social and cultural environments to maintain harmony. Education plays a significant role in preserving cultural roots while adapting to technological advancements [2]. Curriculum wise, the Merdeka Curriculum emphasizes the development of ecological intelligence [3], especially in Indonesian language classes. By integrating Mandailing cultural values into Indonesian language teaching modules, the specific goal of the Merdeka Curriculum to enhance students' ecological intelligence can be achieved.

The Mandailing community in Sumatra, Indonesia, has a long history and unique cultural values that can inspire students to develop good character [4]. The values of respecting elders, community spirit, obedience to tradition, good character, and responsibility to the environment can be integrated into Indonesian language teaching modules for high school students in South Tapanuli Regency.

To address the challenges, a research and development-based module aims to develop Indonesian language teaching modules focused on enhancing ecological intelligence for high school students in South Tapanuli Regency. The study is aimed at producing teaching materials validated by experts and tested on high school students in the region. It aims to address the difficulties faced by students in finding their identity and engaging with irrelevant foreign cultures, maintaining a strong emphasis on Indonesia's cultural roots.

The research has two main problems: developing the teaching modules and assessing their suitability for high school students. Its objective is to produce teaching modules focused on enhancing ecological intelligence for high school students in South Tapanuli Regency.

The development study aims to increase ecological intelligence among students and contribute to the development of language and literature industries through collaboration with a local government-owned enterprise. Based on the explanation above, the author is interested in conducting research with the title *Development Of Indonesian Language Teaching Module For Ecological Intelligence Oriented Independent Curriculum For High School Students In South Tapanuli District*.

2 Research and Methods

The study takes place in two high schools in South Tapanuli Regency, namely SMA Negeri 1 Batang Angkola and SMA Negeri 1 Angkola Barat. The research population includes all students who take language specialization and conduct Indonesian language learning. Using purposive sampling method, data will be reduced according to the research needs. Students are also the subject of the study, as they will test the feasibility of teaching materials products.

This is a Research and Development study using the ADDIE method developed by Dick & Carey via Sugiyono (2018). The R&D method was chosen for its relative brevity to accommodate various external demands. The specific goal of R&D is to produce a research product in the form of teaching modules that accommodate the environmental and cultural ecology in South Tapanuli Regency.

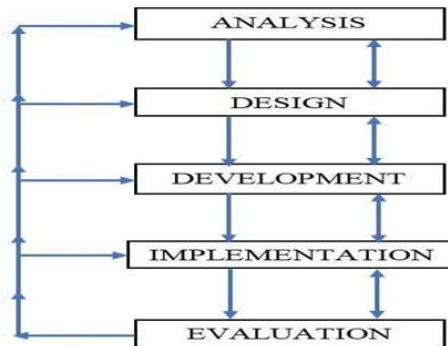


Fig. 1. Addie Design

The text outlines the stages of the ADDIE model as follows:

- a. Analysis: This stage consists of two steps, work analysis, and needs analysis. Work analysis is done to identify the problems faced by the target audience so that the developed product can be accepted, while needs analysis is required to determine the competencies that students need to improve their performance. The goal is to use the data collected to determine the product needs and specifications such as ease of understanding, attractive appearance, relevant material, and collaboration with local wisdom.
- b. Design: In this stage, the researchers create a design for teaching materials in the Indonesian language. The module consists of chapter titles, content, examples, and assessment components.
- c. Development: This involves preparing the material to create the desired product, including designing the layout and integrating the local ecological dimension.
- d. Implementation: After developing the design in learning media, the product is implemented, followed by evaluation and correction based on expert reviewers' input.
- e. Evaluation: Product testing is carried out through a dissemination stage, which includes small and large-scale user testing and revisions before product procurement.

3 Result and Discussion

3.1 Development of Indonesian Language Module Oriented to Ecological Intelligence

3.1.1 Potential Problem Analysis

The research is a study of Research and Development (R&D) using the ADDIE method developed by Dick & Carey via Sugiyono (2018). The ADDIE method consists of Analysis, Design, Development, Implementation, and Evaluation. The specific goal of the R&D is to produce a teaching module accommodating environmental ecology and culture in South Tapanuli Regency. The study found that the implementation of the independent curriculum

has not been fully realized due to limited resources, lack of involvement and support from education stakeholders, difficulty in adapting to the independent curriculum, and lack of understanding of its concepts and principles. It emphasizes the importance of ecological intelligence and the role of the Mandailing culture in building student character. Collaborative efforts involving the government, educational institutions, and the community are needed to address these issues. Designing modules to enhance ecological intelligence, particularly in Mandailing ecology, is one proposed solution.

3.1.2 Modul Design

In this phase, the researcher designs teaching materials for Indonesian language learning. The materials are designed to be as effective as possible to avoid confusion for students. The module consists of clear and engaging sections, such as chapter titles, learning objectives, content, text examples, and assessments. The chapter titles reflect the core of the material, allowing students to understand the context before delving into details. Learning objectives are detailed to provide clear guidance for students on what is expected of them. The teaching materials are presented systematically and include simple language, easy-to-understand examples, and illustrations to help explain complex concepts. Real text examples are provided to serve as models for students. Assessments are designed to evaluate students' understanding and include various types of questions and clear assessment rubrics. The comprehensive and well-structured module aims to help students learn Indonesian systematically and enjoyably, while gaining a deep and applicable understanding of the topics taught.

3.1.3 Modul Development

The activities at this stage involve preparing the material to be illustrated to turn the design into the desired product. The steps at this stage include 1) designing the design page. 2) Organizing each page with main material, CP, TP, and ATP, exercises or quizzes, and supporting materials. 3) Collaborating with the Mandailing ecological dimension. The first step is to design the design page, focusing on the aesthetics and functionality of the module to be produced. The design should consider various visual elements such as layout, color, and typography, which serve to attract students' attention and facilitate navigation. Each page is then filled with pre-designed content, starting with the main material, followed by CP, TP, and ATP, and exercises or quizzes. The final step involves collaborating with the Mandailing ecological dimension, integrating cultural and local environmental aspects into the module. This can involve adjusting content to reflect Mandailing cultural values, using local examples, and creating teaching materials relevant to the students' experiences in the area. This thorough approach ensures that the module not only delivers clear and effective content but also respects and integrates important local contexts for student understanding.

3.2 Discussion of Research Results

Ecological intelligence in Indonesian language learning focuses on integrating knowledge about the environment and local culture into the curriculum. Ecological intelligence refers to the ability to understand and appreciate the relationship between humans and the environment and to use this knowledge to make sustainable decisions. In the context of the Indonesian language, this means developing teaching materials that not only enrich language skills but also raise students' awareness of environmental and cultural issues, especially in high schools in South Tapanuli District. By using texts and materials related to the environment and local culture, students can learn about values such as environmental care, cultural diversity, and social responsibility. This can include reading and analyzing folklore or descriptive texts that depict the beauty of nature and the cultural richness of the Mandailing people.

Integrating ecological intelligence in the Indonesian language also aims to develop students' critical and creative thinking skills. By analyzing texts that address environmental and cultural issues, students learn to evaluate information, make evidence-based arguments, and design solutions to the problems they face. This approach not only facilitates the development of essential language skills but also enriches students' understanding of their environment and culture, contributing to the formation of better character and preparing students to be responsible citizens towards environmental sustainability and cultural preservation.

Furthermore, integrating the Mandailing culture into the Indonesian curriculum can enhance the relevance and depth of learning for students. Achievements of Learning (CP), Learning Objectives (TP), and References for Learning Objectives (ATP) must be carefully designed to reflect this cultural richness, providing students with a deeper understanding of how culture influences language. By emphasizing the importance of fostering noble behavior, such as honesty, kindness, and perseverance, and avoiding negative habits or behaviors, CP, TP, and ATP not only create a systematic learning structure but also connect students with the ecological wealth of Mandailing, deepening their understanding of language and culture simultaneously. This approach makes language learning more meaningful, relevant, and contextual, allowing students to develop their language skills while celebrating and preserving their cultural heritage.

4 Conclusion

Based on the research results obtained:

- a. The Merdeka Curriculum in Indonesia aims to produce graduates who are functional, independent, and have positive knowledge and behavior
- b. Implementing the curriculum faces challenges such as limited resources and lack of support
- c. Active stakeholder involvement is necessary to address these limitations, particularly in schools, with universities bridging the gap between the curriculum program and teachers and students
- d. Observations found that Indonesian language teachers had difficulty implementing the curriculum, particularly in adapting to cultural characteristics

- e. A study aims to develop teaching modules focused on enhancing ecological intelligence in high schools in South Tapanuli Regency, integrating local ecological dimensions and the Mandailing cultural values
- f. The goal is to enrich students' language skills while preserving their cultural heritage

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