

DEVELOPING AN ENGLISH LEARNING MODULE BASED ON CRITICAL THINKING AND PROBLEM-SOLVING SKILLS FOR SENIOR HIGH SCHOOL STUDENTS: GREAT ATHLETES CHAPTER

Raodah Tul Jannah^{1*}
Nur Aliyah Nur²
Sitti Nurpahmi³

^{1,2,3}English Education Department, Tarbiyah and Teacher Training Faculty, UIN Alauddin
Makassar

E-mail: raodajanna59@gmail.com

ABSTRACT

This study aims to develop an English learning module on the topic of Great Athletes for Grade X students at Ash Shalihin Gowa High School, focusing on improving students' critical thinking and problem-solving skills as essential competencies in English learning. The study employed a Research and Development (R&D) approach using the ADDIE model, which includes Analysis, Design, Development, Implementation, and Evaluation stages. The needs analysis was conducted through teacher interviews and student questionnaires, revealing that the existing teaching materials were less engaging and insufficient in supporting the development of critical thinking and problem-solving skills. Although the implementation stage could not be carried out due to certain limitations, the evaluation stage was completed through expert validation to assess the module's feasibility. Based on the analysis results, the module was designed with clear learning objectives, relevant materials, systematic learning activities, and contextual assessments, complemented by attractive visuals, appropriate illustrations, and activities that encourage students to analyze problems, engage in discussions, and design solutions. The expert validation results indicated that the module is highly valid, achieving scores of 4.85 in content, 4.86 in presentation, 4.85 in language, and 4.87 in graphic design. Since the implementation stage was not conducted, the module can serve as supporting teaching material, and further research is recommended to implement it in the classroom to examine its effectiveness in enhancing students' critical thinking and problem-solving skills.

Keywords: English learning module, Great Athletes, critical thinking, problem-solving, ADDIE model

1) INTRODUCTION

The development of teaching materials in English language learning, considering that teaching materials are the main component that facilitates interaction between teachers and students in the teaching-learning process. Teaching materials that are effectively designed not only convey linguistic information but are also able to create meaningful and contextual learning experiences for students. This is in line with recent research by Kurniawan and Riyanti (2024) who developed a local culture-based English reading workbook, showing that culturally relevant materials can increase the engagement and effectiveness of language learning.

Paper presented at The 5th ICONELE on April 16th-17th, 2026 English Education
Department, Faculty of Tarbiyah and Teacher Training
Universitas Islam Negeri Alauddin Makassar
South Sulawesi-Indonesia

In the 21st century, English learning is no longer focused only on mastering language structures, but also on developing higher-order thinking skills such as critical thinking, problem-solving, communication, and collaboration. These skills are known as the 4Cs and are integrated into the Merdeka Curriculum implemented by the Ministry of Education, Culture, Research, and Technology of Indonesia. However, several studies indicate that the implementation of these skills in English learning still needs improvement. Tamela and Dwi (2021) found that although the 4C concept has been introduced in English lesson plans, the development of critical thinking and creativity still requires strengthening. Similarly, Suharti et al. (2022) revealed that learning models integrating the 4C approach can significantly improve students' literacy skills. Learning modules can be an effective solution to address this issue because they support both independent and guided learning. Modules designed with critical thinking and problem-solving approaches allow students to explore ideas, analyze situations, and reflect on their understanding. Previous studies, such as Sulhan et al. (2023), show that problem-based learning modules can significantly improve students' critical thinking skills.

Based on these considerations, the development of an English learning module that integrates critical thinking and problem-solving is considered necessary. Such modules can support the goals of the Merdeka Curriculum by creating more contextual, student-centered, and meaningful learning. In the context of MA As-Shalihin, preliminary interviews with an English teacher revealed that the current modules still focus mainly on textual materials and memorization activities, and they have not fully supported the development of students' critical thinking skills.

Therefore, the development of a more interactive and critical-thinking-based English learning module is needed to support students' learning more effectively.

2) METHOD

The method used in this study is Research and Development (R&D). This method is used because the purpose of the research is not only to analyze a phenomenon but also to develop an educational product, namely an English learning module titled Great Athletes for grade X students at Ash Shalihin Gowa High School. Research and Development is a systematic process used to design, develop, and validate educational products so that they can be used effectively in the learning process. According to Meredith and Joyce (2003), R&D is a research approach that involves several stages, including needs analysis, product design, development, testing, revision, and implementation to produce useful and effective learning materials. In this research, the R&D

process focuses on developing a learning module that integrates critical thinking and problem-solving skills in English learning. The module is designed to help students not only understand language structures but also develop their ability to analyze problems, evaluate information, and propose solutions in learning activities. Therefore, the development of the module is based on students' learning needs and the learning objectives expected in the curriculum.

The research began with the needs analysis stage, which aimed to identify the learning conditions, students' interests, and the limitations of the teaching materials currently used in the classroom. At this stage, the researcher collected data through interviews with the English teacher and questionnaires distributed to grade X students. The results of this analysis showed that students were interested in learning English, especially topics related to sports and athletes. However, the teaching materials previously used were considered less engaging because they had monotonous visual designs, limited interactive activities, and did not fully support the development of students' critical thinking skills.

Based on the results of the needs analysis, the researcher proceeded to the design stage, where the structure and content of the learning module were planned. In this stage, the researcher designed the learning objectives, learning activities, instructional materials, and exercises that encourage students to think critically and solve problems. The module also integrates the use of the simple present tense contextually through texts and activities related to athletes and sports achievements. In addition, the module was designed with attractive visual elements, such as colorful layouts and relevant illustrations, to increase students' motivation and engagement in

learning. Through this Research and Development process, the study successfully produced an English learning module titled Great Athletes that integrates critical thinking and problem-solving activities. The module is expected to support teachers in providing more engaging learning materials and help students improve both their English skills and their ability to think critically.

3) RESULTS

The Result of Analysis Phase

The results of the needs analysis were obtained through a questionnaire distributed to 25 students and an interview with an English teacher. The findings indicate that current English teaching materials, particularly in the "Great Athletes" chapter, are not clearly organized and do not optimally support the development of students' critical thinking and problem-solving skills. In

addition, students have difficulty understanding vocabulary, expressing their ideas, and relating the material to real-life situations.

The questionnaire results describing students' preferences regarding teaching materials and learning activities are summarized in the following table.

Table 1. The Results of The Learning Ability

Number	Questions	Answers
1	If the material is about Simple Past Tense (Chapter I: Geat Athletes Chapter), how would you prefer to express it?	Showing off in pairs with friends = 48% Write it down in the task book = 44% Demonstrating in front of classmates alone = 20%
2	If the material is about expressions, what kind of expressions do you like to learn the most?	Activities at school = 52% Activities in class = 40% Activities at home = 32% Expressing opinions = 20% Expressing solutions = 16% All the answers mentioned above = 12%

Table 2. The Result of The Learning Priority

Number	Questions	Answers
3	What form of learning material do you like?	Picture form = 52% Text = 40% Dialogue = 28% Presentation = 28%
4	What kind of book design are you most interested in?	Picture = 76% Dialogue = 40% Presentation = 16% Critical thinking exercise = 4%
5	What kind of picture design do you like in a textbook?	Cartoon = 68% Real-life picture = 56% Caricature = 20%
6	When creating short dialogue, what do you need most?	Examples of written conversations in the book = 64% Audio/video = 44% Examples of conversations from teachers

		= 36% Original photos = 24% Others (games) = 4%
--	--	---

Table 3. The Result of Learning Problems

Number	Questions	Answers
7	What difficulties do you sometimes experience when learning English? (You may choose more than one).	Not knowing English vocabulary and pronunciation = 52% Not having English books and dictionaries = 36% Lacking motivation to learn English = 32% Not understanding the material (in translating English texts and the teacher's explanations) = 28% The material in the textbook does not provide a complete explanation = 20% I lack confidence in giving reasons or arguments = 20% I find it difficult to analyze Texts = 12% I don't have any difficulties = 12% I feel embarrassed to speak in front of the class = 8% I don't like doing assignments from the teacher = 4%

Table 4. The Result of Learning Style

Number	Questions	Answers
8	Do you like it when the teacher provides	Yes = 84%

	opening activities before the lesson begins (such as an introduction or light activities)?	No = 16%
9	What types of opening activities do you like the most? (Choose up to 3 activities)?	It is enough to pray = 76% Ice Breaking = 60% Warning up = 36% Inspiration stories = 32% Problem-solving games = 20%
10	When class starts, what do you prefer the teacher to do?	teacher's explanation = 60% Warning up = 44% Choose to read the instructions in the book = 36% Analyze a problem = 8%
11	What kind of learning method do you prefer in each chapter of the lesson?	By watching learning Video = 56% By playing games = 48% By accepting theory = 24% By learning to solves Problems = 20% All the answers mentioned above = 8%
12	What learning model do you prefer?	Discussion = 72% Couple = 40% Individual = 28%
13	If you are asked to do a project in class, which one do you prefer?	Individual project = 44% Group project = 75% Partner project = 20%
14	If you were asked to give a presentation, which would you prefer?	Group presentation = 68% Partner presentation = 44% Individual presentation = 32%
15	Do you like it when lessons are accompanied by games (game learning)?	Yes = 92% No = 12%

Based on the results of the student needs questionnaire, it is known that students want learning materials that are visually engaging, interactive, and supported by pictures and videos. They also prefer group-based activities and contextual tasks related to their daily lives to help them better understand the material and express their ideas.

The Result of Design Phase

In the design stage, these findings provide crucial information for the curriculum development process. The curriculum is developed based on the results of a needs analysis, the learning objectives that have been formulated, and the Merdeka Curriculum. It consists of several components, including learning objectives, instructional materials, time allocation, needs analysis, instructional material design, learning activities, and assessment. Additionally, the curriculum incorporates stages of critical thinking and problem-solving into learning activities to support students' cognitive development. The design also emphasizes contextual teaching materials, engaging visual elements, and group-based activities to align with students' learning preferences and needs.

The Result of Developing Phase

The results of the development phase are presented in a conceptual map for Chapter I, entitled Great Athletes. The map shows the connection between learning objectives, language functions, linguistic features, language skills, and grammatical components used in the module. The learning objectives aim to help students identify positive habits and characteristics of great athletes, understand relevant texts and conversations, analyze simple sports-related issues, and express ideas and suggestions both orally and in writing. The module also encourages students to plan positive activities inspired by athletes' lifestyles and reflect on their own habits. Linguistic elements include the use of affirmative, negative, and interrogative verb forms, the simple present

tense, and sports-related vocabulary. Learning activities integrate listening, speaking, reading, and writing skills through meaningful and contextual use of the simple present tense.



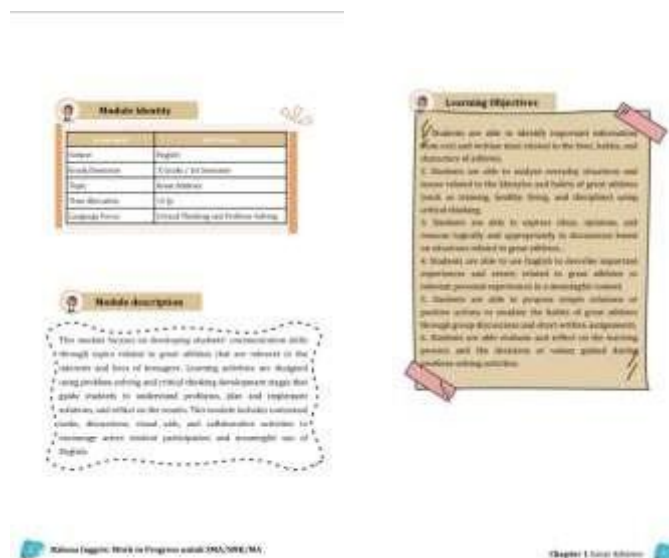
Figure 1. Cover before and after development

Before the development stage, the module cover was unable to clearly convey the learning topic. The design used was still general and lacked visual elements directly related to the material, so it did not reflect situations close to the students' experiences. After development, the appearance of the module cover underwent significant changes. The new cover was designed to convey the learning topic more clearly through the selection of appropriate images, colors, and visual elements. This design is more contextual and relevant to students' lives, helping them understand the initial overview of the material to be studied. In addition to being more attractive and communicative, the developed cover is also educational because it provides initial clues about the learning content. With a design that is relevant to students' experiences, the module is expected to foster curiosity, increase motivation, and encourage student engagement in the learning process.

Before



After



Module Content Before and After Development

Before the development stage, the general information section in the module was still presented in a limited manner and was not yet neatly organized. The learning objectives were written in general terms, so they did not yet show a clear direction, especially in developing students' critical thinking and problem-solving skills. In addition, important information such as the module identity and explanation of the module content was not fully conveyed. This condition meant that the scope, learning focus, and expected outcomes of the module were not well communicated, so the learning process had the potential to be less focused

Paper presented at The 5th ICONELE on April 16th-17th, 2026 English Education
Department, Faculty of Tarbiyah and Teacher Training
Universitas Islam Negeri Alauddin Makassar
South Sulawesi-Indonesia

After development, the general information in the module was reorganized in a more systematic and complete manner. The developed module contains a clear module identity, a more detailed module description, and more focused learning objectives. The learning objectives are no longer general but are specifically designed to support the development of students' critical thinking and problem-solving skills. These improvements help provide a clearer picture of what students need to learn and how the module plays a role in supporting higher-order thinking skills.

The Result of Evaluation Phase

Table 5. The Result of Syllabus Validation

Aspect	Score	Category
Learning Material	4.85	Very Valid
Learning Objectives	4.85	Very Valid
Learning Activities	4.93	Very Valid
Skills	4.80	Very Valid
Activity	4.90	Very Valid
Evaluation	4.85	Very Valid

Table 6. The Result of Module Validation

Aspect	Score	Category
Content Feasibility	4.89	Very Valid
Presentation Feasibility	4.87	Very Valid
Language Feasibility	4.89	Very Valid
Graphic Feasibility	4.87	Very Valid

4) DISCUSSION

Analysis Phase

The analysis phase aimed to identify the learning needs of grade X students at Ash Shalihin Gowa High School. This stage was conducted through questionnaires distributed to students and interviews with the English teacher. The results of the needs analysis showed that most students have an interest in learning English, particularly topics related to sports and athletes. However, the teaching materials previously used in the classroom were considered less engaging due to monotonous visual designs and limited interactive learning activities. In addition, the analysis

revealed that students prefer learning materials that contain colorful designs, attractive illustrations, and examples related to their daily lives. Students also showed a preference for learning activities involving pair discussions, group work, and collaborative tasks. These findings indicate that students need more interactive and visually appealing teaching materials that can encourage active participation in the learning process. Therefore, the results of the analysis phase became the foundation for designing a learning module that is more relevant to students' interests and learning needs.

Design Phase

At the design stage, these findings provide important information for the curriculum development process. The curriculum is developed based on the results of needs analysis, the learning objectives that have been formulated, and the Merdeka Curriculum. The curriculum consists of several components, including learning objectives, instructional materials, time allocation, needs analysis, instructional material design, learning activities, and evaluation. Additionally, the curriculum incorporates stages of critical thinking and problem-solving into learning activities to support students' cognitive development. The design also emphasizes contextual teaching materials, engaging visual elements, and group-based activities to align with students' learning preferences and needs.

Development Phase

In the evaluation phase, the developed module was validated by experts to determine its suitability in terms of content, presentation, language, and graphic design. The validation results indicated that the module falls into the "highly valid" category, signifying that it is suitable for use as a supplementary learning resource. This evaluation stage also aligns with the ADDIE model, which emphasizes the importance of assessing the quality of instructional products before implementing them in the learning process (Branch, 2009). Overall, the findings of this study indicate that the developed module is relevant, systematically designed, and capable of supporting students' English language learning while enhancing their critical thinking and problem-solving skills.

However, this study has several limitations. First, the study was limited to the analysis, design, development, and evaluation stages, without implementing the module in an actual classroom setting. Second, the number of participants involved in this study was relatively small

only 25 students and one teacher which may limit the generalizability of the findings. Furthermore, the module evaluation focused solely on expert validation and did not include direct measurement of student learning outcomes. Therefore, future research is recommended to conduct classroom implementation and experimental studies to test the effectiveness of the developed module in improving students' critical thinking abilities, problem-solving skills, and English proficiency.

5) CONCLUSION

This study aims to develop an English learning module titled Great Athletes for grade X students at Ash Shalihin Gowa High School. The module was developed to provide more interesting and relevant teaching materials that support students' critical thinking and problem-solving skills. The needs analysis showed that students were interested in English learning, especially topics related to sports and athletes, but the previous materials were considered less engaging due to monotonous visuals and limited student involvement. The analysis also revealed that students prefer colorful materials, attractive illustrations, clear explanations, and activities related to their daily environment. They also favor pair or group discussions and collaborative project-based tasks. These findings became the basis for designing the module. The Great Athletes module integrates critical thinking and problem-solving activities through stages such as topic introduction, issue identification, information analysis, and solution development. It also integrates the simple present tense contextually to help students express ideas about sports. Based on expert validation, the module is considered highly valid in terms of content, presentation, language, and graphic design. Therefore, it is suitable as English teaching material for grade X students at Ash Shalihin Gowa High School while also supporting the development of students' critical thinking and decision-making skills.

REFERENCES

- Branch, R. M. (2009). *Instructional design: The ADDIE approach*. New York, NY: Springer.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.
- Facione, P. A. (2011). *Critical thinking: What it is and why it counts*. Millbrae, CA: Insight Assessment.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2003). Voices in educational research: An introduction. In *Qualitative voices in educational research* (pp. 1–656). Routledge. <https://doi.org/10.4324/9781003008064-1>
- Kurniawan, Nasri, & Riyanti, D. (2024). Developing junior high school students' English reading workbook based on local culture in the Merdeka Curriculum (Development research in the

- seventh-grade students of SMPN 3 Air Besar in the academic year 2023–2024). 474–495.
- Suharti, S., Faidin, F., Ibrahim, I., & Fajrun, F. (2022). Upaya peningkatan literasi membaca dan menulis bahasa Inggris berbasis kearifan lokal pada pembelajaran muatan lokal menggunakan model 4C. *Jurnal Ilmiah Mandala Education*, 8(4), 2626–2633. <https://doi.org/10.58258/jime.v8i4.3880>
- Tamela, E., & Hanifah Dwi, M. (2021). Four C's skills integration in the lesson plans of grade 7 English teacher. *Jo-ELT (Journal of English Language Teaching)*, 8(2), 124. <https://doi.org/10.33394/jo-elt.v8i2.4345>