

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

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ABSTRACT

This study aimed to develop an English learning module integrating critical thinking and problem-solving skills for Grade X students at MA Ash-Shalihin Gowa, focusing on Chapter II “Sports Events”. The research employed the Research and Development (R&D) method using the ADDIE model, which includes Analysis, Design, Development, Implementation, and Evaluation stages. However, due to time limitations, the implementation stage was not conducted. Data were collected through interviews with an English teacher, questionnaires distributed to students, and expert validation sheets. The data were analyzed using qualitative and quantitative methods to ensure systematic development and validation of the module. The results showed that existing learning materials were less engaging and did not sufficiently support students’ critical thinking and problem-solving skills. The developed module integrates contextual materials, interactive activities, and problem-based tasks related to sports events. The expert validation results indicated that the module was categorized as “very valid” with average scores of content feasibility (4.86), presentation feasibility (4.86), language feasibility (4.91), and graphic feasibility (4.89). These results demonstrate that the module is appropriate as a supplementary learning material. However, further classroom implementation is needed to test its effectiveness.

Keywords: English learning module, critical thinking, problem-solving, sports events, ADDIE model, Research and Development (R&D)

1) INTRODUCTION

Developing effective instructional materials is essential in improving English as a Foreign Language (EFL) learning, particularly in the context of 21st-century education. Current learning demands not only focus on linguistic competence but also on higher-order thinking skills such as critical thinking and problem-solving. These skills enable students to analyze information, evaluate ideas, and respond to real-life situations using English meaningfully. Critical thinking itself involves reflective and reasoned judgment in making decisions (Peter A. Facione, 2011), while problem-solving refers to a systematic process of identifying and

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resolving problems (Richard E. Mayer & Wittrock, 2006). In line with the implementation of the Merdeka Curriculum, which emphasizes student-centered and meaningful learning, English instruction is expected to integrate language skills with cognitive development. Therefore, the development of contextualized learning materials that support both language proficiency and thinking skills has become increasingly important. According to Brian Tomlinson (2012), effective learning materials should facilitate meaningful engagement and promote learners' cognitive and affective involvement in the learning process.

However, classroom practices still show a gap between expectations and reality. Preliminary findings at MA Ash-Shalihin Gowa indicate that existing learning materials are mostly text-based and focused on memorization, with limited opportunities for students to engage in critical thinking and problem-solving activities. As a result, students tend to demonstrate surface-level understanding and low engagement in learning. Although previous studies have highlighted the effectiveness of problem-based and critical thinking-oriented learning approaches, limited attention has been given to the development of structured English learning modules that explicitly integrate these skills within the context of the Merdeka Curriculum.

Based on this gap, this study aims to develop an English learning module based on critical thinking and problem-solving skills for Grade X students, focusing on the "Sports Events" chapter. This study addresses the following research questions: (1) what are the students' needs for the module, (2) how is the module designed, (3) how is the module developed, and (4) how is the module evaluated. This study is expected to provide both theoretical and practical contributions by offering an alternative instructional resource that supports more interactive, contextual, and meaningful English learning.

2) METHOD

This study employed a Research and Development (R&D) design to develop an English learning module based on critical thinking and problem-solving skills. The development process was guided by the ADDIE model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation (Robert Maribe Branch, 2009). However, due to time constraints, this study was limited to four stages: Analysis, Design, Development, and Evaluation.

The research was conducted at MA Ash-Shalihin Gowa, South Sulawesi. The participants consisted of 25 Grade X students as respondents representing the target users of the module and one English teacher who served as the main informant in identifying classroom conditions and

learning needs. In addition, expert validators from the English Education Department were involved to evaluate the feasibility and quality of the developed module.

Data were collected using multiple instruments to ensure comprehensive and valid findings. Semi-structured interviews were conducted with the teacher to obtain in-depth information about the teaching process, existing materials, and classroom challenges. Questionnaires were distributed to students to identify their learning needs, preferences, and difficulties in learning English. Furthermore, validation checklists were used by experts to assess the developed module in terms of content, presentation, language, and graphical aspects. The use of multiple data sources is consistent with the principle of triangulation to enhance research validity (John W. Creswell, 2012).

The data collection procedures followed the stages of the ADDIE model. In the analysis stage, data from interviews and questionnaires were used to identify students' needs and existing learning conditions. In the design stage, the module framework and syllabus were developed based on the results of the needs analysis and aligned with the Merdeka Curriculum. In the development stage, the module was produced by integrating critical thinking and problem-solving activities into the "Sports Events" learning materials. Finally, in the evaluation stage, the module was validated by experts, and revisions were made based on their feedback.

The data were analyzed using both qualitative and quantitative approaches. Qualitative data from interviews and open-ended responses were analyzed through data condensation, data display, and conclusion drawing (Miles, Huberman, & Saldaña, 2014). Meanwhile, quantitative data obtained from questionnaires and validation checklists were analyzed using descriptive statistics to determine the level of validity of the developed module.

3) RESULTS

The Result of Analysis Phase

The results of the needs analysis were obtained through questionnaires distributed to 25 students and interviews conducted with one English teacher. The findings indicated that the existing English learning materials, particularly in the "Sports Events" chapter, were not well-structured and did not adequately support the development of students' critical thinking and problem-solving skills. Students experienced difficulties in understanding vocabulary, expressing ideas, and connecting the material to real-life situations.

The results of the questionnaire showed students' preferences regarding learning materials and activities, as presented in Table 1.

Table 1. The Results of The Learning Ability

Number	Questions	Answers
1	If the material is about Simple Past Tense (Sports Events), 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%
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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 opening activities before the lesson begins (such as an introduction or light activities)?	Yes = 84% 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%
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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, the results of the needs analysis provided the basis for the syllabus development process. The syllabus was designed by considering students' needs, learning objectives, and the Merdeka Curriculum. It included several components such as learning objectives, materials, time allocation, learning activities, and evaluation. In addition, the design emphasized the use of contextual materials, visually engaging elements such as pictures related to sports activities, and group-based tasks. These components were aligned with students' preferences, as identified in the needs analysis, to ensure that the learning process becomes more interactive, engaging, and student-centered.

The Result of Development Phase

At this stage, the researcher created the module based on the previously prepared syllabus. The module was effectively designed by incorporating relevant materials alongside stages that promote critical thinking and problem-solving. The development results illustrate the structured components within each unit, beginning with the cover, followed by learning objectives, core learning activities, and concluding with evaluation tasks. Furthermore, the module features contextual content, visually appealing elements, and student-centered activities to enhance meaningful learning. The next section provides several examples of the modules before and after the development process.

Sports events are part of students' daily lives. Many students watch or take part in sports events for entertainment, school activities, or competitions without thinking deeply about the values, rules, and impact of sports on their character and learning. Sports events can influence teamwork, discipline, motivation, and school spirit.



Task 1

Think and Answer

Answer the following questions honestly based on your own experience.

- What sports events do you usually watch or participate in at school or outside school?
- Do you prefer watching sports events live or through television/internet? Explain your answer.
- How often do you watch or take part in sports events in a week?
- What factors make a sports event interesting to you? (Team, players, friends, atmosphere, or others)
- Do you think sports events give a positive influence on students? Give your reason.

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Figure 1. Learning Activities part 1 before and after development

Before development, the learning activities mainly focused on recalling personal experiences and identifying information related to sports events, without guiding students to analyze reasons, consider consequences, or identify problems that occur during sports activities, thus not strongly supporting critical thinking and problem-solving skills. After development, the introduction became more structured and meaningful by presenting contextual explanations about sports events and their impacts, supported by real-life pictures and reflective questions. As a result, students were guided to observe, analyze causes, identify problems, and consider the effects of behaviors in sports events, which clearly directed them toward critical thinking and problem-solving skills from the beginning of the lesson.

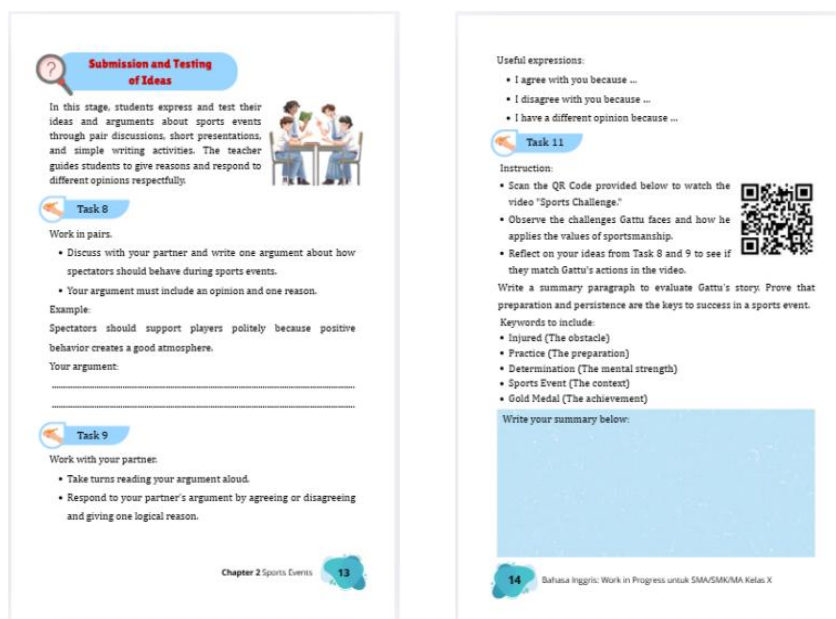


Figure 2. Learning activities part 2 before and after development

Before development, the activity mainly focused on simple discussion and reporting tasks, where students shared their answers without structured interaction or feedback, thus only emphasizing basic expression of ideas. After development, the activity was expanded into a Submission and Testing of Ideas stage, where students present their arguments about behavior in sports events and respond to their partner's ideas by agreeing or disagreeing with clear reasons. This stage is supported by guided expressions and structured instructions, making the learning process more interactive and meaningful.

The Result of Evaluation Phase

Table 5. The Result of Syllabus Validation

Aspect	Score	Category
Learning Material	4.85	Very Valid
Learning Objectives	4.92	Very Valid
Learning Activities	4.93	Very Valid
Skills	4.80	Very Valid
Activity	4.90	Very Valid
Evaluation	5.00	Very Valid

Table 6. The Result of Module Validation

Aspect	Score	Category
Content Feasibility	4.86	Very Valid
Presentation Feasibility	4.86	Very Valid
Language Feasibility	4.91	Very Valid
Graphic Feasibility	4.89	Very Valid

4) DISCUSSION

Analysis Phase

The results of the analysis stage indicated a discrepancy between the expectations of the Merdeka Curriculum and the actual implementation in classroom practices. The current learning materials were still largely focused on text-based and memorization-oriented activities, which restricted students' opportunities to develop higher-order thinking skills. This finding reinforces the idea that instructional materials play a significant role in fostering meaningful learning and enhancing students' cognitive engagement (Tomlinson, 2012). Furthermore, the needs analysis revealed that students tend to prefer learning materials that are visually appealing, interactive, and contextual. These preferences align with the principles of 21st-century learning, which highlight the importance of active student involvement. Therefore, the analysis stage served as a solid basis for designing learning materials that incorporate critical thinking and problem-solving skills in accordance with students' needs.

Design Phase

Based on the design stage, the syllabus was formulated by taking into account the results of the needs analysis, the learning objectives, and the Merdeka Curriculum. The incorporation of critical thinking and problem-solving phases into the learning activities reflects the theoretical view that effective learning involves active cognitive processes, including analyzing, evaluating, and decision-making (Facione, 2011). In addition, the focus on contextual materials, visually appealing elements, and collaborative activities is consistent with the principles of student-centered learning. This suggests that the design stage effectively connected theoretical foundations with the actual needs of classroom practice.

Development Phase

In the development stage, the previously designed syllabus was converted into a well-organized and comprehensive learning module. The incorporation of critical thinking and problem-solving components in each activity encouraged students to participate actively in the learning process. Moreover, the use of diverse learning resources, including texts, dialogues, and videos, enabled students to gather and assess information more effectively. This development process aligns with the ADDIE model, which highlights a systematic approach to producing effective instructional materials (Branch, 2009). Compared to the earlier materials, the newly developed module demonstrated improvements in terms of organization, variety of activities, and visual presentation, which ultimately enhanced students' engagement in learning.

Evaluation Phase

In evaluation stage, the developed module was assessed by expert validators to determine its feasibility in terms of content, presentation, language, and graphical design. The results showed that the module reached a "very valid" category, indicating that it is suitable to be used as a supplementary learning material. This evaluation process is also in accordance with the ADDIE model, which emphasizes ensuring the quality of instructional products prior to their implementation (Branch, 2009). Overall, the findings suggest that the developed module is relevant, well-structured, and effective in supporting both students' English learning and the enhancement of their critical thinking and problem-solving skills.

Despite these positive results, several limitations were identified in this study. First, the research was confined to the analysis, design, development, and evaluation stages, without conducting the implementation phase in an actual classroom setting. Second, the number of participants was relatively limited, involving only 25 students and one teacher, which may affect the generalizability of the findings. Furthermore, the evaluation focused solely on expert validation and did not include direct measurement of students' learning outcomes. Therefore, future studies are recommended to carry out classroom implementation and experimental research to examine the effectiveness of the developed module in improving students' critical thinking, problem-solving abilities, and English proficiency.

5) CONCLUSION

This study was conducted to develop an English learning module for Grade X students focusing on the Sports Events unit by integrating critical thinking and problem-solving skills. The findings indicate that the developed module successfully met students' needs by providing structured, interactive, and contextual learning materials. The results of the needs analysis revealed that students required learning activities that promote active participation, such as discussions and dialogue-based tasks, as well as supporting components like summaries and glossaries to improve comprehension. The development process, which followed the ADDIE model, resulted in a module that integrates the four language skills and encourages students to analyze, evaluate, and reflect on materials related to sports events. Furthermore, the expert validation results showed that the module was categorized as "Very Valid" in terms of content, presentation, language, and graphical aspects, indicating that it is appropriate to be used as a supplementary learning material in English teaching. However, since the implementation stage was not conducted, the effectiveness of the module in improving students' critical thinking and problem-solving skills has not yet been empirically tested. Therefore, future research is recommended to implement the module in classroom settings and examine its impact on students' learning outcomes.

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