JET-Li
Journal of English Language Teaching and Linguistics Studies

Development of an E-Module on Descriptive Material to Enhance Reading Comprehension Skills

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Article Info

Article history

Keywords:
E-Module, Descriptive Text, Reading Comprehension, ADDIE Model

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Abstract

This study aims to develop a descriptive text-based E-Module to improve the reading comprehension skills of seventh-grade students at SMPN 3 Jampang Kulon. The method used is the ADDIE development model with five stages: Analysis, Design, Development, Implementation, and Evaluation. The product was validated by subject matter experts (94%), language experts (98%), and media experts (89%), and tested on a small scale (80%) and large scale (89%). The effectiveness of the E-Module was tested using a pre-experimental design with a one-group pretest-posttest approach on 25 students. Data analysis using SPSS version 25 showed a significant improvement, with a t-value of 15.685 and a significance level (2-tailed) of 0.000 < 0.05, concluding that the E-Module is effective in enhancing students' reading comprehension skills. This E-Module has proven to be viable and beneficial as an innovative learning medium for descriptive text material.

INTRODUCTION

An e-module is a type of teaching material packaged in digital form, therefore that it can be accessed through electronic devices such as laptops, tablets, and smartphones. According to Prastowo (2015), a module is a systematically arranged

teaching material that enables students to learn independently. Compared to printed modules, e-modules offer greater flexibility of access, integration of multimedia elements (images, audio, video), and interactivity that can increase students' learning motivation (Zulkarnain, Hartati, & Mulyani, 2021). Flipbooks, as a modern form of e-modules, provide visual effects such as page-turning animations, making the learning experience more attractive and enjoyable. In addition, e-modules support independent learning because they contain learning objectives, materials, practice exercises, and assessments in a complete manner.

Descriptive text is one of the types of texts taught in junior high school English learning. The main purpose of descriptive text is to provide a clear picture of a certain object, whether it is a person, place, or thing. Emilia and Hamied (2015) emphasized that descriptive text has a structure consisting of identification, which introduces the object, and description, which explains the characteristics of the object. Its linguistic features include the use of the simple present tense, adjectives, and stative verbs such as be and have. Through descriptive text, students not only master sentence structure and vocabulary but also learn to express simple ideas in written form. Research by Wiratno & Ardini (2022) showed that learning strategies based on descriptive text can improve students' reading skills because this type of text is closely related to their daily lives.

Reading comprehension skill is one of the fundamental skills that students must master in language learning. According to Panadero (2017), reading comprehension includes four aspects: literal (understanding explicit information), inferential (concluding), critical (evaluating the content of the text), and creative (connecting the text with new ideas). Reading comprehension is essential because it helps students gain information, interpret meanings, and develop critical thinking skills. However, many junior high school students still face difficulties in reading English texts, mainly due to limited vocabulary, low motivation, and the lack of engaging learning media (Sofietaria & Azmah, 2024). Therefore, innovative learning media such as flipbook-based e-modules are needed to overcome these problems.

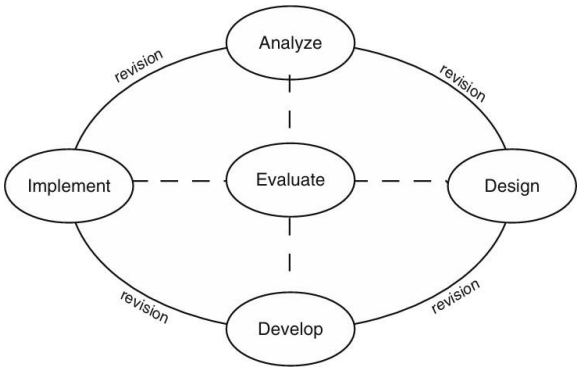
The ADDIE development model (Analysis, Design, Development, Implementation, Evaluation) serves as the framework in creating the e-module. Branch (2009) explains that ADDIE provides a systematic framework for developing learning products. In the analysis stage, researchers identify students' needs, curriculum, and learning gaps. The design stage results in content planning, learning

strategies, and product layout. The development stage focuses on producing the e-module according to the design. Next, the implementation stage is carried out through limited and large-scale trials to observe students' responses. Finally, the evaluation stage aims to assess the effectiveness of the product as well as to make revisions for further improvement. Previous research by Arifin, Suryana, & Putra (2024) confirmed that learning media developed using the ADDIE model is more systematic and effective than development without a structured model.

Through integrating e-module flipbooks, descriptive texts, reading comprehension skills, and the ADDIE model, this study is designed to produce a learning product that suits the needs of junior high school students. These theories strongly support that e-modules are not only alternative learning media but also innovative tools to enhance students' reading comprehension skills, in line with the Independent Curriculum which emphasizes technology-based learning and learner autonomy.

RESEARCH METHODOLOGY

This study employed a Research and Development (R&D) approach using the ADDIE development model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation.



1. Analysis

   At this stage, a needs analysis was carried out through observation and preliminary study at SMPN 3 Jampang Kulon. The analysis identified that students had difficulties in understanding descriptive texts, particularly in identifying main ideas, specific information, and language features. Teachers also relied heavily on conventional learning media, which were less engaging for students.

2. Design

The design stage involved creating the framework of the e-module, including learning objectives, content selection, material structure, as well as the integration of images, examples, and exercises. The e-module was designed in a flipbook format to make it more interactive and attractive.

3. Development

The e-module was developed using the Flip PDF Professional application. The product was validated by three experts: a material expert, a language expert, and a media expert. The validation focused on the content relevance, language accuracy, and technical quality of the e-module.

4. Implementation

The e-module was implemented in two stages: a small-scale trial (10 students) and a large-scale trial (25 students) in class VII of SMPN 3 Jampang Kulon. Students used the e-module during English learning sessions, and their responses were collected through questionnaires.

5. Evaluation

The effectiveness of the e-module was tested using a one-group pretest-posttest design. A total of 25 students participated in this stage. Data were collected using tests of reading comprehension and analyzed using a paired sample t-test in SPSS version 25. The instruments used in this study included validation sheets for experts, student response questionnaires, and reading comprehension tests. The data from expert validation and questionnaires were analyzed descriptively in percentage form, while the test results were analyzed statistically using a t-test to measure the effectiveness of the e-module in improving students' reading comprehension skills.

RESEARCH FINDINGS AND DISCUSSION

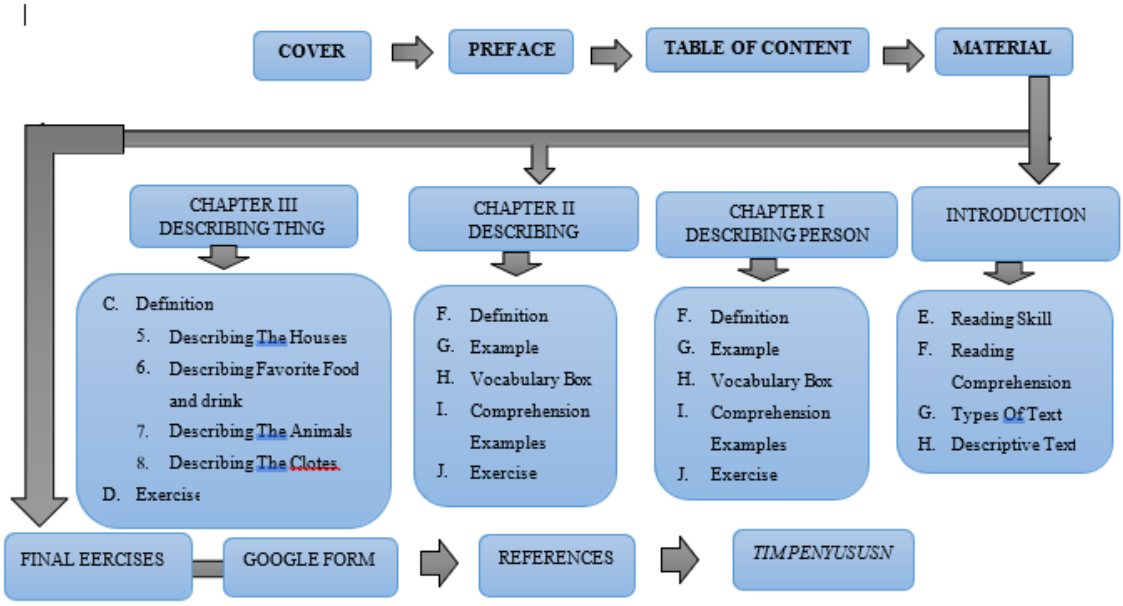
This study uses a product development research approach that aims to create an interactive e-module focusing on descriptive text material. The development process followed the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). designed to be visually appealing, easy to navigate, and aligned with the curriculum and students' reading levels.

1. Analysis

The analysis was conducted as an initial information gathering stage aimed at obtaining an overview of the real conditions in the field before carrying out the product development stage. Data collection was conducted through observation and interview methods. This is the results of the observations and interviews, a problem analysis and needs analysis.

No.	Problem Analysis	Needs Analysis
1.	The students' failure to pay attention to the teacher during the learning process.	Technological and interactive methods enhance student engagement and learning.
2	Lack of student enthusiasm in acquiring English.	Dynamic English teaching and teacher support are key to boosting student interest.
3	Some students lack English reading skills.	Building vocabulary and applying reading strategies, with teacher support, is vital for improving students' English reading.
4	Low interest in English hinders students' reading and comprehension.	Innovative strategies can increase English engagement and improve comprehension.
5	Inadequate textbooks and references limit learning support.	Students need improved, curriculum-aligned references and varied resources like books, articles, videos, and practice tools to support learning.
6	Teachers lack technology use and proper media references.	Using technology in class boosts engagement and makes learning more effective and fun.

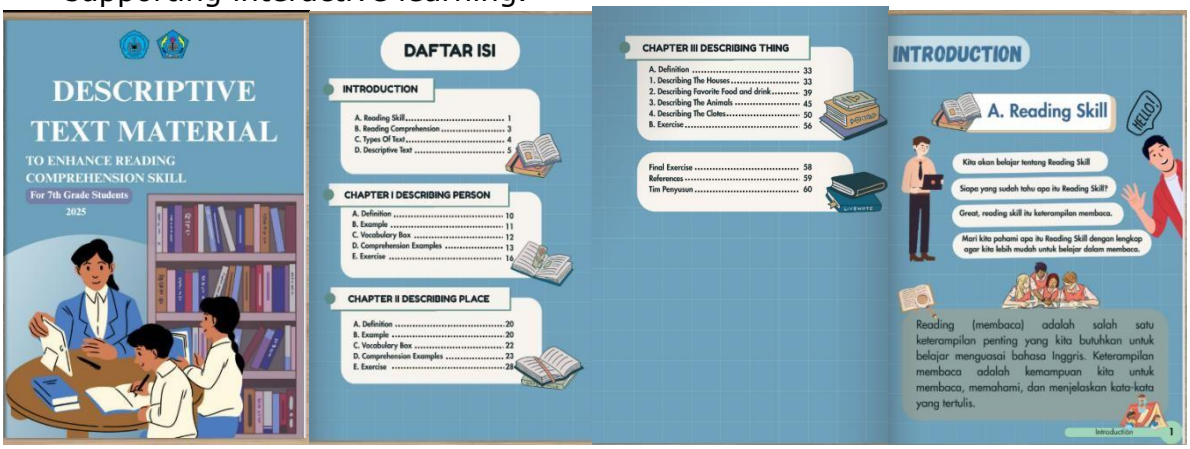
2. Design
   Design interactive learning media that can be used flexibly by students, namely in the form of E-modules on description text material.



3. Development

The developed e-module includes various components of learning materials designed to meet various learning styles of students, including description text, audio to support auditory understanding, interactive quizzes to measure temporary understanding, practice questions to reinforce the material, and final evaluation questions that function to assess the overall competency achievement of students.

In addition, the researcher used PDF Flip Builder to add navigation features and convert the e-module display into a digital flipbook format, thus providing a more dynamic and modern reading experience. In the evaluation stage, the researcher utilized Google Forms as a medium to deliver evaluative questions at the end of learning, while Google Drive was used to store and recapitulate student evaluation results automatically and systematically. The Canva application is used by researchers as a medium to design learning materials. In converting text into audio format, researchers utilize the Text To Speech (TTS) website as a supporting medium in the development of digital-based e-modules. The quizzes presented in the e-module are developed using two digital platforms, namely Wordwall and Google Form, each of which has advantages in supporting interactive learning.



4. Implementation

The subjects of this e-module implementation were grade VII students at the junior high school level, specifically in grades VII A, VII B, and VII C. This trial was conducted to assess the level of feasibility and effectiveness of the e-module in improving students' reading comprehension skills. The e-module implementation was carried out by sharing the e-module link through a WhatsApp group that had previously been created with grade VII students. The link can be accessed by students using their respective smartphones. Furthermore, students were asked to fill out a questionnaire consisting of 10 questions as a form of feedback on the quality and use of e-modules that had been tested.

5. Evaluation

The main purpose of this evaluation is to ensure that the products produced are truly in accordance with the development objectives, namely, producing learning media that are feasible, effective, and in accordance with the needs of students.

This evaluation is carried out through a validation test process by experts, consisting of linguists, media experts, and material experts, in order to obtain an assessment of the extent to which e-modules are suitable for use in the learning process. The assessment from the experts includes aspects of content feasibility, language, visual appearance, and media functionality.

Product Validation

The E-Module developed in this study was validated by three experts, namely material, language, and media experts.

Table 1. Validation Results by Experts

Validator	Percentage	Category
Material Expert	94%	Very Valid
Language Expert	98%	Very Valid
Media Expert	89%	Valid

The effectiveness of the e-module

The table shows that the e-module meets the criteria of validity with very high scores. The material aspect indicates that the content is relevant to the syllabus and learning objectives. The language aspect shows clarity, readability, and accuracy in accordance with students' proficiency level.

Small-Scale and Large-Scale Trial

The practicality of the product was tested on students through small-scale (18 students) and large-scale (48 students) trials.

Table 2. Small-Scale and Large-Scale Trial

Trial Type	Percentage	Category
Small-Scale	80%	Practical
Large-Scale	89%	Very Practical

These findings indicate that students responded positively to the use of the e-module. They reported that the e-module was easy to use, visually attractive, and helped them better understand descriptive text material.

Effectiveness Test

tested using a pre-experimental design with one-group pretest-posttest. The statistical analysis using SPSS 25 showed significant differences between students' pretest and posttest results.

Table 3. Effectiveness Result Test

Test Type	Mean Score	t-value	Sig. (2-tailed)	Conclusion
Pretest	21.25			
Posttest	61.00	15.685	0.000 < 0.05	Significant

The table shows that the average pretest score was 21.25, which increased to 61.00 in the posttest. The t-test obtained a value of 15.685 with a significance level of 0.000 < 0.05, indicating that the improvement was statistically significant. Thus, it can be concluded that the developed e-module effectively improves students' reading comprehension skills.

CONCLUSION AND SUGGESTION

This research resulted in the development of an e-module on descriptive text material for seventh-grade students at SMPN 3 Jampang Kulon using the ADDIE development model. Based on the validation process, the e-module was categorized as very valid in terms of material (94%), language (98%), and valid in terms of media (89%). The small-scale (80%) and large-scale (89%) trials indicated that the e-module was practical and well-received by students. Furthermore, the effectiveness test using a pretest-posttest design showed a significant improvement in students' reading comprehension skills, with a t- t-value of 15.685 and a significance level of 0.000 < 0.05. Thus, it can be concluded that the developed e-module is valid, practical, and effective to be used as a learning medium in teaching descriptive texts. Future researchers may expand the development of e-modules to cover broader English materials, integrate more interactive features such as quizzes with instant feedback, and test the product in different schools to obtain more generalizable results. Teachers are encouraged to utilize this e-module as an alternative teaching medium to support English learning, especially in reading comprehension.

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