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Development of Hypermedia-Based E-Modules on Reading Comprehension Material for Grade V Indonesian Language Lessons at SDN Gunung Batu 1 Bogor

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Abstract:

The purpose of this study was to develop and test the feasibility and effectiveness of hypermedia-based e-modules on reading comprehension material for grade V Indonesian language subjects at SDN Gunung Batu 1 Bogor. This research uses the Research and Development (R & D) method with the Borg and Gall model which is integrated with the ADDIE model. The research includes: (1) needs analysis and material analysis, (2) design stage, (3) initial product development, (4) initial test, (5) revision of validation test results, (6) trial use, and (7) improvement. The results of the development of hypermedia-based e-modules on reading comprehension material for Grade V Indonesian Language lessons at SDN Gunung Batu 1 Bogor are that the product is considered feasible based on the material expert validation score of 78%, and very good and feasible based on the validation scores of media experts 90% and instructional design experts 96%. The hypermedia-based E-Module shows its effectiveness based on the N-Gain score which gets a percentage of 75%.

Keywords: Hypermedia-based E-Module, Indonesian Language , Reading Comprehension

1. INTRODUCTION

In order for a nation to flourish, education is crucial, and this is also true for Indonesia (Kartini et al., 2024). Forming people who are obedient, committed to God Almighty, noble in character, healthy, informed, capable, creative, autonomous, and capable of becoming democratic and responsible citizens is the aim of Indonesian national education (Rahmat et al., 2024).

An essential component of national education is the study of the Indonesian language (Arsyad & Sauri, 2024). Language is a communication tool used to convey information, messages, and ideas both orally and in writing (Meylani, 2024). The purpose of Indonesian language education is to enable students to communicate effectively and use Indonesian correctly (Muzaqi & Roekhan, 2024).

Reading comprehension is also an important part of the education curriculum across the country

(Amjadi & Talebi, 2024). The ability to comprehend reading well is essential in various aspects of life (Susanti & Maulina, 2024). Reading comprehension learning teaches students to understand the structure of the text, find important ideas, identify important information, and analyze and evaluate the content of the reading. Good reading comprehension helps students acquire knowledge, think critically, and communicate better (Paige et al., 2024).

According to the Ministry of Education and Culture's 2023 education report card, SDN Gunung Batu 1 Bogor obtained a literacy score of 52.31 for the ability to comprehend and analyze textual information. This means that students' competence in comparing and contrasting ideas or information in texts or between texts, making conclusions, categorizing, and combining ideas and information in texts or between texts is still lacking.

Electronic Modules, also known as e-modules, are digital learning modules that are increasingly used in the Indonesian education system (Maulidiyah et al., 2023). These e-modules simplify and extend learning, as they can be accessed anywhere. The integration of hypermedia into e-modules will provide convenience for educators in the application of learning so that it is more interesting, develops the potential of educators and students more creatively (Zulfiya et al., 2023).

Research on the creation of hypermedia-based e-modules is required in light of the problem's

background in order to enhance student learning outcomes and the efficacy of instruction in reading comprehension for Indonesian language classes in class V at SDN Gunung Batu 1 Bogor.

2. THEORY OVERVIEW

2.1 Reading Comprehension

According to Rahmi & Marnola (2020), reading comprehension is reading with the aim of understanding what is read, which is a description of the author's opinions, ideas, ideas, and opinions. The writer faces language symbols in the form of letters, words, sentences, and paragraphs. The symbols have meaning and intent, and if readers understand them, they will understand the meaning.

According to Sari et al. (2021), the problem that is often faced by teachers regarding reading comprehension skills is the attitude of students when the teacher gives the task of reading a reading text, some students seem unable to focus on reading. From these problems, it is concluded that students' low reading comprehension skills are influenced by their lack of interest, attention, and involvement in reading activities.

2.2 E-Modul

According to Triwahyuningtyas et al. (2022), e-module is a set of independent teaching materials arranged in detail and presented in electronic form in animation, audio and navigation to achieve learning objectives. E-Modules are a set of independent teaching materials arranged in detail and presented in electronic form in animation, audio and navigation to achieve learning objectives.

2.3 Hypermedia

According to Prihatmoko et al. (2023), hypermedia learning refers to the use of computer software that uses elements of text, graphics, video, and audio linked to a path so that users can move from one information to another without difficulty.

According to Pratama et al. (2024) here are some reasons for using hypermedia:

a. allows access to large amounts of information in a non-linear manner,
b. users can search for information in more depth as desired,
c. interaction with the lesson material can be repeated,
d. it is interesting to use,

e. presents the workings of the human mind.

3. MATERIAL AND METHOD
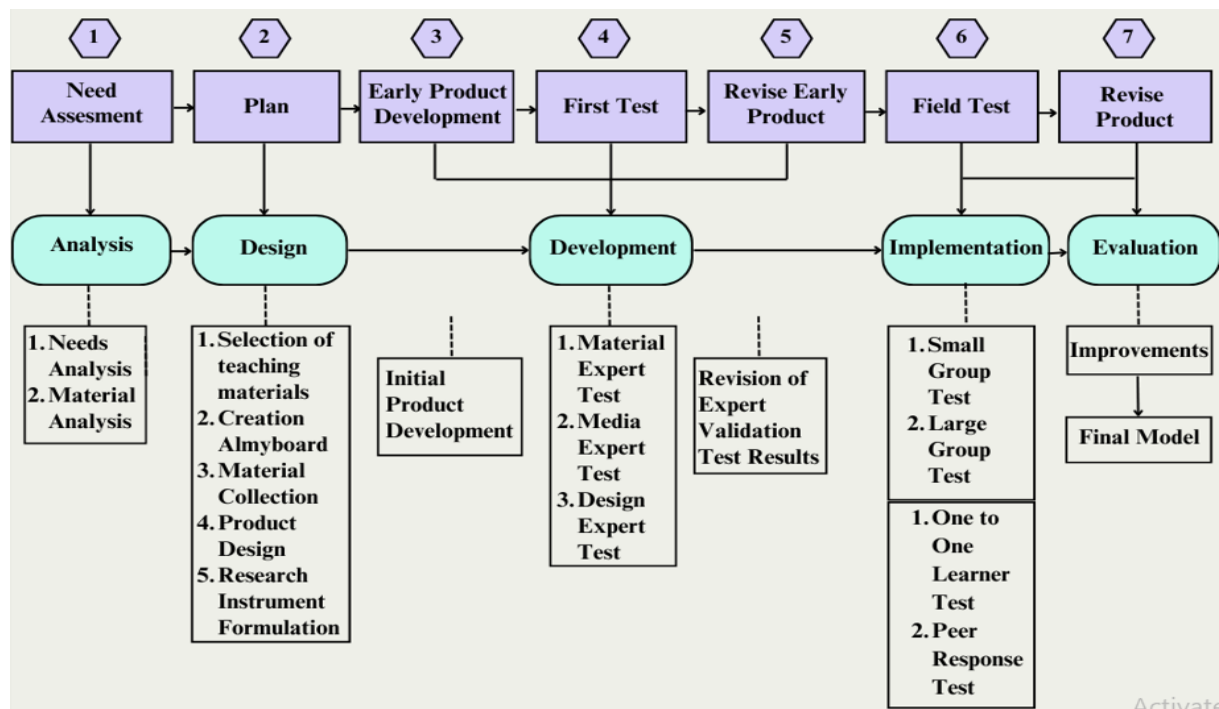
3.1 Research Objectives

The research aims to develop hypermedia-based e-modules on reading comprehension material for grade V Indonesian lessons at SDN Gunung Batu 1 Bogor based on the Borg and Gall development model which is integrated with the ADDIE model, analyzing its feasibility and effectiveness.

3.2 Time and Place of Research

The research was conducted for four months starting from November 2023 to January 2024, located at SDN Gunung Batu 1 Bogor.

3.3 Research Methods

The research method used in this research is R and D (Research and Development), using the Borg & Gall development model integrated with the ADDIE model.

Figure 1. . Borg & Gall Development Procedure Model Integrated with ADDIE Instructional Design

3.4 Data Collection Technique

The data collected in this study were analyzed descriptively qualitatively and quantitatively.
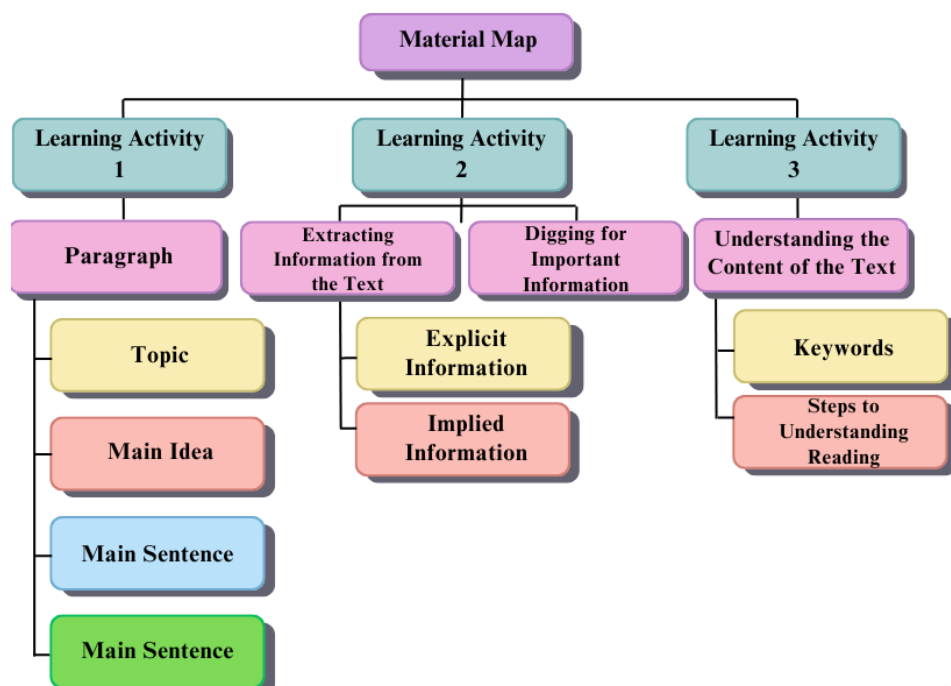
4. RESULT AND DISCUSSION

4.1 Need Anaysis

70% of learners think that Indonesian teachers only use the lecture method, with 80% of learners hoping to understand reading more quickly, know how to identify the main idea in reading, and remember information from reading.

4.2 Material Analysis

In the material analysis, an analysis is carried out related to learning outcomes and learning objectives that refer to the Merdeka Curriculum, based on the concepts of reading comprehension material in accordance with learning outcomes, flow of learning objectives, and learning objectives.

Figure 2. Reading Comprehension Material Map

Before conducting trials on students, researchers conducted Expert Judgment (expert testing) of hypermedia-based e-module product design. Validation was carried out by three validators consisting of (1) material experts, 2) media experts and 3) instructional design experts. Data was obtained from an assessment questionnaire given to the validators, and validators were invited to provide comments and suggestions for product improvement.

4.3 Material Expert Validation

Table 1. Analysis Results of Material Expert Validation Test

Test	Aspect	Score	Description
Material Expert	Material	80%	Feasible with revision
	Language and Images	76%	Feasible with revision
	Presentation	73%	Feasible with revision
	Display	84%	Very Decent

Based on the data analysis of material experts, the results obtained are 78%, so the use of hypermedia-based e-modules is feasible to use with revisions.

4.4 Media Expert Validation

Table 2. Results of Media Expert Validation Test Analysis

Test	Aspect	Score	Description
Media Expert	Language Structure	90%	Very Decent
	Media Display	96%	Very Decent
	Software Engineering	84%	Very Decent
	Applicability	90%	Very Decent

Based on the data analysis of media experts, the results obtained are 90%, so the use of hypermedia-based e-modules is very feasible.

4.5 Instructional Design Expert Validation

Table 3. Results of Instructional Design Expert Validation Test Analysis

Test	Aspect	Score	Description
Design Expert	Learning	100%	Very Decent
	Product Quality	91%	Very Decent

Based on the data analysis of instructional design experts, the results obtained are 96%, so the use of hypermedia-based e-modules is feasible.

4.6 Effectiveness Test

Table 4. Comparison Data of Student Pretest and Posttest Results

No	Test	Average
1	Pretest	64
2	Posttest	91

In the data analysis of the N-gain score, the result is 0.75; included in the high category, and shows that the use of hypermedia-based e-modules on reading comprehension material is quite effective.

4. CONCLUSION

Needs analysis and material analysis, (2) design stage, (3) initial product development, (4) initial test, (5) revision of validation test results, (6) trial use, and (7) improvement are all part of the Research and Development (R & D) method with the Borg and Gall model integrated with the ADDIE model.

The results of the development of hypermedia-based e-modules on reading comprehension material for Grade V Indonesian lessons at SDN Gunung Batu 1 Bogor are that the product is considered feasible based on the material expert validation value of 78%, the media expert validation value of 90%, and the instructional design expert validation value of 96%. Based on the results of small and large group tests, the score is 78% with criteria worth using with

revision. The hypermedia-based e-module is also considered feasible to use with necessary revisions based on the small and large group tests of 78%, and the N-Gain score of 75%.

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