Developing Project Based e-Module for Contextual Written Language Skills Course at English Language Education Study Program

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Abstract. The objective of this study was to develop e-module Project Based Learning (PjBL). This study was conducted at the English Education Program., FBS Unimed. This study was founded on R&D (Research and Development). It was divided into six stages: gathering information and data, analyzing data, designing materials, expert validation, revising material, and final product. The data was collected by distributing questionnaires to students and interviewing a lecturer to determine the students' needs. Two percentage experts have validated the product. The average expert validation score was 94.2% in the content aspect, 95% in terms of presentation, 96.6% in the language aspect, and 95% in the layout aspect. The overall average was 95.2%. which is regarded as very good. According to the findings of this study, the developed e-Modul Project Based Learning is feasible to be used at English Education Program for *Contextual Written Language Skills Course.*

Keywords: e-Module, Research and Development, Project Based Learning, Contextual Written Language Skills Course.

1 Introduction

Based on the MBKM (*Merdeka Belajar Kurikulum Merdeka*) curriculum implemented in the English Language Education Study Program, the learning pattern used is innovative learning, which can improve students' skills and thinking abilities. Based on observations and interviews with *Contextual Written Language Skills* course lecturers, post-pandemic learning occurs face-to-face in class and online. Students have difficulties to comprehend the material in both offline and online learning, which affects their learning outcomes. *Contextual Written Language Skills* course doesn't have any printed or digital module. The lectures prepare the power point presentation material and separated references which downloaded before the class. Consequently, the learning materials were not arranged systematically and have not reflected innovative learning. Therefore, this research aims to develop project-based e-

module used in *Contextual Written Language Skill* course. The product of this research is digital module which developed to fulfill the need of learning sources of *Contextual Written Language Skill* course. It is a systematic learning material organization which present the topic discussion followed by project.

According to previous research by [9] on the development of *e-module* in digital simulation subjects, case studies at SMK Negeri 1 Lamongan show that the *e-module* developed are feasible to apply to learning but are constrained by the facilities in each class. The second study, conducted by [11], stated that the results of designing and implementing *e-module* in multimedia subjects at SMK Negeri 3 Singaraja obtained an average result from 41 lecturers, so belonging to the positive category, the average number of students is 64,75. Kadek Adi Wiyana, Gede Mahendra Darmawiguna, and Gede Mahendra Darmawiguna conducted the third study.

Based on the existing problems, Researchers are interested in creating educational materials that take the Project-Based Learning (PjBL) learning model is used to create an e-module. Learning media aim to support learning activities in the form of print media and electronic media [8]. Modules can be used to organize subject matter by paying attention to educational functions [5]. With the development of technology at this time, modules are presented in electronic form, commonly referred to as *e-module* or electronic modules, which are one of the learning resources that have an impact on students [16]. With the *e- module*, it is expected to be able to provide motivation and influence student achievement.

The *Project Based Learning* (PjBL) learning model is used because it is in accordance with the current situation and is expected to be able to change the learning approach for students from *lecturer-centered learning* to *student-centered learning* by giving students the freedom to explore and express ideas in solving a problem they face. According to [6], students are trained to complete problems in a disciplinary manner, placing students as if they act as actors, starting from analyzing problems, designing strategies to solve problems, taking action, and compiling reports on the results of activities that have been completed (*student-centered*).

Student learning outcomes must be known by the lecturer to find out the appropriate teaching methods practiced in class so that learning objectives can be achieved as expected [10]. Therefore, development is the goal of this study *project-based learning* (PjBL) e- modules in the *Contextual Written Language Skills* course to improve student learning outcomes in semester 2 of the English Education Study Program, Faculty of Languages and Arts, Medan State University.

2 Method

This study was conducted RnD by Borg and Gall. There were 6 phases in developing a project-based e-module for Contextual Written Language Skills. The phases were: 1) Gathering data and information, 2) Need analysis and 3) Material design. 4) Validating by experts, 5) Revising, and 6) Final product.

3 Results and Discussion

In the interview with the lecturer, it was found that English education already implemented recent curriculum (*Kurikulum Merdeka*). The researchers have developed project-based e-module for contextual language skills course by following the steps.

3.1 Gathering Data and Information

The gathering of information and data was the initial stage of research and development. Observation, a questionnaire at English Education study program, and an interview with the Contextual English Language skills lecturer were used to collect data and information.

3.2 Need Analysis

To collect data, a need analysis was performed. It happened on April 10, 2023A data was collected utilizing an interview and a need analysis questionnaire. Students at Universitas Negeri Medan's were given the questionnaire. There were ten multiple-choice questions on the questionnaire. These elements were combined to form four possible responses. Their requirements were represented by the most popular responses.

The final instrument was a guideline for an interview with a student lecturer. The questions were classified into six groups. The questions were designed to elicit the lecturer's thoughts on the ninth-grade textbook reading material, the materials used to teach reading, and the mode of instruction. Below is a more detailed discussion of the need analysis results. The entire enrollment of students in 2nd Semester Class Dik F. There are 8 male students and 24 female students in the class. They were mostly in their 20, with one student being 19 and the others being 21.

1) Needs

The questions numbered 1, 2, and 6 were designed to elicit information about the students' opinions and interests in classroom learning activities. The majority of students expressed an interest in the classroom teaching and learning process in particular. Some students expressed interest in the learning media used in class. The second question attempted to determine the importance of Contextual Written Language Skills for students. The 2nd-semester material expert validation of 88,61% of students received a very high rating, particularly their Contextual Written Language Skills fluency in English. The goal regarding inquiry number six was to elicit students' perspectives on the option of project- based e-modules for the contextual written language skills activity that sounded appealing to them.

2) Want

By asking questions 4, 5, 7, and 8, the researcher hoped to discover the students' desire to learn to read. In question four, the researcher made an attempt to gauge the student's curiosity about learning contextual written language skills. The information was gathered as a result of the students' desire to improve their writing skills. This was a planned question meant to extract expectations from students at the end of the course., specifically Contextual Written Language Skill. During the course of their project-based e-module writing learning process, the majority of students expressed a desire to fully comprehend the text. 12 students selected

'd,' while 9 selected 'a,' indicating they desired to increase the scope of their vocabulary. The fifth question focused on the students' text preferences when it came to writing items that drew their attention to their favorite texts. According to the table below, the majority of students chose "b" and "d". Meanwhile, the others chose "a" for the dialogue text option. Question 7 was designed to elicit information about students' e-module material preferences it's also used to show how much students value the inclusion of project-based e- modules in the contextual written language skills course. As a result, researcher is eager to develop textbooks in the form of electronic modules to meet the needs of students and improve their learning outcomes.

3)   Lack

Question 3 was created to elicit student feedback on whether or not the current material is enthralling. Three pupils out of the total said their textbook lacked interest, while 75% stated that it was extremely interesting. The goal of question 9 is to see if the book helped them learn better. Half of the students stated that the book had no effect on their reading ability. However, 9.375% of students said the book improved their reading ability significantly. The difficulty of students with grammar was also revealed in question ten. The highest score was 56.25%, and students reported difficulty with grammar. Grammar components were determined to be included in the materials to improve students' understanding of it.

3.3   The Result of the Interview with the Lecturer

The interview guidelines given to the English lecturer at the English education study program, Faculty of Language and Arts, Medan State University. Six questions revealed that students need project-based e-modules for the Contextual Written Language Skills course. Because the e-modules for second-semester students were not founded on project-based learning, which aids in students' 4C skill development. Supplemental e-modules can provide them with access to project-based content or materials for Contextual Written Language Skills, helping them to understand the content completely.

3.4   Developed Project-Based E-Module Materials

The results of the need assessment guided the development of the English materials. It developed as a result of the requirements and interests of the students in studying English, especially reading. The researcher employed eye-catching graphics, a variety of hues, elegant typefaces, and engaging content to enhance the students' enjoyment of the teaching and learning process. The book's primary methodology, which was based on PjBL, encouraged students to work together to finish the project.

1. Validating by the experts

The initial draft was formed by the following design and materials. According to the experts' assessment, the materials qualified as good materials. The experts provided their opinions by filling out a questionnaire that used a five-point Likert scale. It received a very good (5), good (4), fair (3), poor (2), and very poor (1) rating. Furthermore, the results of the calculations were used to develop the feasibility criteria proposed by [14]. If the result exceeded 60%, the product was declared viable. Four aspects were evaluated during the expert evaluation process. Its goal was to evaluate the quality of the materials created. These

qualities included appropriate language, appropriate content, appropriate presentation, and appropriate layout. The results of the questionnaire analysis for experts' evaluation of project-based e-modules material for Contextual Written Language Skills is presented here. The validation score of the experts is listed below.

Table. Total Score of Validation of Expert

No.	Aspect	I	II	(%)	Criteria
1.	Content	4.4	5	94.2	Very good
2.	Language	4.8	4.8	96.6	Very good
3.	Presentation	4.5	5	95	Very good
4.	Layout	4.5	5	95	Very good
Total Score		18.2	19.8	380.8	
Score		4.55	4.95	95.2	Very good

The experts' average score was 95.2%, indicating a "Very Good" rating. As a result, the developed English learning materials of Contextual Written Language Skill based on Project-based learning skills are suitable and valid for use as instructional materials in the second semester Dik F of the English Education Study Program, Faculty of Languages and Arts, Medan State University.

3.5 Revising the Materials

The experts made numerous recommendations and ideas for revising specific reading material components in order to improve English proficiency in Narrative Text Reading Materials. The materials, according to the first expert, are less aligned with the PjBL steps, less related to one another, and less encourage students to communicate orally or in writing. She stated that the e-modules explanation as project-based for contextual written language skills should be incorporated into the PjBL syntax rather than separated as it was in the first draft. She also suggested that instead of just matching the words, a vocabulary task based on HOTS be added. The second expert suggested paying attention to the font color in the text's references.

3.6 Final Product

The developed an e-module based on project-based learning the contextual Written Language Skills course that is tailored to the needs and characteristics of students who have difficulty comprehending the material. The materials for this e-module were developed using Project Based Learning of Contextual Written Language Skill. The reading materials created were intended to meet the needs of the students and could be used as teaching materials. The ideas and criticism offered by the experts on the first edition of the materials were taken into consideration when creating the final product.

This study's objective was to create e-modules for the contextual written language skills course based on the needs of 2nd Semester Dik F students. This study was carried out by R&D using the six stages outlined by Borg and Gall, namely: 1) gathering information and data, 2) analyzing the data, 3) designing the product, 4) validating the product, 5) revising the product, and 6) Final Product.

The gathering of information and data was the first stage of this research. The data was gathered through observation of the current materials and curriculum, distribution student's questionnaires, and interviews with the English lecturer. The data was then analyzed in the second step. The data analyzed came from observation, a student needs analysis questionnaire, as well as an interview with a lecturer in English. This phase's objective was to alter data in relation to students' identities, needs, issues, and areas of interest in learning, specifically the project-based learning e-model. The analysis results guided the needs and interests of the students and guided the researcher's creation of the materials. The following stages involved designing project-based e-modules in contextual written language skills for teaching and learning. The researcher designed materials using the curriculum syllabus (Kurikulum Merdeka), lesson plan, and existing material. Materials created in response to an analysis of students' needs. The following step is expert validation. Experts completed questionnaires to review the materials. The material was assessed using four questionnaires: relevance, language, presentation, and layout. The four newly created materials scored 95.2% overall. The materials developed, titled "Developing Project Based e-module for Contextual Written Language Skills course at English Language Education Study Program," were rated "Very Good."

4 Conclusion

The following conclusion was reached after data collection and analysis: the materials were developed by developing an e-module for project-based learning based on the *Contextual Written Language Skills* course. The average he developed e-modules were validated by experts. On average, expert validation received a very high rating of 95.2%. This indicates that the developed electronic module is suitable for use in the *Contextual Written Language Skills* course. The result demonstrated that the e-module was very good and suitable for the lecturer's use in the *Contextual Written Language Skills* course to improve student learning outcomes in semester 2 of the English Education Study Program, Faculty of Languages and Arts, Medan State University.

In accordance with the preceding conclusion, the lecturer proposed employing the approved materials as supplemental materials for reading instruction, specifically narrative text. By observing and analyzing the students' needs, the lecturer may be able to create appropriate material for their needs. In addition, Dik F students in the second semester should participate actively in English activities in order to in the English classroom, foster a communicative environment. Other researchers can also assist students in improving their writing, listening, and speaking skills.

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