



Developing project-based e-module for contextual written language skills course at English language education study program

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ABSTRACT

The ability to develop, project-based e-modules for the Contextual Written Language Skills course in a learning context into another learning context is an essential ability for students based on project-based learning. However, the learning pattern used is innovative learning, which can improve students' skills and thinking abilities. The ability of project-based e-modules for the English lecturers to adapt their knowledge and skills from project-based e-modules for the Contextual Written Language Skills course to another course has been studied. This research focused on the presentation of discussion material that is not accompanied by an assignment or project or the systematics of preparing teaching materials and e-modules using project-based learning for Contextual Written Language Skills. The research used in this study is the Research and Development (RnD) development model by adopting the model Borg and Gall, which consists of 6 phases: 1) Gathering data and Information, 2) Need analysis, and 3) Material Design. 4) Validating by experts, 5) Revising, and 6) Final Product. The results of this study are based on an analysis of the needs of students who experience limited digital learning resources related to the material in the Contextual Written Language Skills course. Therefore, researchers are interested in developing textbooks in the form of e-modules to meet the needs of students and improve their learning outcomes. E-modules developed were validated by experts. Material expert validation had an average score of 88,61%, which was classified as very good. Media expert validation obtained an average score of 87,75% which was classified as very good. This means that the developed e-module is valid to be used in the Contextual Written Language Skills course.



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Based on the MBKM 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 *Corona Virus Disease* (CoVid 19) 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 material in the form of power points 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 Masyhadi and Soprajitno (2017) 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 Komang Wisnu Baskara Putra et al., Agus Wirawan, and Gede Aditra Pradnyana (2017), 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 developing learning resources as an *e-module* using the *Project-Based Learning* (PjBL) learning model. Learning media aims to support learning activities in print media and electronic media (Laili, 2019). Modules can organize subject matter by paying attention to educational functions (Daryanto and Dwicahyono, 2014). 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 (Winaya et al., 2016). 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 Erick Suryadi et al. (2019), 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-centred*).

The lecturer must know student learning outcomes to find out the appropriate teaching methods practiced in class so that learning objectives can be achieved as expected (Nasution, 2017). Therefore, the aim of this research is to develop *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.

METHOD

This research 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.

FINDINGS

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.

1. Gathering Data and Information

The initial stage in undertaking Research and Development was to collect data and information. The data and information were acquired by observation, a questionnaire at Prodi Pendidikan Bahasa Inggris, and through an interview with the Contextual English Language skills lecturer.

2. Need Analysis

A need analysis was carried out to collect data. It took place on April 10, 2023. The data were gathered using a need analysis questionnaire and an interview. The questionnaire was delivered to students at Prodi Pendidikan Bahasa Inggris Universitas Negeri Medan. The

questionnaire comprised of ten multiple-choice questions. These components were expanded into four answer alternatives. The most widely responses were chosen to represent their needs.

The last instrument was an interview guideline for the lecturer of Students. The questions comprised 6 main questions. The questions were aimed to obtain the lecturer's opinion about the reading material in the textbook for ninth grade, the input in teaching reading, and the teaching method. The results of the need analysis are discussed below. The total number of students of 2nd Semester Class Dik F. The class has eight male students and 24 female students. They were mostly 20 years old; 1 student was 19 years old, and the rest were 21 years old.

1) Needs

The questions from number 1, 2 and 6 aimed to find the information about the students' opinion and interest of learning activities in the classroom. Most students indicated that the teaching and learning process in the classroom, especially teaching media is fascinating. While some students said that learning media in the class is fascinating. Question number 2 tried to determine the significance of contextual Written Language Skills for students. 88,61% of students' 2nd-semester material expert validation received a very high rating particularly their contextual Written language skills proficiency in English. The purpose of question number six was to find out about students' opinions related the option of project-based e-modules for the contextual written language skills activity that sounded interesting for them.

2) Want

In question number 4, 5, 7, and 8, the researcher aimed to discover the students' urge in learning reading. In question of number 4, the researcher attempted to determine the student's interest in learning in contextual written language skill. The data were the result of the students' urge to assist them to enhance their writing skills. This question was designed to elicit students' expectations at the end of the learning process, namely in terms of Contextual Written language Skill. Most students stated that they urge to be able to comprehend the text properly during e-modules material in their project-based e-modules writing learning process. 12 students chose 'd,' and 9 students chose 'a,' to indicate that they wanted to expand their vocabulary. The fifth question addressed the students' preferences for the text in writing items that attracted their

favorite texts. Based on the table below, most of the students chose "b" and "d". Meanwhile, the rest of them chose "a" with the option about dialogue text. The question of number 7 was intended to gather data about students' e-modules material preferences. Furthermore, it is utilized to demonstrate that students enjoy the inclusion of creating project-based e-modules for the contextual written language skills course. As a result, researcher are eager to develop textbooks in the form of electronic modules to meet the needs of students and improve their learning outcomes.

3) Lack

Question number 3 was designed to elicit students' opinions about whether the current material is fascinating or not. Only three students reported that the textbook they use is less interesting, while 75% thought it is highly interesting. The purpose of question number 9 is to determine whether the book enhanced their learning ability or not. 50% of students stated that the book did not enhance their reading ability. On the other side, 9.375% of students stated that the book significantly enhances their reading ability. The other element shown in question number ten was students' difficulty in grammar. The highest score was 56.25%, and students stated that they had difficulty with grammar aspects. It was concluded that the materials should include grammar components to boost students' knowledge of it.

4) The Result of the Interview with the Lecturer

The interview guidelines provided to the English lecturer at the English education study program, Faculty of Language and Arts, Medan State University. The result of six questions suggested that students' need project-based e-modules for the contextual Written Language Skills course. Because the e-modules for 2nd semester students did not based on Project Based Learning which can improve students' 4C skills. Supplementary e-modules can enable to access content or materials based on project-based for contextual written language skills assist them in fully comprehending the materials.

3. Developed Project-Based E-Module Materials

The English materials were developed in responding to the results of the need analysis. It developed in response to students' necessities and interests in learning English, particularly reading.

The researcher used images, diverse colours, beautiful fonts, and fascinating content to make the teaching and learning process more enjoyable for the students. The major approach of the book was based on PjBL which supported the students to collaborate in completing the project.

4. Validating by Experts

The following design, materials formed the initial draft. Based on the experts' judgment, the materials achieved the qualification of good materials. The first expert of the developed materials, namely Prof. Dr. Sumarsih, M.Pd., and the second expert is Prof. Amrin Saragih, M.A., Ph.D. as an English lecturer at Universitas Negeri Medan. The experts supplied the judgment by filling in the questionnaire, which employed the five scales of Likert Scale. It was very good (5), good (4), fair (3), poor (2), and very poor (1). Additionally, calculation findings were converted into feasibility criteria suggested by Sugiyono (2012). The product was declared viable if the result was more than 60%. In the experts' judgment process, four aspects were assessed. It aimed to assess the quality of the developed materials. The appropriateness of the content, the appropriateness of the language, the appropriateness of the presentation, and the appropriateness of the layout were those characteristics. These are the findings of the questionnaire analysis for experts' judgment of project-based e-module material for Contextual Written Language Skills. Below is the score of the experts' validation.

Table 1. Total Score of Validation

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 average score from the experts was 95.2%, and it was categorized as "Very Good". Thus, the developed English learning Materials of Contextual Written Language Skills based on Project Based Learning valid and appropriate to be used as the teaching material for 2nd semester Dik F of the English Education Study Program, Faculty of Languages and Arts, Medan State University.

5. Revising the Materials

The experts gave many ideas and recommendations on revising specific components of reading materials to enhance the quality of the English Reading Materials of Narrative Text. Prof. Dr. Sumarsih, M.Pd. as the first expert, stated that the materials are less in accordance with the steps of PjBL, less related to each other, less encourage the students to communicate in oral/written. She stated that the explanation of e-modules as project-based for contextual written language skills must put in the syntax of PjBL, not separated like the initial draft. Moreover, she suggested to add the vocabulary task based on HOTS, not just match the words. While the second expert, Prof. Amrin Saragih. M.A., Ph.D., suggested highlighting the font's colour in the text's references.

6. Final Product

The final product of the developed a project-based learning e-module based on the contextual Witten language Skills course that is tailored to the needs and characteristics of students who have trouble comprehending the material. The materials of e-modules were created based on Project Based Learning of Contextual written language Skill. The developed reading materials has been designed to satisfy the demands of the students and was suitable to use as teaching materials. The final product was produced to respond the experts' ideas and comments on the first edition of the materials. Appendix H presented the final product of the developed materials

DISCUSSION

This research aimed to develop e-modules for the contextual written language skills course based on the needs of students of 2nd Semester Dik F. This research was conducted by Research and Development (R&D) using the six stages outlined by Borg and Gall (2003): 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 first stage of this research was gathering information and data. The data were collected by observing the curriculum and existing materials, distributing questionnaires to the students, and interviewing the English lecturer.

The second step involved data analysis. The data analyzed was the result of observation, a questionnaire on the need analysis of students, and an interview with an English lecturer. This phase aimed to modify information regarding students' identities, needs, problems, and learning interests, especially the learning e-model of project-based learning. The analysis results served as a guide for the researcher as the researcher developed materials based on the interests and requirements of the students.

The following stages were designing the e-modules project-based in contextual written language skills for teaching learning. The researcher used the syllabus of curriculum (Kurikulum Merdeka), lesson plan, and existing material in designing materials. Materials developed based on students' needs analysis.

Experts validated is the next stage. Experts reviewed the materials by filling the questionnaires. The questionnaires covered four aspects of material evaluation: evaluate the appropriateness of the content, language, presentation, and layout. The final score of four aspects of developed materials was 95.2%. The score indicates that the developed materials entitled "Developing Project Based e-module for Contextual Written Language Skills course at English language Education Study Program" was considered as "Very Good".

CONCLUSION

After collecting data and analyzing it, the conclusion was drawn as follows: the materials were developed by creating a project-based learning e-module based on the Contextual Written Language Skills course. Experts validated the average he developed e-modules. On average, material expert validation received a very high rating of 88,61%. It received a very high rating of 87,75% when tested by media experts. This indicates that the developed electronic module is suitable for use in the "Contextual Written Language Skills" course. The score demonstrated that the e-modules were very good and appropriate 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 line with the conclusion above, the lecturer suggested using the validated materials as supplementary materials in teaching reading, particularly narrative text. The lecturer can develop appropriate material through observation and need analysis to meet students' needs. Moreover, the 2nd semester of students of Dik F should actively participate in English activities to establish a communicative environment in the English classroom. Besides that, other researchers can develop the other students' material in other English skills, such as writing, listening, and speaking.

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