

Development of Indonesian Language Module Guideline Based on Project-based Learning: Need Analysis Approach

Yustina Fitriani¹, Mohtana Kharisma Kadri²
{yustina.fitriani@lecturer.itk.ac.id¹, mohtana.kharisma@lecturer.itk.ac.id²}

Kalimantan Institute of Technology, Karang Joang, Balikpapan Utara, Kalimantan Institute of
Technology, Karang Joang, Balikpapan Utara²

Abstract. The aims of this study were (1) to find out the needs of lecturers and students in an Indonesian language course that applies project-based learning and (2) to develop a guideline for Indonesian language module based on project-based learning. This research development adapted from Dick & Carey (2009) and Branch (2009) models, which consists of seven stages: conducting needs analysis, writing syllabus and lesson plan, developing the first draft, evaluating, revising, trying out, and developing the final draft. The draft of the product was validated by expert validators. The result of experts is 3.50 and the result of lecturers' evaluation is 3.65. Both of these results can be classified as "very good" category, which means that they agreed with the product. The students' feedback also were used to know their agreement of the project given. The calculated mean value is 3.73, which is higher than the required threshold of >3.5, so that the result is categorized as "very good". It can be concluded that the guideline of the Indonesian language module based on project-based learning is applicable.

Keywords: guideline, needs analysis, project-based learning

1 Introduction

Indonesian Language is one of the Curriculum Compulsory Subject (MKWK) which is implemented in universities. In the learning process, teaching materials are a very important component for the achievement of learning objectives. Teaching materials have two types, namely printed and non-printed teaching materials. Printed teaching materials are teaching materials that have been printed, such as textbooks, modules, and others [1]. Meanwhile, non-printed teaching materials are teaching materials that use electronic media, such as e-books, e-modules, e-magazines, and others.

As printed teaching materials, modules are one of the teaching materials that are often used in the teaching and learning process [2]. By using module, students can learn independently [3], [4]. In addition, the module can also be used as a reference to broaden student insight. This is because the modules are compiled based on many references, so that students do not only study through textbooks.

The achievement of learning objectives in Indonesian language courses can be seen from the teaching materials presented in the module. Gumono explains that conducting the

students' needs is the considered thing in developing an effective lesson [5]. Therefore, module as learning references must be developed according to the needs of students [6], so that learning can be absorbed optimally. The Indonesian language module in Kalimantan Institute of Technology applied a project-based learning. It is an instructional approach that can help students to learn how to develop 4C skills (creativity, critical thinking, collaboration, and communication) [7]. To help the students in encourage active learning, an effective module is required. A good module should have certain criterias that can be used to distinguish from other instructional materials [8], beside it also aims to direct students to be able to carry out learning in a structured manner by finding solutions to existing problems. However, the module used in Kalimantan Institute of Technology is still not effective. Based on interviews with students, the learning materials contain many difficult terms, so that students still find it difficult to understand the material presented. In addition, the module that have been used is not in accordance with the semester level of students. This can be seen from the topics of the teaching materials presented, the number of assignment projects, and the time given in the project, so that learning outcomes have not been effective. Additionally, the layout design in the module is unattractive. Therefore, it is necessary to prepare an Indonesian language learning module.

Lecturers as educators should have an ability to develop appropriate learning modules that relate to students' wants and needs. Fact, one of the difficulties in preparing modules is the lecturers do not understand the way to prepare learning modules properly and correctly, especially project-based learning modules. Therefore, it is necessary to develop guidelines for helping lecturers, so that the topics and assignments in the module are actually presented according to students needs.

2 Research Methods

This research can be categorized as Research and Development (R&D). It is a research to create a new product then test the effectiveness of the product. In this study, the product is an Indonesian language module guideline based on project-based. The stages of this research are adapted from Dick & Carey (2009) and Branch (2009) models. Based on the research needs, the researcher modified the research procedure into 7 stages as follows.

1. The first stage is conducting need analysis. This stage involves identifying the specific needs to the target audience (lecturers and students) by observation, questionnaire, and interview. The observations were done by observing classroom activities, the questionnaires were distributed to gather the quantitative data, and the interviews are conducted to get depth exploration of experiences, opinions, and suggestions. The results of need analysis were used to develop a guideline.
2. The second step is writing syllabus and lesson plan. In this stage, the researcher created the syllabus and lesson plan. It aims to get a clear communication, including learning objectives and assessment methods. The contents of the materials in the syllabus were the Indonesian language learning materials based on Project-based.
3. The third step is developing the first draft of the product. In this step, an initial version of the product is created, which will serve as the foundation for further refinement and improvement.
4. The fourth step is evaluating. The aims of product evaluation are to assess the quality and performance of the product. This process involves systematically analyzing the

- product's features, functionalities, and impact to determine its success and identify areas for improvement. In this step, the product was reviewed by consulting to experts.
5. The fifth step is revising. The researcher revised the product based on the feedback given from experts. It is the key aspect of the product because it plays a significant role in improving the quality and creatating a valuable product over the long term.
 6. The sixth step is trying out. This step is the implementation of the learning materials that are developed in the guideline. Trying out the product allows for comprehensive testing of its functionalities and features. It also helps to gather students' feedback and make necessary adjustments before the product launched.
 7. The seventh step is developing the final draft. This becomes the last step in the development process. The final draft in this study is a prototype. It is a guideline of Indonesian language module based on project-based.

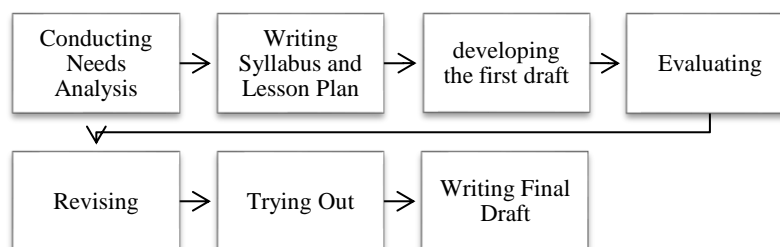


Fig. 1. Research Procedure

In analyzing data, the researcher utilized Likert's Scale, which range from 1 to 4. The numerical value was designated to signify degrees of agreement or disagreement with the content in the questionnaire.

Table 1. Data Conversion

Scale	Interval	Category
4	> 3.5	Very good
3	>2.5 – 3.5	Good
2	>1.5 – 2.5	Fair
1	≤ 1.5	Bad

3 Result and Discussion

2.1 Needs Analysis Results

Based on the results of the needs analysis, it was found that 75% of the lecturers have experience in developing teaching materials, while 25% of the lecturers lack such experience. The higher percentage indicates that the lecturers are well-acquainted with the process of organizing new educational content. On the other hand, the lower percentage suggests that these lecturers lack experience in developing learning materials. Further, during an interview with one of the lecturers, she mentioned, "I have experience in developing learning materials, but I haven't specifically created learning materials based on a project-based model".

According to the result of students' experience in project-based assignment in other subjects, it indicates that approximately 85.6% of the students have experience in developing a product. Furthermore, students are adept at identifying problems and solving by creating innovative new products. Project assignments also foster students' ability to work both independently and collaboratively with their peers.

Regarding the topics that should be assigned to students in project assignments, most of the participants or 75% of the participants tend to choose topics related to students academic field. This choice will significantly give an impact to the quality of the assigned projects' outcomes. When topics align with their respective academic domains, students can easily understand the materials and explore specialized terminology within that field. Consequently, the produced outputs will be in line with the learning objectives. In completing the project, group work becomes the best choice to finish it. By working together, students can share ideas and offer support each other [9].

The results about the time required to complete the project, the highest percentage is 50%, indicating that students typically require around 4 weeks to finish a project. The given time duration will impact the quality of the assignments. At this stage, students need guidance from lecturer to receive directions and feedback in order to achieve maximum results. In an effort to optimize the given time, it is necessary to create a weekly assistance sheet to ensure a more focused and detailed assignment progress. This sheet also aims to prevent the common "last-minute rush" system often practiced by students.

Students' response regarding the appropriate assistance location during the project assignment period is in the classroom. This is substantiated by the obtained result of 66.7%. When compared to the lecturers room, the classroom becomes the most effective place for exchanging ideas without any disruptions from other people.

The result of supporting learning success shows that 69.5% of the respondents choose module and instructional video as the learning references. Module offers structured and organized content, allowing students to engage with the material at their own pace and convenience [10]. Instructional videos bring an interactive dimension of learning. The combination of modules and instructional videos creates a well-rounded learning experience.

Based on the result of the expected role of the lecturers, it shows that 40.7% of the students need to be given more detailed explanations about the steps involved in completing the given project. By providing a detailed explanations, students will have a clear framework to follow, leading to a more organized and successful completion of the exercises.

Based on the result of the students'role in learning process, it shows that 63.5% of the respondents prefer to study the provided module independently at home. If the students find the difficulties, the materials will be discussed in the class. It also relates with the students'preferences in the learning method. The students tend to favor an interactive approach, such as discussion. By participating in discussion, students can explore the topics coolaboratively, ask questions, and share the idea.

Based on the results of the lack of students in terms of group interaction, it can be concluded that there are 33.3% of the student tend to choose a lack of cooperation among the group

members. This result is in line with student interviews indicating that not all group members actively participate in the assigned tasks. The lack of collaboration within the group means that each individual in the group does not provide mutual support to achieve common goals or outcomes.

The data about the students' difficulties during the assistance indicates that 50% of the students frequently encounter misunderstanding in interpreting the feedback given by lecturers. Furthermore, a lack of experience in receiving and managing feedback can also play a role in these interpretational errors. Therefore, there is a need for a feedback strategy that provides two types of information to students, namely verification and elaboration [11].

The results shows that 49.4% of the students have difficulty in developing coherent paragraphs. This problem is closely related to students' writing ability. The writing ability is not only one's talent, but also creativity, will, insight, and mastery of writing techniques that are obtained from learning experience. Therefore, before students develop an academic text writing project, students should receive material related to the requirements for developing good paragraphs so that their writing skill can be more directed and easily understood by readers.

The data about the students' difficulties on the project assignment show that around 47.2% of respondents chose difficulties in understanding the systematics of the project assignments given. Based on the highest results, most students still don't know how to write systematically. Therefore, it is necessary to provide a template as a standardized framework that guides students in creating the project.

According to the result of the students' expectation after completing the project assignment, the highest percentage is 58.3%, which means that the students continue the project to *Program Kreativitas Mahasiswa (PKM)* focused on research.

2.2 Product Development

After the needs analysis was carried out, the researcher developed an Indonesian language module guideline based on project-based. The guideline was developed by considering the learning outcome. The learning outcome of Indonesian language course is students are able to produce academic texts correctly and appropriately according to their purposes and functions.

There are 3 parts of the guideline book, the first part is the introduction, the second part is the development of Indonesian language module, and the last part is the development of project-based learning based on needs analysis results. Here is the detail framework of the developed product.

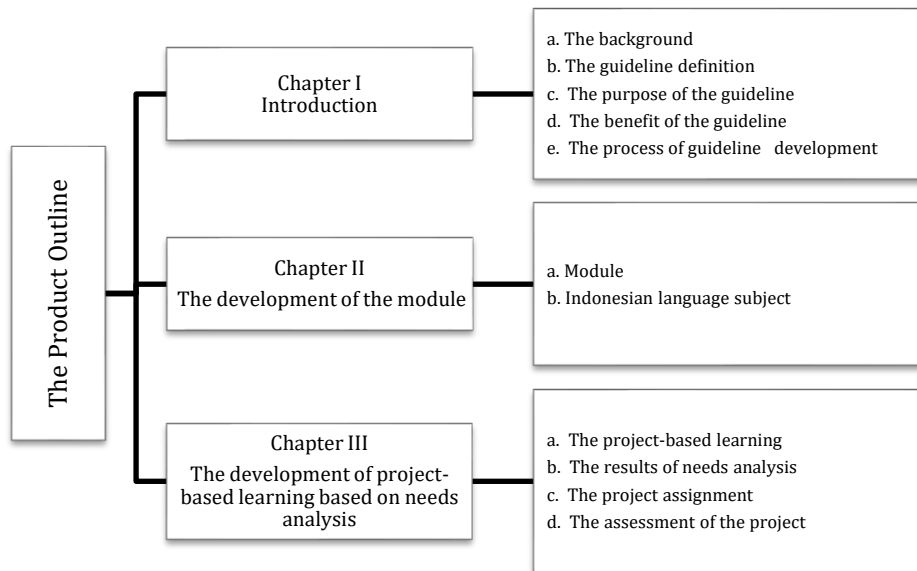


Fig. 1. The outline of the product

2.4 The Results of the Evaluation

2.4.1 The Results of Experts

After the the draft was created, then it validated by contents and graphics experts. Four components were recognized; materials content, materials presentation, language, and graphics. The total results of these components are as follows:

Table 2. The results of experts

Components	Average score	Category
Materials Content	3.75	Very good
Materials Presentation	3.00	Good
Language	3.60	Very good
Graphics	3.81	Very good

The data above presents that the average score of the materials content is 3.75, which is classified as “very good“ category. The materials presentasion is 3.00, classified as “good“ category. Both language and graphics are categorized as “very good“ due to the average scores are above > 3.50. The overall total of the four components is 3.53, which can be classified as “very good“ category. Based on the results, it can be concluded that the experts agreed with the product.

2.4.1 The Results of Lecturers

The researcher employed the questionnaire to gather lecturers' response in order to know their opinion in understanding the utilized guideline. The results derived from the responses have been summarized in the following table.

Table 2. The results of lecturers

Components	Average score	Category
Materials Content	3.75	Very good
Materials Presentation	3.25	Good
Language	3.70	Very good
Graphics	3.92	Very good

The evaluation results from the lecturers state that the developed product can be categorized as "very good" category due to the materials content, language, and graphics are >3.5 . The materials presentation is classified as "good" category since the interval of the mean value is $>2.5 - 3.5$. The cumulative score for all components is 3.65, which can be classified as "very good" category. This indicates that the lecturers' evaluation of the product is suitable and comprehensible.

2.5 Tryout

In accordance to the recommendation given by experts, the draft was revised. Then, the researcher gave the learning materials to the students to gather their response regarding their interest level in the materials. Additionally, the researcher conducted interviews with certain students to gain more comprehensive understanding of their responses.

The findings from students' questionnaires in learning materials, the calculated mean value is 3.73 which is higher than the required threshold of >3.5 , so that the result can be classified as "very good" category. It can be inferred that the students' feedback regarding the Indonesian language learning materials based on project-based is applicable. Based on the interview to the students, the assigned project can help the students enhance their language skills and make it easier for them to remember the presented materials through direct learning experiences.

The results of questionnaires and interviews indicates that the students have a positive response to the project assignment in the Indonesian language subject. It means that the learning materials developed using provided guideline are well-received by the students. Additionally, the project-based learning has a potential to be a model for other language subject or educational contexts as well.

4 Conclusion

The implementation of project-based learning in the Indonesian language subject at Kalimantan Institute of Technology has not effective yet. This can be observe from the contents of learning materials presented in the module. In order to help the students achieving the learning objectives, an efficient module is required.

Lecturers or materials developers should have an ability to create module that relate with students' wants and needs. As an effort to assist the lecturers in developing the appropriate module, the guideline is needed. A guideline of Indonesian language module development will be used by lecturers in directing the process of designing an effective learning materials. By using this guideline, lecturers or materials developers can have a clear framework for developing module that align with the students needs. In developing this guideline, the researcher used seven stages, they are conducting needs analysis, writing syllabus and lesson plan, developing the first draft, evaluating, revising, trying out, and developing the final draft.

Based on the results from experts and lecturers toward the developed guideline, the average score is 3.50 and 3.65., which can be classified as 'very good' category. These data indicate that they agreed with the product. The students' response toward the learning materials is 3.73, which is higher than the required threshold of >3.5. It is categorized as 'very good'. It can be inferred that the guideline of the Indonesian language module based on project-based learning is applicable.

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