

# DEVELOPING MOODLE BASED E-LEARNING MEDIA FOR THE DOKKAI SHOKYU COURSE

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## ABSTRAK

Penelitian ini bertujuan untuk mengetahui: (1) bagaimanakah bentuk *moodle* yang sesuai untuk pembelajaran mata kuliah *dokkai shokyu* di jurusan pendidikan bahasa Jepang? (2) bagaimanakah kualitas *moodle* yang dikembangkan untuk mata kuliah *dokkai shokyu* di jurusan pendidikan bahasa Jepang? Penelitian ini merupakan penelitian *Research and Development (R&D)* dengan menggunakan model pengembangan ADDIE. Pengumpulan data data menggunakan teknik angket dan observasi. Penilaian kualitas produk dilakukan oleh satu ahli materi, satu ahli media pembelajaran, dan 30 peserta didik mata kuliah *dokkai shokyu* di Jurusan Pendidikan Bahasa Jepang. Pada hasil uji ahli isi, secara umum, *moodle* ini dinilai baik sekali dan dapat digunakan dengan revisi. Pada hasil uji ahli media, *moodle* ini dinilai baik dan dapat digunakan dengan revisi. Respons mahasiswa terhadap *moodle*, didominasi penilaian positif yakni setuju dan sangat setuju.

Kata kunci: *e-learning, moodle, penelitian pengembangan, dokkai shokyu*

## ABSTRACT

*This study aims to determine: (1) the appropriate form of moodle for the dokkai shokyu course learning activities in the Japanese Language Education Department; (2) the quality of the moodle developed for the dokkai shokyu course in the Japanese Language Education Eepartment. This study is a Research and Development (R & D) using ADDIE model. The data were collected through questionnaire and observation. The assessment of product quality is done by an expert on material development, an expert on learning media development, and 30 students of the dokkai shokyu course in the Japanese Language Education Department. The test on content shows that, in general, the moodle is considered very good and can be used after some revision, while the test on media design shows that the moodle is considered good and can be used after revisions. The students' responses to the moodle are dominated by positive comments agree and strongly agree.*

*Keywords:* *e-learning, moodle, research and development, dokkai shokyu*

## INTRODUCTION

The Japan Foundation (2015) survey result shows that the number of Japanese language learners in Indonesia is ranked second in the world, after China. The number of Japanese language learners in Indonesia is 745,125 people with 2,496 people Japanese language learning institutions and 4,540 teachers. This finding indicates the high interest of Indone-

sian citizens in learning Japanese language which is then supported by the presence of the Japanese language learning institutions.

The Japanese Language Education Department of the Ganesha University of Education (Undiksha) is an educational institution that runs on Japanese language education and skills which prepares Japanese language teachers for high schools and general purposes. According to Meidani (2006), language skill in

general consists of four skills namely listening skill, speaking skill, reading skill, and writing skill. In the Japanese Language Education Department of Undiksha, the course which is designed to improve reading skills is known as dokkai course (reading comprehension). This dokkai course is a series of courses that begins with the most basic level of dokkai shokyu.

According to the preliminary study in the form of observation, the limited time in the subject of dokkai shokyu causes the lecturers to be not having adequate time to do evaluation or small test in every course. In addition, in the discussion of the material, it appears some students do not understand well the content of the material because they are too busy translating only the part of the discourse they will read and translate (on the discussion of material, the lecturer asks students to read the turn and then translate the discourse). This problem can be solved if the students are given extra time outside the class by developing an e-learning model to understand the materials and evaluate them.

An observation on theses and graduating papers written by the students of the Ganesha University of Education showed that there are still few students and lecturers who conduct research for development. In fact, the researches done by lecturers of the Ganesha University of Education in 2006-2009 have been struggling only on developing and proving the existing theories instead of producing or developing a product (Tegeh et al, 2013).

Based on the needs analysis and the fact there are still few students or lecturers who conduct research for development in Undiksha environment, the researcher is interested to conduct research on the development of e-learning model in the dokkai shokyu course. Based on the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 109 Year 2013 on the Implementation of Distance Education in Higher Education, electronic learning (e-learning) is a learning that utilizes information-based information and communication technology packages for the learning interests that can be accessed by learners anytime and anywhere.

The use of e-learning is basically the most effective way in education because it has been based online. However, the utilization of e-learning requires careful consideration, so that it can provide benefits for improving the quality of learning outcomes. Also, it has to ensure that the quality education, which is inseparable from daily life and interactive self-learning, can be absorbed maximally for learning (Desrianti, et al: 2013). Hopefully, by the use of technology in the learning process, students can access the information and follow the evaluation more practically and effectively.

The E-Learning to be developed will be based on Moodle. Haskari (2012) mentions that Moodle is an application that can transform a learning medium into a web form. This application allows students to enter digital "classroom" to access learning materials. By using Moodle, we can create learning materials, quizzes, electronic journals and others. The term "Moodle" is an abbreviation for Modular Object-Oriented Dynamic Learning Environment. Moodle is a free Course Management System (CMS) application that can be downloaded, used or modified by anyone with a GNU (General Public License) license and can be downloaded at <http://www.moodle.org/>. Singh (2016) mentions the following moodle benefits. Some points related to the importance of Moodle as Learning Management Systems: 1) Enriches learning experience 2) Increase student's participation 3) Manages contents delivery 4) Standardized format can be used for contents of course. This opinion supports the significance of moodle in learning with the e-learning system.

In line with the background described, the research problems can be formulated as follows:

1. What is the appropriate form of moodle for the Dokkai Shokyu course in the Japanese Language Department of Undiksha?
2. How is the quality of moodle developed in the Shokyu dokkai course in the Japanese Language Education Department of Undiksha?

## METHODS

In this research the data were collected through questionnaires and observations, while the instrument was in the form of questionnaires and sheets of observation. The instrument is used to determine the needs analysis and moodle quality which is being developed. Subjects involved in this study were all students of the Department of Japanese Language Education UNDIKSHA who took the course of dokkai shokyu. While the object involved in this study is learning materials and exercises for dokkai shokyu course.

The development model used in the development of image media is the development model of ADDIE. This model was chosen because it was developed systematically and based on the theoretical foundation of instructional design. Tegeh et al (2014) describes the steps in the ADDIE model as follows;

1. Analysis (in this study, the analysis stages were done by observing the class).

2. Design (in this study, the design stage is done by making the blue print of the material and quiz that will be inputted into the moodle. Expert content tests are done once the materials and quiz are done).

3. Development (in this study, the development stage is done by inputting material and quiz to moodle. Expert test on media is done once the material and quiz are inputted into the moodle)

4. Implementation (in this study, the implementation stage is done by using moodle on the teaching and learning process of dokkai shokyu).

5. Evaluation (in this study, the evaluation stage is done by using questionnaires to fill all the students of the participants of dokkai shokyu course).

## RESULT AND DISCUSSION

The implementation of the stages in the ADDIE model in this study can be explained as follows;

**1. Analysis:** this step includes analysis of

competence required to learners, analysis of the characteristics of learners about their capacity of learning, knowledge, skills, attitudes and other related aspects, and analysis of the material in accordance with the demands of competence. In this study, the analysis stages were done by observing the class.

Based on the observation, it is known that:

- 1) The learning media used in Dokkai II is only a textbook entitled Minna no nihongo Shokyuu I: Shokyuu de yomeru my topikku 25
- 2) Interactive multimedia is not yet available
- 3) Time limitations on teaching and learning process make lecturers do not have time to give a quiz and explain in more depth to some students who have not understood the material well.
- 4) The campus has an internet connection and all students have laptops and are able to use the internet.

**2. Design:** Conducted with terms of reference as follows; for whom learning is designed, what abilities are desirable to learn, how learning materials can be well studied, and how to determine the level of mastery of learning that has been achieved. At this stage, the materials and tasks to be inputted to the system are formulated.

**3. Development:** It is an activity to translate the design specifications into physical form to produce the prototype of the product. In this study, the development stage is done by inputting the material and quiz to into the moodle.

Here is what the moodle looks like:

The screenshot shows a Moodle course interface. On the left, there's a sidebar titled 'ADMINISTRATION' with various course management options like 'Course administration', 'Gradebook setup', and 'Reset'. The main content area displays three course meetings:

- Pertemuan 1 : Kontrak Kuliah**: Contains a resource 'Syllabus dokkai shokyu' and a forum 'じゅあ、始めましょう！用意できた？'.
- Pertemuan 2: Lagu Ojiisan no Tokel**: Contains a resource 'Lirik Lagu Ojiisan no tokel' and a forum 'Ojiisan no tokel (forum)'.
- Pertemuan 3: Moraimashita Agemashita**: Contains a resource 'File Materi Moraimashita Agemashita' and a forum 'Tugas Moraimashita Agemashita'.

Each meeting has 'Edit' and 'Add an activity or resource' buttons.

Figure 1. Meeting View



Figure 2. Example of Materia

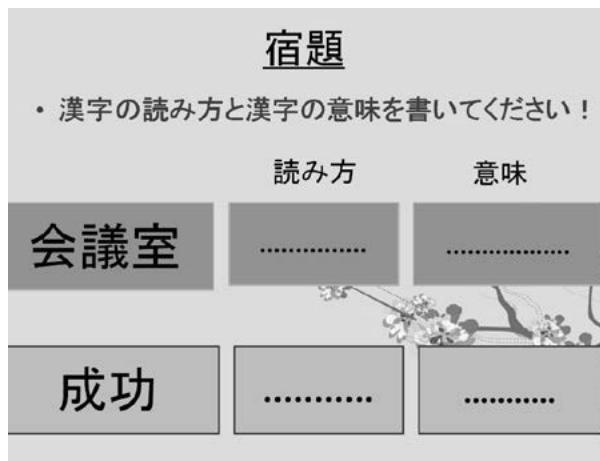


Figure 3. Example of Tasks

Figure 4. Example of Quiz

Figure 5. Sample of Topic Forum

Table 1. Content Expert Test Results

No.	Assessed Aspects	Expert's Comment
<b>I</b>	<b>Material Substance</b>	
1.	The Moodle material is in accordance with the syllabus	Strongly Agree
2.	The materials are easy to understand	Strongly Agree
3.	The materials are presented systematically	Strongly Agree
4.	The materials are presented attractively	Strongly Agree
5.	The materials are in accordance with the references	Strongly Agree
6.	The illustration images are in accordance with the materials	Agree
7.	The typing is clear and correct	Agree
8.	The entire materials are clear and appropriate	Strongly Agree
<b>II</b>	<b>Task, Quiz, Discussion</b>	
1.	The quiz questions are in accordance with the materials	Strongly Agree
2.	The quiz questions are in accordance with the learning objectives	Strongly Agree
3.	The quiz questions model is in accordance with the learning objectives	Strongly Agree
4.	The tasks are in accordance with the materials	Strongly Agree
5.	The tasks are in accordance with the learning materials	Strongly Agree
6.	The tasks models are in accordance with the learning objectives	Strongly Agree
7.	The topics of discussion are interesting	Strongly Agree
8.	The topics of discussion are in accordance with the learning objectives	Strongly Agree
<b>III</b>	<b>Language</b>	
1.	The Japanese language use is correct and appropriate	Agree
2.	The Indonesia language use is correct and appropriate	Strongly Agree
3.	The language use is communicative	Strongly Agree

The followings are the feedback by the content expert regarding the application:

1. Japanese language is better written in Japanese characters
2. Writing in kanji is better filled with pronunciation in Hiragana letters
3. There are some images that are better replaced because they are less appropriate with the word in question.

In general, this moodle is considered very good and can be used with revisions.

2) Based on the validation by the media expert the results are the follows:

Table 2. Media Expert Test Results

No	Assessed Aspects	Expert's Comments			
		1	2	3	4
<b>I</b>	<b>Presentation</b>				
	1. The moodle view is attractive	Agree			
	2. The moodle template is in accordance with the materials	Agree			
	3. The color composition is attractive	Agree			
	4. The login access is easy	Agree			
	5. The illustration images are attractive	Agree			
	6. The illustration images are in accordance with the materials	Agree			
	7. The placement of features are appropriate	Strongly Agree			
	8. The font type and size are appropriate	Strongly Agree			
	9. The typing is clear	Strongly Agree			
	10. The materials are presented systematically	Strongly Agree			
	11. The overall text appearance is clear	Agree			
<b>II</b>	<b>Interaction</b>				
	1. The presence list is easily operated	Agree			
	2. The chat can be easily operated	Strongly Agree			
	3. The discussion forum can be easily operated	Strongly Agree			
	4. The instructions for interaction are clear	Agree			
	5. The materials can be downloaded easily	Strongly Agree			
	6. The task instruction procedure is clear	Strongly Agree			
	7. The online quiz can be used easily	Strongly Agree			
	8. The quiz scores can be easily accessed	Strongly Agree			
	9. The Moodle can be opened in all browsers	Strongly Agree			
	10. The Moodle can be opened with smartphones, tablets, laptops, and computers	Strongly Agree			

The followings are the input from the media expert:

1. Make the quiz more varied
2. Use more varied activity components
3. Document files in pdf format

In general, this moodle is considered good and can be used with revisions.

4. Implementation: The product is applied to the learning process to determine the effect on its quality in terms of effectiveness, attractiveness, and efficiency. In this study, the implementation stage is done by using the moodle in the teaching and learning process of dokkai shokyu course.

5. Evaluation: This stage includes formative evaluation and summative evaluation. A development research generally uses only formative evaluation because this type of evaluation is related to the stages of development research to improve the resulted products. In this study, the evaluation stage is done by using questionnaires to fill all the students (30 students) of the participants of the dokkai shokyu course. This questionnaire is used to determine the student response to the moodle being developed. After the determination of the indicator, the next step is making the outline to be used as a guidance in making questions in the questionnaire. There are four indicators in the questionnaire: moodle appearance, moodle use, moodle ma-

terial, and user satisfaction. Furthermore, the results of the student response questionnaire will be displayed in Figure 6 - Figure 9.

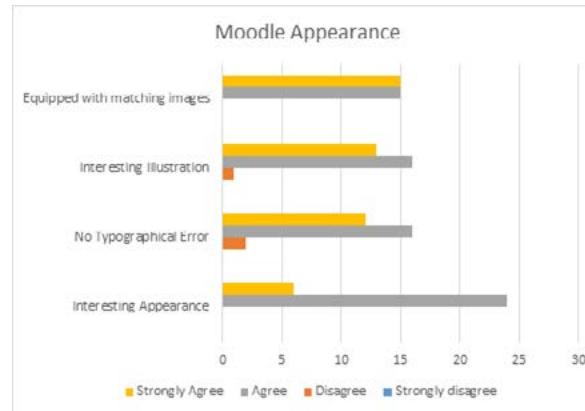


Figure 6. Moodle Appearance

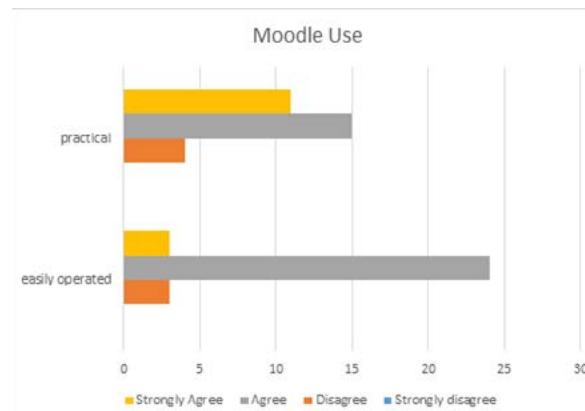


Figure 7. Moodle Use

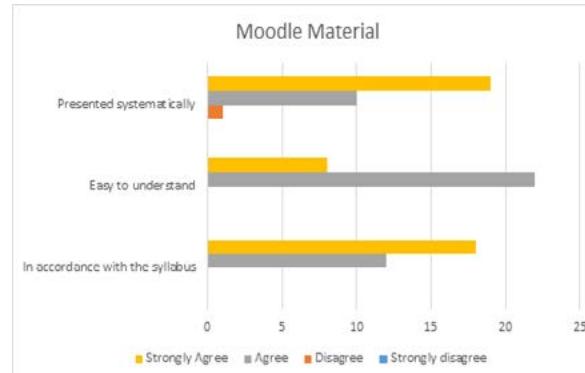


Figure 8. Moodle material

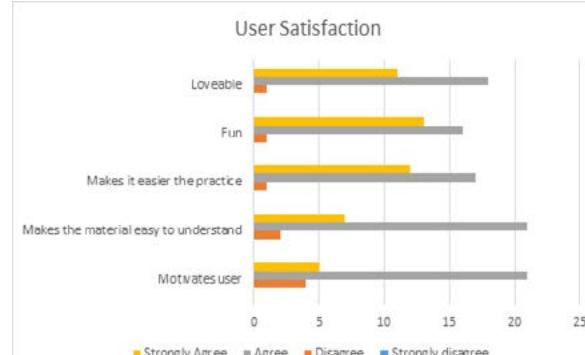


Figure 9. User Satisfaction

The students' responses to the moodle are dominated by positive comment "agree" and "strongly agree". However, there are some points of question where there is a less positive comment of "disagree" which is concerned about the clarity of typing, attractiveness of illustration, operational procedure, practicality, material systematics, motivation, material understanding helpfulness, ease to practice, fun, and frequency to use. However, the frequency of occurrence of this comment is very rare. In addition, the "disagree" comment does not appear on all statements.

There are several comments and suggestions of improvements found, such as:

1. Too many illustrations make students become spoiled. If possible add an explanation of grammatical sentence patterns.
2. Please be as attractive and practical as possible to increase students' learning desires.
3. Moodle is very good as it has simple design and is easy to understand.
4. It is good, but the appearance is still monotonous.
5. Improve the design to make it more interesting.
6. Somewhat difficult to access moodle due to inadequate internet network.
7. I love to learn dokkai shokyu with this moodle because it is more interesting and does not make students bored.

These positive and negative comments will be used to improve the product.

## CONCLUSION

This research is conducted gradually and divided into five stages according to the model stage of ADDIE, namely analysis, design, development, implementation, and evaluation. In the analysis phase, it is known that the limited time in the teaching and learning process makes the lecturer not have time to give the quiz and more explanation to those who have not understood the material well. At the design stage, the materials and tasks formulated are to be then inputted into the system.

The development stage is done by inputting the material and quiz to moodle. Experts

test the content and media once the material and quiz have been inputted into the moodle. Based on the results of expert test on contents and media, some results are obtained as the follows: In the expert test results of content, in general, the moodle is considered very good and can be used with revisions; In the test results of media experts, the moodle is considered good and can be used with revisions. The implementation phase is done by using moodle on teaching and learning process of the dokkai shokyu course.

The evaluation stage is done by using questionnaires involving all the students (30 students) of the participants of the dokkai shokyu course. The students' responses to the moodle are dominated by positive comment "agree" and "strongly agree". However, there are some points of question where there is a less positive comment of "disagree" which is concerned about the clarity of typing, attractiveness of illustration, operational procedure, practicality, material systematics, motivation, material understanding helpfulness, ease to practice, fun, and frequency to use. However, the frequency of occurrence of this comment is very rare. In addition, the "disagree" comment does not appear on all statements.

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