



Developing Instructional Material of Teaching Grammar Through Moodle to English Education Department Students of Universitas Muhammadiyah Makassar

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Abstract

This research aims at developing instructional material for English grammar through Moodle at UNISMUH Makassar. It tries to develop the material by identifying students' need in learning grammar, to describe instructional material of English grammar through Moodle. This research and development (R&D) is conducted by adapting ASSURE models which consist of Analyze, State Objective, Select, Utilize, Require, and Evaluation. The data were gained through questionnaire, the questionnaire is employed to do need analysis to get students' need in instructional material, and to describe instructional material. Meanwhile, questionnaire for validator to conduct development evaluation. Finally, the product of the study is Instructional material of teaching grammar through Moodle.

Keywords: grammar, instructional material, moodle

Introduction

Grammar is one of their subjects in the curriculum of English departments in Indonesia which should be taken. The reason is that by mastering grammar, it will have an impact on mastery of language skills. In learning language formally, grammar is a subject which the students should study in depth. Grammar has the role for all language skills. It is supported by Harmer (2001), he states that Learning grammar is also very important in mastery communicative skill in English. The main purpose of learning grammar is to help students recognize how the language is prepared with the purpose that when they articulate, examine, and write down (A'yun 2019). With English grammar competency, the learners can avoid mistake in composing sentence.

Based on my preliminary research when I was teaching intermediate grammar in the PKM Program, the learning material that I used is PowerPoint. The material took from some resources and showed them by presenting while explaining using Google meet. For mid and final tests, the test was uploaded in google classroom. I, as

a teacher at that time, should spend a lot of time checking it out one by one. In addition, Sometimes no exercise for students in each meeting. So, from those reasons, the research will complete teaching and learning intermediate grammar by designing instructional material through Moodle. By using Moodle, it will help students in learning grammar, such as they can access anytime anywhere, there are some exercises, and students also can access by mobile phone or computer.

Instructional material has the important role to solve it. The word Instruction itself refers to anything that is done purposely to facilitate learning (Reigeluth and Carr-Chellman 2009). Meanwhile, the word material is anything that can help the teaching and learning process. Material expected will be able to help students learn in a good way. One of the efforts that the teacher can do is developing material. As stated in Tomlinson (2013), instructional material includes anything which can be used to facilitate the learning of a language. They can be linguistic, visual, auditory or kinesthetic, and they can be presented in print, through live performance or display,

or on cassette, CD-RoM, DVD or the internet".

Not only the use of the instructional material, but also the researcher will use Moodle which can be used to make a kind of assignment, material, and some tools from Moodle. Moodle is abbreviation for Modular Object-Oriented Dynamic Learning Environment, which means a dynamic learning place by using object-oriented models (Cole and Foster 2007). The use of Moodle in learning process have some useful, such as can make an effective and efficient learning, improve the education performance, give problem solution to the learning difficulties, Moodle is easier to use, a good tool for education, a simple way to improve education (Sari, Baedhowi, and Indrawati 2017). researcher formulated some research question as follows:

1. What are the students' needs in learning grammar?
2. What is the description of instructional material of English grammar through Moodle?
3. How is the validity of instructional material of English grammar through Moodle?

Based on the research question above, the main objectives of this research are as follows: To identify students' needs in learning grammar, To describe instructional material of English grammar through Moodle, To validate instructional material of English grammar through Moodle.

Materials and Method

The concept instructional model

Research and development is a method which is used to create a certain product and to examine the effectiveness of that product (Sugiono 2011). According to Gall et al., (2003), educational research and development is a process used to develop and validate educational products, it means that R&D is a process which is used to develop and validate educational products. The result of research and development is not only the development of existing products but to find the knowledge or the answer to practical problems.

Assure Model is acronym of Analyse, State Object, Select, Utilize, Require, and Evaluate. In analysing student's characteristics consist of general characteristics, specific entry competencies, and learning style (Heinich et al. 2002). The second step of assure is state objec-

tive. This step refers to each learner expected to achieve, New capability that learners should process. The third step is to select Method, media and technology. According to Heinich et al. (2002), one of the role in using media and technology is for change the instructional environment. The fourth step is to utilize media and technology. This step needs consideration of how the material will be applied. The purpose of this step is to know the appropriateness of the developed media. The fifth step is require. This step feedback and practice are part of this stage. And the last is evaluate and revision. In this activity consists of revision or material that will be made by the researcher.

The concept of instructional Material

Instruction itself refers to anything that is done purposely to facilitate learning (Reigeluth and Carr-Chellman 2009). Instruction is defined as the whole process which is applied for teaching and for behaviour development for learners. Materials include anything which can be used to facilitate the learning of a language. They can be linguistic, visual, auditory or kinesthetics, and they can be presented in print, through live performance or display, or on cassette, CD-RoM, DVD or the internet" (Tomlinson 2013). Instructional material is anything that can be used in facilitating learning.

Need Analysis

Before designing instructional material, need analysis is important. Therefore, the expectation of students about the learning will be in line and it will be rich. According to Richards (2001), **need** is deficiency, which means that the describe between what the learner is able to learn and what the learner does. Lange and Brown (1996) defines need analysis as activities implicated in collecting information that will present as the principle for developing a curriculum that meets learning requirements of students. further Hutchinson and Waters (1987) defines need analysis consisting of "necessities", "wants" and "lacks". **Necessities** relate to what the learners need to know (for instance, students' reason in learning grammar). **Lacks** relate to the existence of learners' language proficiency. This is very important because learners without foundation skills are frequently unable to focus in the learning process. For instance, their English level can make the sentence using the formula but they don't know the function). Furthermore, **wants**

relate to what the learner would like to pick up from the language course. This case will relate with learning style, type of learning activity, kinds of material, the importance of example and the presentation of the material. Based on the description above, the researcher will conduct students' need analysis in order to design and develop instructional material through Moodle which is in line with the students' need.

Material Development

Material development refers to anything which is done by the writer, teacher or lecturer that can be procedures, implementation, and evaluation of language teaching material design or the process of production, evaluation, and adaptation from language teaching material (Tomlinson 2013). Material developers might be able to tell stories, bring print, audio or video material, soft file and etc. whatever they do to serve, ideally, they do in principled way related what they know about how the way of language can be learnt effectively.

Material Evaluation

Materials evaluation may be characterized as a strategy or an efficient appraisal measuring the potential value(s) of materials on learners in connection to their objectives. In the other word, material evaluation means Principle of preparing useful information that is related with targeted materials in order to select or develop targeted materials with a reliable and valid approach. There are some reasons and purpose of material evaluation, such as the intention to adopt new course books, to know the strength or weakness of the material .

Moodle (Modular Object-Oriented Dynamic Learning Environment)

Moodle is E-Learning Activities and E-Learning Resources. These e learning tools allow students to continue learning outside the classroom, help students to more understand the material by doing exercise. According to Soliman(2014) Moodle has many advantages such as: it supports the students to learn independently, because every student will do tasks differently and an integrated learning environment. Students can keep their personal schedule to do their work at their own place and their own preferences (Nedeva and Dimova 2010). There are two main components in Moodle, Activities and Resources. Activities in Moodle include assignment, chat, choice, Database, External

Tool, Forum, Glossary, Hotpot, lesson, Quiz, SCORM Package, Survey, Wiki, and Workshop.

English Grammar

Grammar is description of the ways in which words can change their form and can be combined into sentences in the language (Harmer 2001a). In this research English grammar refers to basic grammar that is conducted in the lecturing process in the second semester at English Education of Muhammadiyah University of Makassar. The material will be chosen based on Lesson Plan (RPS).Based on the RPS, basic grammar material Includes: *"Personal Pronoun and Tobe, Article & Noun, Adjective & Adverb, Pronouns & Determiner, Simple Present Tense & Present Progressive, Simple past Tense & Past Continuous Tense, Present Perfect & Past Perfect Tense, Questions, Passive Voice, Modals.*

Method Of Research

This chapter consist of Research design, research subject and participant, Instrument of research, data analysis technique

Research Design

Since the objective of this research is to describe instructional material of English grammar through Moodle, this research is classified as Research and Development. In this research use quantitative and qualitative data. The quantitative data is the result of a questionnaire from the students' need analysis and validator. Meanwhile, the qualitative data is the critics, comments, or suggestions from the validator.

The researcher adopted the ASSURE Model, because this model is effective when using media and technology (Heinich et al. 2002). The ASSURE model generally consists of six cyclical phases— Analyst, State Object, Select, Utilize, Require, and Evaluate (Heinich et al. 2002) Comparing with the other model, this model is the most suitable for developing instructional material through Moodle.

In this research, the researcher will conduct some steps as Follows:

1. Analyst

The first step is to analyst the learner characteristic by using need analysis. The researcher distributed questionnaires to the second semester of English students in order to identify their problem in learning grammar, to dig for information about students' prior knowledge and skills, experiences and learning style.

2. State standard and Objective

The second step is to formulate learning objectives as specifically as possible based on lesson plan (RPS). Learning objective is a statement which describes the competencies that will be acquired by students after going through the learning process.

3. Select strategy, technology, media and materials.

After analysing students' need and state objective, the next step is choosing appropriate strategy, technology, media and materials. In using strategy for self-learning. The media that researcher will use such as text, picture, video, audio by putting into Moodle. Material was shown in various ways. Such as showing them unfamiliar certain words that related the topic, using Powerpoint for presentation, wikipedia and so on. English grammar material taken from some references, then put into Moodle. Moodle itself needs internet access to conduct the learning process and also can be accessed directly through mobile phone.

4. Utilize technology, media, and materials.

Before using this step, the researcher will apply 5Ps (Heinich et al. 2002). The first is to preview the materials: make advance plans such as how to utilize all the materials and exercise. The second is to prepare the materials: gather all information that is related to the topic. The third is to prepare the learning environments: make sure that all the students can access the Moodle (the researcher should register students' Moodle account). The fourth is to prepare the learners- by giving information to students about learning objectives, kinds of assessment, the way to access material in Moodle. The last is to provide the learning experience: doing all the plans.

5. Require students to participate.

In this stage, feedback and participation is needed. Students' participation may question and answer, discussion, group work, and other strategies to make them active.

6. Evaluation and Revision

Evaluation and revision is one of the essential components to the development of the quality of instructional material.

Research Subject & Participant

This research was conducted in Muhammadiyah University of Makassar. The researcher chooses this university as a part of research be-

cause the researcher is a student in the magister program. the subject of this research is English students from the second semester to find the need analysis. Participant of this study is a validator. For validating the material, there is a validator, a validator validates the material and application which has some characteristics such as minimum master degree, majoring English, has certificate as lecturer and has capability related to IT.

Instrument of Research

According to sugiono (2011) research instruments are tools which are used to survey the realm and social phenomena which are observed. In this research, the researcher will use:

1. A questionnaires for students' need analysis.

This questionnaire gave to students to find out the information or data from students about Basic information about learners (learner conception about grammar, the learner knowledge level), Goal (learners' goal in learning grammar), Information about Learning (the availability of intermediate grammar media), Learners role (learning style, type of learning activity), The aspect of material Need in instructional material (kinds of the material, the importance of example, exercise and evaluation). The result of the need analysis questionnaire would answer the second research question.

2. A Questionnaire for validation of designed and develop model and of instructional material through Moodle.

The questionnaire was used to validate the design of instructional material, to measure the validity of the designed model. This questionnaire was given to the validator.

3. A Questionnaire for validation of material of instructional material through Moodle.

The questionnaire was used to validate the learning material, to measure the validity of the learning material. This questionnaire was given to the validator.

Results And Discussion

The Students' Need in Learning English Grammar

The result of the need analysis was used for the researcher as the guidance in designing instructional material through Moodle. The students' need refers to the topics of basic grammar, level of students, the use of media, ways of learning basic grammar, learning style, learning technique, the sequences of learning activities.

Table 1. Topic of Grammar Materials needed by students

No	Topics of Basic Grammar	Total dents	of students
		F	%
1	Personal Pronoun & Tobe	19	100
2	Article & Noun	19	100
3	Adjective & Adverb	18	90
4	Present & Continuous Tense	17	80
5	Simple & Past Continuous Tense	17	80
6	Present & Past Perfect	17	80
7	Question & Statement	18	90
8	Active & Passive Voice	17	80
	Others..... Who and whom, Prefixes, suffixes and infixes, idioms and common sentences.		

Table 2. English level in Basic grammar

	F	%
Beginner	10	52,6%
Intermediate	5	26,3%
Advance	4	21,1%

- The students' needs related to the topic of basic grammar material see Table 1.
- The level of students
Tables 2 shows that in terms of students level, the results showed most students 10 (52,6%) as beginners. So in designing instructional material, the material was made for beginners.
- The Use of Media
from the use of media, it shows in the Tables 3, 11 (57,9%) students said that they were ever used and 7 (36,8%) students often used basic grammar learning media in the learning and teaching process. Tables 4 shows indicator, asking about the students' opinion of basic grammar learning media, was 12 (63,2%) students said that the basic grammar learning media is good and enough to be used in the learning process. Tables 5 shows indicator, asking about the role of the learning media for the students, most of the students, 15 (78,9%) students, claimed that they can understand the materials but still confuse how to use it in the real situation. so, the researcher designed the instructional material through Moodle using the internet that stu-

Table 3. The Percentage of the information about availability of basic grammar media

The Availability of media	F	%
Never	1	5,3%
Ever	11	57,9,%
Often	7	36,8%
Seldom	-	-

Table 4. The Percentage of students opinion about basic grammar learning media

Students Opinion	F	%
Good and enough to be used in learning process	12	63,2%
Good but not enough to be used in learning process	6	31,6%
Not good and not enough to be used in learning process	1	5,3%

Table 5. the role of the learning media for the students

the role of learning media	F	%
can understand material well	1	5,3%
can understand material but still confused to use it	15	78,9%
can understand material and can use it	3	15,8%

- Students can access anytime and anywhere, which looks like a media they ever use (book, internet), and give them some explanation, examples and exercise to make it easier to use it in real situations.
- Ways of learning basic grammar
From the Tables 6, most students chose to be taught by someone 11(67,9%) and learn from other media such as the internet 7 (36,8%). so the researcher try to combine this by using the internet for this instructional material with video as taught by someone.
- Learning Style
From the Tables 7, most students' learning style is audio visual 16 (84,2%), so the researcher put video for each topic in Moodle.
- Learning Techniques
The following table showed the information about the learning techniques of learning basic grammar materials gained from the

Table 6. The percentage of ways learn basic grammar material

Ways Learn Basic Grammar	F	%
I'm taught by someone (teachers/friends/others)	11	67,9%
I learn from book	1	5,3%
I learn from other media such as internet	7	36,8%

Table 7. The percentage of Learning Style

Learning Style	F	%
Audio	1	5,3%
Visual	2	10,5%
Audio Visual	16	84,2%

Table 8. The percentage of Learning Techniques

Learning Technique	F	%
Individual	7	36,8%
In Pairs	3	15,8%
In small Group	5	26,3%
In big Group	4	21,1%

Table 9. The percentage of Structure of Material

Structure of Material	F	%
Definitions	1	5,3%
Kinds	1	5,3%
Function	1	5,3%
form	-	-
All Aspect	16	84,2%

need analysis questionnaire from 19 respondents. From the Tables 8, most students' learning technique is individual, so the researcher designed the material by accessing it individually.

g. The sequences of learning activities

The following table showed the information about the sequences of learning activities gained from the need analysis questionnaire from 19 respondents. From those are Tables 9 shows that in the first indicator is The percentage of Structure of Material most of the students which were 16 (84,2%) wanted all aspect (definition, kinds of material (topic) talking

The Importance of Example	F	%
Not important	1	5,3%
Important	6	31,6%
Very Important	12	63,2%

Table 11. The percentage of Presentation of Materials

The Presentation of Materials	F	%
Deductively	14	73,3%
Inductively	5	26,3%

Table 12. The percentage of the Importance of Exercises

The importance Exercise	F	%
Not important	1	5,3%
Important	11	57,9%
Very Important	1	5,3%

Table 13. The percentage of The importance of Evaluation

The Importance Evaluation	F	%
not important	-	-
important	10	52,6%
very important	9	47,4%

about, function, form, and time signal) and in the Tables 10 shows indicator, each of them only 1%. In the importance of Example, most of the students 12 (63,2%) said that giving examples in the material was very important. In terms of the presentation of material see Tables 11, there were 14 (73,3%) students chosen presented material deductively. In terms of the importance of exercise Tables 12 indicator, students agree that it is important to give some exercise 11 (57,9%). Tables 13 indicator talks about the importance of evaluation. As a result, 10 (52,6%) students answered important and 9 (47,4%) very important. As a result of the sequence of material, the researcher made the instructional material by giving definition, kinds, function, form, examples (using deductive), exercise and evaluation for each topic.

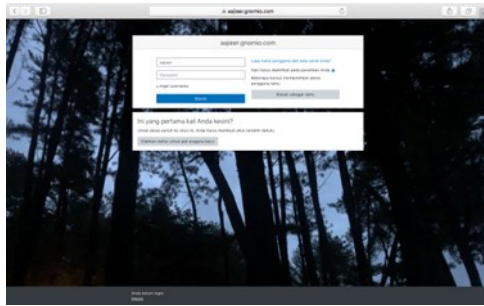


Figure 1. shows front page instructional material through Moodle.

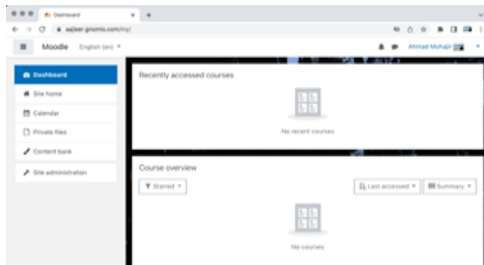


Figure 2. shows Dashboard Page

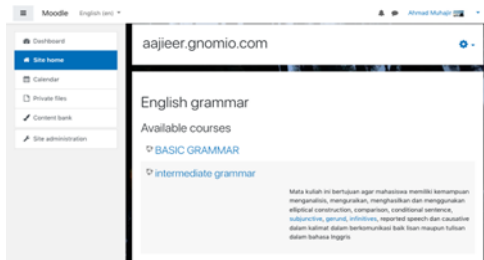


Figure 3. shows Site Home



Figure 4. Course View of Basic Grammar



Figure 5. Course View of Basic Grammar

The Description of Instructional Material of English Grammar Through Moodle

In this stage, the researcher produces instructional material based on the need analysis questionnaire. the researcher set up specific objectives and learning activities. Continue by creating the contents or what materials should be put in every

Table 14. The Validity of Moodle

No	Mean Score	Properness Category
1	4,1-5.0	Very Good
2	3,1-4.0	Good
3	2,1-3,0	Fair
4	1,1-4-2,0	Poor
5	<1	Very Poor

Table 15. Questionnaire for Validation

NO	Rated Aspect	Validator	Properness category
1	Display/design quality	5	Very Good
2	Compatibility between the material and the media used	5	Very Good
3	Font/text quality	5	Very Good
4	Media display speed and tempo compatibility	5	Very Good
5	Clarity of message/material	5	Very Good
6	Appropriate the use of colour	5	Very Good
7	Ease of operation	4	Good
8	Coherence of display	5	Very Good
9	The clarity of the sound in the video	5	Very Good
10	Media appeal and visualization	5	Very Good
11	Media is safe to use	5	Very Good

meeting. In addition, the learning activities are also designed to combine with the course content such as exercise or evaluation. The syllabus of basic grammar will be put in front page design as reference for all activities. Modular Object Oriented Dynamic Learning Environment (Moodle) is an instructional media in this study.

The instructional material through Moodle was designed by following the result of students' need analysis. Although, in designing this instructional material, there are many considerations but the result of the need analysis questionnaire is still being used as the main reference. The design can be seen in the pictures below.

1. Front Page
front page instructional material through Moodle.
2. Dashboard

After entering the site/Moodle, it will show the dashboard view. the users see Recently accessed course and course overview. if the users will access the other content, they just need to click "site home".

3. Site Home

After choosing the site home, the user will see a list of Available Courses, so they just need to click "basic Grammar" then all the topics will appear.

4. Course View

This is the view of Basic Grammar Material based on the result of Need Analysis of the students. In Constructing and building up all contents and components based on the Lesson plan (Rencana Pembelajaran semester). Basic grammar itself consists of thirteen meetings which consist of some topics. they are "*Personal Pronoun and Tobe, Article & Noun, Adjective & Adverb, Pronouns & Determiner, Simple Present Tense & Present Progressive, Simple past Tense & Past Continuous Tense, Present Perfect & Past Perfect Tense, Questions, Passive Voice, Modals*. There is also additional material/topic based on the result of need analysis, such as Who and whom, Suffixes, Infixes, Prefixes, Writing/Saying Dates, Common Sentences and Idiom.

In the Figure 5 it shows the material were adopted from various sources, such as books, e-books and the internet (youtube for audio visual). Considering Moodle as software in this research, the researcher uses a site <https://aajieer.gnomio.com/>.

The validity instructional material of English grammar through Moodle

The validity of the material was conducted by giving the result of the product to the validator using Likert scale. The mean score of the validation of every indicator interpreted into the properness category based on the Tables 14.

Tables 15 show the result of product validation. There were eleven indicators assessed by validator. The table showed that based on the result of validator, the product is very good, it means that the product is proper to be used without revision.

Discussion

This Research aimed to design an instructional material in teaching grammar through Moodle. This instructional material is based on the need analysis. It is designed to fulfil the specific needs of the learners. The instructional material has passed all of the research and development

steps that were adopted from ASSURE. There are six steps. Analyse, State Object, Select, Utilize, Require, and Evaluate.

The first step need analysis. This step was conducted in January 2022 by distributing questionnaires to the students. The questionnaire consisted of five aspects that covered information of present materials, basic information about the learners, information about learning media, learner role, and the aspect material need. The data gained from the need analysis was then used as the data to design the materials and the media which was an instructional material.

The second step is state standard and objective. In this step, the researcher only followed the learning objective based on the lesson plan (RPS). The third step is to select strategy, technology, media and materials. because the learning objective was based on the RPS, so after conducting the need analysis step, the researchers analysed the questionnaires from the students. Then, the researcher collected some materials and designed the materials for the learning media based on the result of the need analysis. The materials were also completed with video, text, power point, and also exercises and evaluations to measure the students' understanding about the materials.

The next step is Utilize technology, media, and materials. In this step, the researcher developed the instructional materials based on the materials that have been designed. The result of the development step was then shown to the researcher consultants to get comments and suggestions about the product design that was put in Moodle itself.

After did evaluation of the product, then, the product was validated by the validator using evaluation questionnaires. The result of validator evaluation is proper to use without revising the product.

Conclusion

1. Based on the need analysis questionnaire, the students need on the instructional material through Moodle is:

- a. In Topic that students' need to learn basic grammar, most of them agree with the topic of basic grammar.
- b. In the level of students, there are (52,6%) as beginners in comprehending basic grammar.
- c. In the use of media, it includes the availa-

bility of basic grammar media that (57,9%) ever used basic grammar learning media and the students about basic grammar learning media, they said (63,2%) the media is good. In the role of the learning media, (78,9%) choose they can understand the materials but they still confuse how to use it in the real situation.

- d. In the ways of learning basic grammar, they learn basic grammar is taught by someone (67,9%).
- e. In the learning style, most students are audio visual (84,2%).
- f. In terms of Learning Techniques, most students' learning technique is individual (36,8%).
- g. In terms of Sequences of learning activities, it includes the structure of materials (82,4%) choose all spect,the importance of example (31,6%) very important to give examples, the presentation of materials by deductively (73,3%), the importance of exercise, 57,9% important to give exercise. and the importance of evaluation, 57,9% chose important to give evaluation.

Suggestion

Based on the result of this research, the researcher would like to give suggestions as follows:

1. For the students

The researcher suggested the students use the instructional material through Moodle as the learning media to help the students understand all of the materials easily. The exercise and the evaluation on the application might help the students to measure their understanding about basic grammar materials, thus, the application would be very helpful for the students.

2. For the next researcher

This research and development aimed to create a new product and to assess the properness of the product. The researcher suggested to the next or further researcher to conduct a research by using a research and development method to create a new product that could be very useful for the teaching and learning process.

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