THE EFFECTIVENESS OF USING E-LEARNING MOODLE FOR HOMEWORK IN IMPROVING READING ABILITY OF GRADE X STUDENTS OF SMAN 4 PADANG

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Abstrak

Penelitian ini bertujuan untuk melihat keefektifan penggunaan *e-learning Moodle* untuk pekerjaan rumah terhadap kemampuan membaca siswa di kelas X SMAN 4 Padang. Jenis penelitian ini adalah eksperimen dengan populasi penelitian siswa kelas X SMAN 4 Padang tahun ajaran 2012/2013. Sampelnya yaitu kelas X7 sebagai kelas eksperimen dan X10 sebagai kelas kontrol. Pos-tes diberikan setelah perlakuan pada kelas eksperimen. Data berupa nilai tes pemahaman membaca oleh kedua kelompok sampel dianalisis menggunakan rumus uji-t. Hasil uji-t penelitian adalah 2,833 sedangkan tabel-t adalah 1,999. Berdasarkan hasil penghitungan ini, disimpulkan bahwa penggunaan *e-learning Moodle* untuk pekerjaan rumah lebih efektif dalam meningkatkan kemampuan membaca siswa.

Key words: reading ability, homework, E-learning Moodle

Abstract

This study aimed to examine the effectiveness of using e-learning Moodle for homework in improving reading ability of grade X students of SMAN 4 Padang. The study was an experimental research with the population grade X of SMAN 4 Padang in academic year 2012/2013. Sample is class X7 as the experimental group and class X10 as the control group. Post-test was given after treatment in the experimental class. The reading comprehension data of both groups were analyzed using t-test formula. T-test result of the study is 2,833, while the table-t is 1.999.

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Based on the result of the calculation, it can be concluded that the use of e-learning Moodle for homework is more effective in improving students' reading ability.

A. Introduction

Reading skill is one of the ways to make people able to share ideas, opinions, or arguments on what they see, feel and think and to express them into such a good communication. Hence, reading is one of the four English skills that become the standard competency of curriculum the teacher must design teaching and learning activities to explore students' skill in reading in order to obtain instructional purpose. Based on the English curriculum, reading skill is understanding the meaning in various types of written interactional and monolog text. Three types of the texts which are taught in the first grade of senior high school are narrative text, descriptive text, and news item text.

In the process of learning the texts, there are some obstacles can be faced the students. The result of the observation conducted in SMAN 4 Padang reveals that the students' ability in reading is still low. It can be seen from the average score that the students' got in final examination in first semester. There are ten classes of grade X at SMAN 4 Padang. All average scores of the classes did not indicate satisfying achievement which is still under KKM (minimum standard) that is 76.

There are several causes that make students' ability in reading low. First, students are less motivated in reading. Second, most of the students think that reading is difficult, since they do not have enough vocabulary. Third, the students rarely use their prior knowledge of the previous experience. Cadena (2006: 35) says that the students read the text without their background knowledge. It makes the students have no interaction with the text. Student's background knowledge actually influences their reading comprehension.

In teaching reading, the teacher needs to give the students the text continuously. It will be a good chance for students to improve their reading ability. To solve this problem, the teacher should be able to provide some amounts of the texts to be delivered to the students. One of the ways to deliver the texts is by giving homework to the students. Therefore, the teacher has to use an appropriate media to be applied in giving homework to the students.

Homework is a further assignment form after learning in the class at the formal school. It is used to the students to practice the study that they got from the class. Keith in Olympia et al (1994: 61) states that homework is the students' assignment which is given by the teacher that the students have to make it outside of the routine class. Homework can be defined as academic work assignment outside of the normal class period in order to extend the practice of academic skills to other environments (Cooper et al in Johnson and Mc Comb, 2008: 4). They also state that homework has some advantages in guiding skill development and observing students' progress.

Students' worksheet or Lembar Kerja Siswa (LKS) is one of the media for homework to the students. Students' worksheet that the students use is still in printed technology shape. Besides providing various form of assignments, students' worksheet also can be able to provide summary of the lesson. However, the students' worksheet has some weaknesses such as not interactive that tend to be used passively, presenting inflexible, and difficult to give the feedback.

From that situation, the teacher should create a new appropriate media to lead students to learn at home. Media can stimulate students' senses to increase learning process. The more sense the students use in receiving and processing the information, the more possibility that information will be implanted in their long term memory. The research has proved the using of more than one sense will give students an ease in receive information (Arsyad, 1996: 8-9). One of media can be used by the teacher to manage students in learning at home by themselves, with teacher guideline is by using Moodle. MOODLE (Modular Object-Oriented Dynamic Learning Environment) is e-learning software which is also known as Learning Management System (LMS). BrandI (2005:19) clarifies that LMS differs from exclusive course management systems because they allow to present information to learners in small units, assess what they have learned, and as an additional review of material or move to the next level.

MOODLE is a compatible e-learning application to be used for teacher. It is designed for teacher not for the programmer. Teacher should not have to master in programming for working with MOODLE. Moreover, there are many sources that the teacher can find from the internet to operate it. Sasikumar (2008: 2) clarifies that Modle is easy to use. When teachers want to edit something, there is edit mode feature available on the same screen. Teacher will directly get the screen by typing the menu in the item the teachers want to edit.

Some advantages of this media are quickly responded that make the students know the score they get and whether their answer wrong or right, the information that the students want to know is rapidly delivered, and the exercises are easy to be done.Further, Sasikumar (2008:4) stated that Moodle can be used as the medium for communication, collaboration, content hosting, and assessments which offers some facilities such as: 1) the teacher can post study material for anytime anywhere access for the students; 2) announcements and calendar online; 3) assignment posting, submission, and evaluation with feedback can be done online; 4) encourage student-student interaction, discussion of issues, etc. through discussion boards and chats; 5) keeping track of students performances and grades. Moreover, the students can re-attempt the exercises that available in Moodle as much as they want to get the better score. So that, the students can understand the text and improve their reading ability.

Reading ability is an individual reading comprehension skill of a reader to find out meaning, information or other messages as being intended by the author through his or her writings. In reaching those aims, the teachers should do their effort. One of the efforts that can be done by the teachers is to develop their technique on teaching reading.

Urquhart and Weir cited in Lichun (2009:113) report that if reading is a skill, it must be possible to divide it into different level of component skills

categories. It means that, several competences have made attempt to divide reading skill into component skills or sub-skills. Sub-skills approach is an approach which believes that under the reading skill there are a lot of individual skills, which are called sub-skills. In addition, Shah (2010: 109) says that reading is not only consists of a single basic skill.

Reading ability should be focused on the similarity between language and the curriculum purpose. The curriculum defines the assessing in reading is to measure the students' achievement in comprehending the reading text, or whether the students' knowledge and skill obtain the particular criteria. Thurlow et al (2009: 1) says that the questioner assess reading assessment to the students is to measure the characteristic of the material that is related to their ability

At senior high school reading level, the purpose of teaching reading is the students can understand the texts. To make students have good comprehension in reading the text, the teacher should prepare good strategies and appropriate media in teaching. The teacher can use a variety of strategies to ensure that the students are actively engaged in reading. Davies and Pearse (2000: 92-95) say that there are three recommended stages in teaching reading. There are pre-reading activities to prepare the learners what they are going to read, while-reading is the stage to guide the learners in understanding the text, and post teaching is the next step for the learners in connecting they have read with their own ideas and experiences. In addition, Davies clarified that to make students to read more the text reading can be given as their homework, as the follow-up stage that the teacher has to stimulate as much as possible.

There are two types of media can be used to distribute homework for students, printed technology based and computer technology based. Printed technology based or paper based such as book, students' worksheet, and other kinds of media contain paper and ink is the conventional media the teacher uses for students' homework. Homework using Moodle is in line with the development technology of educational field which is computer and internet used to support students' work. Spellings (2005: 11) explained that computer is a great homework instruments. Students can use computer to type, get sources, and to talk with teacher and other students. Teachers can post the homework assignments to the students in their own side.

There are some types of exercises can be admitted in Moodle. They are multiple choice, true/false, short answer, matching, and embedded questions. Each various exercises aim to avoid the students to be bored and increasing students' interests. Teacher can create a quiz, put some sources, and those are editable. Moodle gives all of needs for online learning from available module. Some appearances design of Moodle are: it is appropriate for online learning and for extra class, it is simple, efficient, and simple face to face browser, easy to be installed in some platform which is supported PHP such as computer, laptop, note book, etc., it is easy to put some worksheet and sources into the Moodle, students can work online or download the worksheet as a printed assignment working based on the teacher instruction. The students can get their marks immediately after they finish the exercises. If they are not satisfied with the score they got, they can re-attempt the exercise.

Because of the reasons above, e-learning Moodle software will be used. This study is going to investigate whether e-learning Moodle for homework can give a significant effect on the students' reading ability or not. Therefore, the researcher wants to conduct a research about the effectiveness of using e-learning Moolde for homework in improving reading ability of grade X students of SMAN 4 Padang.

B. Research Method

This study is an experimental research because it can show the effect of using e-learning Moodle for homework in improving students' reading ability. The population of the research was the first grade students of SMAN 4 Padang in academic year 2012/2013. The experimental class was X7 and X10 as the control class. Both of classes were given the same activity, same techniques and taught by the same teacher, but they were treated differently in giving media for homework. The experimental group was given Moodle to assign their homework and the control group was given paper-based homework by using students' worksheet or books.

Posttest-only control group design was used in this research. The instrument used in this research was reading test in multiple choice form that was consisted of 25 questions in 6 texts. Before the posttest was used to get the data, all of the questions were tried out to another class was not taken as sample. After the test was tried out, the researcher analyzed the scores of the students through construct validity, variance, item difficulty, and reliability.

C. Discussion

In this research, the data was got from the posttest score from experimental and control groups. The following tables shows the students' score of experimental and control groups.

Table 1. Avarage and Standard deviation of Final Test Score of Experimental and Control Groups

	Class X7 Using Moodle Homework	Class X10 Using Students' Worksheet homework
N	32	32
$\sum x$	2600	2348
$\sum x^2$	213312	174224
$\overline{X}$	81.25	73.3750
s	8.1557	7.9919
s^2	66.5161	63.8710
Highest Score	96	88
Lowest Score	64	60

There are some scores differences between students' reading abilty by using Moodle homework and students' worksheet homework. Mean of students' reading abilty with Moodle homework is higher than mean of students' with students' worksheet homework. The mean score in the experimental group was 81.25, within the highest score was 96 while the lowest was 64. In contrary, the control group using students' worksheet for homework got the mean 73.3750, and the highest score was 88 while the lowest score was 60

Table 2. Analysis of Students' Posttest Scores of Experimental and Control Groups

Class	N	$\bar{X}$	S	S^2	$t_{calculated}$	t table
Experiment	32	81.25	8.1557	66.5161		
Control	32	73.375	7.9919	63.8710	2.833	1.999

The calculating process of data got the vlaue of variance (s^2) is 66.5161 for experiment class and 63.8710 for control class. From the table, it can be seen that $t_{calculated} = 2.833$ and in the level significance $\alpha = 0.05$ with the degrees of freedom 62 is got $t_{table} = 1.999$, so the t-calculated is bigger than t-table ($t_{calculated} > t_{table}$),or the H_0 of this research is rejected and H_1 is accepted. It means there is a significant difference between the students' reading ability who use Moodle as media for homework and use Students' worksheet for homework.

The differences of students' reading ability between the class using e-learning Moodle for homework and the class using students' worksheet were caused by the difference of process of those two classes. At class using students' worksheet, students do not have an opportunity to re-attempt the assignments , and they do not get immediatly feedback of the homework they have made. While, at class with e-learning Moodle, students have many chances to re-attempt the assignments. By using e-learning Moodle, students get directly feedback from the teacher, their score, or even when they have a question about homework that they are doubt with.

The students' score of reading abilty in the class uses Moodle as the media for homework is higher than the class uses students' worksheet. It caused by homework by using Moodle has some advantages for the student. The students are motivated to do their homework that desire them to learn at home. The students get direct feedback after finishing the assignments for their homework. They can attempt the reading assignments repeatedly so that they can practice their reading abilty. Homework using Moodle is easy to use, and the students also can interact with the teacher.

Based on the explanation above, it can be said that the students' reading ability in experiment class has indicated well treatment of using e-learning Moodle for students' homework. The students' ability in the class uses Moodle homework is higher than the class uses students' worksheet. It is also relevant to the research finding of Doorn et al (2010), "Online homework is a useful and benefical tool that the teacher can design the homework to help the students to increase their ability in learning". This fact prooves that the use of Moodle for

students' homework has an effect toward students' reading ability. In consequence, using Moodle for homework is better in supporting students' reading ability.

D. Conclusion and Suggestions

After analyzing the data and discussion of the research, the result shows that the use of e-learning Moodle for homework is better than by using students' worksheet. It has been approved statistically by the calculation of t-test of significance (α) 0.05, is got $t_{calculated}$= 2.883 and t_{table}= 1.999. The result of the calculation indicated that $t_{calculated}$ exceed the $t_{table,}$ it shows that there is a significance difference students' reading ability between the students use e-learning Moodle and use students' worksheet for homework.It can be seen from means of two classes, mean of the class use e-learning Moodle is 81.25 and mean of the class use students' worksheet is 73.375. It means that e-learning Moodle is more effective than students' worksheetfor students' homework media.

The researcher recommend the teacher to use e-learning Moodle as media to support students' homework activity because e-learning Moodle is not only for giving reading homework, but also can be used to distribute other skills such as listening and writing, in using e-learning Moodle, teacher has to prepare the exercise well. To provide e-learning Moodle technically, the teacher should be given seminar in organizing this media, and the government and the school should allocate the cost for this technology, since the implementation of technology and internet in the education.

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