The effect of the online learning model of Rumah Belajar Muhammadiyah (Rubelmu) on students' vocabulary achievement at second grade of SMP Muhammadiyah 3 Bandarlampung

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ABSTRACT

The research objectives were to findout (i) whether online learning using Rubelmu has a significant difference in students' vocabulary mastery at SMP Muhammadiyah 3 Bandarlampung and (ii) the students' perceptions of online learning using Rubelmu. This was quantitative research with one pretest-posttest design. The subjects use 30 samples taken from the second grade of SMP Muhammadiyah 3 Bandar Lampung. The one group gathered from the result of the pretest-posttest to measure the significant difference was collected through the pretest and post-test. Questionnaires were used to find the students' perceptions. The data collected were compared by using SPSS. The outcome showed that online learning using Rubelmu had a significant difference in students' vocabulary mastery. There was an improvement in students' vocabulary mastery based on the gain of mean score that was indicatively increased from 59.5 to 80.5. The questionnaire was distributed to measure the students' perception of Rubelmu. As expected, the finding shows the students had a positive perception of online learning using Rubelmu.

Keywords: Rubelmu, vocabulary, online learning

I. INTRODUCTION

Learning English has been gaining a higher position in terms of its function to connect the world rather than another foreign language. Wijaya (2016) stated that English plays an important role in the world because it is the most widely spoken language. It makes sense that most educational institutions in Indonesia put English as their subject on a weekly schedule. But, the English proficiency average of Indonesian gives the opposite result. This was answered by Caine's statement: more importantly, with English seemingly permanently installed as the international language, what issues and concerns need to be addressed by English language teaching (ELT) professionals? (Caine:2008). But, most teachers were not putting vocabulary as the first thing to be taught. Thornbury (2002) stated that most language courses were (and still are) organised around grammar syllabuses. This was not linked to the statement about the importance of vocabulary as the main part in composing meaningful context. Mahpul (2014) stated that teaching-learning activities commonly pay more attention to engaging learners in memorising vocabulary lists and grammatical rules, rather than providing them with meaningful activities that enable them to communicate in English. Vocabulary was like scattered leaves that had to be collected to get a pile. It is needed to understand what people are saying or to comprehend the ideas of any text. Being realised or not, vocabularies became the main problem of many students when communicating using English. The self-confidence and grammar rate even can be ruled out by someone who projects a good communication ability.

Moving to another point of view, we know that to acquire English comprehension there are skills that need to be mastered. They are listening, speaking, reading and writing. Those skills complement each other and need to be supported by language aspects. Yufrizal (2017) stated that linguistic competence covers three aspects: pronunciation, grammar and vocabulary. The statement means we were not able to deliver meaningful communication if we missed one of the aspects mentioned before. As mentioned on Mahpul (2018) that writing is in fact, a transaction with words. It is vocabulary, which has an important part to support the primary skill of English because vocabulary means a stock of words in a language. This reinforced that vocabulary is important to be used in mastering language

skills and it can be concluded that vocabulary is the most important part of language because when we are reading, listening, speaking or writing we need to combine some words into a meaningful context.

In February 2020, Corona disease broke out in Indonesia. Even Though the vaccination of this virus had been discovered by the medical industries, the spread of this vaccine was partially done to only some people, especially in Indonesia. This issue had made a very crucial problem and caused the educational elements to find it difficult to hold a conventional learning process at schools. Therefore, the government had to take action and arrange a new system of teaching and learning process. The ministry called it *Belajar Dari Rumah (BDR)*. This regulation was formally announced in March 2020 and had been actively done by the school for more than a year since the first it was declared.

The shifting system of teaching and learning process gave a huge difference on many aspects of its process. The presence of online learning was filling all the meetings on every subject. The emotional relationship between students and teacher can not be obeyed when a face to face meeting is going on. But, Chan Lee (2009) said one of the most significant changes in the field of education in this information age is the paradigm shift from teacher-centred to learner-centred education. Along with this paradigm shift, understanding of students' e-learning adoption behaviour among various countries is urgently needed. The result of this system change will show a difference between the "before and after" process.

The researcher tended to decide this kind of research because the school institution will be needing some adjustments on the teaching and learning process. Based on those statements, the researcher was interested in conducting a study about the students' vocabulary after being taught using virtual learning during Covid-19 Pandemic. Similarly, the students' perception on the usage of the platform in this research was also important for the teacher to determine which method or technique was the most appropriate to be applied.

The research objectives were to find out (i) whether online learning using Rubelmu has a significant difference on students' vocabulary mastery at SMP Muhammadiyah 3 Bandarlampung and (ii) the students' perceptions of online learning using Rubelmu

Theoretically, the result of the research was expected to give information to the teacher about the significant difference of online learning on vocabulary teaching. Practically, the result of the research could be used as a new reference for the teacher about online learning using Rubelmu to improve students' vocabulary. Similarly, this research could be used by the government to make a sustainable system that supports all kinds of online and offline learning processes.

Rubelmu or Rumah Belajar Muhammadiyah is a learning management system created by Majelis Pendidikan Dasar dan Menengah Muhammadiyah Provinsi Lampung (Muhammadiyah Elementary and Intermediate Education Assembly of Lampung) in July 2020. It is a web based system that is used by Muhammadiyah schools at Lampung Province to provide online learning due to Covid-19 pandemic that constrain the whole system of education process to be done virtually.

The researcher had conducted the research for three weeks in the eighth year of SMP Muhammadiyah 3 Bandarlampung. This research was quantitative research which focused on the result of students' vocabulary after being taught with online learning during Covid 19 pandemic. The online learning process that became the research target was only the learning action using Rubelmu (Ruang Belajar Muhammadiyah) as the platform. The respondent of data of the research was taken from one class. This study, specifically, focused on content words rather than function words. Content words itself are the words that name objects of reality and their qualities. Those usually consist of nouns, adjectives, verbs, and adverbs. The increase of students' vocabulary achievement was measured by a set of pre and post tests in the form of multiple choice tests by using google form as the tools on collecting data. On the other hand, the students' perception was analysed after administering groups of questions that reflect their perceptions.

II. METHOD

This research was quantitative research. The researcher focused on the effect of online learning during the pandemic on students' vocabulary mastery at second grade of SMP Muhammadiyah 3 Bandarlampung by using numerical data. In conducting the research, the researcher used one group pretest-posttest design. This was a research design where the researcher gave a pretest to one group and then assigned a post test after the treatment condition had been administered by the teacher. The pretest was conducted to measure students' vocabulary achievement before treatment and the post test was conducted to find the students' vocabulary achievement after being taught using Online learning application.

Population and Sample

Population of this research was the second grade of students in SMP Muhammadiyah 3 Bandarlampung. This school was located in the middle of Bandarlampung City so the researcher assumed that the students of this school come from various kinds of backgrounds. Moreover, SMP Muhammadiyah 3 Bandarlampung was the only private junior high school which was holding online learning using Rubelmu as the platform. The population was 30, based on the members of 8C students which were chosen randomly. The researcher was using population research. Arikunto (2010) stated that if the number of subjects is less than 100, the whole population can be administered as target research. On the other hand, if the subjects number more than 100, the sample of the research was taking 10-15% or 20-25% or more. Hence, the researcher conducted the research steps to the whole population.

Data Collection Method

The research instrument was a pretest and posttest vocabulary test in the form of an objective test. The item number of pretest and posttest were 30 in multiple choice questions (a.b,c,d). The pretest-posttest was used to measure the significance difference on students' vocabulary improvement. Questionnaires were used to find the students' perceptions on online learning using Rubelmu. There are 30 questions for both pretest and posttest. The questions were administered from the result of a tryout test after dropping the invalid items. In this case, the researcher focused on vocabulary which was dealing with content words. They were nouns, verbs and adjectives. The distribution of the word type in the vocabulary test can be seen below.

Aspect	Items	Total	Percentage
Noun	1, 2, 3, 4, 5, 6, 7, 8, 9,10	10	30.3%
Adjective	11, 12, 13, 14, 15, 16, 17, 18, 19, 20	10	30.3%
Verb	21, 22, 23, 24, 25, 26, 27, 28, 29, 30	10	30.3%
	Total	30	100%

Table 1. Specification of Vocabulary Test Items

The questionnaire was composed by arranging 12 close-ended questions in accordance with the students' perceptions. In the first part of the questionnaire, the researcher explained about the kind of research and the purpose of the research. The second part was demographic information, the students were asked to fill in their main identity like name, gender and student number. The last part was the

main past of the questionnaire. The students should express their opinion by choosing the most representative option about online learning. The questionnaire included four points of Likert type scale with the options that represent the level of students' agreement, they are: 'strongly agree', 'agree', 'disagree', 'strongly disagree'.

The third method was using documents as supportive data of the main result of the questionnaire. Sugiyono (2015) stated that documentation research is a technique of data collection by getting information from books, archives, documents, and written reporting. and The source of this research would consist of the history, teachers and students list, and the school achievement.

Research Procedure

The research design was using T1T2 design where T1 as the pretest and T2 as the posttest. The tryout was held by the researcher to guarantee that the test is giving the best result. This process was used to find that the test was related to the validity, the reliability, the level of difficulty and the discrimination power.

The pre-test aimed to measure students' mastery of vocabulary before the researcher gave the treatment. This test consisted of 30 multiple choices where the students are asked to finish the task by choosing one correct answer from options a,b,c and d. The students had 60 minutes to finish the questions. The result of this pretest had been compared with the posttest to see their achievement.

Posttest had be given after the researcher was done with the treatment. It was aimed to discover the students' improvement of vocabulary. The question was the same as the pretest, but the researcher was going to make some changes on the order of questions and the distractors in order that students are not only remembering or memorising the answers but they can really understand the questions. The post-test consisted of 30 multiple choices. Time allocation was 60 minutes.

Data Analysis

The researcher analysed the data in order to identify the difference of students' vocabulary achievement before and after being taught using Online learning application. The questionnaire was administered to give supporting data about students' perception that the result would be an extensive judgement about the whole data. After doing the try out test, researchers dropped the invalid items and made them as pretest and posttest. The next phase was scoring: the pre-test and post-test score was analysed using a table on Microsoft Excel to find the distribution of data and the statistics that can be analysed on the next step. The data would be examined using repeated measure T-Test since in this research using only one experimental class. The research was statistically analysed by using Statistical Package for Social Sciences (SPSS).

III. RESULT AND DISCUSSION

After collecting the posttest and the questionnaire, the data was analysed by transforming the score into graphics and numbers. Each phase of research was giving a result that supported the discussion which can be used to answer the research question. The discussion was divided into two sections based on the research question that was exposed in the first chapter. Those research questions were talking about the difference of test score and the students' perceptions of the online learning process.

The Effect of Rubelmu on Vocabulary Achievement

Table 2. Distribution Frequency after the Treatment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	63	2	6.7	6.7	6.3
	67	2	6.7	6.7	13.3
	70	1	3.3	3.3	16.7
	73	2	6.7	6.7	23.3
	77	4	13.3	13.3	36.7
	80	4	13.3	13.3	50.0
	83	4	13.3	13.3	63.3
	87	5	16.7	16.7	80.0
	90	4	13.3	13.3	93.3
	93	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Table 2 shows an improvement on students' score after conducting the treatments. There were two student (6.7%) who earned 63, two students (6.7%) who got 67, a student (3.3%) achieved 70, two students (6.7%) gained 73, four students (13.3%) obtained 77, four students (13.3%) got 80, four students (13.3%) reached 83, five students (16.7%) earned 87, four students (13.3%) got 90, two students (6.7%) gained 93. Overall, their average score was 80.5 with a maximum score of 93 and a minimum score of 63.

Table 3. Students' Score of Pretest and Postest

	Pretest	Posttest
Mean	59.5	80.5
Median	60	81.5
Modus	63.3	86.6
Range	30	30
Lowest	43	63
Highest	70	93

It could be seen that the highest score of pretest was 70 and the highest score of posttest was 93. It means that students' scores improved 23 points. Beside that, the lowest score of pretest was 40 while the lowest score of posttest was 60. The gain score was 20. The improvement of students' vocabulary could be seen by comparing the mean scores of pretest and post test. The mean score of the pretest was 59.5 points and the posttest was 80.5 points, the gain score of the pretest and the posttest was 21.0

points. Therefore, it indicated that the mean score of pretest and posttest significantly improved after the treatments.

Vocabulary is not one of the main aspects of the English language: writing, speaking, listening and reading but it holds the most important rule of the language. Wilkins (1983) who says that without grammar little things can be conveyed, without vocabularies nothing can be conveyed. A sentence with grammar errors is still understandable but if one sentence has missing words it is even can not be interpreted perfectly or directs the reader to the misunderstanding. Frankly, before someone is able to construct a sentence, the vocabulary mastery has to be finished earlier. An increase of vocabulary mastery means a step closer to an ability to arrange a meaningful text.

Considering the data that showed vocabulary improvement, we can assume that Rubelmu can be used as an alternative platform to maintain online learning during a pandemic of Covid-19. There were some previous researches which were mentioned in the second chapter that support this statement. Faridi (2009) discovered that there are some ICT sources to be used as language learning innovation. The tools are used as media in the process of teaching and learning to enhance the course goals. Another finding came from Kurnia (2016) which gives a more detailed explanation. His research was focusing on students' vocabulary improvement after being taught using the Duolingo application. The result was Duolingo gives a significant effect to increase students' vocabulary. in order to give a wider view about online course variety, Bensalem (2018) who did research on measuring vocabulary improvement using Whatsapp application. The result showed that the vocabulary test outperformed the traditional method and the students' gave a positive impression on the usage of Whatsapp application.

Covid-19 pandemic had given a constant pressure to most education institutions in Indonesia. Based on the Indonesian Ministry of Education and Culture Guide Book, the teaching and learning process is regulated as the following: the Educators had to facilitate distance learning by using online or combining both online and offline methods based on the condition and the presence of teaching tools at schools.

Perception has its literal meaning which was written in Oxford Dictionary: an idea, a belief or an image you have as a result of how you see or understand something. Related to that, Amir (2020) stated that perception can also be considered an individual's interpretation of something. In accordance with the teaching and learning process, students' perception had a huge influence on the result of the learning process.

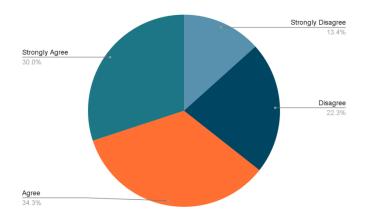
Furthermore, the students' perception about online learning using Rubelmu had positive feedback referring to the result that the positive statement had significantly chosen. The perception and the result of students' improvement had a pretty close relation. This might happen because students get more motivation and enjoy the learning process. This statement is related to Kauffman (2015), students' negative perceptions can lead to poor learning outcomes and decreased learning motivation and persistence. The result of questionnaire showed in the table below

Table 4. Students' Perception in Online Learning Using Rubelmu

			Option								
Statement		Strongly Disagree		Disagree		Agree		Strongly Agree			
		N	%	N	%	N	%	N	%		
1-	Rubelmu help me to										
	be more focus on my learning process	2	6.7	3	10	11	36.7	14	46.7		

2-	Rubelmu has been increasing my motivation to learn	0	0	3	10	14	46.7	13	43.3
3-	Learning English with Rubelmu is fun	3	10	2	6.7	10	33.3	15	50.7
4-	I got the feedback easily when I use Rubelmu	1	3.3	4	13.3	19	63.3	6	20
	5- Rubelmu has been increasing my understanding	2	6.7	4	13.3	10	33.3	14	46.7
6-	My learning result have increased	0	0	2	6.7	13	43.3	15	50
7-	Rubelmu helps me to understand difficult chapter	2	6.7	1	3.3	16	53.3	11	36.7
8-	Rubelmu helps me to learn English	1	3.3	2	6.7	20	66.7	7	23.3
9-	I have been able to self-evaluate my learning process	4	13.3	1	3.3	14	46.7	11	36.7
10	P-Rubelmu is effective to fix my misunderstanding	1	3.3	1	3.3	13	43.3	15	50
11	- I have been able to self-evaluate my learning process	1	3.3	1	3.3	14	46.7	14	46.7
12	e- I have more possibilities to work at my own pace.	1	3.3	6	20	13	43.3	10	33.3

Table 4 show the percentage of students' perception were classified into three different statements: strongly disagree, disagree, agree, and strongly agree. The statements then divided into the positive and the negative statements by grouping the strongly agree and agree statements into the positive; and the strongly disagree and disagree statements into the negative. The result was showing that the positive statement gained 64.3% of the data. This explained that the students' had a positive perception on online learning using Rubelmu.



Gambar 1. Diagram of Students' Perception on Online Learning Using Rubelmu

Since Rubelmu was a web page that is only used by Muhammadiyah school in Lampung, the researcher found that there were some strong and weaknesses on the use of Rubelmu on teaching vocabulary at eighth grade of SMP Muhammadiyah 3 Bandarlampung. The strengths were: (1) The specific scope of users made the data privacy safer because the system maintenance was done by the internal admin; (2) Rubelmu was a free and easy to use platform. Students did not need to pay any subscription fee or download an application; (3) The online learning using Rubelmu made students become more focused because they will get less distraction. The learning process was nearly the same as the process of watching Youtube's video, but Rubelmu was built to make a good learning environment for the process without showing the algorithm recommendation which had possibilities to not be relatable with the subject.

On the other hand, there were also some weaknesses of online learning using Rubelmu. They were: (1) On the teacher's side, this web page took time to be used because it can only be used as a platform to post the embed link material of the subjects and assignments. The teacher needed to use another application to create the contents; (2) There was a chatting feature on Rubelmu but it was still less interactive, so that the students and the teacher had to communicate with Whatsapp; and (3) The bandwidth was limited. When Rubelmu was used together with other users, it might work slower.

The collection of data was done in 2020-the early breakout of the pandemic, and finished in 2021. This meant the process of collecting and analysing the data of this research took too much time so that the result of this research might not be related anymore to the recent condition if being compared to the condition on the time this research was started.

IV. CONCLUSION

Generally, online learning could make a significant difference to students' vocabulary mastery. Based on the result, there was an improvement of students' vocabulary mastery after being taught using Rubelmu. It was proved by the increase of the students' mean score in the post-test which was higher than in the pre-test. Indicatively, the students' mean score increased from 59.5 to 80.5 while the gain score was 21.0.

Besides, a questionnaire that had been distributed to the students was to measure the students' perception about the use of Rubelmu. As expected, the finding showed the students had a positive perception of the online learning using Rubelmu in terms of improving vocabulary mastery. It was in line with some previous studies (Faridi, Kurnia and Bensalem)

Suggestions for English Teacher

English teachers as the main role of the process on delivering the subject is the first component to be objected as the suggestions receiver of the result of the research. Since the online teaching was classified as new method on our education system, the teachers hopefully able to provide more

exercises dealing with vocabularies in interesting technique; guide the students to consult more to their dictionary; and must be able to adapt with the kind of online communication to make sure the students are receiving the materials properly.

Suggestions for Further Researcher

This research might not answer the whole needs of English education development, so the researcher arranged some recommendations for further researchers. This was expected to be obtained to get a better future of English education. In the teaching learning process, media was the only one thing that supported the students' achievement. The researcher suggested other researchers find out some variables related to online learning such as the effect on students' motivations or the teaching vocabulary using other online platforms. Another point, this research was conducted by online learning using Rubelmu in junior high school, so further research was suggested to conduct this technique for different levels of students such as senior high school students, or even the elementary students.

The future researcher should have a more comprehension on the subject that is being analysed. For example, the explanation about students' vocabulary improvement could be completed with the information about which aspects of vocabularies that had gained the highest score and which one that got the lowest. This kind of target research was expected to give the specific result that is applicable to be practised by the teacher.

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