

**THE USE OF PROJECT BASED LEARNING IN IMPROVING STUDENTS'  
READING COMPREHENSION: A QUASI EXPERIMENTAL STUDY AT  
MTSN 2 MATARAM IN ACADEMIC YEAR 2015/ 2016**



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**by:**

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#### RATIFICATION

A journal entitled “**The Use of Project Based Learning in Improving Students’ Reading Comprehension: A Quasi Experimental Study at MTs Negeri 2 Mataram in Academic Year 2016/2016**” by Istikori (E1D111065) accepted by the board of advisors on September 2016 as requirement to achieve *Sarjana Pendidikan* (S.Pd) Degree in English education Program, Faculty of Teacher Training and Education Mataram University.

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**The Use of Project Based Learning in Improving Students' Reading  
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**ABSTRACT**

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This journal is entitled "*The Use of Project Based Learning in Improving Students' Reading Comprehension: A Quasi Experimental Study at MTsN 2 Mataram in Academic Year 2015/2016*". The purpose of this research is to investigate whether or not the use of Project Based Learning significantly increases the students' reading comprehension at MTsN 2 Mataram in Academic Year 2015/2016. The sample of this research was 72 students on VIII grade of MTsN 2 Mataram which used cluster random sampling. Based on the finding data from the research, the mean deviation score of experimental group was 16.33 and in the control group was 14.40. It was obtained that the t-test value was 1.026 and it was lower than t-table value with degree of freedom (df) of 70 at the confidence level of .05 (95%) was 1.993. Actually, Project Based Learning have positive effect to students' reading skill because it increases the students' score in the post test. However, the effect of Project Based Learning on students' reading skill is not significant because the t-test is lower than t-table. Further, this research can be hopefully used as one of the evidences that Project Based Learning is an effective teaching technique if it is used in appropriate condition.

**Key words:** *Reading Comprehension and Project Based Learning*

**The Use of Project Based Learning in Improving Students' Reading Comprehension: A Quasi Experimental Study at MTsN 2 Mataram in Academic Year 2015/2016**

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**ABSTRAK**

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Jurnal ini berjudul "*Penggunaan Pembelajaran Berbasis Proyek dalam Meningkatkan Pemahaman Membaca Siswa: Sebuah Kuasi Experimen Penelitian di MTsN 2 Mataram Tahun Ajaran 2015/2016*". Tujuan dari penelitian ini adalah untuk menyelidiki apakah penggunaan Pembelajaran Berbasis Proyek dapat meningkatkan Pemahaman Membaca Siswa di MTsN 2 Mataram Tahun Ajaran 2015/2016. Contoh dari penelitian ini adalah 72 siswa dari kelas VIII dari MTsN 2 Mataram yang menggunakan pengambilan contoh kelompok secara acak. Berdasarkan temuan data dari penelitian, nilai rata-rata defiasi dari kelas eksperimen adalah 16.33 dan dalam kelas kontrol adalah 14.40. Hal itu diperoleh bahwa nilai t-tes adalah 1.026 dan itu lebih rendah jika dibandingkan dengan nilai t-table dengan derajat kebebasan adalah 70 pada tingkat .05 (95%) adalah 1.993. Sesungguhnya, Pembelajaran Berbasih Proyek memiliki dampak positif untuk pemahaman membaca siswa karena meningkatnya nilai siswa pada post tes. Bagaimanapun, Dampak Pembelajaran Berbasis Proyek dalam pemahaman membaca siswa tidak memberikan peningkatan karena t-tes lebih kecil jika dibandingkan dengan t-table. Selanjutnya, penelitian ini diharapkan dapat digunakan sebagai salah satu bukti bahwa Pembelajaran Berbasih Proyek adalah tehnik pembelajaran yang efektif jika digunakan dalam kondisi yang tepat.

**Kata Kunci:** *Pemahaman Membaca dan Pembelajaran Berbasis Proyek*

## 1. INTRODUCTION

The teaching and learning of English in Indonesia experienced a number of fluctuations. This happens because of some factors; one of them is the changing of the curriculum over time. As stated by Hartoyo (2011) Indonesia has already implemented nine curricula known as the 1950 curriculum, 1958, 1962, 1968, 1975, 1984, 1994, 2004, 2006 curriculum or “Kurikulum Tingkat Satuan Pendidikan (KTSP) and K-13. The changing of these curricula affects some aspects of the teaching of English such as, the teaching-learning method and contents of material.

As mentioned in KTSP curriculum, the time allocation of learning English for Junior High School students is four hours a week. With this time, students are expected to master four basic skills (reading, writing, listening and speaking). This means that each skill will be covered in one hour of learning time. Obviously, it is difficult for students to master all of these skills due to the limited time. This limited time becomes problematic. As the solution, most of junior high school tends to focus on reading activities only because it is assumed that reading can be used to provide students with passive skill. For instance, by reading, students can increase their vocabulary and general knowledge. Besides, they can practice reading aloud to train their pronunciation and speaking. Thus, this habit can help students to continue to advance their learning in English language skill.

In relation to teaching and learning of English at school, reading is one of the essential skills for students. As stated by Mikulecky and Jeffries (1996:1) reading is important as it can increase students' vocabulary and improve other general language skills in English such as writing, and speaking skills. When one's vocabulary is improved, he/she will be able to find new ideas, facts and experience from the text they are reading.

As regards, students' problems in reading classes relate to a number of difficulties pertaining to comprehension (Marcellino, 2008). The first one is the class size. Generally, in Indonesia the number of students in a class is 40-50 students. This

makes the teacher get difficulty to control the class. Due to the nature of such a big class, teachers are demanded to be able to play a number of important roles in managing the class, such as motivators, classroom managers, facilitators, and the like.

The second problem is teacher's competence. Despite a number of in-service training provided, these teachers do not upgrade their competence in how to make the teaching and learning of reading comprehension more effective. Commonly, when undertaking reading classes, they just give students an activity to comprehend the text individually despite their difficulty to understand the text. Teachers also do not explain the patterns of texts completely. As a result, students become passive learners and eventually teachers become frustrated.

From the problems mentioned above, the researcher is of the opinion that she would like to try out a reading approach which she believes to be able to help students engage in the reading comprehension classes more actively. For this purpose, the researcher plans to use a Project Based Learning to solve the problem of passive reading classes.

## **2. LITERATURE RIVIEW**

### **A. Reading Comprehension**

Parel & Jain (2008) defines reading is an important activity for developing knowledge of a language. This means that, through reading activities, students can increase their knowledge of certain subjects. They can catch what texts talk about.

In the same sense, Parel and Jain (2008) define reading as an active process that needs a great deal of practice and skills. It involves recognition of message and comprehension skill. Thus, reading cannot be climes as a passive activity because actually readers think and analyze the meaning contained in the texts.

According to Antoni (2010) reading comprehension skills are important for English language learners (EFL), especially for students who learn English as a foreign language. Because through reading comprehension, students can acquire vocabulary, grammar, writing style, and text genre that in the long make them

become effective readers. When they get used to doing effective reading, they can analyse the detail information contained in the texts they read. This process helps them to learn actively and encourage their learning them to learn English more meaningfully.

Based on the devinition above, there is no single definition that can be used to represent what reading comprehension is. In this study, the researcher adopts definition of Klingner, Vaughn, Broadman (2007:131) as it is relevant to the current study. In general terms, reading comprehension as the process of constructing meaning by coordinating a number of complex processes that include word reading, sentence and word paragraph, and the whole of the text

Teaching reading comprehension is not a single step or an easily acquired skill. It is a difficult for teacher to teach reading comprehension in EFL classroom. This difficulty happens because students are usually confronted with insufficiently vocabulary and lack of fluency in reading. In order to that, reading comprehension has some general problems in classroom. The first problem deals with the English teacher. The teacher just explained the text in general. He/she just asked her students to read a text and look up the meaning of the unfamiliar vocabulary and also did not explain the patterns of texts completely. The second problem comes from the students. The students still had difficulties in understanding reading texts because lack of vocabulary. When they were required to identify the detail information of the text, they often had mistakes even they could not answer the questions.

#### B. Project Based Learning

Project-Based Learning is a learning model that provides an opportunity to make students become active participants in the classroom in making a project within the group to improve English language skills.

Poonpon (2011) states that project-based learning is suitable with the English teaching and learning need as project based learning is an instructional approach that contextualizes learning by presenting learners with problems to solve or product to develop. Furthermore, Solomon (2003) emphasizes that project-based learning

focuses on learning through student-centered, interdisciplinary, and integrated activities in real world situations. In project-based learning, students are responsible fully for their own learning. They work collaboratively to solve problems.

### **3. RESEARCH METHOD**

#### **A. Research Design**

This study employed a quasi-experimental research design. Through this research design, the causal impact of the proposed intervention on the target population were attempted to look at. The type of quasi-experimental used in this research was non-equivalent control group design which was defined as the non-randomized assignment of the control group. In general, the quasi-experimental design consisted of two major groups, the experimental group and the control group.

#### **B. Research Variable**

In this study, there were two variables under investigation, i.e. independent and dependent variables. According to Nunan (1992:25) a dependent variable is defined as what is measured in the experimental whereas an independent variable is what is affected during the experiment. In other words, the dependent variable is what changes when the independent variable changes.

#### **C. Population of the Study**

Population of study is referred to all number of subjects in research population that has one attribute of interest (Arikunto, 2010). With this definition, the researcher assigned that the population of the current research was all of the eight year students of MTSN 2 Mataram in the academic year 2015/ 2016. This population of the study consisted of 244 male and female students that were divided into five classes from VIII A to VIII E.

#### D. Sample of the Study

For this study, a cluster sampling technique was used. Cluster sampling is a technique in which clusters of participants that represent the population are identified and included in the sample (Jackson, 2011). The sample of this study was taken from class VIII B and VIII D; VIII B class consisted of 36 students and VIII D class also consisted of 36 students so the number of samples from both classes in this study was equal, i.e. 72 students. Then, class VIII B was decided as experimental group while, class VIII D as the control group.

#### E. Technique of Collections the Data

##### 1. Pre-test

In this pre-test, researcher gave the same reading comprehension test as the research instrument to students learning in both experimental and control classes. The items consisted of 20 multiple choices with descriptive types of texts. Every correct answer in each item was assigned to have 5 points and thus the maximum score was 100.

##### 2. Treatment

Students in experimental group were assigned to six member learning groups which were mixed in terms of their performance level, and gender. The researcher presented a lesson, and the students worked within each of the groups to make sure that all team members had mastered the lesson. Next, the teacher asked students to make a project based on their material and presented their project in front of the class. Finally, all students took individual quizzes on the material, at which time they were not allowed to help one another. Both of groups got treatment with the same topic and material but using different technique.

### 3. Post test

The post test was given sooner rather than later after the groups took the all five treatments. Hence, the activities were expected to be fulfilled in five weeks. As the last activity, the researcher administered the post-test about reading text to the students in the same level of difficulties with the previous test. With this test, the researcher wanted to know the reading progress of both groups through post-test to record the student's individual progress and also to find out the significant effect of using Project Based Learning approach on the ability to comprehend the reading texts after the treatments.

### F. Method of Data Analysis

#### 1. Tabulating the students' score

In correcting the students' worksheets, the researcher was helped by the English teacher. It was aimed to minimize subjectivity in correcting the worksheets.

After having the students worksheets result, the researcher counted the right answer. If students answer 20 correct items they will get 100 point. The following formula for calculating students' scores:

$$\text{Student score} = \frac{\text{correctanswer}}{\text{totalofquestions}} \times 100$$

#### 2. Upon the completion of tabulation, the resulted scores were inserted into the table.

After calculating the mean score of the experimental and control group, the mean deviation and square deviation were calculated by using the formula below.

3. Finding the deviation score of experimental and control groups from the results of the pre-test and post-test. The formula for this was presented as follow:
4. Finding the mean deviation score for experimental group and control group by using this formula:

$$Mdx = \frac{\sum dx}{Nx} \qquad Mdy = \frac{\sum dy}{Ny}$$

5. Calculating the square deviation score in experimental and control group by using the following formula:

$$\sum x^2 = \sum dx^2 - \frac{\sum dx^2}{Nx} \qquad \sum y^2 = \sum dy^2 - \frac{\sum dy^2}{Ny}$$

6. Calculating the degree of freedom (df)

$$df = (Nx+Ny) - 2$$

7. Calculating the correlation coefficients of the two mean score by using t- test, whether they categorized as significant or not.

$$T-test = \frac{Mdx - Mdy}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{(Nx + Ny) - 2}\right)\left(\frac{1}{Nx} + \frac{1}{Ny}\right)}}$$

#### G. Testing Hypothesis

In this study, there were two kinds of formula used to test hypothesis, i.e.:

- a. Alternate Hypothesis ( $H_a$ ): The use of Project Based Learning has significant effect in improving students' reading comprehension in the alpha ( $\alpha$ ) level of .05 (95%) if  $t$  tests higher than  $t$  table.
- b. Null Hypothesis ( $H_o$ ) : The use of Project Based Learning has no significant effect in improving students' reading comprehension in the alpha ( $\alpha$ ) level of .05 (95%) if  $t$  test lower than  $t$  table.

#### 4. FINDING AND DISCUSSION

##### A. Research Findings

In the experimental group, the total value of pre-test was 2410 and the mean was 66.94, while, the total value of post test of was 3010 and the mean was 83.61. While, in the control group it can be seen that the total value of pre-test was 2365 and the mean was 65.69, while, the total value of post test was 2880 and the mean was 80. Hence, from the results shown, most of the students make an improvement.

While, the total value for deviation score of experimental group (dx) is 600, while, for deviation score of control group (dy) is 515. To find the mean deviation score of each group, the total value was divided by number of students (36). So, the mean deviation score of experimental group is 16.66 and deviation score for control group is 14.30. This means that the experimental group got the higher deviation score than the control group. It is influenced by the result of pre-test and post-test of experimental group which is more increasing than the control group.

The detail of the explanation by using this formula below:

$$Mdx = \frac{600}{36} = 16.66 \qquad Mdy = \frac{515}{36} = 14.30$$

The next step is calculating the square deviation score in experimental and control group by using the following formula:

$$\Sigma x^2 = 12600 - \frac{(600)^2}{36} = 2600 \qquad \Sigma y^2 = 11775 - \frac{(515)^2}{36} = 4408$$

For the formula above, we could know that the square deviation of experimental group ( $\Sigma x^2$ ) is 2600 and the square deviation of control group ( $\Sigma y^2$ ) is 4408.

The next step is calculating the degree of freedom (df)

$$\begin{aligned} df &= (N_x + N_y) - 2 \\ &= (36 + 36) - 2 \\ &= 70 \end{aligned}$$

Finally, the correlation coefficients of the two mean score by using t- test was calculated by the teacher, whether they categorized as significant or not.

$$\begin{aligned}
 T-test &= \frac{16.66-14.30}{\sqrt{\left(\frac{2600+4408}{(36+36)-2}\right)\left(\frac{1}{36}+\frac{1}{36}\right)}} \\
 &= \frac{2.36}{\sqrt{\left(\frac{7008}{70}\right)\left(\frac{2}{36}\right)}} \\
 &= \frac{2.36}{\sqrt{\left(\frac{14016}{2520}\right)}} \\
 &= \frac{2.36}{\sqrt{5.5}} \\
 &= \frac{2.36}{2.3} = 1.026
 \end{aligned}$$

The calculation above showed that the obtained t-test score is lower than t-table, it is 1.026 for t-test score and 1.993 for t-table. Therefore, the t-test failed to reject  $H_0$  and it can be concluded that the use of Project Based Learning did not have significant effect on teaching of reading comprehension and did not make any difference with the control group taught by conventional method.

#### B. Discussion

Based on the finding, it can be seen that the experimental group made an improvement as well as control group. It is shown by the mean score of pre-test and post-test, 66.94 pre-test and 83.61 post-test for experimental group. However, it is not enough to conclude that the improvement of the score indicates Project Based Learning gives significant effect to students' reading comprehension. Considering t-test result, one-tailed test on the t-table was used where the confidence level was 95% (.05).  $H_0$  is accepted if the t-test score is lower than t-table and based on this research finding the t-test score was lower than t-table, it was 1.026 for t-test score and 1.993 for t-table.

## 5. CONCLUSION AND SUGGESTION

### A. Conclusion

From the result and discussion, it can be concluded that the use of Project Based Learning to improve students' reading comprehension in grade VIII of MTsN 2 Mataram in academic year 2015/2016 had no significant effect. The evidence for this was the students mean score of the experimental group and the control group did not show significant difference. It is proved by the total value of t-test (1.026) is lower than the t-table in confidence level .05 (95%). Therefore, the effect of Project Based Learning does not significantly improve students' reading comprehension.

### B. Suggestion

#### 1. For the teacher

Considering the result of this research, the teacher should consider some aspects before applying a method in a classroom such as, the size of classroom, how far the ability of the students in that class, and so on.

#### 2. For the school management

The school should be able to observe all students at all the times and monitor work and behavior. The school should also be able to reorganize facilities in the class, such as the table and chair. Construction and renovation should emphasize school design that support students and teacher collaborating in the class, especially in working in group.

#### 3. For the further researcher

For the further researchers who are interested in analysing the effectiveness of using Project Based Learning in teaching learning English, should do an experimental in applying Project Based Learning at other English skill like writing, listening and speaking.

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