

**THE EFFECT OF PROJECT BASED LEARNING MODEL ON THE STUDENTS' VOCABULARY MASTERY AT ELEVENTH GRADE STUDENTS' OF SMK SWASTA PGRI 20 SIBORONGBORONG IN ACADEMIC YEAR 2023/2024**

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*Abstract*

*This study aims to find out the significant effect on the students' vocabulary mastery by using project-based learning models at SMA Swasta PGRI 20 Siborongborong. The writer used quantitative research and an experimental design. The population of the research was the eleventh-grade students' of SMA SWASTA PGRI 20 Siborongborong in academic year 2023/2024 with total 300 students distributed in 10 classes, from this population 20% of the population is taken so the sample size 20% x 300 students' = 60 students. Two classes were taken as the sample by using random sampling. The sample than was divided in to two groups' namently experimental group and control group. Each of the group consisted of 30 students. The experimental group was taught by using project-based learning models, while the control group was not using models. The instruments for collecting data used giving plan, pre-test, treatment and post-test. The data were analyzed by using t-test formula. The result of the t-test showed that the value of t-test higher that the value of t-table (3,01 > 2,00) at the level significant 0,05 with the degree of freedom 58. Since the value of the t-test exceeded the value of t-table, the null hypthothesis (Ho) was rejected and the alternative hypthothesis (Ha) was accepted. Its means that the project-based learning models give significant effect on the students' vocabulary mastery.*

**Key Words:** *Vocabulary, Mastery, Models.*

## **INTRODUCTION**

### **The Background of the Study**

English language has been commonly accepted as an active universal language in the world. People who study English language consider it as their personal proficiency (Hoose, 2017). Therefore, nowadays many people particularly student ought to master English Language. Mastering English language is an important value for the students to have. By mastering the language, the student can improve themselves both in academic and life skill. Once the student can comprehend it, he or she can be well-accepted by the society.

The language widely used as a means of communication in the word is English. It is an international language in the world. (Tyani, 2014) therefore, it is important for people to learn it. Particularly in Indonesia, English is one

of foreign languages. It is most famous foreign language which is taught from Elementry School up to university school level (Tyani,2014). It is as the consequence of the Global era development where English is deeply need as a means of communication.

In order communicate with other, it cannot be separated with vocabulary. Vocabulary mastery is one of the factors to master English language well. It means that the students have the ability in understanding and using the word and meaning (Alpino 2017). The larger vocabulary the students' master, the better perform their language. It is support by Thombury (2004) states that without grammar very little can be conveyed, without vocabulary nothing can be conveyed.

According to Bukhari (2014) state that each learner has his own issues but the most common are lack of vocabulary, grammar,

correct pronunciation and hesitation in speaking. It has a similarity with the problem that found at SMA Swasta PGRI 20 Siborongborong. The researcher found out the similarities problem that faced by students. Most of them have problems in vocabulary mastery like, the students got difficulties to remembered vocabulary, they often forgot what they have been learn. For example, the student couldn't count the number even there is only the simple word that use in English, the students also had the difficulties in spelling word correctly, they often confused how to pronounced vocabulary in a right order. For example, if the teacher asked them to spell the word like "rabbit" they don't know it. Because they didn't get Junior high school, and the last students got difficulties to the used.

The word properly, some student could not identify the proper function of the word although the context was given. And for the interviewed with the teacher there are the teacher said, some student was not focused to lesson. The students often play in the classroom rather than pay attention to the lesson, so that's why the teacher should giving the game to make sure the students are involve in learning process.

Considering the problem in mastering vocabulary encounters by students and teacher above the researcher process a teaching technique of using Project Based Learning in teaching vocabulary as a solution to make them understand about word easily. And with Project Based Learning the students will more active creative hopefully, it can motivate them to learn English well.

Project Based Learning is one of the recommended of learning models this is because Project Based Learning is a key strategy for creating independent thinkers and learners (Bell,2010) and students-centered projects for active learning (Mosleh and Thom, 2017). Project Based Learning is a students-centered, motivational, creative and meaningful teaching approach. Students at all can be involved in projects and show their knowledge, skill and special abilities on a great variety topic.

Project Based Learning also can increase student achievement because it proper the passive learner become an active learner so when student is active in learning process they can get the better score especially in learning English. It is support by research conducted by

(Summer and Dickinson 2012) doing research and found that learns learn use Project Based Learning had her learning achievement than the traditional learning. In addition, according to a study from (Miswanto, 2011) also shows that through a Project Based Learning models, student learning outcomes on linear programming material become increasingly higher than before.

### **Previous Research Findings**

Kimsetzis (2017) entitled "The Effect of Project Based Learning in Teaching EFL Vocabulary to Young Learners of English ". The study was conducted with the aim of exploring and evaluating the effect of using project-based learning in teaching English vocabulary to pre-school children compared to using traditional techniques in Turkish context. The result relevant that the Project Based Learning models instruction positively affected both learner motivation and EFL vocabulary learning gains. Project Based Learning models also observed to have provided a wealthy input including the natural use of language.

### **Research Methodology**

The method is used research quantitative method and was used a experimental design. In educational research design there is a way to analyzed data or asses the students "test using statistical procedure". This research consists of two different groups, namely experimental group and control group. The experimental group was taught by using Project Based Learning.

### **Research Location**

This research was conducted in SMA Swasta PGRI 20 Siborongborong which located in Jl. SM Raja No.153A, Siborongborong, North Tapanuli.

### **Sample**

The number of eleventh grade students is 300 students. Eleventh grade students are divided into 10 classes. From this population 20% of the population is taken so the sample size is  $20\% \times 300 \text{ students} = 60 \text{ students}$ .

### **Research Instrument**

Instrument that researcher used by to collect the data. This research is a vocabulary test that was used. The test consists of multiple choice to test students' vocabulary mastery.

Vocabulary test give consists of 20 number of multiple choices. To make sure the test is appropriate with the students' capability the researcher validated the test with the validator. After validate the test, the research gave to students in different class to make sure the reliability of the test.

### Technique Of Collecting Data

In this research, the researcher had use three phases, they are pre-test, treatment, and post test

#### a. Giving plan

The researcher had created materials, a list of the names of the students, and score during planning. The researcher had made sure to schedule study time before beginning.

#### b. Pre-tes

The pretest is a test that measured student's ability in English vocabulary mastery. The researcher gives vocabulary test that consist of 20 number of multiple choices.

#### c. Treatment

The researcher given treatment to the student for 3 meetings which each meeting runs 90 minutes. The experimental group give treatment by using project-based learning model. The treatment also run based on lesson plan that the researcher will made.

1. Preparing Questions: Identify questions that can lead students to explore verb and noun vocabulary around school, such as "What activities often occur in the classroom?" or "What objects can we find in the school yard?"
2. Develop a Project Plan: Design a project that allows students to explore and apply the verb and noun vocabulary. An example of a project could be creating a photo book of everyday school activities emphasizing the use of verbs and nouns.
3. Create a Schedule: Determine a clear schedule for each stage of the project, including project explanations, assignments, and presentations. Make sure this schedule considers enough time for exploration and reflection.
4. Monitoring Project Implementation: During project implementation, monitor the progress of each group of

students. Provide guidance if necessary and ensure students stay focused on learning objectives.

5. Testing and Grading: Use appropriate testing methods, such as writing assignments or presentations. Evaluate students' understanding of verb and noun vocabulary based on the projects they have worked on.

6. Evaluation of Learning with Project Based Learning: After the project is completed, hold an evaluation session with students. Discuss project successes, obstacles encountered, and new insights gained.

#### d. Post-test

The post test was given after receiving the treatment. The researcher had given the posttest. To know the significance, effect the project-based learning model.

### Data And Data Analysis

Project Based Learning models is an appropriated strategy applied in the classroom in teaching vocabulary. This strategy is helpful to increase students' interest and enjoying learning which makes them more involves in their vocabulary mastery.

Based on the calculation the result of t-test was 3.01 and was higher than t-table (2.00) in hyphothesis testing. It was shown that the alternative hypothesis was accept it means that the Project Based Learning models gave significant effect show that the score of the experimental group (using project-based learning model) was higher than the score of the control (not using models).

At the beginning of the research, the writer explained that there were several procedures used to find out the vocabulary of students. Several tests were conducted to collect data such as Pre-test and Post-test. Students are given a Pre- test to determine their vocabulary; after giving a Pre-test, the writer provides care. The writer has done treatment. In this treatment, the writer explains things in class and project-based learning models. Then, Post-test, the writer gave the different vocabulary test as in the Pre-test, the Post-test was done after giving the treatment to the students, it was done to get the student scores in the Post-test and to found out the increase in students' vocabulary.

Moreover, it was perceived that the learners were more eager and interested in learning English, especially for the

implementation of the project-based learning models in the students' classroom, it was proved that this method influenced the learners' motivation to study English comfortably. However, it was not denied that there also some weaknesses found in implementing this media. Therefore, the creative and good preparation of every teacher is very essential during the process of implementing this method.

In summary, the writer asserts that project-based learning models to apply in teaching vocabulary especially for those who never learn vocabulary and they want to learn it. That master project-based learning models makes people easy to learn about vocabulary in further discussion.

## Conclusions And Suggestions

### Conclusions

After conducting and analyzing the data, the writer draws some conclusions as follows:

1. By using project-based learning models on the students' vocabulary mastery can be improved. It can be seen from the of the experimental group (14.53) which higher than the mean of the control group (9.46) the different of students' mean of experimental and control group is 5.07
2. Referring to the result of hypothesis testing, it was found that the  $t\text{-value}=3.01$ ,  $t\text{-table}=2.00$ . So that,  $t\text{-value} > t\text{-table}$ . It means that  $H_a$  is accepted and  $H_o$  is rejected. Therefore, there is a significant effect of using project-based learning models on the students' vocabulary mastery of eleventh grade students' at SMA Swasta PGRI 20 Siborongborong.
3. The implementation of project-based learning was effective to use in the learning and teaching process because it made students involve directly and also made students active in learning.

### Suggestions

Regarding the teaching vocabulary by applying Project Based Learning Model, the writer gives some suggestion for the local government, teacher and students as follow:

#### a. Teacher

1. The teachers can apply Project Based Learning Model to teach vocabulary to the students.
2. The teachers should be creative and innovative to use various strategies in

the English teaching-learning process to upgrade the students' vocabulary.

#### b. Students'

The students should be more active in learning process having applied Project Based Learning Model

#### c. Researcher

The next writers can use this research as an additional reference for further relevant research certainly dealing with vocabulary. The writer also hopes that this research can give more information about the use of Project Based Learning Model in teaching English vocabulary.

Finally, the writer realizes that this thesis is far from being perfect and because of that; constructive critics and advice are expected for the perfection of the thesis. The writer hopes that the results of this research can be useful for the readers. It is hoped that the readers will have more information about interactive activities technique. This research can be one of the references for the next writer who wants to research vocabulary.

## References

- Arikunto. 2010. *Prosedur Penelitian Suatu Pendekatan Praktik*, Jakarta: Rineka Cipta.
- Bell, S. (2010). *Project-Based Learning for the 21st Century: skill for the future. The Cleaning House*, 83: 39-43.
- Brown, H. 2001. *Teaching by Principles; An Interactive Approach Language Pedagogy, Second Edition*. New York: Longman.
- Bukhari Anayat. 2014. *The Difficulties and Problem in Learning English*.
- Creswell, J. W. 2009. *Research Design : Kualitatif, Kuantitatif, and Mixed Methods Approaches*. 3<sup>rd</sup> Edition. Newbury Park: Sage Publication.
- Harmer, Jeremy. (2007). *"The Practice of English Language Teaching* (UK: Ashford Colour Press Ltd.
- Hatch, Evelyn., and Cheryl Brown. (1995). *"Vocabulary, Semantic and Language Education*, (Cambridge: Cambridge University Press).
- Hiebert, H. Elfrieda and Michael L. Kamil. (2005). *Teaching and Learning Vocabulary; Bringing Research to*

*Practice*. London: Lawrence Erlbaum Associates.

<https://www.statisticshowto.com/test-retest-reliability/>

Marisah, Ani. 2017. *The Implementation of Project Based Learning to Improve Vocational Students' Speaking skills Journal of English Language and Language Teaching (JELLT)*. Vol 1 No.2.

Markham, T. 2003. *Project Based Learning Handbook: A Guide to Standards Focused Project Based Learning for Middle and High School Teachers*. Novato, CA: Buck Institute for Education.

Miswanto. 2011. *Penerapan Model Pembelajaran Berbasis Proyek pada Materi Program Linier Siswa Kelas X SMK Negeri 1 Singosari*. *Jurnal Penelitian dan Pemikiran Pendidikan*, 1 (1), 1.

Richard, J.C., and Willy, A. R. (2002). *Methodology in Language Teaching* (USA: Cambridge University Press)

Zimmerman, C.B. (1998). *Interactive Vocabulary Instruction and Productive Word Knowledge*. Demonstration Presented at 32 Annual TESOL Conference, Seattle. Retrieved from Wei Yong (1993) *Teaching Collocations for Productive Vocabulary Development*. <https://files.eric.ed.gov/fulltext/ED457690.pdf> at 30 April 2022