



The Implementation of Project Based Learning to Improve Students' Achievement and Motivation in the Speaking Class at Tenth Grade Vocational High School

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Abstract

This study was intended to find out whether the Project-Based Learning implementation is effective in improving students' speaking skills. The researcher employed a combination of quantitative and qualitative research methods, including pre- and post-tests, to assess students' productive skills, particularly in speaking. Besides, the researcher interviewed the teacher and the students to ask their perceptions of the implementation of project-based learning. There were 20 students as the respondents. Tenth-grade students of SMK TKJ Nurul Islami became the experimental class. The mean score showed that the pretest was 51.18. On the other hand, the mean score of the posttest was 78. The percentage and frequency of students' scores on the pretest for the experimental class showed that six students, or 35%, received an average score, while fourteen students, or 84%, received a poor score. However, after implementing the project-based learning method in the classroom, the results improved. In the posttest, four students (24%) achieved very good scores, eight students (47%) received good scores, and eight students (47%) received average scores. There was a significant difference between the pretest and the posttest. Based on the result, there was a significant difference between the experimental class in their speaking achievement. It means that the implementation of Project-Based Learning was beneficial in improving students' speaking ability in reporting descriptive text.

Keywords: Project-Based Learning, Achievement, Motivation

Introduction

Speaking is one of the important skills in English, besides writing, listening, and reading. Speaking is crucial because by mastering speaking, the students can use it

to communicate. According to Bueno et.al (2006), "Speaking is one of the most difficult skills that language students must face. Many students in senior high school struggle to communicate in English with each other. They are still very poor in vocabulary, pronunciation, grammar, fluency, and comprehension. They feel scared and shy when they are asked to speak English in the classroom.

Indonesia, as one of the creative nations, has also incorporated English as an outside language, which is taught from junior high school to college level. But in this fact, many students of the Senior High School still have less speaking achievement. Although they have been studying English for over a year, they are still unable to use English effectively in classroom interactions with their teacher. According to my experience when I taught at SMK TKJ Nurul Islami Semarang, there are many students who are still thinking about the vocabulary. Not only that, many students also feel shy to speak English with their friends in class or outside of class. It happens because some factors, such as the method that is used in teaching and learning, completeness of teaching facilitation, and the use of project-based learning, will impact the students.

Speaking is very important for them to practice their understanding and their achievement, how to send an idea, and how to spell words well. Many students find difficulty in speaking English. A few components are their fear of making mistakes, being laughed at by their peers, and a lack of confidence in their abilities. In some cases, students also struggle to share their creative thoughts and intellectual ideas with others through speaking.

Therefore, a teacher should help the students in solving this problem by motivating them to speak. On the other hand, personality traits also seem to have an important role in speaking as a productive speaking skill. This is according to some students, whom I interviewed in preliminary research. Most students have certain obstacles in getting ideas that can be used to be applied in the form of speaking. To prepare students to build their ideas, project-based learning (PBL) is involved in this research. Project-based learning is an instructional approach designed to capitalize on students' drive to understand (Duke et al., 2021). It can be interpreted that project-based learning can be used to exploit students' ideas. This is in line with Fragoulis (2009) and Bell that mentioned many benefits that can be gained from implementing project-based learning in teaching English as a foreign language. One of the benefits is creating optimal conditions for students to improve their English skills.

The common problem for students is to speak fluently and correctly, because to master speaking skills, the students must speak and think at the same time. It means that being fluent and correct in speaking requires critical thinking competence. Richard (2008: 19), as cited in Parmawati (2018) states "the mastery of speaking skill in English is a priority for many second language or foreign language learners". Generally, speaking is difficult for students because: first, the limitation of students' vocabulary, which makes them unable to express their ideas.

Second, they are influenced by their mother tongue. Third, the students rarely practice their English during the teaching and learning process or outside of class. Thus, they are ashamed when they want to explore their mind in English; they are afraid to make mistakes either in grammar or in the use of vocabulary.

In line with the explanation above, the other factors come from the student side, such as they feel English is a difficult language. These difficulties can be caused by both inside and outside factors, such as a lack of confidence and a lack of motivation (Scott, 2005). Lack of confidence can be caused by psychological factors; students are ashamed to speak, scared to make mistakes. They are not confident if they speak while others laugh at them. In learning English, motivation and opportunities are important because the teacher can motivate the students to talk by allowing them to speak. Howard (2003) and Susanto (2018) said that "motivation is the key factor in the successful language learning – teaching process, because those students who can study a language will be better if there is motivation by the teacher". In other words, motivation has an important role in making students succeed in learning English. Furthermore, a lack of motivation occurs because the teacher never makes an exploration in their teaching. They are monotonous in using the strategy in his/her way of teaching. Talking about motivation, sometimes in the learning method, the teacher does not use an appropriate method to encourage them to communicate actively. Consequently, they should be discouraged from expressing their ideas in English. In other words, we can say that the teacher does not apply an interesting way to provide an opportunity for the students with the intention that they can be motivated to practice their speaking skills.

Those are the real factors that happen among the students. Hence, to overcome these problems, there are so many approaches, methods, and techniques that can be used to activate students' speaking ability. So, they did not feel shame, or fear, and it made them aware that trying is better than never. Try here means that the students try to explore their minds in English, or they should be brave enough to say something in English during the teaching and learning process. Therefore, in this paper, the researcher chose project-based learning as a method to activate students' speaking skills. Thus, in general, it can be said that this research aims to increase the achievement and motivation of students in speaking classes by implementing project-based learning at SMK Nurul Islami Semarang.

Subsequently, the research is anticipated to have theoretical, practical, and pedagogical value. Theoretically, the successful implementation of Project-Based Learning (PjBL) in improving students' speaking skills indicates that project-based activities can stimulate both cognitive and emotional engagement more effectively than traditional methods. Practically, this research will help English teachers to design speaking tasks that involve real-world projects, integrate group work to build confidence, and provide consistent feedback to support students' progress. Pedagogically, it encourages educators to adopt learner-centered approaches that

promote creativity, collaboration, and active communication.

Method

The researcher in this section employs various methods to collect data, such as observing the classroom, interviewing students, distributing questionnaires, and testing students' vocabulary.

Observation

The researcher observed the classroom in this section. It assesses the condition and situation through project-based learning, and students are effective in enhancing students' speaking skills.

Interview

The researcher interviewed the students after observing the learning process. This interview aims to gather students' feedback and experiences regarding the implementation of project-based learning.

Test

The test assesses students' vocabulary proficiency following instruction through project-based learning and the students.

1. Pretest

This pretest was designed to implement the concept of project-based learning. The teacher instructed the students to complete the questions through essay questions.

2. Treatment

The researcher administered project-based learning after conducting a pretest. In this instance, the researcher solely utilized the experimental group. The researcher applied project-based learning to students. The treatment was administered twice. The treatment process guarantees that project-based learning would impact students' motivation and achievement.

3. Post-test

Following the treatment, students were required to complete a post-test during the final session. Students' test scores were compared with their pre-test scores. This test aims to determine the substantial disparity in students' speaking abilities pre- and post-intervention.

The researcher in this study, following the treatments, was required to complete a post-test during the final session. This test aims to determine the substantial disparity in students' motivation and achievement between pre-test and post-test. The researcher was examining the impact of project-based learning. The students received the test to tell the story of the legend of Surabaya. The researcher compared the students' pretest and post-test scores after receiving the post-test scores.

The Method of Analyzing Data

After gathering the data, the researcher analyzed it to derive meaningful data. The researcher initially analyzed the quantitative data, followed by the qualitative data.

The Quantitative Data

The Researcher used SPSS version 25 to analyze quantitative data. This part examined the request test and the hypothesis test.

The Requisite Test

In this part, the researcher used the requisite test, including normality and homogeneity.

1. The normality

Conducting a normality test is the initial step in analyzing specific data. A normality test was utilized to ascertain the normal distribution of data. The normality test employed the Kolmogorov-Smirnov test at a significance level of 5% or 0.05. The test criteria require the data to follow a normal distribution if the P-value is greater than 0.05. The data was derived from a population that follows a normal distribution.

2. The Homogeneity

A homogeneity test is a statistical procedure used to show that two or more groups of sample data have been collected from populations with equal variance. The homogeneity test determines if the data collection being examined possesses identical properties. If p is greater than 0.05, the formula indicates that the data is homogeneous. Inhomogeneous data with a p-value of less than 0.05 was observed.

The Hypothesis Test

The hypothesis was being tested to determine if the independent variable had an impact on the tested variable. The researcher employed a T-test to examine the efficacy of the implementation of project-based learning to improve the students' speaking skills. The researcher employed the formula where H_a is deemed acceptable if the significance level is less than 0.05. If the significance level is greater than 0.0, then the H_o hypothesis is rejected.

The Qualitative Data

The researcher analyzed qualitative data after examining quantitative data. It facilitated the researcher in organizing and examining the data. The data were analyzed according to the procedures. It is explained as follows:

- a. Analyzing the lesson plans' documentation based on project-based learning and student speaking skills.
- b. Summarize the data based on the classroom activities observation.
- c. Selecting the data based on the interview guides.

d. Drawing the conclusion based on the result of the data analysis.

Result

In this section, the researcher answered the research questions that have been proposed.

The Implementation of Project-Based Learning

This research was divided into several meetings, which were explained in detail below:

In the first meeting, the researcher began the meeting by greeting the students, asking about the students' condition, giving apperception, and motivating the students with the previous lessons. The researcher gave the students some questions regarding the material. The researcher then gave the students a pretest in the meeting. After giving the pretest, the researcher divided the students into five groups to do their projects. The researcher asked the students to start the project by choosing the topic given.

In the second meeting, the researcher reviewed the previous meeting and reminded the students to develop the chosen topic and then construct the draft of their project. The researcher checked the students' readiness in reporting the project through their group discussion to ensure they are ready to do the presentation with their group discussion.

In the third meeting, the researcher asked the students to report the project orally in front of the class and allowed them to ask and give questions or comments based on the topic they discussed. After doing the presentation, the researcher gave feedback on the students' performance in reporting the descriptive text as the posttest for each of the students. The researcher scored the students' speaking skills based on the rubric score. The researcher scored the students' performance in speaking components such as pronunciation, grammar, fluency, accuracy, and comprehensibility.

By using the project-based learning model, students are more actively involved in making a project that has been assigned to them. Of course, students are more aware of what they have made themselves when learning is taking place, so that it becomes fun and can make students' self-confidence appear, so that students' speaking skills will automatically be trained.

Students' Speaking Ability before the Implementation of Project-Based Learning

In this case, the researcher analyzed the data by using SPSS 25 and presented the data description. The following data description contains data information, including the mean, median, mode, and standard deviation of each variable. Therefore, the scores obtained are categorized as follows:

Table 4.2 The score of students in the Speaking Class

Students	Pretest	Posttest
S1	40	70
S2	70	90
S3	50	80
S4	60	80
S5	40	80
S6	70	90
S7	30	70
S8	70	90
S9	40	80
S10	40	70
S11	30	70
S12	20	70
S13	40	80
S14	70	90
S15	50	80
S16	30	70
S17	60	80
S18	50	70
S19	50	80
S20	40	70
Mean score	$950/20=47.5$	$1560/20=78$

From table 4.1 above, the mean score of the speaking score of the students based on the pretest equals 47,5. It showed that the lowest score of students was 20 and the highest score of students was 70. The mean score for the post-test was significantly different because the lowest score was 70 and the highest score was 90. The mean score for the post-test has significantly changed to 78. This means that the implementation of project-based learning was effective in the teaching and learning process for the experimental class. The result of the pretest showed that the students' speaking ability is still low before applying Project-Based Learning, and the result of the posttest showed that the students' speaking ability could increase by applying Project-Based Learning.

Students' Speaking Ability after the Implementation of Project-Based Learning

Table 4.3 Percentage and Frequency of Students' Scores of Pretest and Post-test

No	Criteria	Classification	Pre-Test	F%	Post-Test	F %
1	86-100	Very Good	--	4	24%	
2	71-85	Good	--	8	47%	
3	51-70	Average	6	35%	8	47%
4	25-50	Poor	14	0.84%	--	
5	0-24	Very Poor				
Total		20	100 %	20	100 %	

Based on table 4.2, the pretest in the experimental class was shown that four students got the very good criteria on the speaking test, while there were only eight students who got good criteria, while there were six students who got average criteria equal 35 %, while fourteen students or 0.84% got poor criteria, and no student got very poor criteria.

Based on the table above, it showed that four students got very good and average scores on the speaking test at the pretest. The highest score was just accomplished, an average score on the speaking test. When the students did the posttest, the highest score was a very good score on the speaking test. It means that the comparison of the results above based on the experimental pretest and post-test scores showed significant differences between the tests.

Based on the result of the students' experimental class, it is shown that the speaking skill through the speaking component can be scored by using a rubric score. The result showed that the scores were varied. Students 2, 6, 8, 14, and 16 got very good scales on their speaking component for pronunciation fluency, grammar, accuracy, and comprehensibility. While Students 3, 4, 5, 9, 13, 15, 17, and 19 got good scores on their speaking component. On the one hand, students 1, 7, 10, 11, 12, and 13 got an average scale on their speaking component. Based on the result, after the implementation of project-based learning in the experimental class, showed that the students' speaking ability was better than the students before the implementation of project-based learning.

Students' Perception of the Implementation of Project-Based Learning

The instrument used in this research was an interview, and the result was that the students supported that they were happy and enjoyed learning English. They felt that project-based Based Learning was an effective way to learn English. Project-based Based Learning was the solution to make the process of learning English more effective and meaningful for vocational high school students.

Teacher's Perception of the Implementation of Project-Based Learning

The fifth research question showed that a positive sign of the statement from the teacher is that the steps in Project-Based Learning were very easy to apply in English language teaching. This means that the English teacher gave a positive response to the teacher's perception of external factors. From all the calculated data, it was interpreted that the English teacher's perception of the implementation of Project-Based Learning from internal and external factors received a positive response.

This is related to previous research conducted by Susanti et.al (2019), which stated that teaching English through Project-Based Learning had a positive experience because teachers could motivate students to learn English. It could be used for teaching and learning English as a foreign language (EFL classes) to make learning English more effective and meaningful. Positive perceptions give rise to happiness, which influences a person's desires and actions, including the desires and actions of teachers in teaching and learning activities (Sumanto, 2006).

This means that if the teacher has a good perception, the teacher will easily apply the Project-Based Learning technique because her mind is happy when applying it. Perceptions and beliefs not only directly influence teaching practices and classroom behavior but are also related to student success (Anderson, 1991). Because perception has an important role in education, teachers must accommodate positive perceptions of students to increase their happiness, which leads to students' desires and actions in learning.

And, a casual relation between PJBL, motivation, and achievement. It means the hypothesis is accepted that PJBL and motivation positively impact students' achievement in the speaking class. Therefore, PJBL is one of the essentials for the teacher to improve students' motivation and achievement in the speaking class. Based on the previous data analysis, the researcher concluded that the result of this study showed that the mean score of the post-test for the experimental class is better than the mean score of the pretest of that class.

The result showed that the mean scores for the post-test were 78. On the other hand, the mean scores of the pretest showed 47.5. Based on the result, there was a significant difference in the experimental class's achievement in speaking skills by implementing project-based learning in teaching and learning activities. The researcher found that the students were enthusiastic about learning English lessons before because the method of teaching made the learning process more enjoyable and interesting for the students to be cooperative and innovative in doing their project, through individual projects or group projects in the learning of descriptive text.

They can search for as much information regarding the material, not only in the textbook, but other sources on the internet and in library research. Furthermore, the researcher suggested that the Project-Based Learning approach is effective and efficient in teaching and learning activities. It can increase the student's ability to

speak by reporting the descriptive text in front of the class. This method can develop students' self-confidence in speaking skills. The students are able to make descriptive text and report it orally, so their speaking skills of the students can be improved.

It is useful for the English teacher to apply this approach in the teaching and learning process so the class can be more interesting. At last, this study can be useful also for other researchers as a source for conducting research in other school environments. The implementations of Project-based learning have some effect on the students' achievement. The effect of the implementation of project-based learning in the class is that students achieve better results due to project-based learning.

The student's engagement increases because of the implementation of Project-based learning. They were motivated and interested in getting involved in the activities. Students have become more excited about the project given. They perform better in tasks, projects, and performance. The hypothesis of testing the hypothesis is changed to a null hypothesis, namely: PJBL has no impact on students' motivation.

Discussion

The growing number of language users English in the world has caused the language experience diversification and English speakers in countries other than their original form groups become competitors for groups of native speakers of the language Liando et al (2022), whether concerning the English teaching industry as well as those related to cultural treasures and intellectual in English.

English as an international language has a very important role in everyday life. Speaking skills are one of the four skills in English that must be mastered by students. Speaking skills must often be trained or practiced to improve. This study evidenced that PJBL and students' motivation positively impact achievement. It means that the teacher should use an effective method to improve students' motivation and achievement in the speaking class. Besides, high motivation in the learning process makes students enjoy and improve their achievement. In line with this study, Dewi et al. (2017) stated that one of the problems with students' learning motivation and achievement was the teachers' method during the teaching and learning process. Many teachers used a conventional method. It made students feel bored in the learning process. Therefore, it can be concluded that PJBL is one of the essential methods to improve students' motivation and achievement in the speaking class. It also suggests that the teacher should use this method in the teaching speaking class.

Project-based learning methods also provide opportunities for students to develop abilities in real conditions. Hadi et al. (2020) said that the use of the PBL method allows students to do the assigned tasks so that they not only learn but also practice English and develop various other important skills such as teamwork,

critical thinking, and presentations. Vice versa, students' speaking skills will not develop if they are still worried, not confident, and do not have friends or interlocutors to practice the skills that have been learned in class, by using project-based learning, students can be stimulated in developing and improving their English skills so that they can use the language fluently, precisely, and confidently. They can also improve their ability to make decisions and collaborate with other friends. Therefore, the project-based learning approach is highly recommended for use in education by students and should be encouraged in its application in education.

Based on the explanation above, it can be concluded that PJBL positively impacts students' motivation and achievement in the speaking class. Besides, good motivation is needed in the following activities. Motivation is an important factor in achieving success in language learning (Gardner and Lambert, 1972). It means that motivation also positively impacts students' achievement in the speaking class.

Conclusion.

This study investigated the implementation of project-based learning to improve students' achievement and motivation in a speaking class. Based on the previous data analysis, the researcher concluded that the result of this study showed that the mean score of the post-test for the experimental class is better than the mean score of the pretest of that class. The result showed that the mean scores for the post-test were 78. On the other hand, the mean scores of the Pretest showed 48. Based on the result, there was a significant difference in the experimental class's achievement in speaking skills by implementing project-based learning in teaching and learning activities. The researcher found that the students were enthusiastic about learning English lessons before because the method of teaching made the learning process more enjoyable and interesting for the students to be cooperative and innovative in doing their project, by individual projects or in group projects, in learning descriptive text. They can search for as much information regarding the material, not only in the textbook, but other sources on the internet and in library research.

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