

# Improving Students' Speaking Skill in Learning Procedure Text by Applying Project-Based Learning Model

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**Abstract.** The purpose of the research is to find out the effectiveness of using the Project-Based Learning model to improve students' speaking skills in learning procedure text. Pre-experimental design was used as a research model and using a one-group pretest-posttest design. The population in this study were all Class XII students of SMAN 1 Tanjung Brebes. The sample was 34 students of Class XII MIPA 6 as the experimental group. The results of the research showed that the percentage increase in pronunciation was 36.88%, vocabulary 58.03%, grammar 51.30%, and fluency 38.07%. Based on the findings, the application of Project-Based Learning (PjBL) had a positive influence on the speaking skills of Class XII students of MIPA 6 at SMA Negeri 1 Tanjung. The students had some difficulty completing the project on procedure text, but when they studied and worked in groups and were guided by the teacher's evaluation, they were able to gradually improve their skills.

**Keywords:** *PjBL, speaking skill, pre-experimental research*

## 1 Introduction

Speaking is one of the macro language skills related to the ability to perform oral communication, such as conversation, dialogue, and monologue. In addition, many jobs require communication skills. According to Dewi et al. (2016), it is important to be able to speak English because it is the most widely accepted language in the world, making it easier for those who understand it not only to improve their knowledge and skills but also to find work. For example, if a student becomes an employee in a company abroad in the future, he or she must be able to communicate effectively with their colleagues in order to foster a positive communication climate in their workplace. They must also be able to communicate effectively in order to consolidate and discuss business with other companies. Students require speaking skills, particularly in English, to be applied in their real lives now and in the future.

There are many models for teaching English. In this case, the researcher is trying to find an effective way to use Project Based Learning in the classroom to teach English to students. Project-Based Learning as a learning model that uses projects as learning media (Hosnan, 2014). According to Hosnan, this model uses problems as the first step in gathering and integrating new knowledge based on experience in real-life activities. Teachers as educators assign students to explore, assess, interpret, synthesize, and provide information to produce various types of learning outcomes. Dewi et al. (2016) also stated that Project-Based Learning (PjBL) is a student-centered pedagogy that requires a dynamic classroom approach where students are believed to gain deeper knowledge through active exploration of real-world challenges and problems. Students learn about a subject by investigating and responding to complex questions, challenges, or problems over long periods of time. This is an example of active learning and inquiry-based learning.

The purpose of this study was to find out whether there is a positive effect in using Project-Based Learning model to improve students' speaking skills in learning procedure text in Class XII students of SMAN 1 Tanjung.

## 2 Literature Review

### 2.1 Previous Studies

Several previous studies investigating the implementation of PjBL have found its benefits in improving students' speaking skills. Alfatihah et al. (2022) revealed that Project-Based Learning significantly improves students' speaking skills. In addition, they recommend this model to improve the quality of the English teaching and learning process, especially in E-Learning classes and provide fun class activities for students. In addition, Bakhtiar (2020) found that students were actively involved in speaking in the teaching and learning process and they were confident enough in answering the teacher's questions from the teacher, presenting ideas in front of others and providing comments or input during the application of this model. In their study, Soleimani et al. (2016) reported that students who were taught using PjBL outperformed students who were taught using instruction based on the students' textbooks. The findings showed the positive effect of PjBL in improving students' writing performance. This study also used PjBL model to improve the students' speaking skill but only focused on creating procedure text.

### 2.2 Speaking Skill

Speaking is one of the four language skills that students must master in order to be good communicators. Speaking is the skill of pronouncing articulation sounds or words to express, convey thoughts, ideas, and feelings orally (Rofi'uddin & Zuhdi, 2001). Therefore, fluency is required to achieve the conversation's goal. According to Richard (2008), speaking is "exploring ideas, getting something done, subtracting various aspects of the world, or simply being together." It means that if students can speak accurately or fluently, they will be able to communicate and explore their ideas more easily. Speaking English also assists students in obtaining current information in various fields such as health, technology, and science.

It is important to structure communication so that the listener understands what the speaker is saying (Cameron, 2001:41). Speaking is essential for language learners because it is the first form of communication. They are expected to be able to speak English accurately, acceptable, and fluently in everyday situations. It takes a lot of practice to be fluent in a foreign language.

Speaking is defined by Ladouse (in Nugraha 2018) as the ability to express oneself in a situation, or the ability to report acts or situations in precise words, or the ability to converse or express a sequence of ideas fluently. As supported by McDonough & Christopher Shaw (1996:134) stated that "speaking is desire and purpose driven, in other words, we genuinely want to communicate something to achieve a specific end." This could include expressing ideas and opinions, expressing a wish or desire to do something, negotiating and/or solving a specific problem, or establishing and maintaining social relationships and friendship.

Based some ideas above, it can be concluded that speaking is a productive skill in which two or more people interact in order to transfer or obtain messages and information. Communication is always linked to speaking ability. As a result, in order to convey meaning accurately and precisely based on context, a speaker must use appropriate words and correct grammar.

Based on the characteristics that influence how effectively people speak English, Brown (2004), mentions the following components of speaking skills:

a) Pronunciation

Students use pronunciation to develop clearer language when speaking. It is concerned with the phonological process, which refers to the grammatical components made up of the elements and principles that control how sound and pattern in a language are formed.

b) Vocabulary

Vocabulary is one of the linguistic components that is extremely important in any language learning process, including speaking. Vocabulary is an important part of the teaching learning process; students must constantly acquire words as they learn structure and sound system.

c) Grammar

Grammar and pronunciation are closely linked. Grammar is highly important in speaking because if the speaker does not learn grammar or structure, she or he would be unable to speak English fluently.

d) Fluency

Fluency in speaking is described as the ability to talk fluently and accurately. Fluency is the capacity to speak freely without too much pausing or hesitating.

Based on the description above, a person will be able to communicate fluently and well if he has a large vocabulary and knows how to pronounce words correctly. In addition, their ability to use grammar will help them in their speaking skills, and also the speaker must have a good comprehension of the language so that there is no misunderstanding between the speaker and the listener. The components were also used in this research to assess the students' speaking skill.

### 2.3 Project-Based Learning Model

Project-Based Learning (PjBL) is a learning model that provides educators to manage classroom learning by involving project work (Wena, 2014). Project work is a type of work that includes complex tasks based on extremely difficult questions and problems and guides students to design, solve problems, make decisions, conduct investigative activities, and provide opportunities for students to work independently. PjBL model involves the activeness of students in solving problems, carried out in groups/independently through stages with a certain time limit which is outlined in a product to be further presented to others (Sekretariat GTK, 2020). Patton (2012) also stated that students design and plan what needs to be done to carry out projects in project-based learning. According to those statements, project-based learning is a model in which students learn through a project that they decide on with the help of teachers, allowing them to be actively engaged in the learning process. This model focuses on students' critical thinking by asking questions, collaborating on ideas in small groups, and coming up with solutions to problems. Students then communicate what they have learned from the project that are applicable to real-world situations.

Based on the explanation above, it can be concluded that Project-Based Learning is an innovative and systematic teaching model that promotes student engagement through deep investigations of complex questions, that it is learning by doing. PjBL focuses on imparting specific knowledge and skills while inspiring students to question actively, think critically, and draw connections between their studies in the real world.

Applying PjBL in the classroom is expected to achieve some objectives like (1) improving students' ability to solve project problems, (2) gaining new knowledge and skills in learning, (3) making students more active in solving complex project problems with real product results, (4) developing and improving students' skills in managing materials or tools to complete tasks or projects, and (5) increasing student collaboration, especially in group (Rahmani, 2017).

### 2.4 Principles of Project-Based Learning

Teachers should understand the main principles of Project-Based Learning in addition to acknowledging the project specifications in this learning. According to Larmer et al. (2015) in Hamidah (2020), project-based learning has seven primary standards as its main principles, which include the following:

1) Principle of Challenging Problem or Question

The principle underlying problem assignment or essential questions can motivate students to find the answers. Learning begins with problems and questions that teach students what to prepare for in an inquiry process, what types of inquiry activities to choose, tools to prepare, and steps to take to solve the problems or answer the questions.

2) Principle of Sustained Inquiry

It is the principle of the process of continuous inquiry. An inquiry process begins with the assignment of a problem and questioning at the beginning of learning. The inquiry process can help students improve their critical thinking skills, problem-solving abilities, collaboration, and self-management.

3) Principle of Authenticity

The authentic principle in project-based learning is to connect learning to real life context. In project-based learning, the authentic principle can be used in three different ways, among others:

1. Authentic in the project. Students' projects are inspired by their experiences in the real-life. For example, a restaurant project such as creating a menu book or a role-play between a seller and a buyer.
2. Authentic in the project's activity and equipment. During the project, students engage in real-life activities such as calculating a travel budget or writing a letter to a magazine editor.
3. Authentic in the impact of project outcomes. The project outcomes are expected to have an impact on the environment, such as the project of creating prohibition or notice posters in the school environment, which has an impact on student discipline.

4) Principle of Student Voice and Choice

The principle of student voice and choice in project-based learning requires students to express their ideas and make decisions while working on the project. One of the activities to develop critical thinking and problem-solving skills is the principle of student voice and choice (Dewey, 1956).

5) Principle of Reflection

The principle of reflection in project-based learning applies not only to students but also to teachers. The activity's goal is to assess the effectiveness of activities carried out during the research process, as well as to identify problems encountered during the project and how to overcome them. This reflection also assists students in developing metacognitive knowledge during the learning process.

6) Principle of Critique and Suggestions

During the project, the principle of critique and revision is frequently used. Critiques and suggestions can be provided by groups, teachers, or even experts to assist students in identifying inappropriate aspects of a project result and revising them accordingly.

7) Principle of Public Product

The project results are the primary product to be published/presented. Project-based learning allows students to present their project results in front of the class or even in a larger setting. Students gain satisfaction and motivation to present their work by presenting the results of their projects.

## 2.5 Stages of Project-Based Learning

According to Stoller (2006) in Hamidah et al. (2020), the stages of project-based learning for language learning primarily consist of three major stages: planning, implementation, and reporting. Furthermore, the three major stages of project-based learning result in the following eight learning activities:

1) Planning

Planning is made up of five activities: selecting a project topic, pre-communicative activities, asking essential questions, designing project plan, and creating project timeline.

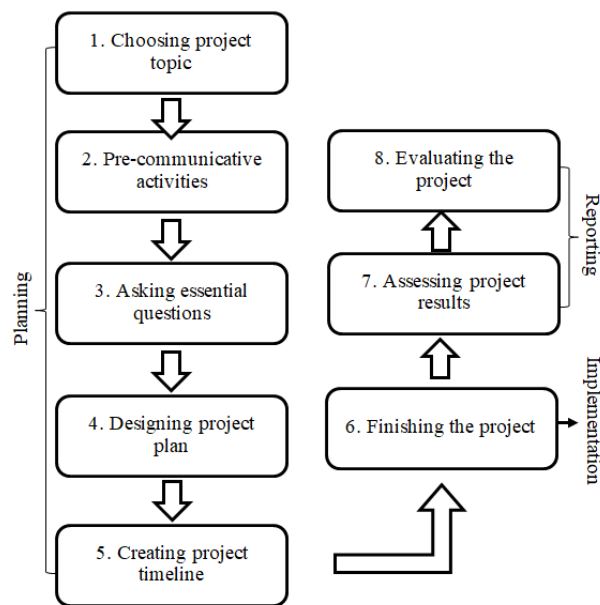
2) Implementation

The implementation consists of only one activity, which is the finishing the project.

3) Reporting

This stage includes two activities: assessing project results and evaluating the project, as well as evaluating project results and learning activities.

The following scheme is the stages of the project-based learning model in sequence.



**Figure 1.** Stage of the project-based learning

The following is the explanation of eight stages of the Project-Based Learning:

1) Choosing Project Topic

The first stage for teachers is to select a topic. This stage is intended to assist students in comprehending the learning topic and objective. The following are the activities involved in selecting the topic:

- a. Teachers can use Basic Competence topics (KD)
- b. Teachers stimulate students by showing images/videos/stories related to the topic. If the topic is not clearly explained in the Basic Competence, teachers can have students choose the topic.
- c. Teachers are expected to choose topics that are relevant to or associated with the students' daily lives, such as travel, holidays, school hygiene, adolescent life, entertainment (music, films, and concerts), technology, and sports.

2) Pre-communicative activities

The teacher conducts pre-communicative activities at the start of the learning activities, such as the introduction of new vocabulary and the language features required by students while working on the project. If the teacher believes that pre-communicative activities are unnecessary, the teacher may proceed to the next stage. The stages of pre-communicative activities are designed to help students communicate in the target language and complete the project.

The following activities are examples of pre-communicative activities.

- a. The teacher can provide topic-related vocabulary.
- b. The teacher can ask students to read and discuss a text in order to learn the linguistic features in that text.

3) Asking essential questions

Essential questions are the main questions asked by the teacher that students must complete and answer through a project. Before the learning process, the teacher prepares some essential questions. The purpose of developing essential questions is to help students understand the project's focus, determine the type of project, and direct the investigation process.

The activities that can be done to prepare essential questions are:

- a. At the start of the learning process, the teacher stimulates students by showing an interesting video or presenting problems to them.
- b. The teacher asks the students questions based on the video.

4) Designing project plan

Project design activities include project type selection based on essential questions and activity determination in the inquiry process. The teacher acts as a facilitator in this process to keep the project plan rational, logical, and doable for the students. The project design activities are intended to assist students in developing critical thinking skills through the process of project selection, problem solving, and the ability to plan activities in the inquiry process.

The following activities can be carried out when designing a project plan:

- a. Students decide on the type of project in groups.
- b. Students decide and write about group activities during the inquiry process.
- c. The outcome of the group discussion and agreement is documented in the project timeline.

5) Creating project timeline

The goal of creating a project timeline is to teach students time management, self-management, and teamwork skills. It's important to accomplish things like these while creating a project timeline, such as.

- a. In groups, students create a timeline from project planning to project completion.
- b. The planned schedule must include the activities, deadlines, and the person in charge.
- c. Once all groups have completed scheduling, the teacher collects the project timeline sheet from each group.
- d. The project timeline sheet can be used by the teacher to track the progress of the project.

6) Finishing the project

The main goal of project implementation is to finish the project's stage. Students create a project, beginning with the inquiry process and continuing until the project is completed. The purpose of this stage is to develop students' skills in processing data and information, solve problems, and improve their independence, teamwork, and communication skills with the groups and society involved in the projects.

The following activities are carried out during this stage:

- a. students conduct inquiry activities based on the timeline;
- b. students manage the obtained data from the inquiry process;
- c. students create content for the project;
- d. teacher provides every group to consult about their progress;
- e. students revise (if necessary) or complete the project.

7) Assessing project results

The aim of assessing project results is to ensure that all group members are responsible for their project results. As a formative assessment, the teacher can also evaluate students' performance and project results.

The following activities are carried out in order to assess the project results:

- a. Students present the project outcome and describe the production process.
- b. Other group members may ask questions about the project's outcome.
- c. If the project outcome is a drama, the students will perform the drama they have prepared at this stage.
- d. In the meantime, the teacher conducts a formative assessment to assess the project process and outcome using the rubric.

8) Evaluating the project

The teacher reflects on the activity by providing feedback on the project results, while the students reflect on the learning activities. This stage aims to have students share their project difficulties and to assess their ability to complete the project.

The following activities can be carried out in order to evaluate project results and learning activities:

- a. The teacher provides feedback on the students' projects.
- b. The teacher reflects on the students' learning activities.
- c. Students are given the opportunity to share their project-related experiences.

- d. Students are also given the option to revise the project outcome.

## 2.6 Procedure Text

Procedure text is a text that explains the steps in a complete, clear, and detailed manner on how to do something (Kosasih, 2014). This is in line with the opinion of Lestyarini (2019), who put forward the opinion "procedure text is defined as a text that contains ways, goals to make or do something step by step in the right sequence so as to produce a desired goal".

According to Knapp & Watkins (2005), the purpose of a procedure text is to instruct a reader on how to carry out a specific task. From this assertion, the procedure text is often organized with the objective, tools/materials, and steps. Procedure text is a text that instructs the reader or listener on how to do something. The goal of procedure text is to provide students with sequential information or directions that will allow them to complete activities in a safe, efficient, and appropriate manner (Anderson and Merphy, 1981).

Based on the opinions of the experts above, it can be concluded that the procedure text is one of the texts that explains the steps or stages of how to do something that must be done systematically to achieve a goal. In addition to text-based learning, procedure text can be learned through project-based learning. Because the project can be applied in everyday life, it is critical to comprehend and implement the procedure text.

According to Knapp & Watkins (2005), the generic structure of procedure texts is concerned with telling someone how to do something. According to them, a procedure text is divided into three sections: the procedure's aim or goal, the list of materials required to complete the procedure, and the sequence of steps in the correct order that must be taken to complete the task.

- a. An introductory statement that states the purpose or goal

This section may include an introductory paragraph as well as a brief description of the procedure.

- b. Materials required to complete the procedure

This section is usually in the form of a list, but it can also be in the form of a paragraph. This section is sometimes omitted or left out of procedure text.

- c. A sequence of steps in the correct order

This is the final section of the procedure text, and it depicts the sequence of steps that readers must follow in order to complete the task. The sequence is usually represented by numbers (1,2,3,...) or by words such as first, second, third, and so on.

## 2.7 Application of Project-Based Learning into Procedure Text

The application of Project-Based Learning in text procedure material in this study uses the stages contained in the book written by Hamidah 2020. Here are the stages:

- 1) Planning

- a. Choose a Project Topic

1. Teachers can use Basic Competency (KD) topics, namely using Procedure text topics that provide instructions for carrying out certain activities or can be called "How to Make" and "Do It Carefully".
2. The teacher stimulates students by displaying pictures/videos/stories related to the topic. If the topic is not explained clearly in the Basic Competency, the teacher can ask students to choose the topic.

- b. Pre-communicative activities

1. The teacher can provide vocabulary related to the topic.
2. Teachers can ask students to discuss a text to learn linguistic features in the text.

- c. Ask important questions

1. At the beginning of the learning process, the teacher stimulates students by showing videos on the topics "How to Make" and "Do It Carefully" or presenting problems to them.
2. The teacher asks questions to students based on the video.

- d. Designing a project plan
  1. Students form groups and choose text titles that have been provided by the teacher randomly.
  2. Students write about group activities during the inquiry process.
  3. The results of group discussions and agreements are documented in the project timeline.
- e. Create a project timeline
  1. In groups, students create a timeline from project planning to project completion.
  2. The planned schedule should include activities, deadlines, and person in charge.
  3. After all groups have finished scheduling, the teacher collects project timesheets from each group.
  4. Project timeline can be used by teachers to track project progress.
- 2) Implementation
 

The implementation consists of only one activity, which is the finishing the project. The following activities are carried out during this stage:

  1. Students carry out inquiry activities based on a timeline;
  2. Students manage the data obtained from the inquiry process;
  3. Students create content for projects;
  4. The teacher provides each group to consult on their progress;
  5. Students revise (if necessary) or complete the project.
- 3) Reporting
  - a. Assess project results
    1. Students upload project results and explain the production process on Instagram / Youtube social media.
    2. Other group members can ask questions about the results of the project by commenting on the video.
    3. The teacher carries out a formative assessment to assess the process and results of the project using a rubric.
  - b. Evaluating the project
    1. The teacher provides feedback on student projects.
    2. The teacher reflects on student learning activities.
    3. Students are given the opportunity to share experiences related to their projects.

### 3 Method

This research was conducted using pre-experimental research one-group pretest-posttest design. In this research, the researcher gives treatment to the study group but previously measured or tested first (pretest). After the treatment, the study group is measured or retested (posttest). This design does not involve randomization and is conducted within a single study group (Gay & Mills, 2018). Pre-test and post-test in the form of a speaking test were given to 34 students of Class XII MIPA 6 of SMAN 1 Tanjung as the sample.

Researchers employ data collection techniques to get information. The information gathered is then utilized to draw a conclusion. The techniques used in this research are:

1. Giving a pretest to measure students' speaking skills in learning procedure text at Class XII of SMA Negeri 1 Tanjung before being given treatment using Project-Based Learning.
2. Applying experimental treatment of learning to speak procedure text using Project-Based Learning at Class XII students of SMA Negeri 1 Tanjung. The following are the details of the treatment:
  - a. First meeting, the researcher chose project subjects based on the curriculum and discussed them with students. Researchers provide material according to the curriculum. The researcher asked the students to form groups randomly, and gave each group a project title randomly. Students are given a Project Timeline sheet, students design project activities, which refers to the



establishment of a project activity framework, such as forming groups, assigning roles, and information sources.

- b. Second meeting, students carry out project activities where they work on the plans and designs of the previous stage. During this time, students gather information and consult about difficulties encountered when working with teachers, and continue project plans outside of meetings, such as taking videos, editing, and uploading videos to YouTube.
  - c. Third meeting, the researcher showed the best video in class, and gave an assessment and evaluated the project
3. Giving posttest with the aim of measuring students' speaking ability in learning procedure text at twelfth grade students of SMA Negeri 1 Tanjung after being given treatment using Project-Based Learning.

In data analysis, data were collected and analyzed using quantitative data methods. Then to answer the question, the researcher used a paired sample T-test to find out whether the use of Project-Based Learning was effective in improving students' speaking skills.

## 4 Results And Discussion

### 4.1 Results

The findings from this study show that students' speaking skills improves when the Project-Based Learning model is used in the twelfth grade of SMA Negeri 1 Tanjung Brebes. The following explanation shows clearly how students progress:

#### 4.1.1 The improvement of students' speaking skill

The results of student observations in the teaching and learning process on the application of the Project-Based Learning model to improve speaking skills in learning text procedures in the Class XII students of SMA Negeri 1 Tanjung Brebes which were carried out for 4 meetings were taken by the observer through performance in speaking as seen table 1.

**Table 1.** Improvement Percentage

No	Indicators	Means Score		Improvement Percentage
		Pre-Test	Post-Test	(%)
1.	Pronunciation	2,63	3,60	36,88
2.	Vocabulary	2,24	3,54	58,03
3.	Grammar	2,30	3,48	51,30
4.	Fluency	2,39	3,30	38,07

Table 1 shows the results of students' speaking skills during the pre-test and post-test including pronunciation, vocabulary, grammar, and fluency. In the pre-test, the researchers obtained the students' initial scores in pronunciation (2.63), vocabulary (2.24), grammar (2.30), and fluency (2.39). and after being given treatment, the researcher gave the students a post-test, and got the results for pronunciation (3.60), vocabulary (3.54), grammar (3.48), and fluency (3.30). Thus, the percentage increase in pronunciation is 36.88%, vocabulary is 58.03%, grammar is 51.30%, and fluency is 38.07%. From the table it can be concluded that the application of the Project-Based Learning model can improve students' speaking skills in learning procedural texts.

After calculating the students' results in component of speaking, the researcher calculated the students' pre-test and post-test which are presented in table 2.

**Table 2.** Result of pre-test and post-test

No.	Test	Mean Score	Improvement
1.	Pre-Test	47,87	45,58%
2.	Post-Test	69,69	

Based on data in the table that can be seen above, the scores that students received on the pre-test (47,87) differ from those they received on the post-test (69,69). This indicates that the post-test has a higher average value than the pre-test. It is possible to draw the conclusion that the application of the Project-Based Learning model is helpful for increasing students' speaking abilities based on the percentage (45.58%).

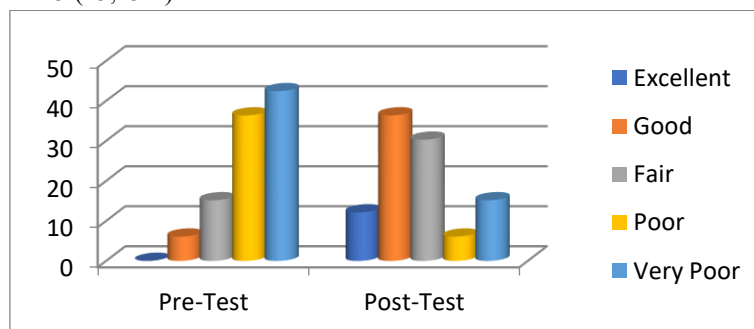
#### 4.1.2 The frequency and rate percentage of the student' score

The findings of the students' speaking achievements while utilizing the Project-Based Learning model are shown here in the form of the frequency and rate percentage of the students' score. Pre-test and post-test student scores are classified into several category as seen in table 3.

**Table 3.** The frequency and rate percentage of the student' score

No	Category	Range	Pre-Test		Post-Test	
			F	%	F	%
1.	Excellent	86-100	-	-	4	12,12%
2.	Good	71-85	2	6,07%	12	36,36%
3.	Fair	56-70	5	15,15%	10	30,3%
4.	Poor	46-55	12	36,36%	2	6,07%
5.	Very Poor	0-45	14	42,42%	5	15,15%
<b>Total</b>			33	100%	33	100%

Based on the table 3, it can be seen that in the pre-test there were 2 (6,07%) students out of 33 students who were classified as "Good", then 5 (15,15%) of 33 students were classified as "Fair", in there were 12 (36,36%) students with a "Poor" score, a "Very Poor" score with 15 (42,42%) students, and no students were classified as "Excellent". Whereas in the post-test it can be seen that there were 4 (12,12%) out of 33 students who scored "Excellent", the "Good" score increased by 12 (36,36%) students out of 33, the score "Fair" also increased with the number of students 10 (30,3%), and in the "Poor" score there was a decrease with the number of students 2 (6,07%), the decline also occurred in the score "Very Poor" with the number of students 5 (15,15%).

**Figure 2** The diagram of the percentage of students' score

#### 4.1.3 Paired Sampe Test

**Table 4.** The result of paired sample t-test

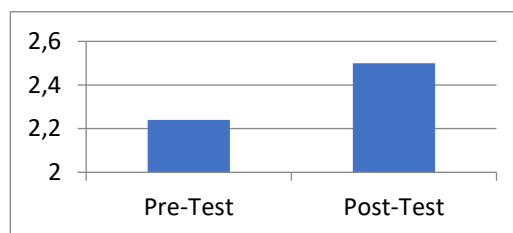
		Paired Samples Test							
		Paired Differences							Sig.
		95% Confidence Interval							(2-
		of the Difference							tailed
		Mean	Std. Deviation	Std. Error	Lower	Upper	T	df	)
Pair 1	Pretest - Posttest	-21,81818	13,51031	2,35184	-26,60873	-17,02764	-9,277	32	,000

Table 2 shows the difference in mean scores between the pre-test and post-test was determined using an analysis called a paired t-test. The level of significance of .05, with a confidence level of 95%, is used as the criterion for determining whether the null hypothesis should be rejected or accepted. There is a statistically significant difference between two conditions (post-test and pre-test) if the sig. value is less than to .05 ( $p < 0.05$ ), as this indicates that there is a difference between the two. The outcome of the computation revealed that the significant value was 0.000, as the result showed. As a result, since the significance level for the two-tailed test was 0.000 0.05, we can conclude that Hypothesis 0 was not supported, whereas Hypothesis 1 was. It gives the impression that the PjBL has a discernible impact on the pupils' level of linguistic proficiency. The outcome of the comparison between the pre-test and the post-test demonstrates that the treatment was effective in producing the desired effect.

#### 4.2 Discussion

The discussion incorporates all data acquired from the researchers' findings and class notes. This section examines the factors that influence the effectiveness of project-based learning in enhancing students' speaking abilities. Students' vocabulary, grammar, pronunciation, and fluency increased as a consequence of Project-Based Learning's effect on their speaking skills.

##### 4.2.1 Improving Students' Vocabulary



**Figure 3.** Improving Students' Vocabulary

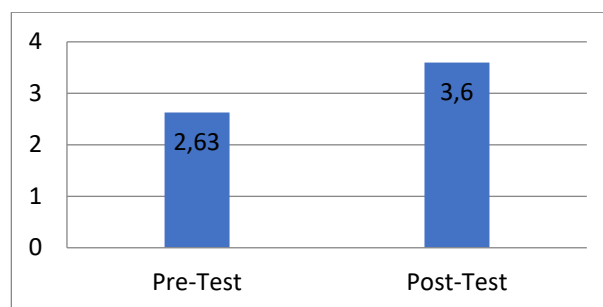
Based on figure 3, the students' vocabulary was rated as having a low level when they took the pretest; nevertheless, the results of the post-test showed that the students' vocabulary had improved. It is possible to get the following conclusion about project-based learning: it can assist pupils enhance their speaking vocabulary.

Students can increase their vocabulary mastery by studying various projects as the main activity. This allows students to employ a vocabulary that has the appropriate variety and flexibility to deal with topics, as well as enough to express their ideas. Implementing a number of different tasks that employ a variety of grammatical structures with even more difficult subject matter is one way that project-based learning can help students enhance their vocabulary mastery. The students will receive learning instructions in order to ensure that the content of the project is understandable, well-focused, and suitable

for the goals and audience. Students put together presentations of their projects in order to convey or deliver project results. It is required to communicate smoothly in order to transmit thoughts.

In accordance with Chamness & Mikulec (2011), as cited by Moyer. J (2013:13), Project-Based Learning enables students to practice and enhance their existing language skills while concentrating on foreign grammatical structures and cultural connections.

#### 4.2.2 Improving Students' Pronunciation

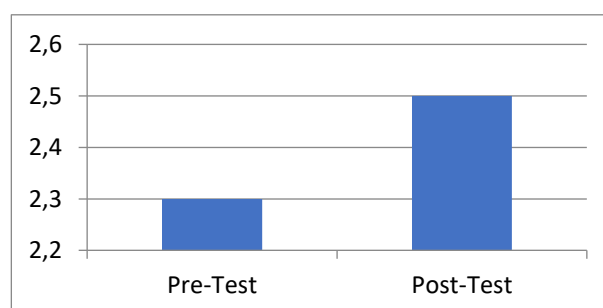


**Figure 4** Improving Students' Pronunciation

The figure above presents a comparison of the results of the students' pre-test and post-test pronunciation, where the students' post-test scores are higher than the pre-test scores in learning using Project-Based Learning. It can be concluded that learning Project-Based Learning can help students improve their pronunciation skills in speaking.

During the time that they were working on the project, the researcher questioned the students by asking "is there a word they don't know how to pronounce?" After that, the researcher requested the students to say the word repeatedly, and as a result, the students acquired good pronunciation without even realizing it when they were speaking the language. This finding is in line with the idea of Prince and Felder (2006) the theory suggests that Project-Based Learning has the potential to assist students in improving their pronunciation.

#### 4.2.3 Improving Students' Grammar

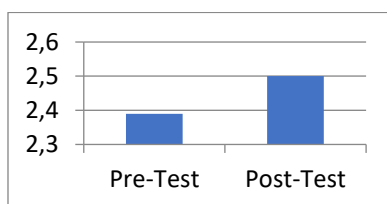


**Figure 5.** Improving Students' Grammar

Figure 5 demonstrates that the researcher discovered during the pre-test that the majority of students had difficulty with grammar when writing procedure documents, such as differences in the use of the verbs 1, 2, and 3. During the treatment, the researcher requested that students open a dictionary containing a list of the verbs 1, 2, and 3 and explain the tenses used in procedure text. After the implementation of the treatment, students' command of grammar during the post-test increased. In the treatment, the researcher also required students to practice presenting the project's results so that their ideas are effectively communicated. Therefore, the structuring of words must be considered so that the intended message is the focal point. In accordance with Mikulec's (2011) theory as cited by Moyer

(2013). Project-Based Learning enables students to practice and enhance their existing language skills while concentrating on foreign grammatical structures and cultural connections.

#### 4.2.4 Improving Students' Fluency



**Figure 6.** Improving Students' Fluency

There is also an increase in fluency, as shown in the preceding figure. Students discuss their projects and present their results while engaged in project activities. To prepare for a presentation, they repeat a few sentences in order to eliminate hesitation and develop fluency in conveying the project's results. This is consistent with the theory of Millar & Abrahams (2009), which states that in Project-Based Learning, students can develop English fluency by communicating in English for a variety of purposes.

Based on the data mentioned above, it is possible to conclude that the application of project-based learning to the teaching of speaking results in an increase in students' speaking abilities. These findings are similar to previous research conducted by Alfatihah et al. (2022) and Bakhtiar (2020). According to the findings of this study, this method can be used as an alternative in the learning process and has benefits for both teachers and students because it is a good method that can increase student motivation, interest, creativity, and teamwork while maintaining learning objectives. According to Rahmani (2017) theory, project-based learning has advantages for students, such as increasing their ability to solve project problems, acquiring new knowledge and skills in learning, and making them more active in solving complex project problems with product outcomes. Real, developing and enhancing students' skills in managing materials or tools to complete assignments or projects, as well as fostering greater student collaboration, particularly in the PjBL group. The implementation of project-based learning also provides substantial benefits to students. From the responses, it is evident that PjBL contributes to the improvement of students' speaking skills and helps to increase students' motivation to acquire speaking skills.

In conclusion, the application of project-based learning has a positive influence on the speaking skills of Class XII MIPA 6 students at SMA Negeri 1 Tanjung. The students had some difficulty completing the project, but when they studied and worked in groups and were guided by the teacher's evaluation, they were able to gradually improve their skills and had a higher interest in learning English.

## 5 Conclusion

Based on the analysis of data presentation and discussion, the researcher concludes there is an effectiveness of using the Project-Based Learning model to improve speaking skills in learning procedural text in Class XII MIPA 6 students of SMA Negeri 1 Tanjung Brebes in the 2022/2023 academic year. The researcher concluded that the Project-Based Learning model could improve students' speaking skills in learning procedure text. This is evidenced by the calculated pre-test and post-test scores. The average post-test is higher than the pre-test. The average pre-test score was 47.87 and the post-test average was 69.69, an increase of 45.58%. After using the Project-Based Learning model, students' speaking skills in learning procedure text became better. The t-test results at a significant level of 5% (9,28) are higher than the t-table (2.037).

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