


## THE IMPLEMENTATION OF SCIENTIFIC APPROACH TO ENHANCE STUDENTS' SPEAKING ABILITY AT SMAN 1 TAKALAR

Awal Maulana R<sup>1</sup>, Umami Khaerati Syam<sup>2</sup>, Farisha Andi Baso<sup>3</sup>

<sup>1,2,3</sup>Makassar Muhammadiyah University (author), Indonesia

ARTICLE INFO	ABSTRACT
<p><b>Article history:</b> Received: February 21, 2023 Revised: April 11, 2023 Accepted: May 21, 2023 Published: December 31, 2024</p> <p><b>Keywords:</b> Speaking Scientific Approach Pre-Experimental research</p>	<p>This study aimed to investigate the effectiveness of implementing a scientific approach on enhancing students' speaking skills in terms of accuracy (vocabulary) and fluency at SMAN 1 Takalar. The pre-experimental research method was employed with a sample of 23 students from IPA 4 class in the academic year 2022/2023. A speaking test was administered in two stages, pre-test and post-test, to collect the data. The results revealed a significant improvement in vocabulary and fluency, with the mean scores increasing from 53.30 to 76.56 and from 51.86 to 80.04, respectively. The combined mean score also increased from 100.13 to 160.08, indicating a 59.87% improvement in speaking ability after being taught using the scientific approach. Consequently, the findings concluded that the implementation of the scientific approach significantly improved the speaking skills of the students at SMAN 1 Takalar.</p> <p><i>This is an open access article under the <a href="#">CC BY-SA</a> license.</i></p> 
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<p><b>Corresponding Author:</b> AwalMaulana R English Education Department UniversitasMuhammadiyah Makassar 259 Sultan Alauddin Road, Makassar City, Rappocini 90221, Indonesia. Email: <a href="mailto:bg15eawalmaulana@unismuhmakassar.ac.id">bg15eawalmaulana@unismuhmakassar.ac.id</a></p>	

### INTRODUCTION

Language is a vital tool for human communication, enabling individuals to convey information from one person to another. Without language, people would be unable to express their thoughts, ideas, and emotions effectively. English is one of the many languages spoken globally, highlighting the diversity of languages in use. (Agustin, 2013, p. 37). In essence, the English language includes the ability to speak. Speaking involves a verbal exchange between a speaker and a listener, where messages are transmitted and received. As Cameron (2001, p. 40) notes, speaking involves actively using language to convey meaning and enable

others to understand. It is crucial for learners to acquire speaking skills as it is a fundamental component of the English language. By speaking, individuals are able to effectively communicate their ideas, emotions, feelings, and desires.

Based on the findings from the researcher's interview with an English teacher at SMAN 1 Takalar, it was revealed that speaking is perceived as the most difficult and challenging aspect of English for the students, particularly because of the stark differences between spoken and written English. Furthermore, the students at SMAN 1 Takalar have low proficiency levels in English, which exacerbates the difficulty of learning to speak the language. The main difficulty faced by students in learning to speak English is their limited vocabulary mastery, which hinders their ability to effectively convey their ideas. As a result, many students consider English to be a difficult subject and lack interest in learning it. Additionally, students lack self-confidence when speaking English due to their fear of making grammar or pronunciation mistakes in front of their peers. In addition to these challenges, students also lack opportunities to practice speaking in the classroom. Instead, they tend to rely on memorizing sentences from conversation books without fully understanding their meaning or how to use them correctly in speech.

The teaching and learning process employs a scientific approach to enhance students' speaking skills. This approach consists of multiple elements that assist teachers in teaching English and improving students' speaking abilities. The teacher incorporates this approach in all activities, particularly speaking activities, and assesses its effectiveness in enhancing students' speaking skills and academic performance. This approach comprises various learning components, and it is expected that the scientific approach is the optimal choice for teachers when teaching English in the classroom.

From the explanation above, the researcher has conducted research especially on “The Implementation of Scientific Approach to enhance Students Speaking Ability at SMAN 1 Takalar”

## RESEARCH METHOD

This study employed a pre-experimental research design, specifically utilizing a one-group pre-test and post-test design. This approach involved measuring or observing a single group both before and after exposure to a particular treatment or intervention. The pre-test

served to establish a baseline measurement of the attribute or characteristic of interest prior to the treatment, while the post-test measured changes in the same attribute or characteristic after the treatment.

### Data Collection Procedure

In collecting the data, researcher conducted research on students of the first grade of SMAN 1 Takalar through the following steps:

#### 1. Giving the pre-test

Preparing the pre-test materials by asking the students using the questions of the instrument of pre-test about describing family, animal, and things in the vacation.

#### 2. Giving treatment

In giving treatment, the researcher had done the stage of observing, questioning, associating, experimenting, and communicating.

#### 3. Giving Post-test

Post-test would be given to the students after giving the treatment, to find out the speaking improvement.

### Technique of Data Analysis

The data collected from the sample is analyzed using the following techniques by the researcher in this study.

1. This Scoring include pronunciation scoring and vocabulary scoring. Where both of these are aspects of speaking skill.

2. Scoring the students' answers of their speaking, the researcher used formula:

$$\text{Scoring} = \frac{\text{Answer Score}}{\text{Maximum Score}} \times 100\%$$

(Sudjana in Fitriana, 2004)

3. Classifying the students' score into seven levels as follows:

Table 1. Classification of scores

No	Score	Classification
1	96-100	Excellent
2	86-95	Very Good

3	76-85	Good
4	66-75	Fairly Good
5	56-65	Fair
6	46-55	Poor
7	0-45	Very Poor

4. To calculate the students' scores on the test, the researcher used a formula to determine the average score :

$$\bar{X} = \frac{\sum x}{N}$$

(Gay, 2006)

5. To calculate the percentage of students' improvement based on the pre test and post test score, the researcher used a formula:

$$P (\%) = \frac{x^2 - x^1}{x^1} \times 100\%$$

## RESULT AND DISCUSSION

### A. Findings

The results of the pre-experimental investigation pertain to the resolution of the research inquiry centered on enhancing students' lexical precision and oral proficiency through a scientific approach to spoken communication. These findings encompass an evaluation of the students' speaking competency.

#### 1. The students' mean score of vocabulary and smoothness in Pre-Test and Post-Test

Before the treatment, a pre-test was administered to assess the students' speaking skill. The results indicated a range of scores, with the highest score being 66, the lowest score being 41, and the mean score ( $\bar{X}$ ) being 100.13.

After the treatment, a post-test was administered to determine the data of the students' speaking skill. The results showed that the students' achievement in speaking had improved, with the highest score being 91, the lowest score being 74, and the mean ( $\bar{X}$ ) being 160.08, indicating a 59.87% improvement percentage

#### 2. The Improvement of Students' Speaking skill in accuracy (vocabulary)

The mean score in the Pre-test was 53.30 while in the Post-test it was 76.56, showing a significant difference between the two. The results indicate an improvement of 43.63%.

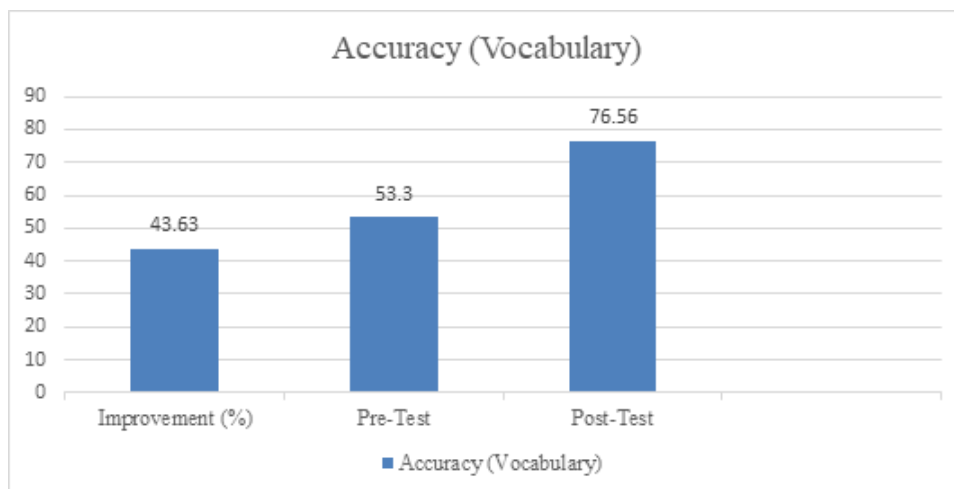


Fig. 1. The Improvement of Students' Speaking Skill in Vocabulary

### 3. The Improvement of students' speaking skill in smoothness

There was a significant difference between the pre-test and post-test, with a mean score of 51.86 on the pre-test and 80.04 on the post-test. This result shows an improvement of 54.31%.

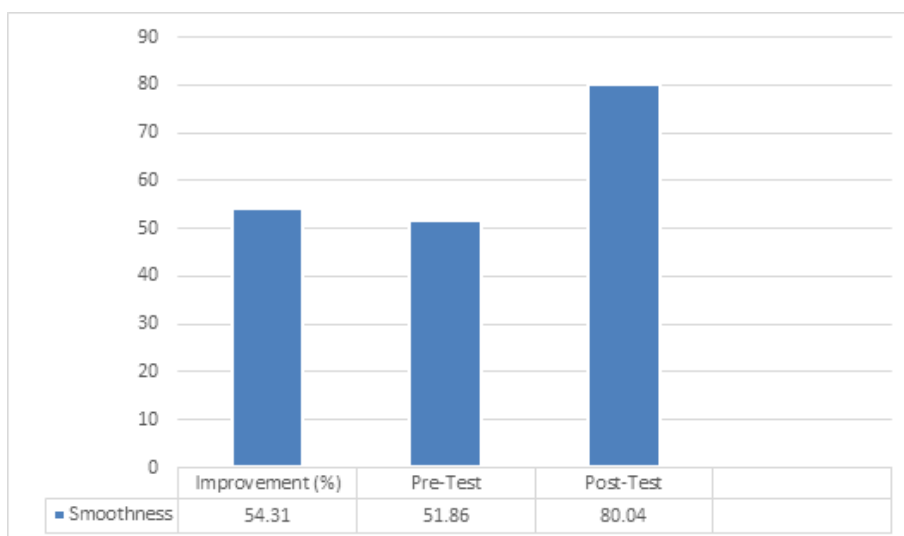


Fig. 2. The Improvement of Students' Speaking Skill in Smoothness

## 4. The Rate Percentage of the Students' Score

Table 2.the Rate Percentage of Pre-test and Post-test Score

No.	Classification	Pre-Test		Post-Test	
		F	%	F	%
1.	Excellent (96-100)	0	0%	0	0%
2.	Very Good (86-95)	0	0%	5	21,73%
3.	Good (76-85)	0	0%	5	21,73%
4.	Fairly Good (66-75)	4	17.39%	13	56,52%
5.	Fair (56-65)	8	34.78%	0	0%
6.	Poor (46-55)	3	13,04%	0	0%
7.	Very Poor (0-45)	8	34.78%	0	0%
	<b>Total</b>	23	100%	23	100%

Table 2 presented the results of the pre-test conducted before the treatment, which revealed that 4 students (17.39%) were categorized as 'Fairly Good,' 8 students (34.78%) were categorized as 'fair,' 3 students (13.04%) were categorized as 'poor,' and 8 students (34.78%) were categorized as 'very poor'.

After the treatment, the post-test was administered to 23 students and the results indicated that 5 students (21.73%) achieved a 'very good' category, 5 students (21.73%) achieved a 'good' category, and 13 students (56.72%) achieved a 'fairly good' category. The percentage rate of the post-test was higher than that of the pre-test, indicating an improvement between the two tests.

## CONCLUSION

Following the utilization of the scientific approach in the classroom, there was a considerable enhancement in the students' speaking proficiency, indicated by a 43.63% increase in the mean score, which rose from 53.3 in the pre-test to 76.56 in the post-test. Additionally, the students' vocabulary acuity was found to be considerably improved after the application of the scientific approach technique. The students demonstrated the ability to effectively convey their ideas and communicate effortlessly with their peers, while simultaneously exhibiting an enhanced level of comprehensibility.

The students' ability to speak smoothly improved after using the scientific approach. There was a significant improvement in their speaking skills when they were taught with this approach. The students' smoothness in speaking improved by 54.31%, from an average score of 51.86 in the pre-test to 80.04 in the post-test. Learning through the scientific approach can enhance student performance, particularly in group work. Students can work independently, discuss a topic and take responsibility for individual and group assignments. The students at SMAN 1 Takalar had a positive attitude towards learning English speaking with the scientific approach, and were interested in this method of learning.

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