

## THE IMPLEMENTATION OF SCIENTIFIC APPROACH ON SPEAKING SKILL AT SMA NEGERI 18 MAKASSAR

Ewin Arruan<sup>1</sup>, Andi Hamzah Fansury<sup>2</sup>, Ulfah Syam<sup>3</sup>

<sup>1,2,3</sup>English Education Department<sup>1</sup>, University of Bosowa<sup>2</sup>, Makassar<sup>3</sup>

### ABSTRACT

The aim of this research was to find out how the implement scientific approach to improve ability on speaking skill at SMA Negeri 18 Makassar. The method used in this research was quantitative experimental research with one group pre-test post-test research design. Speaking test was used as the instruments of collecting the data. The sample of this research were the second grade with 20 students. The result of data analysis showed that there was an enhancement speaking skills of fluency and pronunciation through the implementation scientific approach. The mean score of the students increased from 44.75 and the pretest to 76,25 on the post test. Based on the result of data analysis, the writer concludes that there was an enhancement after implementing the scientific approach on speaking skill in second grade at SMA Negeri 18 Makassar.

**Key words:** Implementing, Scientific Approach, Speaking Skill

### INTRODUCTION

Indonesia, as the one of country plays English as an important role in both written and oral communication. Until recently, English has become the compulsory foreign language subject taught in Indonesia. English is one of the subjects in the core program curriculum. One of the curricular objectives of English teaching in Indonesia is to enable the students to speak English.

According Utami (2016, 2), Speaking skills are very important to be improved in learning because speaking skill is the most basic skill that must be mastered by students. Speaking skill is an important oral skill, because it is a means of communication between humans. Being able to speak effectively is essential in any form of human interaction. Speaking skills also show how capable students are in understanding their language because speaking involves all three important language components; vocabulary, grammar, and pronunciation. If students are able to speak well, they will understand the three linguistic components well. However, the fact is that in Indonesia many students are not confident in expressing their ideas. They are afraid to speak English. This is because students have not been equipped with techniques that encourage them to keep talking.

According Bahar (2017, 12) In this case, the researcher focuses her attention on one of the skills namely speaking skill. Speaking is a tool of communication to express the ideas, opinions, concepts, feeling and anything to the other. It is the most important way to express themselves through a language. Speaking also part of oral communication which involves two main components, they are speaker and listener Oral communication is an interaction process between speaker and listener which involves the productive skill of understanding production skill that consists of producing systematic verbal utterances to convey meaning. Teaching

speaking and help to enhance their speaking is not as easy as imagined. Almost the students are afraid of making mistakes and they feel that they less competent than the others. The problem is common happen in beginners in English language. They are not comfortable to speak English and they cannot speak in front of the others because they do not have confidence. Consequently, they lose a chance to practice in the class.

According to research Annisa (2017, 8), there are several problems that make the students to feel difficult. First, they experienced the feeling of anxiety, were reluctant and become afraid of making mistakes when speaking English. The second, the teaching method and materials often do not fulfill the students need.

In carrying out the Scientific Approach, teaching procedures play a major role. Fauziati (2014) defines procedures as class techniques, practices, and behaviors that are observed when the method is used: resources in terms of time, space and equipment; interactional patterns observed in lessons; tactics and strategies used by teachers and students when the method is used. In a learning process, teachers must choose and determine appropriate teaching procedures, such as approaches, strategies, and teaching methods so that learning objectives will be achieved successfully.

The steps for implementing a scientific approach in speaking skills include first, students observe an event or problem. Observations that have been made before raise a question that needs to be answered to satisfy curiosity about the observation, such as why or how it happened or how it felt. The third stage is reasoning. Reasoning is used to answer the questions that have been asked. After going through the reasoning process, students will establish hypotheses and then proceed with conducting experiments or experiments to prove these hypotheses. The last stage is communicating, students convey the results of the experiment to other friends.

## METHOD

The design of the research that used in this proposal was experimental quantitative. The research design that used in this research proposal was experimental research using a one-group pre-test design, where this design includes a pre-test before being given treatment. Thus, the results of the treatment can be known more accurately, because it could compare with the situation before being treated. The value of t-test in identifying the difference between pre-test and pro-test by using inferential analysis in SPSS (Statistic Product and Statistic Solution) version 22.0 program. SPSS is a computer program use for statistical analysis. SPSS is use for processing and analyzing data that have statistical analysis capabilities as well a data management system with a graphical environment.

## FINDING AND DISCUSSIONS

### Findings

To find out the answers to the research questions in the previous chapter, the researcher conducted a test. The test is a speaking test which is given two tests, namely pre-test and post-test. The pre-test was given before treatment to find out the speaking skill before doing the treatment, while the post-test was set up after the treatment which aims to find out the students' speaking ability after doing the treatment.

The researcher gave pictures to students as a pre test to find out students speaking skills. Each student received instructions to explain a topic based on a picture. After giving a pre-test to students, researchers found out the results of students speaking skills based on speaking skill criteria, namely fluency, pronunciation, vocabulary, comprehension, and grammar before being given treatment. The results are shown in the following table:

As explained in the previous table, the following table shows the results of the analysis of student pre-test classifications in percentage form.

**Table 1 The Percentage of Students Pre-Test Score**

Classification	Score	Frequency	Percentage
Very good	86-100	-	
Good	71-85	-	
Fairly	56-70	1	5%
Poor	41-55	11	55%
Very poor	<40	8	40%
<b>Total</b>		<b>20</b>	<b>100%</b>

*(Source: Students pretest score)*

Table 1 shows the results of the percentage classification of students on the five pre-test scores which consist of very good, good, fairly, bad, and very bad. Based on the table above, it can be seen that in the percentage of the pretest there is no frequency of students who have a percentage in the very good classification, and also there is no frequency of students who have a good frequency percentage, there is 1 student who gets a percentage score of 5% which is included in the fair classification, 11 students who get a percentage score of 55% which is included in the bad classification, and there are 8 people who get a percentage score of 40% included in the very poor classification.

As explained in the previous table, the following table shows the results of the student posttest classification analysis in percentage form.

**Table 2 The Percentage of Students Post Test Score**

Classification	Score	Frequency	Percentage
Very good	86-100	1	5%
Good	71-85	14	70%
Fairly	56-70	5	25%

Poor	41-55	-
Very poor	<40	-
<b>Total</b>		<b>100%</b>

(Source: Students post-test score)

Table 2 shows a total of 20 frequencies, 1 student frequency that gets 5% with a very good classification, in the good classification there are 14 frequencies that get 70%, and in the fairly classification there are 5 frequencies that get 25%. In the bad and very bad classification, no students got a percentage score.

After analyzing the results of the pre-test and post-test on students, the following are the results of the students' average scores and standard deviation which are presented in the following descriptive statistics table.

**Tabel 3 Descriptive Statistik**

Descriptive Statistics								
	N	Range	Min	Maxi	Sum	Mean	Std. Deviation	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
<b>Pre-Test</b>	20	35	25	60	895,00	44,750	1,719	7,69056
<b>Post-Tes</b>	20	30	60	90	1525,00	76,250	1,949	8,71704
<b>Valid N (listwise)</b>	20							

Based on the table above, it can be concluded that there was a significant increase between the students' pre-test and post-test after being given treatment. In the pre-test, it can be seen from the table that the sum is 895, the mean is 44.75 and the standard deviation is 7.690. For the post test, there was an increase with a number of 1525, a mean of 76.25, and a standard deviation of 8.717. The table shows that the number and mean of the posttest are higher than the pretest.

After assessing the pre-test and post-test of students in the experimental class, the authors used the t-test to test the hypothesis. The t-test is a test to measure whether there is a significant difference between the results of the students average scores in the pre-test and post-test. By using inferential t-test analysis or significance tests carried out with SPSS Version 16.0, significant differences can be more easily analyzed.

In this research, the Null hypothesis (Ho) states that there is no significant implementation of the scientific approach to improving the speaking skills of second grade students at SMA Negeri 18 Makassar. While the Alternative Hypothesis (H) states that there is a significant effect on implementation the

scientific approach to improving the speaking skills of class XI students at SMA Negeri 18 Makassar. If the significance value is 2 or sig. (2 tailed) is lower than 0.05, H is accepted and H is rejected.

**Tabel 4The Paired Sample T-Test**

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower Upper			
<b>Pair 1</b>	Pretest							
	-	-31,000	8,127	1,817	-35,303	-	19	0,000
	Posttest					17		
					27,696			

The results of the t test stated that Sig. (2-tailed) is 0.000. The results stated that Sig. (2-tailed) table is lower than the significance level. So. The alternative hypothesis (H) is accepted and the null hypothesis (Ho) is rejected. This means that a scientific approach can improve the speaking skills of second grade students at SMA Negeri 18 Makassar. In this research, we can see the results that researchers have tested on students by implementing a scientific approach. These results can be seen from the student's pre-test and post-test scores. In these tests, significant changes were seen. This research was conducted at SMA Negeri 18 Makassar, the researcher chose a sample of class IX Science 2, totaling 20 students.

## Discussions

In this section, we were discussing research conducted by researcher and comparisons with previous research.

This research was conducted at SMA Negeri 15 Makassar, the sample was students of class IX science 2. This research aims to find out how the implementation of a scientific approach can improve the speaking skills of students in second grade of SMA Negeri 18 Makassar. The next aim is to find out the effect of implementing a scientific approach on improving their abilities. In the speaking skills of second grade students at SMA Negeri 18 Makassar. After the researcher has finished conducting the research, based on the data that has been carried out through tests. According to table 4.2, it shows the percentage results of student classification in five pre-test scores consisting of very good, good, fair, bad, and very bad. Based on the table above, it can be seen that in the pre-test percentage there is no frequency of students who have a percentage in the very classification good, there is no frequency of students who have a good frequency percentage, there is 1 student who gets a percentage score of 5% which is included in the fair classification, 11 students who get a percentage score of 55% which is included in the bad classification, and there are 8 students who get a percentage score 40% are classified as very poor.

Some researchers have been reported to expose identification of implementing scientific approach to enhance students' skill in learning make process move successful Their findings are consecutively presented below:

Research conducted by Marya Tyasti (2017), with the title *"Implementation of Scientific Approach on Speaking Skill at Second Grade Students Based on Learning Style"* in SMAN 1 Pringsewu, researcher say that that the average score of the pre-test and post-test respectively are 72.50 and 78.78. It proves that there is an improvement after the implementation of scientific approach of 6.28 points. The significant level is 0.000. So, it can be categorized that there is a significant different of students speaking skill between pre- test and post-test since  $p < 0.05$ . The t-count is 9.019 which is higher than the t-table (2.052). Thus, the researcher can conclude that there is a significant improvement of students speaking skill after the implementation of scientific approach. So, researcher concluded that the implementation of a scientific approach can improve students' English language skills in general, not only in speaking skills but also the ability to listen, read, and write. Furthermore, the implementation of a scientific approach can produce significant improvements in five important aspects of English, namely fluency, pronunciation, vocabulary, comprehension, and grammar. Perhaps this is why the ministry of education stipulates this approach in the new curriculum.

Meanwhile, research conducted by Ananda Putri (2021), with the title *"The Implementation of Scientific Approach in Teaching Speaking Skills: A Case Study of English Teachers"* at Islamic Senior High School 1 Pekanbaru. The researcher concluded that the scientific approach is effective to improve students speaking It could be proved by the students achievement in speaking competence Who are thought through scientific approach and those without through the scientific approach were the mean score of experimental class for post-test is 61,73 and the mean score of control class for post-test is 49,83. It means that there is a significant difference result between the students who thought speaking by scientific approach and the students who thought speaking without scientific approach. The writer suggested that the teacher can use scientific approach to improve students speaking competence.

Based on the various related research finding above, the researcher could conclude that implementing scientific approach is able to make interest and effective in teaching English. Some of researchers was showed that there is a significant result of student's achievement before and after learning through scientific approach.

The research wants to try to make the students easy to express their idea in speaking English through scientific approach. Scientific approach is the one of way to teach English and improve students speaking ability because it is consisting of interest approach that government apply in Indonesia's education now.

## CONCLUSSIONS

Data analysis research results show that scientific approaches can help students in learning. These approaches have systematic learning measures that make it easier for teachers to organize the implementation of learning, give teachers the opportunity to be more creative and encourage students to become more active with a variety of learning resources. Learning steps involve the scientific process in the construction of concepts, laws or principles, the learning process involves cognitive processes that potentially stimulate the development of science in particular the students high-level thinking ability besides it can also develop the character of the student.

Speaking is one way to communicate ideas and thoughts that are conveyed through oral messages. In order to enable interpersonal communication, we need to implement language in real communication. The scientific approach is capable of improving the students' speaking skills. In this case it shows that there is a difference between speaking skills before and after implementing scientific approaches. Students can speak more confidently without feeling depressed. Given this, the scientific approach has a positive impact and can be implemented in subsequent classes to improve the students' speaking skills.

## REFERENCES

- Arfianti, A. D. 2014. *The implementation of scientific approach in the teaching of English at SMPN 5 Malang*. Doctoral dissertation, Universitas Negeri Malang.
- Annala, H., Fopma, S., & Leikomaa, M. 2016. *Building an international, cross-disciplinary, collaborative on-line English course focusing on advanced listening and speaking skills and cross-cultural communication*. *International Journal for Educational Media and Technology*, 10(2).
- Atmarizon, D., & Zaim, M. 2016. *The Implementation of Scientific Approach in Teaching English at the Tenth Grade of Senior High School 7 Padang*. *Komposisi: Jurnal Pendidikan Bahasa, Sastra, dan Seni*, 17(1), 1-18.
- Bohari, L. 2020. *Improving speaking skills through small group discussion at eleventh grade students of SMA Plus Munirul Arifin NW Praya*. *Journal of Languages and Language Teaching*, 7(1), 68-81.
- Candrawati, E., Sundaryono, A., & Uliyadari, M. 2020. *Implementation of Integrated Science Model with Audiovisual Teaching Materials to Improve Students' Learning Outcomes and Science Process Skills*. *International Journal of Recent Educational Research*, 1(2), 134-155.
- Dahlan, Z. 2013. *Pengaruh Strategi Pembelajaran Praktik Berpasangan (Practice-Rehearsal Pairs) Dan Konsep Diri Terhadap Hasil Belajar Alquran Hadis (Studi eksperimen pada siswa kelas VIII di Madrasah Tsanawiyah Nurul Islam Kecamatan Kuala Kabupaten Langkat)*. Doctoral dissertation, Pascasarjana UIN Sumatera Utara

- Firman, F., Baedhowi, B., & Murtini, W. 2018. *The Effectiveness of the Scientific Approach to Improve Student Learning Outcomes*. International Journal of Active Learning, 3(2), 86-91.
- Haryanti. 2021. *Penerapan Pendekatan Saintifik Dalam Meningkatkan Keterampilan Bertanya Pada Siswa Kelas IV di SDN 181 Curio Kabupaten Enrekang*. Skripsi.Unpublished.
- Harmer, J. 2018. *The Practice of English Language Teaching*. London/New York, 401-405.
- Kemdikbud. 2014. *Paparan Wakil Menteri Pendidikan dan Kebudayaan R.I Bidang Pendidikan: Konsep dan Implementasi Kurikulum 2013*.
- Umiati, U. 2015. *Penerapan Pendekatan Saintifik Dalam Meningkatkan Hasil Belajar Siswa Pada Mata Pelajaran Pendidikan Agama Islam Kelas VII-D Di SMPN 04 Kota Malang*. Doctoral dissertation, Universitas Negeri Islam Maulana Malik Ibrahim.
- Wahyuni, K., Octavianita, A., Nur, S. A., Handayani, T., & Ihsan, M. T. 2021. *The Implementation Clt Approach to Improve Students Speaking Skills*. Jurnal Riset Dan Inovasi Pembelajaran, 1(2), 144-152.
- Zuhriyah, M. 2017. *Storytelling to Improve Students' Speaking Skill*. English Education: Jurnal Tadris Bahasa Inggris, 10(1), 119-134