COMPARING SNOWBALL THROWING TECHNIQUE WITH SCIENTIFIC APPROACH IN IMPROVING SPEAKING SKILL

Bestari Retno Wardani[1], Aulia Rachman[2], Intan Satriani[3]

[1] IKIP SILIWANGI
[2] IKIP SILIWANGI
[3] IKIP SILIWANGI
[1] brwardani@gmail.com, [2] aulia_rachman66@yahoo.com, [3] intansatriani@ikipsiliwangi.ac.id

Abstract

This research purpose is to analyse the capability of students' speaking improvement through Snowball Throwing Technique. The research method applied in this research is quantitative method with a quasi-experimental design. This research had been conducted at SMP Wiyata Bakti Cimahi. The sample for this research took 30 students from each class, that is class 8C selected become the experiment class that used Snowball Throwing Technique and class 8A selected become the control class that used the Scientific Approach. The research result concluded that: (1) the students' speaking capability through Snowball Throwing Technique is better than Scientific Approach and (2) the students' speaking capability improvement through Snowball Throwing Technique is better than Scientific Approach.
Keywords: *Speaking, Snowball Throwing Technique, Scientific Approach, Quasi-experiment*

INTRODUCTION

Speaking is activity between individual to deliver information. People produce thousand words to speak every day. People always do the conversation with others every time. People should mastery language to get easier in interacting with other people. There are many languages exist, the example is English. These days, English is really important. As most people know, English is an international language. To mastery the ability of English, people should know that English has four basic skills. There are listening, writing, reading and speaking. Bailey and Nunan (2005) states speaking is process of interaction to construct meaning which includes to produce, to receive and to process information.

Speaking skill is ability of expressing ideas orally. Speaking skill has six aspects measured. First is fluency, which means speaking easily and quickly. Second is comprehension. Comprehension is knowing the meaning. Third is grammar, which means sentence structures. Fourth is vocabulary. Vocabulary is collection of words. Next is pronunciation. Pronunciation is a way to produce sounds from words. The last is task. Task is questions on topics. Tarigan (1981) explains that the capability of communicating the articulation or speak to express ideas and messages is a speaking skill.

Based on observation, many students still face difficulties in speaking English. The students were still less confident and they were also unable in responding of what the teacher said. The researchers concluded that many students still have problems in speaking. The students thought speaking is difficult, because of the students' weaknesses to mastery speaking skill aspects. So that they were not confident to use English when speaking. To support students to improve their speaking skill, the researchers suggested to applied Snowball Throwing Technique (STT) in experiment class. Because previously research conducted by Susanty (2016) entitled *Use of the*

Snowball Throwing Technique for Teaching Better ESL Speaking has proven that the use of Snowball Throwing Technique is effective to improve speaking skill.

Snowball Throwing Technique (STT) is the developing of a discussion learning model and part of cooperative learning model. In this model, learning activities should be well planned, so that the learning activities can be more interesting. Suprijono (2013) explains that the Snowball Throwing Technique, also called the snowball drilling technique is applied in training students become more responsive in receiving messages from others in the snowballs that made of paper, and in conveying messages to their teammates. Whenever students get paper ball from others, they should answer questions written on the paper ball. In this study, Snowball Throwing Technique was compared with Scientific Approach. Scientific Approach was used for the control class.

These days, Indonesia Education Ministry developed an approach called Scientific Approach. This approach is available for all subjects including English. Scientific Approach is used in learning with emphasis of using the scientific methods in teaching-learning activities. This approach aim is to make students think critically, scientifically, objectively, and logically appropriate with the truths. This approach has stages that consisting of five, first is observing, the second is questioning, the third is experimenting, next is associating and the last is communicating. In scientific approach, learning activity purposes are supporting and assisting the students' learning activity to find and use the students' knowledge (Saefuddin and Berdiati, 2014).

Based on the background above, the researchers conducted the research to analyzed students' speaking capability through Snowball Throwing Techniques and compared with the Scientific Approach. Hopefully this research will assist the further research.

REVIEW OF LITERATURE
Speaking Skill

Language has four basic skills. Speaking is one of them. Speaking is way for people in interacting with others to convey and to obtain information. Speaking is activity between individual to deliver information. People produce thousand words to speak every day. People always make conversation with other people every time. People should mastery language to get easier to interact with others. There are many languages exist, the example is English. These days, English is really important. As most people know, English is an international language. To master the ability of English, people should know that English has four basic skills. There are listening, reading, writing and speaking.

Bailey and Nunan (2005) states speaking is process of interaction to construct meaning which includes to produce, to receive and to process information. Harmer (1998) stated that speaking activities may well form one part of a much longer sequence which includes reading or listening and, after the activity, study work. Furthermore, Harmer (2001) stated that without speaking, show that they do not understand what the speakers is saying, by looking confused and scratching your head in confusion. However, speaking is important for our daily communication.

Speaking skill is the capability of expressing ideas orally. Speaking skill has six aspects measured. First is fluency, which means speaking easily and quickly. Second is comprehension.

Comprehension is knowing the meaning. Third is grammar, which means sentence structures. Fourth is vocabulary. Vocabulary is collection of words. Next is pronunciation. Pronunciation is way to produce sounds from words. The last is task. Task is questions on topics. Tarigan (1981) explains that the capability of communicating articulation or speak to express ideas and messages is a speaking skill.

Snowball Throwing Technique

Snowball Throwing Technique (STT) is the developing of a discussion learning model and part of cooperative learning model. With the application of this method, group discussion and interaction between students from different groups allow sharing of about knowledge and experience in an effort of solving problems that appear in discussions and create the interactive and fun teaching-learning activities. In this model, learning activities should be well planned, so that the activity of the learning can be more interesting. Suprijono (2013) explains that the Snowball Throwing Technique, also called the snowball drilling technique is applied in training students become more responsive in receiving messages from others in the snowballs made of paper, and in conveying messages to their teammates. Whenever students get paper ball from others, they should answer questions written on the paper ball.

The problem that often appears in learning activity is the students' feeling of doubt in conveying the problems they experience in understanding the subject. Through the application of the Snowball Throwing Technique, students can submit questions or problems in written form which will be discussed together later. Thus, students can express the difficulties in understanding the subject. Other benefits that can be found by using the Snowball Throwing Technique, teachers can train students' readiness in responding and solving problems. According to Marlena (2016) Snowball Throwing Technique is useful to bring students to the situations where they can understand the text that are unable to ask and be asked for in the teaching-learning activity. Lie (2010) stated that Snowball Throwing Technique focuses on involving the students in group work and provide opportunities for them to give several questions based on the assignments or read the text offered by the teacher. In addition, Snowball Throwing Technique is used as a way to get students suspicion responsibility for randomly assigned parts of a larger body of information (Richards and Rodgers, 2001).

Besides the advantages, there are also disadvantages of Snowball Throwing Technique. Kagan (1994) argues that this technique does not work well in easy lessons because the students are effortlessly answer the questions, and they waster the time not discussing the material but discussing about other topics in the students' groups work.

Scientific Approach
Nowadays, Indonesia Education Ministry developed an approach called Scientific Approach. This approach is available for all kinds of subjects including English. Scientific Approach is applied in learning with emphasis of applying scientific methods in teaching-learning activities. Scientific approach is the method in teaching-learning activity, which students become the learning centered. The teachers help to motivate students in developing students' skills. This approach aim is to make students think critically, scientifically, critically, objectively and logically appropriate with the facts. This approach has stages consisting of five, first is observing, the second is questioning, the third is exploring, next is associating and the last is communicating.

First stage is observing. Observing methods prioritize the meaningfully of the learning activity. This method has advantages, such as presenting objects in real way, students are happy and interest, also easy to implement. Observing methods are beneficial for fulfilling the curiosity of students. So, the learning activity gives a high meaning. With the observation method students discover the truth that there is a context between objects analyzed with the learning material that the teacher used.

Second is questioning. Teachers are able in inspiring students to upgrade the scope of attitudes, skills, and knowledge. While asking, the teacher guides the students to learn well simultaneously. While answering the questions, the teacher also motivates students to become good listeners and learners simultaneously. Questions are asked to get verbal responses. Question is not always in the question sentence, but also can be statement.

Next is exploring. The activity of exploring is a follow-up to asking. The activity is conducted by exploring and assembling information from several resources in various ways. Students can read more, observe the phenomena or more precise objects, or even conduct experiments. The expected competencies are developing meticulous attitude, being honest, polite, respecting the thoughts of others, the capability to communicate, applying the capability to gather information through various learned ways, and developing eternal learning and learning habits.

After the exploring stage, there is associating stage. Associating is processing information that collected both restricted to the outcome of collecting or experimental activities or the outcome of observing activities and collecting information. Processing information that gathered from the nature that adds width and depth to the processing of information that is seeking solutions from various sources that have different thoughts to the contrary. The activity is conducted by finding the context of one information with others and conclude the pattern of the linkage of the information. The expected competencies are developing honest, thorough, disciplined, obedient rules, hard work and the capability in implementing procedures.

The last is communicating. In the scientific approach, the teacher is expected by providing opportunities for students to communicate what students have learned. This activity is conducted through writing or telling what is found in activities seeking information, associating, and finding patterns. These results are delivered in class and assessed by the teacher as an output of learning of students or groups of students. As expected competencies of this activity are to develop honesty, thoroughness, patience, the capability to think systematically, express thoughts briefly and clearly.

In addition, in scientific approach, learning activity purposes are supporting and assisting the students' study activity to find and to use their knowledge (Saefuddin and Berdiati, 2014). According to Mulyasa (2013) in the teaching-learning activity, the students should find or construct knowledge by themselves through finding other resources by using scientific approach. Furthermore, Longman (2014) argues that scientific approach is way of finding out information in science; any involves testing the ideas by performing experiments and making explicitness based on the outcomes of analysis.

METHOD

This research had been conducted using quantitative method. Aliaga and Gunderson (2002) states that quantitative method explains phenomena to collect numerical data analysed by mathematically based method. The design is quasi-experimental. Quasi-experiments are

resembled to true experiments in everything except that they do not use random assignment to make comparisons of which changes caused by treatment are inferred (Cook and Campbell, 1979). The sample for this research took two classes of 8th grade from SMP Wiyata Bakti Cimahi. Class 8C as the experiment class which is consist of 30 students. Class 8A as the control class which is also consist of 30 students taken by purposive sampling technique.

Because the capability of the students by both classes is heterogenous, it considers in the process of selecting samples. The first group was given special treatment using Snowball Throwing Technique while the second group was given treatment using the Scientific Approach.

RESULTS AND DISCUSSION

Results

1. Pre-test Data Analysis

Pre-test is given at the beginning of learning to find out the students' initial speaking ability.

a. Tests of Normality

In the pre-test data analysis, the first thing to do was the normality test. The purpose of testing data is to know whether the data are normally distributed or not. Testing data using *Kolmogorov-Smirnov*. In this normality test the following hypothesis is used:

If Sig. ≥ 0.05 it is estimated that pre-test data are normally distributed.

If Sig. < 0.05 it is estimated that pre-test data are not normally distributed.

Based on the results of testing by IBM SPSS 25 the following results are obtained:

Table 1. Result of Tests of Normality for the Both Classes of Pre-test Data

	Class	Kolmogorov-Smirnov[a]		
		Statistic	df	Sig.
Pretest Speaking	Experiment	.106	30	.200[*]
	Control	.117	30	.200[*]

From the test, it was found that the Sig. values of the experiment class and control class pre-test were the same, which was 0.200. Because the experiment class and the control class significance are ≥ 0.05 the conclusion obtained is the both classes have pre-test data that are normally distributed.

b. Test of Homogeneity of Variances

Because the experiment class and the control class pre-test values are normally distributed, the next step is test of homogeneity of variances. In this test the following hypothesis is used:

If Sig. ≥ 0.05 then the variances are the same.

If Sig. < 0.05 then the variances are not the same.

Table 2. Result of Test of Homogeneity of Variances for Both Classes of Pre-test Data

		Levene Statistic	df1	df2	Sig.
Pretest Speaking	Based on Mean	.052	1	58	.821

From the test can be seen in **Table 2** that Sig. is 0.821. Because the experiment class and the control class significance are ≥ 0.05 the conclusion obtained is the variances of the experiment class and the control class are the same.

c. *t-test*

After test of homogeneity of variances, the next step is the parametric test using T-Test because the pre-test data of the experiment class and the control class are normally distributed. In the T-test the following hypothesis is used:

If Sig. (2-tailed) ≥ 0.05 then accept H_0 and reject H_a.
If Sig. (2-tailed) < 0.05 then reject H_0 and accept H_a.

Table 3. Result of T-Test for Both Classes of Pre-test Data

		Sig. (2 tailed)
Pretest Speaking	Experiment	.056
	Control	.056

Based on the result of t-test in **Table 3**, Sig. (2-tailed) the experiment class and the control class of pre-test data are the same, that is 0.056. Because Sig. (2-tailed) ≥ 0.05, then accept H_0 and reject H_a. Therefore, the conclusion obtained is there is no difference in the students' initial speaking ability.

2. Post-Test Data Analysis

After the pre-test data was analysed. The next step was to conduct post-test data analysis. The first step is to conduct the tests of normality of post-test data.

a. Tests of Normality

In the pre-test data analysis, the first thing to do was the normality test. The purpose of testing data is to know whether the data are normally distributed or not. Testing data using *Kolmogorov-Smirnov*. In this normality test the following hypothesis is used:

If Sig. ≥ 0.05 it is estimated that pre-test data are normally distributed.
If Sig. < 0.05 it is estimated that pre-test data are not normally distributed.

Table 4. Result of Tests of Normality for the Both Classes of Pre-test Data

	Class	Kolmogorov-Smirnov[a]		
		Statistic	Df	Sig.
Posttest Speaking	Experiment	.102	30	.200[*]
	Control	.109	30	.200[*]

From the test it was found that the Sig. values of the experiment class and control class post-test were the same, which was 0.200. Because the experiment class and the control class significance are ≥ 0.05 the conclusion obtained is the both classes have post-test data that are normally distributed.

b. Test of Homogeneity of Variances

Because the experiment class and the control class post-test values are normally distributed, the next step is test of homogeneity of variances. In this test the following hypothesis is used:

If Sig. ≥ 0.05 then the variances are the same.
If Sig. < 0.05 then the variances are not the same.

Table 5. Result of Test of Homogeneity of Variances for Both Classes of Post-test Data

		Levene Statistic	df1	df2	Sig.
Posttest Speaking	Based on Mean	.113	1	58	.738

From the test can be seen in **Table 5** that Sig. is 0.738. Because the significance of the experiment class and the control class is ≥ 0.05 the conclusion obtained is the variances of the experiment class and the control class post-test data are the same.

c. *t-test*
After test of homogeneity of variances, the next step is the parametric test using *t-test* because the pre-test data of the experiment class and the control class are normally distributed. In the *t-test* the following hypothesis is used:
If Sig. (2-tailed) ≥ 0.05 then accept H_0 and reject H_a.
If Sig. (2-tailed) < 0.05 then reject H_0 and accept H_a.

Table 6. Result of *t-test* for Both Classes of Post-test Data

	Class	Sig. (2 tailed)
Posttest Speaking	Experiement	.000
	Control	.000

Based on the result of t-test in **Table 6**, Sig. (2-tailed) the experiment class and the control class of post-test data are the same, that is 0.000. Because Sig. (2-tailed) < 0.05, then reject H_0 and accept H_a. Therefore, the conclusion obtained is the achievement of speaking ability improvement using Snowball Throwing Technique is better than the Scientific Approach.

3. Speaking Ability Improvement Data Analysis
In data collection besides pre-test and post-test data, there is also a scale of students' speaking capability improvement. The function of the scale of students' ability improvement is to discover how much influence the Snowball Throwing Technique in improving students' speaking ability.

a. Tests of Normality
In the speaking ability improvement data analysis, the first thing to do was the normality test. The purpose of testing data is to know whether the data are normally distributed or not. Testing data using *Kolmogorov-Smirnov*. In this normality test the following hypothesis is used:
If Sig. ≥ 0.05 it is estimated that pre-test data are normally distributed.
If Sig. < 0.05 it is estimated that pre-test data are not normally distributed.

Table 7. Result of Tests of Normality for the Both Classes of Speaking Ability Improvement Data

	Class	Kolmogorov-Smirnov[a]		
		Statistic	Df	Sig.
Gain	Experiment	.187	30	.009
	Control	.106	30	.200[*]

From the test, it was found that the Sig. value of the speaking ability improvement of the experiment class is 0.009 and the Sig. value of the speaking ability improvement of the control class is 0.200. Because the significance of one class, that is experiment class is < 0.05, the

conclusion obtained is speaking capability improvement data of one class are not normally distributed.

b. *Mann-Whitney* Test

Because the value of speaking ability improvement in one class, that is experiment class is nor normally distributed, then the next step is to conduct the Mann-Whitney test. Mann-Whitney test used the following hypothesis:

H_0 : $\mu1 \le \mu2$, speaking ability improvement using Snowball Throwing Technique is less than or equal to the Scientific Approach significantly.

H_a : $\mu1 > \mu2$, speaking ability improvement using Snowball Throwing Technique is better than the Scientific Approach significantly.

The testing criteria as follows:

If Sig. > 0.05 then accept H_0 and reject H_a.

If Sig. $\le$ 0.05 then reject H_0 and accept H_a.

Table 8. Result of *Mann-Whitney* Test for the Both Classes of Speaking Ability Improvement Data

	Gain
Mann-Whitney U	95.500
Wilcoxon W	560.500
Z	-5.244
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Class

From the result of *Mann-Whitney* test, it was found that Asymp. Sig. (2-tailed) is 0.000. because Sig. (2-tailed) $\le$ 0.05, it means reject H_0 and accept H_a. Thus, the conclusion obtained is the students' speaking capability improvement using Snowball Throwing Technique is significantly better than the Scientific Approach.

Discussion

The pre-test was given before treatment in each class both experiment class and control class. The aim is to find out the students' initial speaking capability. The result from the pre-test stated that there is no difference in students' initial speaking capability. After the pre-test was given, then treatment was given with the provision that the experiment class used Snowball Throwing Technique in teaching-learning activities, while the control class used the Scientific Approach. After that, the post-test was given to find out the speaking capability improvement of the experiment class students and the control class students. The result of the post-test stated that the students' speaking capability using Snowball Throwing Technique was better than the Scientific Approach significantly.

After the stages are carried out, the last stage is assessing the students' speaking capability improvement. From the result obtained from the experiment class that consisted of 30 students and the control class that also consisted of 30 students showed that the students' speaking capability improvement using Snowball Throwing Technique was better than the students who used the Scientific Approach significantly.

CONCLUSION

From the data analysis it can be seen that the students' speaking capability using Snowball Throwing Technique does not show a significant difference. Based on the result of the research,

the conclusion obtained is the students' speaking capability using Snowball Throwing Technique is better than the students' speaking capability using Scientific Approach. Furthermore, the students' speaking capability improvement using Snowball Throwing Technique is significantly better than the students who use Scientific Approach.

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