



Enhancing Listening Comprehension Skill Through Research-based Learning of Vocational High School Students

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Abstrak

Tujuan dari penelitian ini adalah untuk menganalisis pengaruh, apakah Research-based Learning dapat diterapkan pada siswa SMK untuk meningkatkan pemahaman *listening* siswa atau tidak. Penelitian ini merupakan penelitian ekperimental yang menggunakan pendekatan kuantitatif, dan dilakukan dengan cara *one-group pre-test post-test design*. Penelitian ini dilaksanakan di SMK PGRI 2 Kediri. Peneliti mengambil kelas X Tata Boga 3 yang berjumlah 20 siswa sebagai sampel melalui *purposive sampling*. Setelah penelitian dilakukan, didapatkan hasil sebagai berikut: Pada pre-test siswa mendapatkan nilai rata-raa 60.30. Nilai rata-rata hasil post-test meningkat menjadi 70.50. Sedangkan hasil uji hipotesis dan uji-t menunjukkan hasil sig(2-tailed) $0.04 < 0.05$. Dari hasil data tersebut dapat disimpulkan bahwa penerapan Research-based Learning dapat diterapkan pada siswa SMK untuk meningkatkan pemahaman *Listening* siswa khususnya di SMK PGRI 2 Kediri.

Kata Kunci: *Research-based Learning*, pemahaman *Listening* , SMK

Abstract

This study aims to analyze the effect of Research-based Learning on Vocational High School students' listening comprehension. This research is an experimental research that uses a quantitative approach, which is carried out using one group pre-test and post-test design. The research was held in Vocational High School PGRI 2 Kediri. The researcher takes class X Culinary 3 which was participated by 20 students as the sample with purposive reason. After the research was conducted, the following results were found: In the pre-test, students get an average score of 60.30. The average score increases in the post-test result to 70.50. Meanwhile, the result of the hypothesis test using the t-test showed the result of sig (2-tailed) $0.04 < 0.05$. From the result of the data, it can be concluded that Research-Based Learning can be applied in Vocational High schools to improve students listening comprehension, especially in Vocational High School PGRI 2 Kediri.

Keywords: *Research-based Learning*, *Listening comprehension*, *Vocational High School*

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DOI : <https://doi.org/10.31004/edukatif.v4i4.2846>

ISSN 2656-8063 (Media Cetak)

ISSN 2656-8071 (Media Online)

INTRODUCTION

As a teacher who teaches English as a foreign language, it is imperative to preach to the English learner about 4 skills of English, such as: Listening, speaking, reading, and writing. These 4 skills can be divided into two part. The first part is Adaptive skills (Input) includes listening and reading, then the second part is productive skills (Output) include speaking and writing. The 4 skills above are related to each other. A student will be able to write well if they read very well, and a student will be able to speak well if they have good listening skills (Hariyadi et al., 2019:39). Between these 4 skills, Listening is the foundation skill of learning English. According to Murcia & McIntost (1979:65) listening is basic of learning English because listening gives the English learners information how to use and speak English. Listening is a process of language acquisition; when a learner receives an language input that can be understood, it is certain that they can master the target language well (Putra, 2018). In consequence, it is very important for second language teachers to teach their students from an early age about listening skills by giving students simple listening practice.

Learning English listening comprehension is not easy, English learners are required to be able combine what they hear with other information they already know and interpret the meaning of what they hear by combining it with existing information data in brain. According to Kline (1996) there are 4 stages that students must master in learning listening skills such as; receiving, attending, understanding, responding, and remembering. But, in fact, many high school students do not enjoy with listening comprehension subject because they find difficulty in the learning process. According to Utami (2020:94) learning difficulties are a condition experienced by students wherein students are less able to complete the demands that must be done in the learning process. Difficulties in the learning process could be caused by the method used by the teacher. The teachers have lack innovation in classroom learning method. For example the teacher does not make the students as the center piece in the class but only provides material without involving students in the learning process. Such process causes many high school students got score under the minimum completeness criteria (KKM). Therefore, the teacher must select an ideal learning model. Ideal learning model is fun learning that can make students active in the class and encourage student creativity (Tarigan et al., 2021:2295).

This is the same case as what the researcher experienced when teaching English listening in vocational high school, many students do not like English lessons with listening material because they think that English is a difficult subject and tedious. Based on the fact above, the researcher provides a new innovation, that is by using Research-based Learning method in teaching English listening.

Research-based learning is a learning method that requires students to carry out research activities in the class such as: problem analysis, creating a hypothesis, collecting data, and make evaluation activities. Research Based Learning is a teaching and learning technique that uses research elements into the learning process (Sota & Peltzer, 2017). Trisnasih et al., (2016) states that Research-based learning provides opportunities for students to learn how to develop contextual concepts thaemphasizees real situations with the stages that must be passed, so they can find new things from the process of doing research. Accordin to Tremp (2010) there are 7 stages of Research-based learning: (1) Formulating general question, (2) Overview of research-literature, (3) Defining the question, (4) planning research activities, clarifying methods, (5) analyzing data, (6) Interpretation and consideration of result, (7) Report and presentation of the result. Whiles Sota & Peltzer (2017) in his study stated, there are 9 step of Research Based Learning: (1) Identifying research topic, (2) objective and research question, (3) Research tools, (4) Theory applying, (5) Research methodology and design, (6) data analysis, (7) Result and discussion, (8) Recommendation, (9) Strengthen of the research.

Research-based learning can be used in English listening subjects to increase students' listening comprehension and increase students' English scores. Chamdani et al. (2015) argue that Research-based

learning is one of the steps to achieve effective learning. This method will make students do a lot of listening practice. Research-based learning is an effective way to change students' learning and practice about how to do learning by doing (Poonpan & Suwanmankha, 2005:2). With a lot of practice being done, it will increase students listening comprehension and students' scores in English listening subjects. Furthermore, by using this Research-based learning method, the teacher not only provides material continuously to students but also provides guidance for students to explore the material independently.

Research-based learning has been studied by several researchers. Research by Wahyuni (2020:61) shows that research-based learning was able to increase students' creativity and critical thinking skills. Previous study by Anies et al. (2017) suggests that Research-based learning can improve students' learning motivation and students' final score. Then, Ramahwati et al. (2016:47) similarly found that Research-based learning can improve student learning outcomes if teachers can apply it in the appropriate steps. Also, Srikoon et al., (2014) in his article stated that Research Based Learning can improve the knowledge, thinking skills, achievement, nature researcher, basic research, problem solving skills, critical thinking and inquiry for students in Thailand. Different from the research above, in this occasion the researcher applied Research Based Learning Method in English listening subject, and this method is applied to the first-grade culinary major of Vocational High School student.

This current research focuses on seeing the effect of research-based learning on students' listening comprehension because of the rarely of the studies which focus on this area. This research result will provide understanding about the nature of research-based learning implementation at vocational high school.

METHOD

To answer the research question, paper-based measurements were conducted at the beginning and at the end of research-based learning process in English class of vocational high school. This is a quantitative research employing the type of experimental research with one group pre-test-post-test design. This follows Leedy & Ormrod (2015) who state that quantitative research is a case study in surveys and experiments that builds on existing theory. In addition, Williams (2007:65) reveal that quantitative research is usually used to answer research questions which use numerical data which corresponds to the data collected and analyzed in this research. The data were obtained from the test result of the sample which was chosen with purposive reason. The sample includes 20 students of class X Culinary 3.

The activities of the research were divided into three main steps. The first step taken by the researcher was to give pre-test to the sample class. Next, the researcher did a treatment using a 7 stages of research-based learning method from Tremp (2010), namely: (1) Formulating general question, (2) Overview of research-literature, (3) Defining the question, (4) planning research activities, clarifying methods, (5) analysing data, (6) Interpretation and consideration of result, (7) Report and presentation of the result several times for 2 weeks to make sure the treatment was conducted correctly in teaching the students listening comprehension. And the last step was giving post-test to the sample class.

In preparing the pre-test and post-test question, the researcher used the following indicators to measure the students understanding level in English listening lesson: First, students' understanding of structure such as phonemes, words, intonation, and grammar. Second, students understanding in a pragmatic context. Third, students' understanding in determining the meaning of the oral text they hear. Lastly, students can understand the gist and global or comprehensively Brown (2004:120). After collecting the score data, the researcher then processed the data using pair T-test to find out the results.

RESULT AND DISCUSSION

Table 1 displays the descriptive statistics for the paired T-test result of students' listening comprehension pre- and post-test. Based on the results of the research that has been done, it shows the results that the research-based learning method affects students' listening comprehension. This can be seen through the students' English scores below.

Tabel 1
Paired Samples Statistics Pre-test and Post-Test

Pair	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	60.30	20	16.849	3.768
Post-test	71.50	20	13.344	2.984

Based on the table 1 above, the result of the average score of students on the pre-test is 60.30 and the average score of students increases on the post-test to 71.50. From the data above, it can be concluded that there is an enhancement in students' achievement before being given treatment with the research base learning method and after giving the treatment. The increasement in student achievement can occur because by using the research-based learning method students are required to understand the basic material independently and required to be critical and dare to express their opinions. Moreover, using the research-based learning method establish students listening practice more often so that their listening skills are honed well and causes students learning achievement increase as well. Rahim (2019)state that research-based learning is a learning method that teaches students learning by doing.

Furthermore, the researchers conducted a data normality test (see table 2). This normality test was held with the aim to know whether the pre-test and post-test data in this study were normally distributed or not.

Table 2
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Pre-test	.163	20	.171	.940	20	.239
Post-test	.144	20	.200*	.936	20	.201

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 3
Test of Homogeneity of Variances

Result				
Levene Statistic	df1	df2	Sig.	
.580	1	38	.451	

In this study, the researchers determined the significance level of normal data was 0.05. If the data value is greater than 0.05, it can be stated that the data value is normal. Base on the Table 2 above, refering to column Kolmogorov-Smirnov it is shown that the Pre-test has a significant value $0.171 > 0.05$ and the Post-test has a significant value $0.200 > 0.05$. According to the value, it can be concluded that all these data is normal.

Hereinafter is the homogeneity test. This test is carried out with the aim of knowing whether the pre-test and post-test samples being compared have the same variation or not. Researchers set 0.05 as the significant level of data homogeneity. If the data is greater than 0.05, it can be concluded that the value is normal. Observing from table 3 above significance has a value $0.451 > 0.05$. This states that the post-test and pre-test data come from a homogeneous sample.

Table 4
Hypothesis test using T-test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair									
	Pre-test	-							
	Post-test	11.200	15.320	3.426	-18.370	-4.030	3.270	19	.004

Lastly, the researcher conducted a hypothesis test to find out whether there was a change in the students' achievement before being given treatment using research-based learning and after being given the treatment. It is determined the level of sig. (2-tailed) is 0.05. If the data obtained is smaller than 0.05, it means that there is a change in student scores from before and after the research-based learning treatment was given. Hypothesis testing was carried out using the -T test and using the SPSS 20 application to process the data. Based on table 4 above, it shows the data Sig (2-tailed) $0.04 < 0.05$. it can be concluded that there is a significant change in student achievement before giving research base learning treatment and after giving the treatment. In other words, the research-based learning method is effectively used to enhance students' listening comprehension.

Based on the results of the research data above, it can be stated that students have poor listening comprehension before being given the research-based learning treatment, as evidenced by the pre-test score that gets an average score is 60.30. And students' listening skills have increased after being taught using research-based learning method has an increasing effect on students' listening comprehension.

The results of the research above are in harmonious with Anies et al. (2017:1) who stated that research-based learning method can improve students' motivation in learning process and increasing students score. In this study, researchers saw the students' interest in the teaching and learning process in English classes increased by using this research base learning method, and it was proven there is improvement in students' listening comprehension looking from the pre-test and post-test data. Furthermore, in this study, an increasement in students' listening comprehension could occur because the researcher applied the steps of research-based learning in the correct order during the treatment period. This is the same as Rahmawati et. al Ramahwati et al. (2016:47) statement which states that research-based learning can improve students' comprehension if applied with the right steps.

The drawback of this study is that the average score of students who increased was not optimal. On this occasion the researcher was only able to increase the average score of students up to 71.51 which is still adrift below the KKM applicable for Vocational high schools in Indonesia, which is 75. This happens because of the limited time for researchers to conduct action research (only 2 weeks of treatment). If the treatment can be carried out for a longer period of time, the researcher believes that the increase in student scores can reach 7.5, equivalent to the KKM in vocational high schools in Indonesia, or even higher. The advantage of this research is that researchers can apply the stages of research base learning well so that they can improve student's comprehension. In this case, the researcher gives suggestions for further research, is to carry out the Research Base Learning treatment with the correct stages and sequences also carry out treatment with a longer time.

All in all, this study recommends applying research-based learning in the EFL contexts where students have high motivation to be an expert in the subject by actively involve in learning activities. Students can also gain critical thinking abilities as well as essential transferable skills including group work, time and resource management, and data handling through research-based learning. The results of this research can also provide new innovations for the world of education, especially for English teachers, that the research-based learning

method can be implemented in the classroom to increase student activity in English lessons and improve students' English listening comprehension.

CONCLUSION

Based on the results of the research above, it can be concluded that before the Research-based Learning method was applied, the students of Class X Culinary Vocational High School PGRI 2 Kediri had low listening comprehension. It could be seen from the average score of the students' pre-test, which was 60.30. Then by giving Research-based Learning treatment with the right steps, students' listening comprehension can improve. It can be seen through the students' post-test average score which is 71.50. With these results it proves that Research-based Learning can improve students' listening comprehension. Also, it can be stated that Research-based Learning is suitable to be applied for teaching listening in vocational high schools.

ACKNOWLEDGEMENT

The researcher expresses the first gratitude to the God because by His grace the research activities go in a good manner. Also, the researcher thanks to the SMK PGRI Kediri who has provided a place for the researcher to do the research activities. Then, thanks to Ulul Mustagfirin, S Pd who has guided us in the research process. Lastly, thanks to English Language Education Department University of Nusantara PGRI Kediri as the Sponsor in this research.

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DOI: <https://doi.org/10.31004/edukatif.v4i4.2846>

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