

THE EFFECTIVENESS OF USING EDPUZZLE INTERACTIVE VIDEO PLATFORM TO IMPROVE STUDENTS' LISTENING SKILLS AT SMK N 1 SAPURAN IN THE ACADEMIC YEARS OF 2022/2023

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Abstract

This study focuses on the effectiveness of using EdPuzzle interactive video platform to improve students' listening skills in a high school setting. Teaching listening is challenging, one of the main problems in practicing listening is that students' attention is easily distracted. Therefore, interesting interactive media is needed in listening lessons to make students interested in learning. The research objectives are to measure the students' listening skills before and after using EdPuzzle and to assess the media's effectiveness in improving students' listening skills. The researcher uses a quasi-experimental design with an experimental class using EdPuzzle and a control class without using EdPuzzle. Data are collected through pre-tests and post-tests. IBM SPSS was used to compute the data. The results of the computation of the test are Sig. (2-tailed) was 0,017. The researcher used the significance level 0,05. The computation shows that Sig. (2-tailed) value was lower than the significance level ($0,017 < 0,05$). It can be concluded that there is a significant difference between the experiment and control group data. It means that the hypothesis null (HO) is rejected, and the hypothesis alternative (Ha) is accepted. Further, using EdPuzzle is effective in improving students' listening skills.

Keywords: Effectiveness, Listening Skills, EdPuzzle, Vocational School

1 INTRODUCTION

Like the other skill, listening is essential. For many individuals, effective face-to-face communication can prove challenging without a balance of both speaking and listening skills. It is crucial to develop both abilities in tandem to ensure successful communication. It means that without good listening skills, most people cannot communicate effectively with others. Listening is an important skill in many aspects of life, including social relations and education. Communication is important because it can direct the person towards positive or increase individual and group understanding and collaboration. In the world of education, especially in foreign language learning, listening is the entry point for student understanding. More than 50 percent of student's time is dedicated to listening to foreign language learning [1]. Listening skills combine listening to someone and psychological engagement with others [2]. Meanwhile, according to Hamouda, listening is very important in language learning and everyday communication [3]. Without understanding the input, students cannot learn anything. Listening is a conscious activity of the mind whereas. However, hearing is an unconscious activity. As a result, high school students should master this skill to help them understand what others are saying as well as the teacher's instructions in the English learning and teaching activity so that they can respond effectively.

Teaching is not just about imparting knowledge; it is a complex and demanding job that requires specialized skills and knowledge to have a significant impact on student learning. Therefore, teaching can be defined as an activity that aims to achieve learning while respecting the intellectual integrity and independent judgment of the students [4]. Teachers who think their main role is to give information to their students often feel like they should be in control of everything [5]. According to Burbules, teaching is a crucial, irreplaceable, human endeavor that is also ambiguous [6]. Then, It is crucial for teachers to have a deep understanding of the subjects they teach because teachers who lack proficiency in a subject are unlikely to possess the knowledge necessary to assist students in comprehending the material [7]. On the other hand, a student is a person who is given knowledge or information by the teacher in teaching and learning.

There are several media that teachers can use as support for language learning, especially for listening skills. One of them is using online tools as media, such as web applications and online services for e-learning activities. One of the most popular online services for this is EdPuzzle. According to the research results [8], EdPuzzle interactive videos can improve students' listening skills, as evidenced by students being motivated to take part in listening classes and students giving positive feedback.

EdPuzzle web also allows educators to track student progress and performance, as well as provide personalized feedback to each student based on their responses to the questions and quizzes. EdPuzzle can be used for various subjects and grade levels, and it can be accessed on desktops, laptops, tablets, and smartphones. Teacher can produce a video with audio, notes, and quizzes. Videos can be sourced from any online video platform, be it YouTube, Vimeo, Khan Academy, or elsewhere [9]. This online media is classified as a Learning Management System (LMS) since it allows teachers to monitor student's learning behavior. Teachers can monitor the amount of time students spend watching videos, the amount of time students spend finishing the lesson, assessment completion, and assessment [10]. The actual purpose of EdPuzzle is to facilitate flipping the class. It can help teachers or lecturers deliver the course content through videos and monitor the type, but more effort is needed to motivate and encourage students to participate and prepare [11].

EdPuzzle offers several advantages for the teaching and learning process in the classroom, as highlighted by Mischel [12]. Firstly, it enhances distance education by enabling students to break down longer videos into more manageable segments and easily identify areas for review through embedded questions, improving overall engagement. Longer videos, according to research, are less likely to be watched through [13]. Secondly, it provides teachers with a means to assess learning progress in real-time as students can take quizzes during the video, allowing instructors to gauge concept retention and adapt future lectures accordingly. Additionally, the feature to add audio notes, known as signaling, temporarily freezing the video to provide additional explanations, enhances comprehension, as studies have shown that such techniques improve learning outcomes. Lastly, EdPuzzle facilitates collaboration among educators by allowing the sharing of curated video content, quizzes, and audio guidance, reducing preparation time and promoting consistency across multiple sections while enabling a collective assessment of student learning outcomes across various classes.

Using EdPuzzle is such an innovative way to increase the student's listening skills. It can assist teachers in monitoring students' listening engagement inside and outside the classroom track progress, assess understanding, and collect reports based on listening texts. Moreover, the teachers can develop the listening activities by choosing one from so many interesting videos content in EdPuzzle. The teacher can select different topics or content so that the students never feel bored with the activities. The researcher hopes the result of this research can contribute to improving students' listening skills. The researcher conducts quasi-experimental research entitled "The Effectiveness of Using Edpuzzle Interactive Video Platform to Improve Students' Listening Skill at SMK N 1 Sapuran in the Academic Years of 2022/2023".

2 METHODOLOGY

The research conducted in this study was experimental in nature. Experimental research is used to observe the effects of treatments on others under controlled conditions, as defined by Sugiyono [14]. The researcher utilized a quasi-experimental design to evaluate the effectiveness of EdPuzzle for teaching listening. The researcher administered pre-tests and post-tests to two classes; the experimental and control groups. A pretest is conducted to establish the baseline scores of the experimental and control groups before treatment, while a post-test is conducted to measure the scores after treatment. The effectiveness of EdPuzzle media was measured by comparing the results before and after the treatment [14]. The independent variable of this study is EdPuzzle, while the dependent variable is students' listening skills.

For this research, purposive sampling technique was employed due to time and cost constraints. The study involved a population of 349 students, who were divided into ten classes. Two classes, X TB 1 with 34 students and X TO 1 with 35 students, were chosen as the sample. The data was collected using pre-test and post-test methods.

During the first meeting, the researcher administered a pre-test to assess the students' listening skills. The treatment was then given for four meetings, with each session lasting 30 minutes. The experimental class received the treatment through EdPuzzle media, while the control class did not use EdPuzzle media. Finally, the researcher administered a post-test to evaluate the progress of the students' listening skills. The researcher scored the test using the following criteria:

Table.1 Scoring Student's Listening Skills

Number of Question	Score Each Number	Total Score
30	1	$\frac{\text{Correct Answer}}{3} \times 10$

3 FINDING AND DISCUSSION

3.1 Data Description

The research data was collected between May 3rd and May 17th, 2023 at SMK N 1 Sapuran. The study focused on tenth-grade students in the academic year 2022/2023 and used two classes, X TB 1 and X TO 1, as samples. Each class had 34 and 35 students, respectively, bringing the total number of students to 69. The data was collected from pre-tests and post-tests.

3.2 Descriptive Analysis

In this research, the variable being analyzed is the use of EdPuzzle in teaching listening. Descriptive analysis is utilized to describe this variable, including measurements of central tendency such as mean, median, and mode, and measurements of variation such as range, variance, and standard deviation [15]. The resulting data is as follows:

Table 2. Results of Descriptive Analysis
Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance	Median	Mode	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic			
PreTestExp	34	37	40	77	2024	59.53	1.299	7.577	57.408	60.00	60
PostTestExp	34	30	57	87	2445	71.91	1.288	7.509	56.386	71.50	70
PreTestCON	35	37	40	77	2122	60.63	1.589	9.400	88.358	60.00	60
PostTestCON	35	30	53	83	2366	67.60	1.222	7.228	52.247	67.00	70
Valid N (listwise)	34										

According to the table, the Experimental Group had a pre-test mean score of 59.53, while the post-test mean score was 71.91. The pre-test median was 60, and the post-test median was 71.50. The pre-test mode was 60, and the post-test mode was 67. The standard deviation for the pre-test was 7.57, and for the post-test it was 7.50. The pre-test variance was 57.40, and for the post-test it was 56.36. Additionally, the range of the pre-test was 37, and the range of the post-test was 30.

The Control Group had an average pre-test score of 60.63, which increased to 67.57 in the post-test. The median score for the pre-test was 51, while for the post-test it was 67. The most common score for the pre-test was 40, and for the post-test, it was 60. The standard deviation for the pre-test was 9.40 while for the post-test it was 7.23. The pre-test variance was 88.35, and for the post-test, it was 52.31. Additionally, the range of scores for the pre-test was 32, while for the post-test it was 36. To determine if the data followed a normal distribution, a Normality Test was conducted using the Kolmogorov-Smirnov statistics in IBM SPSS 25. The results of the normality test can be found in Table 3.

Table 3. Test of Normality Kolmogorov-Smirnov Using SPSS 25

		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Class		Statistic	df	Sig.	Statistic	df	Sig.
Students Score	Pre-Test Experiment	0.134	34	0.128	0.969	34	0.425
	Post-Test Experiment	0.111	34	.200 [*]	0.958	34	0.208
	Pre-Test Control	0.102	35	.200 [*]	0.974	35	0.554
	Post-Test Control	0.140	35	0.080	0.963	35	0.282

According to Field's research, data can be considered normal if the significance value is higher than 0.05. Conversely, data can be deemed abnormal if the significance value is lower than 0.05. In this study, the Kolmogorov-Smirnov column indicates that the significance values of the pre-test and post-test for both the experimental and control groups were greater than 0.05. Specifically, the experimental group had significance values of 0.128 and 0.146 for the pre-test and post-test, respectively. Meanwhile, the control group had significance values of 0.200 and 0.080 for the pre-test and post-test, respectively. Based on this, it can be concluded that the data distribution of both groups was normal.

With the data distribution established, the researcher then employed IBM SPSS 25 to run a test of homogeneity using the F-test. The results of the F-test are as follows:

Table 3. Test of Homogeneity Variance
Test of Homogeneity of Variance

		Levene	df1	df2	Sig.
		Statistic			
Students Score	Based on Mean	0.723	1	67	0.398
	Based on Median	0.672	1	67	0.415
	Based on Median and with adjusted df	0.672	1	66.616	0.415
	Based on trimmed mean	0.730	1	67	0.396

According to the data obtained from the table, the researcher found that the test of homogeneity based on the mean was 0.0861. Before conducting the experiment, the significance level of 5% (0.05) had already been decided. The researcher then computed the value of 0.851 and compounded it with the T-table value, with the numerator being one and the denominator degree of freedom being 67. The T-value is known to be significant at the 0.05 level, as per the T-table. This indicates that the T-value is greater than the T-table value ($0.861 > 0.05$). Thus, it can be inferred that the variance of the two scores is homogenous.

In this study, a hypothesis test is carried out to determine the effectiveness of using the EdPuzzle interactive video platform in teaching listening skills at SMK N 1 Sapuran in the academic year 2022/2023. If the data has a normal distribution, the researcher relies on SPSS Independent-Samples T-Test computation. The calculating independent samples test formula to decide which hypothesis will be accepted or rejected, the result as the table follows:

Table 4. Result of Independent Samples Test
Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval of the	
									Lower	Upper
Post- test	Equal variances assumed	0.031	0.861	2.446	67	0.017	4.340	1.775	0.798	7.883
	Equal variances not assumed			2.444	66.702	0.017	4.340	1.776	0.796	7.885

From the SPSS computation, the result of SPSS shows the Sig. (2- tailed) is $0.017 < 0.05$. According to Field, if the Sig. (2-tailed) is less than 0,05, the data is significantly different [15]. It can be concluded that there is a significant difference between the experiment and control group data. It means that the hypothesis null (H₀) is rejected, and the hypothesis alternative (H_a) is accepted.

Therefore, the researcher concluded that using the EdPuzzle interactive video platform is effective in improving listening skills in the academic years of 2022/2023.

3.3 DISCUSSIONS

1. The students' listening skills of the tenth-grade students of SMK N 1 Sapuran in the academic year of 2022/2023.

a. The students' listening skills in the Control Group

The post-test results showed that the students of SMK N 1 Sapuran in the academic year of 2022/2023 performed well in their listening skills test. Out of 35 students, 9% achieved an excellent level, 57% achieved a good level, 31% achieved a sufficient level, and only 3% achieved a fairly sufficient level. No students achieved a poor level. The highest score achieved was 83, and the lowest was 53, resulting in a mean score of 68.40 and a median score of 67. The standard deviation of the post-test scores was 7.233, and the variance was 52.311. The mean score fell within the range of 66 to 79, indicating that the majority of students achieved a good level of performance in the test.

b. The students' listening skills in the Experimental Group

The post-test results for SMK N 1 Sapuran's students in the academic year of 2022/2023 were impressive. Out of the 34 samples, the highest score was 87 and the lowest was 57, with a mean of 71.91 and a median of 70. The standard deviation of the post-test was 7.509, and the variance was 56,386. The interval between 66 and 79 included the mean score, indicating that the students had performed well in their listening skills post-test. Among the 34 samples, four students (12%) achieved an excellent level, twenty-four students (71%) achieved a good level, and six students (18%) achieved a sufficient level. None of the students achieved a fairly sufficient or poor level.

2. The effectiveness of using the EdPuzzle interactive video platform in teaching listening skills at SMK N 1 Sapuran in the academic years 2022/2023.

Table 4 presents the data showing that the Sig. (2-tailed) computation resulted in 0.017. The researcher set the significance level at 0.05, and since the Sig. (2-tailed) value is lower than that ($0.017 < 0.05$), the data is considered significantly different according to [15]. This leads to the conclusion that there is a significant difference between the experiment and control group data, and that the null hypothesis (H₀) is rejected while the alternative hypothesis (H_a) is accepted. Based on this, the researcher concluded that the use of the EdPuzzle interactive video platform effectively improves students' listening skills at SMK N 1 Sapuran during the academic year 2022/2023.

4 CONCLUSIONS

The discussion revealed that Edpuzzle is an effective tool for enhancing listening skills. Despite most students having already a fairly good level of listening skills, using the EdPuzzle interactive video platform significantly improved their skills. This conclusion is further supported by the pre-test and post-test results of the students' listening skills. The mean score for the pre-test was 59.53, while that of the post-test was 71.91. The scores show a significant improvement, suggesting that the students' listening skills have gotten better. After running an independent samples test, researcher found the two-tailed significance value to be 0.017, which is lower than the 5% significance level (0.05). This means that the alternative hypothesis (H_a) is accepted. Therefore, it can be concluded that using the EdPuzzle interactive video platform effectively improves students' listening skills at SMK N 1 Sapuran in the academic years 2022/2023.

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