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Edpuzzle as a Learning Medium to Improve Students' Listening Comprehension

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ABSTRACT

Listening comprehension is a foundational component of English language proficiency, yet many junior high school EFL learners struggle when instruction relies primarily on teacher-centered, audio-only practices. This study investigated whether the use of Edpuzzle, an interactive video-based platform with embedded questions, significantly improves students' listening comprehension. A quasi-experimental pre-test/post-test design was implemented with two intact seventh-grade classes at SMPN 1 Jatimulyo (experimental n = 32; control n = 32) during the 2025/2026 academic year. Students completed a listening comprehension test before and after three instructional sessions. Descriptive statistics indicated that the experimental group improved from M = 78.91 (SD = 12.49) to M = 85.94 (SD = 10.73), while the control group improved from M = 69.69 (SD = 8.61) to M = 78.59 (SD = 8.64). Because at least one distribution did not meet the normality assumption, between-group differences were tested using the Mann-Whitney U test, which showed a statistically significant difference in post-test scores (U = 308.00, Z = -2.77, p = .006). The findings suggest that integrating interactive video through Edpuzzle can enhance learner engagement and support listening outcomes in EFL classrooms.

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Learning English cannot be separated from learning the four main language skills, such as listening, speaking, reading and writing. Listening can be considered the first step in learning a language. Listening is the way people communicate to understand what the speaker conveys to the listener in everyday life and is also the most important element in learning a foreign language. This emphasizes that listening requires active participation from the listener. Not only that, but we also get information through other media.

Listening is a "receptive skill" where people get ideas according to their wishes regarding what they hear.[4] Basically listening has a different meaning from hearing. Listening involves an active process that requires sound analysis. In contrast, hearing only perceives sound passively. The purpose of listening to understand is to derive meaning from what the listener hears and then produce a response to demonstrate what they have understood.

Listening is widely recognized as a core receptive language skill that plays a crucial role in supporting the development of speaking, reading, and writing abilities. Without adequate listening competence, learners may find it difficult to communicate effectively, engage in classroom discourse, or participate confidently in language learning tasks. However, in many English as a Foreign Language (EFL) contexts, listening instruction remains constrained by limited media use, teacher-centered delivery, and low learner engagement. Instruction often takes the form of teacher read-aloud activities or the simple playback of audio recordings followed by comprehension questions. Such practices may disadvantage learners who require stronger contextual support, clearer scaffolding, and opportunities to monitor understanding while listening.

Preliminary classroom observations at SMPN 1 Jatimulyo indicated that seventh-grade students frequently experienced difficulty understanding spoken English due to limited vocabulary knowledge, lack of confidence, loss of concentration, and the speed of spoken input. These challenges were also supported by teacher reports, which highlighted that students' listening performance varied considerably from one learner to another and that instructional practice relied largely on conventional, non-interactive audio materials. As a result, students often listened passively rather than engaging actively with the content, which limited the development of strategic listening abilities.

Interactive video tools have been proposed as one solution to address such problems. By combining audio, visual cues, segmentation, and embedded comprehension tasks, these tools can help learners sustain attention, process input in manageable portions, and receive feedback during the listening process. Edpuzzle, in particular, is a video-based learning platform that allows teachers to curate videos, insert questions at specific points, and monitor students' responses. This feature encourages learners to pause, reflect, and respond while listening, potentially strengthening comprehension and reducing passive listening. Although several studies have reported positive outcomes of Edpuzzle in improving EFL listening, evidence within Indonesian junior high school contexts remains limited, particularly regarding statistically rigorous comparison with conventional instruction.

Therefore, this study seeks to contribute more empirical evidence by examining whether Edpuzzle significantly influences seventh-grade students' listening comprehension when compared with traditional audio-based teaching practices. Beyond establishing effectiveness, the study also aims to provide insight into how such technology can be meaningfully integrated into classroom

practice. This research has a research question which is, "Does the use of Edpuzzle significantly improve students' listening comprehension compared with conventional audio-based instruction?"

METHOD

Research Design

This study employed a quasi-experimental pre-test/post-test research design with a non-equivalent control group. Two intact classes were selected, one functioning as the experimental group and the other as the control group. This design was chosen because random assignment of individual students was not feasible within the school's administrative structure, yet comparison between groups was still required to determine treatment effects.

Participants and Setting

The study was conducted at SMPN 1 Jatimulyo during the first semester of the 2025/2026 academic year. Two seventh-grade classes participated: class VII.1 served as the experimental group (n = 32) and class VII.3 served as the control group (n = 32). The classes were selected using a classroom lottery procedure to minimize selection bias at the class level. All students followed the regular school timetable, and the intervention was integrated naturally within the English lesson schedule.

Instructional Treatment

The experimental group received three structured listening instruction sessions using Edpuzzle. Videos were selected to match the curriculum topics already familiar to students. Each video was edited to include embedded comprehension questions at key points to ensure learners paused, processed the content, and responded to prompts. These questions encouraged comprehension monitoring and active engagement. The control group was taught the same topics using conventional listening activities that relied on audio recordings and teacher-led questioning without any interactive technological support. Each treatment lasted for approximately the same duration to ensure fair comparison.

Instrument

Students' listening comprehension was measured using a multiple-choice listening test administered as both pre-test and post-test. The test measured three listening aspects: (1) identifying main ideas, (2) listening for specific details, and (3) making inferences based on spoken information. The test items were prepared through a pilot try-out process to ensure clarity, suitability for students' proficiency level, and alignment with the curriculum. Following item analysis, 20 items were retained for each test form to ensure reliability and practicality while still adequately representing the construct being measured. Additional information related to item sources, difficulty level, and exemplars may be added in accordance with journal requirements.

Validity and Reliability

To ensure content validity, the test was reviewed by experts and aligned with the listening indicators. Empirical validity was assessed using item-total correlation with SPSS. Items with r_count greater than r_table at the 5% significance level were considered valid and retained. Reliability was estimated using Cronbach's alpha to determine internal consistency. Values meeting accepted reliability thresholds were considered satisfactory. Details such as r_table, number of try-out respondents, and alpha coefficients can be reported more fully depending on journal specifications.

Data Collecting Technique

The Pre-Test/ Post-Test is one of the three assessment tools that is highly recommended to use because it is a concise and effective direct evaluation that can be used to improve student learning outcomes.[38] In this study data collection was carried out by using tests of multiple-choice question types by using pre-test and post-test. Data collection in this study will be carried out to obtain the data needed to achieve research objectives.

a. Pre-test to measure the level of students' understanding before the teacher teaches the material.
b. Post-test to measure the extent to which students understand the material after the teacher experiences learning.

Data Analysis

Descriptive statistics, including mean and standard deviation, were computed for both groups during pre-test and post-test. Inferential statistical procedures included Shapiro-Wilk tests to determine normality and Levene's test to determine homogeneity of variance. Because at least one distribution did not meet the normality assumption, the Mann-Whitney U test was used to compare post-test results between the two groups at a significance level of $\alpha = .05$.

Operational Definition of Variables

The operational definition of a variable is everything something in whatever form determined by the researcher for studied to obtain information about it later conclusion is drawn.[39] For this research, the variables to be used are the independent variable (X) and the dependent variable (Y).

Independent variable (X)

Independent variables are variables that influence or cause changes/appearance in the dependent variable, both positive and negative impacts. Edpuzzle is an application that used videos for learning. Can add questions to the video so that researcher can see the influence on students' listening comprehension by using the Edpuzzle Video application.

Dependent variable (Y)

The dependent variable is a variable that is influence or caused by the existence of an independent variable. Listening comprehension is one part of English language mastery skills that must be considered. There are four elements of listening comprehension, namely the ability to focus, general understanding, listening for details, and accuracy of answers. Of the four indicators, researchers only focused on two elements, namely general understanding and listening to details.

RESULTS

Descriptive Statistics

The experimental group demonstrated improvement from M = 78.91 (SD = 12.49) to M = 85.94 (SD = 10.73). Meanwhile, the control group increased from M = 69.69 (SD = 8.61) to M = 78.59 (SD = 8.64). These results show that both groups benefited from instruction; however, the experimental group achieved a higher level of post-test performance, indicating a stronger instructional effect.

Assumption Checks

Normality testing using the Shapiro-Wilk test indicated that at least one score distribution did not meet the normality assumption ($p < .05$). Levene's test for homogeneity of variance, however, suggested that variance between the two groups was sufficiently homogeneous ($p = .135$). Based on these findings, the use of the Mann-Whitney U test was appropriate for hypothesis testing.

Hypothesis Test

The Mann-Whitney U test comparing post-test scores between the experimental and control groups revealed a statistically significant difference, U = 308.00, Z = -2.77, $p = .006$. This indicates that students taught using Edpuzzle achieved significantly higher listening comprehension scores than those who received traditional audio-based instruction.

Table 1 Descriptive statistics of listening scores by group and test occasion

Group	Test	N	Mean	SD
Experimental	Pre-test	32	78.91	12.49
Experimental	Post-test	32	85.94	10.73
Control	Pre-test	32	69.69	8.61
Control	Post-test	32	78.59	8.64

The numbers in a table or graph should not be repeated in verbal descriptions presented before or after it.

DISCUSSION

The findings of this research indicate that Edpuzzle-based instruction produced

greater gains in students' listening comprehension than conventional audio-based instruction. One plausible explanation is that Edpuzzle provides multimodal input—combining auditory information with visual cues and on-screen textual support. In addition, the embedded questions create structured segmentation of listening material, enabling students to process information in manageable chunks rather than confronting long, uninterrupted passages. This helps sustain attention and encourages students to engage cognitively with content rather than listening passively.

Although both groups experienced improvement from pre-test to post-test, the experimental group not only achieved a higher mean score but also showed narrower score dispersion, suggesting more consistent outcomes across students. This supports the view that interactive video can serve as a scaffold for learners who may lack confidence, vocabulary, or concentration during listening. The platform's pause-and-question structure appears to function as guided practice, reinforcing comprehension monitoring strategies and supporting learning retention.

The study also highlights several pedagogical considerations. First, implementation requires initial familiarization. Some students needed guidance to create accounts and navigate the Edpuzzle platform, indicating that teachers should allocate orientation time. Second, interactive media should not replace direct instruction entirely; instead, it should complement teacher explanations, vocabulary preparation, and post-listening reflection. When integrated thoughtfully, Edpuzzle can transform listening lessons from passive reception into active learning experiences.

Limitations should be acknowledged. The duration of treatment was relatively short, involving only three instructional sessions. A longer intervention might yield even stronger results or show patterns of sustained improvement. The study also involved a single school context and intact classes, which limits generalizability. Furthermore, while quantitative data revealed significant differences, the study did not include qualitative measures such as student perceptions or classroom observations that might provide deeper insight into learning processes. Future researchers may consider including longer interventions, broader school samples, qualitative data, or statistical models such as ANCOVA when assumptions permit more advanced analysis.

CONCLUSION

This study concludes that the use of Edpuzzle has a statistically significant positive effect on seventh-grade students' listening comprehension at SMPN 1 Jatimulyo during the 2025/2026 academic year. Based on Mann-Whitney U testing ($p = .006$), students in the Edpuzzle group outperformed those in the

conventional audio-based group. The results suggest that interactive video platforms can meaningfully enhance listening instruction, encourage active engagement, and improve learning outcomes. Teachers are therefore encouraged to integrate Edpuzzle or similar technologies as part of varied instructional strategies to support learner comprehension. Future research should extend treatment duration, involve additional contexts, and explore students' affective responses alongside achievement outcomes.

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