The Effect of Using Digital Storytelling on Students' Listening Comprehension

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Abstract

This study is a quasi-experimental study using a post-test-only design. The purpose of the study is to determine if there is a significant effect of digital storytelling on the listening comprehension of eleventh-grade students. The population of this research was eight classes of eleventh-grade students at One of the state senior high schools in Jemberin the 2023/2024 academic year. Data was collected through a listening test. The data was statistically analyzed using a t-test with SPSS. Based on the results, the mean score of the experimental group (80.00) was higher than the control group (63.00). The significant (2-tailed) showed a value of 0.000 which was lower than 0.05. The results prove that there is a significant effect of using Digital Storytelling on students' listening comprehension on eleventh-grade students at One of the state senior high schools in Jemberin the 2023/2024 academic year. Therefore, it is suggested to English teachers, students, and future researchers to use the results of this research as a reference.

Keywords: Digital Storytelling; Listening Comprehension

Introduction

Listening is one of the four language skills that language learners need to master. It is a receptive skill because it involves responding to language rather than producing it (Aguilera & Filologia, 2012). In other words, listening is the ability to identify and understand what another person is saying. Listening is central to first and second language learning because it is closely related to the development of other skills (Vandergrift, 2007). Listening is therefore the first skill that language learners need to develop before they can learn other skills. In short, because listening skills can support the development of other language skills, they cannot be ignored. It is an important skill that language learners need to develop from the very beginning of language learning.

Listening is an essential language skill that plays a crucial role in communication. It is the most frequently used skill in everyday life and is of great importance in language learning and teaching. Attentive listening is frequently used and is essential in the process of acquiring knowledge. The ability to understand another person's speech by observing their vocabulary and communicative style is considered an essential skill. According to Permatasari (2013), active listening can improve understanding of verbal communication by using vocabulary, syntax, context, and prior knowledge. It is important to actively engage with the speaker's message and make an effort to understand its meaning.

According to Tyagi (2013), the process of listening can be divided into five stages: hearing, understanding, remembering, evaluating, and responding. Hearing involves the physical response to sound waves and requires attention to listen effectively. Understanding involves analyzing symbols such as words, sounds, and sights to understand their meaning and context. Remembering is crucial to keeping a message in mind. Evaluating involves weighing evidence, separating fact from opinion, and identifying bias or prejudice. Responding is important because it allows the speaker to judge how well his/her message has been delivered, and giving feedback is essential for successful listening. Feedback ensures understanding and helps speakers determine their effectiveness. To develop the listening skills, teacher needs to develop teaching media to facilitate students in learning.

There are some teaching media available now. One of them is digital stories that are potentially useful to apply to teaching listening (Wahjuningsih et al., 2020). Digital storytelling is a modern approach to storytelling that combines technology with traditional storytelling methods. In the past, the narrator had complete control over the delivery of the story, sound effects, and physical expressions. Hull (2005) points out that digital stories are new and exciting applications of educational technology that are easily accessible in the classroom if well-designed, developed, and presented. They are the ultimate in multimedia, including still images, animation, video clips, audio commentary and background music. It can be used for teaching and learning, especially for teaching how to understand what is heard. Ramirez and Alonso (2007) found that multimedia tools such as images, videos, and audio can enhance the experience of learning a new language by providing a more realistic learning environment. Digital stories offer an advantageous approach to the acquisition of auditory information through the use of innovative technologies.

Digital stories, a way of representing stories using technology, are effective tools for developing students' listening skills (Prakoso, Tasnim, & Fardhani, 2021; Ramirez & Alonso, 2007). Akdamar (2021) mentions the use of technology in teaching and learning processes has increased the usage of digital storytelling, which has been shown to improve learners' listening abilities. Digital storytelling has improved learners' listening abilities (Ariani & Kadarisman, 2017). Digital storytelling can be defined as the use of computers and multimedia tools such as graphics, video, images, photographs, music, voice, and text to tell personal stories and histories or stories intended to inform or instruct (Chung, 2007). It can be concluded that digital is a medium for storytelling through computers and multimedia such as videos, images, music, voice-overs, and text.

Several researchers have conducted studies to investigate the impact of digital storytelling on a person's ability to listen comprehensively. Previous researchers have investigated the use of Digital Storytelling (DST) for listening by motivating students for listening comprehension. Other researchers have previously asked students open-ended questions to determine student interest in using DST in the listening classroom. Several researchers (Tabieh, et al., 2020; Cj, et al., 2018; Basyoni, et al., 2020; Rofiq, et al., 2024) show that this research is about the role of modern technology in the teaching and learning process and its use in an integrated way with the curriculum, and according to different findings about the influence of technology use and its application by students and teachers on the learning process outcomes in general. The three researchers carried out research from primary to secondary school level using digital storytelling. The results show that Digital Storytelling provides a learning environment through stories with a relaxed and enjoyable learning atmosphere in the classroom. Using DST allows teachers to create different activities for students to practice critical listening skills. This could also be because the students themselves used the same method to understand the text they listened to, in terms of imagining the setting of the story characters, as the method used in the group that used digital storytelling.

Omoush and Alslaiti (2022) conducted research with ninth-grade students in Jordan. This study conducted research using Oral and Digital Storytelling Strategies which were used to teach students in groups. Researchers designed several tools and materials such as critical listening skills checklists, tests, and story development that are suitable for oral and digital storytelling strategies, using teacher books for implementation and evaluation. The results showed statistically significant differences between students'

average performance in all important listening skills as a result of teaching oral storytelling strategies and digital storytelling strategies. The fact showed that the use of storytelling in listening with narrative text using experimental design is relatively rare. In order to fill the gap, quantitative methodology is used to investigate the effects of digital storytelling on students listening comprehension with narrative text.

Method

The design used in this research was an experimental research design. The research methodology, which is based on the positivist paradigm, is used to investigate specific populations or collections of data through the use of research tools. The purpose of this study is to investigate the effect of digital storytelling on the listening comprehension skills of eleventh-grade students. The population of this research was eight classes of eleventh grade students. The classes were selected using cluster random sampling based on the results of the homogeneity test. The results of the homogeneity test were analyzed using analysis of variance (ANOVA).

This study was conducted in one of senior high schools in Jember. Purposive sampling method was used to select this area. In this study, cluster random sampling was used to determine the research sample of experimental group and control group. In addition, the English teacher to collect data use the homogeneity test and listening post-test. To find out the homogeneity of the population, the Levene test in SPSS was used to know whether the population was homogeneous or not. The result of the homogeneity test showed that the population was homogeneous. Therefore, in order to determine which class would belong to the experimental group and which would belong to the control group, the researcher randomly selected two classes by using a lottery.

The research used the homogeneity test of English given by the English teacher. The homogeneity was taken from eight classes of eleventh grade students. The English proficiency of the students was tested using the Levene test with the SPSS. Based on the result, the significant column value is 0.094, it was higher than 0.05 and it meant that H0 was accepted and Ha was rejected. This proved that the population of eight classes of Grade XI students was homogeneous or did not have different abilities. Based on the lottery, two classes were selected as the respondents of this research, namely class XI 4 as the experimental group and class XI 1 as the control group.

In this research, a listening test was used as the primary data. A listening test was used because the measure of students' listening performance was listening comprehension. This test measured the students' listening to parts of a narrative text. This includes general structure, purpose and features. The post-test was the listening test given to the experimental and control groups after the treatment. The aim was to see if there were significant differences in listening between the control and experimental groups. Before administering the listening post-test, the researcher conducted a tryout test to determine whether the test was valid or not. Djiwandono (1996) states that the tryout test aims to determine the validity, reliability, and difficulty index of the test. In this research, a tryout was conducted in one of the available classes. Therefore, the class used in this tryout was not included in the participants of this study. This research determines the validity of the test by using content validity. Therefore, the test was constructed based on the listening material in the Merdeka Curriculum. In addition, the reliability of the test was determined using Spearman-Brown split half in SPSS.

The validity of the test was established in this research tool by constructing the test materials based on the Merdeka Curriculum. In addition, the test was consulted with the English teacher to determine whether the test was appropriate for the level of the students or not. Therefore, it can be said that the test has validity, mainly through content validity. The test item difficulty index analysis was used to categorize whether the test items were easy, fair or difficult. This difficulty index can be classified by calculating the number of correct answers divided by the number of students taking the test. Based on the results of the item difficulty index, it was known that the range of the difficulty index is from 0.08 to 1. From the result it was known that there are 12 items that were categorized as easy. In addition, 3 items were categorized as difficult and the rest were categorized as fair. The researcher eliminated 20 items that were categorised as easy and difficult. Thus, 20 test items were categorized as fair to conduct the post-test. Based on the result, the reliability coefficient of the whole test was 0.86, it is concluded that the test items were reliable because the results were considered sufficient based on the rxy scale (Djiwandono, 1996). Therefore, the researcher did not need to make any changes to the test items because they were considered reliable tests.

After the main data of listening test results were collected, they were statistically analysed using t-test formula to find out whether or not teaching listening using digital storytelling has a significant effect on the listening comprehension of eleventh grade students in the school.

Findings

In this research, the experimental group was treated twice by using Video Digital Storytelling in listening and learning through narrative text. This activity was carried out in sessions 1 and 2 and then the researcher gave a listening post-test in the third session. In the control group, the students were given the same material as the experimental group, but the students in the control group were taught listening without using Video Digital Storytelling. This activity was also carried out in sessions 1 and 2. Then the researcher gave a post-test on listening to the students in the third session.

The main data were collected from the students' post-test scores of the experimental group (X1 4) and the control group (XI 1). The scores of these two groups were analyzed using an independent samples t-test in the SPSS 26 computer system to find the mean difference between the two groups. The mean score of the experimental group is 80.00 with a standard deviation of 18.077, while the mean score of the control group was 63.00 with a standard deviation of 26.022. The standard error means of the two groups are 3.056 and 4.337 respectively. The results of the post-test score analysis showed that the mean score of the experimental group was higher than that of the control group. Based on the results of the independent samples t-test in SPSS, the degree of freedom (df) of the post-test was 69. The significance value of the Levene test column is 0.094. This means that it was higher than the significance level (0.05). The sig (2-tailed) value was 0.000 and is less than 0.05. This means that H0, which states: "there is no significant effect in the use of digital storytelling on the listening comprehension of students in grade eleven of one of the state senior high schools in Jember" was rejected and Ha which states: "there is a significant effect in the use of Digital Storytelling on the listening comprehension of eleventh grade students of one of the state senior high schools in Jember" was accepted. Therefore, it can be said that the use of Digital Storytelling in the listening classroom has a significant effect on the listening comprehension.

Discussion

The results of the data analysis in this study using SPSS proved that the use of Digital Storytelling had a significant effect on the listening learning of the eleventh-grade students at One of the state senior high schools in Jember. The post-test scores showed that the students in the experimental group achieved a higher and better mean score than the control group. This happened because the experimental group received the treatment of learning to listen using Video

Digital Storytelling. The researcher noticed that the students' participation was more active and they were more interested in learning listening. This is in line with Fajariyah & Madya (2013) who stated that, first, the use of digital media is said to be able to ensure the listening process in the classroom, thereby improving students' listening skills. Second, the presence of images/videos in the listening phase was found to increase students' interest in learning, orient their thinking on the topic, and motivate them to learn. Thirdly, this medium makes students happy and they will actively participate in listening lessons, they will recognize patterns of stress and intonation.

The results of this study were supported by some previous studies. Tabieh, et al (2020) showed to investigate the impact of implementing DST as a method to be utilized to help pupils acquire active listening skills and creative thinking skills. The results of this research the Digital Storytelling strategy stimulates students' brainstorming skills through the various activities teachers can implement along with this strategy. It broadens their imagination and enables them to develop their versions of the story characters, settings, and the endings they desire. Moreover, it gives them the chance to be involved in the listening activity, making them more engaged in the teaching-learning process through the modern strategy that fits their technological competencies as the 21st-century generation (Cj, et al. (2018) Cj, Admowardo and Weda (2018) conducted a study using digital storytelling in classes eight-grade in SMPN 4 Parepare. The study showed that the students' result of post-test for experimental group was higher than the students' result in post-test for control group. The difference of the students' score was statistically significant; the probability value is smaller than significant level. It can be seen from the students' scores both in pre-test and post-test. Besides, the use of DST in teaching listening showed good learning interest from students after the writer taught them by using DST. Their interest can be seen in the result of their open ended-questions. Basyoni et al. (2020 found that using digital stories for learning creates a comfortable and enjoyable atmosphere for students in the classroom. The teacher can make activities for students to practice listening carefully using DST. Omoush & Alslaiti (2022) found that students who were taught through oral storytelling and digital storytelling had different levels of performance in listening. This difference was proven to be statistically significant.

Conclusion

Based on the results of data analysis, hypothesis testing, and discussion of the research findings in the previous chapter, it can be concluded that there was a statistically significant effect of using digital storytelling on the listening comprehension of eleventh-grade students at One of the state senior high schools in Jember. The results showed that the significant value (2-tailed) of the T-test analysis was 0.02 and it was less than 0.05 (0.02 < 0.005). The mean score of the experimental group (80.00) was higher than the mean score of the control group (63.00). The fact showed that there has been a significant mean difference between the experimental and control groups. Therefore, digital storytelling has a significant effect on students' listening comprehension. The researcher suggests to the following people.

1. *The English Teacher*

Digital Storytelling is an effective teaching tool to use in listening lessons. one of the state senior high schools in Jember Therefore, it is recommended that the English teachers in Jember to use Digital Storytelling as a medium to teach listening comprehension.

2. *Future researchers*

The results of this study can be used as a consideration or reference to conduct further research on the same topic using different research areas with different research designs, such as classroom action research to improve students' listening comprehension learning outcomes using digital storytelling.

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