



# Digital Musical Storytelling to Enhance First-Grade Elementary School Students' Listening Skills

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## ABSTRAK

Perkembangan teknologi dalam dunia pendidikan telah menjadi faktor penting dalam memecahkan masa-lah akademik. Saat ini teknologi pendidikan dapat menyediakan informasi dan penyampaian materi yang mudah diakses sehingga kegiatan pembelajaran yang dilakukan tidak terhambatan. Dengan begitu efektifitas pembelajaran yang dilaksanakanpun akan meningkat. Tujuan dari penelitian ini adalah untuk menganalisis penggunaan digital musical storytelling untuk meningkatkan keterampilan mendengarkan siswa kelas satu sekolah dasar. Metode yang digunakan dalam penelitian ini adalah metode eksperimen. Desain penelitian yang digunakan dalam penelitian ini adalah one group pretest-posttest design. Populasi dalam penelitian ini adalah siswa kelas 1 Sekolah Dasar. Teknik pengumpulan data terdiri dari observasi langsung dan teknik pengukuran. Data dianalisis secara statistik menggunakan SPSS. Hasil penelitian menunjukkan bahwa terdapat perbedaan rata-rata antara hasil belajar pretest dan posttest yang berarti terdapat pengaruh penggunaan digital music storytelling terhadap keterampilan menyimak siswa. Kontri-busi dari penelitian ini adalah untuk membantu siswa mempelajari mata pelajaran musik dengan lebih menyenangkan dan mudah dipahami.

## ABSTRACT

The development of educational technology has become an essential factor in solving academic problems. Educational technology can provide accessible information and delivery of material so that the learning activities carried out do not become a significant obstacle to learning effectiveness. This study aims to analyze the use of digital musical storytelling to increase first-grade elementary school student listening skills. The method used in this research is the experimental method. The research design used in this study was a one-group pretest-posttest design. The population in this study was the first graders of elementary school. Data collection techniques were direct observation and measurement techniques. The data is ana-lyzing statistically using SPSS. The results showed that there is an average difference between pretest and posttest learning outcomes, which means that there is an effect of using digital music storytelling on stu-dents' listening skills. The contribution of this study is to help students learn music courses with more fun and easier understanding.

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## 1. INTRODUCTION

Open the use of educational technology when learning is one of the efforts to implement the latest diverse technology-based learning media and promote educational technology (Halili, 2019; Robandi et al., 2019; Stanojević et al., 2018). In addition to technology, education must also prioritize using and developing learning media. Teachers must be able to raise students' listening skills so that learning takes place effectively. The development of learning media is essential because if the teacher only uses textbooks continuously (Fathoni et al., 2021; Miniawi & Brenjekjy, 2015; Muhali, 2019), it will be able to cause boredom for students in listening to learning. The language skills in the curriculum consist of four aspects: listening, speaking, reading, and writing. Listening is a critical factor in human life because, through listening activities, we can discover various information needed in everyday life interpretation of listening and understanding the material's content. Therefore, listening skills are one of the essential language skills in addition to the three other aspects of language skills. Furthermore, in everyday life, listening skills are the basis for speaking, reading, and writing skills, either directly or indirectly. Therefore, it is necessary to improve and develop digital-based learning media, such as through recordings combination of voice, video, and music narrations into Digital Musical Storytelling (Anggeraini, 2018; Korosidou & Bratitsis, 2019; Nam, 2016).

Sound, video, and music can be combined and used as a tool for digital storytelling to help teachers liven up the learning atmosphere because music can provide opportunities for teachers to tell their stories in different ways (Barber, 2016; Bechter & Swierczek, 2017; Rahimi & Yadollahi, 2017). In addition, digital musical storytelling makes it easier to direct the storyline and can increase students' learning motivation because it is more exciting and unique. Listening skill is one of the students' abilities that need to be developed by the teacher. Because listening is a communication tool for everyone, students can develop their skills through listening. For example, social skills in the environment begin with mastering listening to other people's words (Bakoko & Pratiwi, 2021; Džanić & Pejić, 2016). Music can affect student performance of cognitive tasks (Gonzalez et al., 2019; Tuuri & Koskela, 2020). Some students optimize their cognitive achievement by listening to music. Students with the younger generation utilize music while they are doing mental assignments. Every student must be able to listen to music so that students can optimize their academic performance (Amjah, 2014; Kusuma, 2019). Music course lessons are programmed to develop knowledge, positive attitudes towards music and musical skills related to combining with technology.

One strategy that teachers can use to help improve students' listening skills is digital musical storytelling. The success of using digital musical storytelling technology and media can make it easier for teachers to present their teaching materials and also help students better understand the lesson (Teppa et al., 2022; Walzer, 2016). Storytelling is the art of storytelling to instill values in children without the need to teach the child (Anggeraini, 2018; Korosidou & Bratitsis, 2019; Simsek, 2020). Storytelling is an inexpensive but very potential tool to improve students' listening skills. The interactions between teachers and students tend to be more meaningful and natural. According to previous study by through story telling students gain an emotional release through fictional experiences they have never experienced (Fernandez et al., 2017). Storytelling is an effective way to develop the cognitive (knowledge), affective (feeling), social, and conative (appreciation) aspects of children (Fernandez et al., 2017; Garmarini et al., 2021).

In addition, the song's lyrics can raise the students' listening skills. Previous study proves that using digital media helps students listen more to understand the material and makes them interested in learning it (Azmi & Widiaty, 2021). Meanwhile, another study proves that the storytelling method is effective in improving listening skills (Demirbaş & Şahin, 2022). Based on the previous research conducted above, the conclusion is that using storytelling media is an effective way to engage students with teaching materials and help them improve their listening skills. In this study, the author proposes a digital media, namely digital musical storytelling, to enhance students' listening skills. Digital storytelling is a technique using the help of digital software with a combination of images, audio, text, and video (Kallinikou & Nicolaidou, 2019; Moradi & Chen, 2019).

Digital storytelling effectively brings children's attention to listening to topics, increases their concentration on events, and makes them feel engaged in an enjoyable and entertaining environment. Based on those explanation and the result from previous studies the researcher are interested in conducted study with aims to produce digital musical storytelling to increase first-grade elementary school student listening skills.

## 2. METHOD

The method used in this research is the experimental method. The research design used in this study was a *one-group pretest-posttest design*. This research design treated a pretest before treatment by applying the musical digital storytelling method and the posttest provided (Lundh, 2020; Miller et al., 2020). The population in this study was the first graders of elementary school, totalling 24 students consisting of 12 girls and 13 boys. The sampling technique in this study is a probability sampling technique with simple random sampling to determine the class sample. Simple random sampling is a technique carried out randomly without regard to the average in the population. This study's data collection techniques were direct observation and measurement techniques.

The steps taken at the preparation stage include: (1) Observing musical courses in online classes; (2) Discuss with the teacher; (3) Prepare research instruments in the form of pretest, posttest and lesson plans; (4) Validating research instruments; (5) Revise the validation results. The steps taken at the implementation stage include: (1) Determining the research schedule according to the musical course schedule at the school; (2) Giving pretest questions to the research class; (3) Calculating the results of the pretest in the research class; (4) Carry out learning activities in the research class by providing treatment, namely applying digital musical storytelling; (5) Giving posttest to the research class; (6) Calculating the results of the pretest in the research class; (7) Processing Data; (8) Arrange all research activities.

The steps carried out in the final stage include: (1) making  $H_a$  and  $H_o$  in the form of statistical hypotheses; (2) making  $H_a$  and  $H_o$  in the form of a sentence hypothesis; (3) entering statistics from the distribution table; (4) determine the amount  $D$  and  $D^2$ ; (5) calculate the standard deviation; (6) calculate the standard error of the distribution *sampling*; (7) Test the Difference by using the dependent t-test formula; (8) Testing the effect of errors ( $\alpha$ ); (9) Comparing the results  $t_{counted}$  and  $t_{tabel}$ ; (10) Calculating the magnitude of the learning effect using

the formula *effect size*; (11) Drawing conclusions and compiling research reports; (12) Prepare an implementation schedule.

### 3. RESULT AND DISCUSSION

#### Result

##### *Media Display*

The opening began by greeting the students. Before starting the lesson, the teacher invites students to check their readiness to listen to digital musical storytelling. Videos with animations and background music can attract students' attention. When digital musical storytelling is in progress, the storyteller's facial expressions must be able to express his face according to the situation. The storyteller must also pay attention to his body movements because telling a story in a static position from beginning to end will feel boring. The story presented will be collaborated with music or songs already known to the students. So that storytellers and students can interact by singing together enthusiastically. After singing, the storyteller lowers his voice when he returns to tell the story. The high and low voices can bring students to feel the situation from the level.

When the digital musical storytelling process has ended, it is time for the storyteller to evaluate the story or ask students about the essence of the story and its values. Through these stories, we can learn about anything. [Table 1](#) shows the average score of the pretest and posttest of students listening to the drama in grade I Elementary School.

**Table 1.** Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	83.96	24	4.658	0.951
	PostTest	92.71	24	4.885	0.997

Base on [Table 1](#) shows that the average pretest of 83.96, and the average posttest score was 92.71. [Table 2](#) and [Table 3](#) present the result of the pretest and posttest related to students' listening abilities. Pretest and posttest result is show in [Table 2](#).

**Table 2.** Pretest and Posttest Results of Students' Listening Abilities

Pretest results of Students' Listening Abilities	
Number of Students	Total Score
12 students	85
4 students	80
5 students	90
3 students	75
Posttest results of Students' Listening Ability	
Number of Students	Total Score
5 students	90
9 students	95
2 students	85
1 student	80
2 students	90
3 students	100
2 students	95

Base on [Table 2](#) shows the results of the students' pretest and posttest, it can be seen that there are differences in the scores obtained by students. Student scores were higher during the posttest than the pretest. This indicates that there is an increase in students' understanding before and after using the media.

##### *Media Display*

To determine the magnitude of the influence of the storytelling method on the ability of students to listen to children, it can be known based on decision-making in the t-test, namely: 1) If the significance value (2-tailed) < 0.05, then Ho (no effect) is rejected and Ha (there is the effect of usage) is accepted. 2) If the significance value (2-tailed) > 0.05, then Ho (no effect) is accepted, and Ha (no effect is used) is rejected. The result of paired samples test is show in [Table 3](#).

**Table 3.** Paired Samples Statistics

t	df	Sig. (2-tailed)	Mean Difference	Standard Deviation	Standard Error Mean Difference	95% Confidence Interval of the Difference	
Pair 1	Pretest	83.96	24	4.658	0.951	Lower	Upper
-12.689	23	0.000	-8.750	3.378	0.690	-10.177	-7.323

Table 3 shows that the results of the 2-tailed are 0.00 or <0.05. Based on these results, it is stated that there is an average difference between pretest and posttest learning outcomes, which means that there is an effect of using digital music storytelling on students' listening skills.

**The Significant Influence of the Application of Digital Musical Storytelling on Students' Listening Ability**

To determine the effect of the storytelling method's application on students' ability to listen to children's dramas by calculating the effect size shown in Table 4.

**Table 4.** Calculation of the Cohen Effect Size

		d
Numerator		8.75
Denominator		3.378
Cohen ES		2.590290112

Base on Table 4, from the calculation of the effect size, the ES is 2.59. Therefore, learning by applying the storytelling method affects students' listening skills with a significant criterion, namely 2.59 in the range of ES > 0.8.

**Discussion**

Listening as a skill means that listening involves aural and oral skills. As an art, listening requires discipline, concentration, active participation, understanding, and judgment as learning music, fine arts, Etc. As a process, listening consists of complex skills, namely listening, agreement, reasoning, and responding. The main element in listening is responding. Listening as a skill is not limited to receiving sound and understanding meaning but also an attempt to conclude, refute analysis and interpret information (Apriati et al., 2021; Džanić & Pejić, 2016). Therefore, listening is an integrated performance that requires the listener to use their sight and hearing senses and the power of the mind in following up with the speaker's speech to understand, comprehend, and determine ideas (Chirico et al., 2015; Patrick & D., 2019). Through listening and watching, digital storytelling enables them to imagine and identify the similarities between real characters and those in the story (Chan et al., 2017; Tabieh et al., 2020). Digital musical storytelling combines music with digital storytelling. Music provides an opportunity to tell stories differently. It enhances the value of teaching materials by directing storylines, encouraging student engagement, and making stories more interesting.

The average score of students' listening skills before applying digital musical storytelling could be higher than the average value of students' listening skills after using digital musical storytelling. This aligns with the study confirming that the increase in student listening skills is due to applying digital storytelling (Basyoni et al., 2020). It supported by study state that digital musical storytelling can make better engagement between teachers and students in class. Digital storytelling provides an enjoyable learning atmosphere that influences student listening skills (Nair et al., 2022). Digital musical storytelling can improve student motivation and self-confidence, encouraged by animation images displayed through technological resources.

Digital storytelling assists the students in being active in class. Digital musical storytelling can stimulate the students to have interactive and collaborative learning in the teaching-learning process leading to more engaging and sophisticated activities. There is a cheerful student attitude towards digital storytelling (Akdamar et al., 2021; Saripudin et al., 2021). Digital musical storytelling can increase student-centeredness and interest in class activities. At the time of the application of digital musical storytelling media, student activity was much increased. Besides that, students' interest in learning or listening in musical course was seen through the activeness of every student who was enthusiastic in participating in the process of teaching and learning activities and directions or orders given by the teacher to achieve goals. Learning. In addition, students are also much better able to understand each subject matter assigned. Through digital musical storytelling, the role of teacher guidance and the materials taught are easier to enter into students' memories.

The implications of this research can contribute to improving the listening skills of first grade elementary school students through the use of digital musical storytelling. This research combines digital technology with first-grade learning, so that it can help teachers and students use technology as an effective learning tool. This study focused on first grade elementary school students, so the results may not be directly applicable to older or

younger age groups. There are other factors outside the scope of this research that can also affect students' listening skills, such as the influence of the family environment, previous experiences, and other personal factors.

#### 4. CONCLUSION

The results of the development of multimedia digital musical storytelling show that digital musical storytelling is feasible to use to support learning. Digital musical storytelling is likely possible after the researcher validates the product to media experts, material experts, and product trials. The level of student enthusiasm is measured through observations and interviews conducted by researchers with the teachers and students concerned. The results obtained by the researchers showed that students were very enthusiastic and felt happy with learning using digital musical storytelling. In addition, it showed an increase in students' enthusiasm for learning in the classroom.

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