

TED Talks as a Learning Medium to Improve Listening Skills of Vocational School Students

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ABSTRACT

Utilizing TED Talks videos provides a fresh and attractive experience for students, enhanced by their accessibility across various platforms, which simplifies the learning process for them. A variety of videos, such as those from TED Talks, can serve as useful resources for acquiring the English language. This investigation focuses on enhancing students' listening abilities through the utilization of TED Talks videos. This investigation employed a pre-experimental design to examine the issue. Pre- and post-tests were administered to a sample of 11th graders of Vocational High Schools. The findings showed that the TED Talks videos had an effective effect on improving students' listening skills. A significant number of students demonstrated the potential to enhance their vocabulary and their comprehension of various accents. Moreover, engaging in listening can empower students

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INTRODUCTION

Listening comprehension is a crucial ability to acquire, as it is critical to all daily activities. Without prior auditory acquisition, the effectiveness of other language skills and growth may be compromised (Suri, Zulkarnain, and Rahmawati, 2022). Students are required to focus on hearing and capturing the speaker in order to communicate with the person they are speaking to. Students can increase their capacity for creative thinking, critical analysis, and imaginative play by simply listening to others. When learners listen, they can create predictions and develop results based on what they hear. Therefore, to develop their abilities, students are required to train their listening skills thoroughly by learning individual sounds, practicing vowels, and deciphering short words so that students can develop extensively and comprehensively.

However, developing listening comprehension poses significant challenges for many learners. Various internal and external factors influence students' auditory skills, often making listening a painstaking process. Learners struggle with understanding diverse accents, teacher delivery, and limited vocabulary exposure, which can result in feelings of anxiety and frustration (Patty, 2024). Traditional instructional techniques can exacerbate these challenges, particularly if teachers use regional dialects or if students are constrained to specific topics unrelated to their interests. Recognizing these hurdles, educators must leverage engaging and authentic materials, which can significantly enhance students' listening experiences and foster comfort in their language acquisition journey.

Listening is considered a difficult ability in its elements because this ability requires conveying and receiving opinions, as it requires more effort from some students than others (Izzah et al, 2020). However, listening comprehension is not easy, even though it plays an important role in communication. The difficulties faced in learning listening comprehension are, of course, influenced by many factors. Based on what is happening, many external and

internal factors have become problems. Many teachers still use their regional language accents, teachers are limited in conveying new vocabulary taught at school, students cannot choose the topic they want because they have to follow school rules, and Students often experience problems in practicing it due to feelings of worry, panic, fear, and frustration caused by their inability to understand the vocabulary and accent of the speaker. Therefore, it is necessary to provide authentic, engaging, and flexible listening materials to help students overcome these challenges. One solution is to use TED Talks videos as a learning medium.

TED Talks, one of the well-known kinds of videos that can be seen on YouTube, is a series of video discussions performed by public speakers to share their experience and motivation with the audience. They provide real-life spoken English from various speakers with different topics, accents, and expressions, which can significantly support students in improving their listening comprehension skills. Starting in 2006, each speaker explains effectively, as each talk is usually limited to 18 minutes or less. According to Upa & Muljiani (2023, cited in Taibi et al, 2015), there are over 1,800 publicly accessible lectures and a comprehensive collection of 35,000 transcripts in over 30 languages, and the number is on the rise. Therefore, it is a suggested tool for students to employ in their pursuit of improved listening comprehension as they study English as a foreign language. It is one of the media that may be used to teach students' learning because it contains more than 1,800 conversation videos. TED Talks is used as a resource for learning English, particularly in practicing listening skills. Nawaz et al (2021) found that as many as 20 students indicated improvements in their English-speaking skills, particularly in pronunciation, fluency, and accuracy, as a result of engaging with TED Talks videos. Instead of reading books, many students prefer watching TED Talks videos because they can hear new words and accents. In other words, students improve their listening skills by watching TED Talks videos.

There are benefits to utilizing TED Talks in English language education. Students can use TED Talks as listening learning materials because the speakers use different languages and accents, allowing them to become accustomed to such variations. In learning listening skills, TED Talks serve as an effective and authentic medium that exposes students to real-life English used by native speakers with diverse accents, intonations, and topics relevant to everyday situations. This helps students expand their vocabulary, improve their understanding of spoken sentence structures, and get accustomed to listening to English in a natural context. To support and reinforce this learning, researchers use platforms like Educaplay as an interactive technique to create audio-based exercises such as quizzes, gap-filling, and word matching linked directly to TED Talks videos. The combination of TED Talks as the main media and Educaplay as a supportive practice tool makes the learning process more engaging, meaningful, and effective in building students' confidence. Moreover, learning through the TED Talks YouTube channel offers great flexibility, as students can access the videos anytime and anywhere (Sari & Sujarwati, 2023).

Empirical studies support the assertion of TED Talks as beneficial tools in developing listening skills among EFL learners. Recent studies have demonstrated the positive impact of TED Talks on learners' listening proficiency and their motivation to improve (Evtyugina et al., 2020; Fitria, 2022). Despite these promising findings, prevailing studies often fall short of addressing two critical gaps. First, while some research highlights quantitative improvements through traditional assessment methods, a deeper investigation into the intricacies of the learning process and the strategies deployed by students while engaging with TED Talks remains unexplored. Second, research indicates a necessity for a closer examination of how teaching materials can be tailored to fit the diverse needs of learners, particularly in vocational education settings where learners may have distinct linguistic challenges (Patty, 2024).

Previous studies on the utilization of TED Talks as a medium for learning listening have shown positive results in improving students' listening skills and learning motivation. However, two main gaps still need to be explored further. First, most studies, such as those conducted by Wulan (2020), are still limited to quantitative measurements through pre-tests and post-tests without delving deeper into the learning process, obstacles, and strategies students use while using TED Talks. Second, other studies such as those by Izzah, Hadi & Rosa

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(2020) highlight that although students feel the benefits of authentic materials such as TED Talks, there are still few studies that specifically adapt the materials and scaffolding for students with different levels of ability, especially in the context of vocational students who have special needs and characteristics. According to these two references, a research gap exists regarding the utilization of TED Talks as a listening medium in vocational schools. Existing research generally has not examined in depth how TED Talks materials can be adapted and integrated effectively according to the needs of vocational students, including scaffolding strategies for various levels of listening ability. In addition, aspects of the learning process, obstacles faced by students, and external factors such as motivation, access to technology, and teacher support have not been widely explored. Thus, this study will highlight the implementation of materials, mentoring strategies, and learning experiences of vocational school students more comprehensively so that the utilization of TED Talks is truly optimal in improving their listening comprehension skills.

This research aims to explore the utilization of TED Talks in the vocational education context, specifically focusing on scaffolding strategies that accommodate varied listening proficiencies among students. By understanding how to adapt TED Talks materials to meet specific educational needs, educators can better address the challenges that arise from diverse linguistic backgrounds and learning environments. Investigating factors such as motivation, access to technology, and support from educators will provide a multifaceted view of students' experiences and inform future pedagogical approaches. This study will seek to elucidate the implementation of tailored TED Talks material, mentorship strategies, and the broader experiences of vocational high school students to ensure a comprehensive understanding of listening skills development within this unique educational context.

METHOD

Research Design

For this investigation, a one-group pre-experimental pre- and post-test method will be used. It is a type of research that involves implementing a performance to the study group and subsequently observing the results. In the process of conducting research, researchers establish study groups rather than randomizing participants. Researchers employed TED Talks as an authentic learning medium for improving students' listening comprehension, aiming to evaluate the improvement of listening skills among students in vocational schools. One group, the experimental group, was subjected to treatment using the Contextual Teaching and Learning (CTL) framework in this pre-experimental design research approach. The one-group pre- and post-test method is employed by the researcher, which involves giving an initial test (pretest) before treatment and giving a retest with the same questions as the final test (posttest) following treatment. This design is characterized by administering a performance-based task to the study group and observing the outcomes without employing randomization of participants, thereby ensuring clarity in pre- and post-intervention assessments (Elahifar et al., 2022; Gohar, 2023).

Table 1. One Group Pre and Post test

Pretest	Treatment	Posttest
O1	X	O2

Overview:

X: Treatment with the Contextual Teaching and Learning model

O1: Test before treatment with TED Talks

O2: Test after treatment with TED Talks

Researchers use TED Talks as a primary medium to improve students' listening comprehension skills by providing authentic English content with various accents, intonations, and vocabularies used in real-life contexts. To support comprehension and reinforce the listening materials, Educaplay is applied as a supplementary technique offering interactive activities such as quizzes, puzzles, word fills, and matching tasks based on the TED Talks video. Through this integration, students not only gain exposure to real English usage



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but also engage actively with the material. Kumi et al (2024) argue that learners' achievement is particularly influenced by learners' perceptions. Learners show increased motivation when their ideas and participation are acknowledged. TED Talks videos, with their inspirational and relevant topics, help create a positive classroom atmosphere, encouraging student engagement, improving comprehension, and ultimately enhancing academic performance.

Participants

Purposive sampling was used to select the participants for this research, targeting a single class of 35 students of a Vocational High School in Indonesia, majoring in Computer and Network Engineering (CNE). This method ensured that the chosen group effectively represented the population of interest for assessing the effects of the integrated TED Talks on listening skills (Alber & Safriyanti, 2021).

Data Collection Procedures

The purpose of this study is to analyze the effectiveness of integrating TED Talks as a learning medium to improve the listening comprehension ability of vocational school students. The data collection procedure in this study was conducted using a one-group pretest-posttest method in a pre-experimental design. The participants were selected from one class of 11th-grade students majoring in CNE at one Vocational High School using purposive sampling. The data were collected in three main stages. The first stage was the Pre-test. Students were given a listening comprehension test before the treatment. The pre-test aimed to identify students' initial listening abilities.

The second stage was Treatment. Over several sessions, TED Talks videos were used as the main learning material. The videos were selected based on topics relevant to students' majors and interests. Educaplay was used as a supporting platform to design listening activities such as quizzes, gap-filling, and vocabulary exercises related to the video content. The last stage was the Post-test. After the treatment, students conducted a post-test with the same format as the pretest to measure any improvement in their listening comprehension. To determine whether the use of TED Talks was successful in improving students' listening skills, researchers compared students' performance on a pre- and post-test. Using TED Talks as part of a lesson strategy helped students learn more effectively.

Data Analysis Procedure

A pre-experimental design was used by the researcher, one group pre- and post-test. The purpose of the data analysis procedure was to test the effectiveness of TED Talks as a learning medium to improve students' listening comprehension. This research analysed the data by comparing the subjects' pre-test and post-test scores. The pretest occurred before the implementation of TED Talks learning to evaluate students' initial listening abilities. The posttest occurred after the treatment to evaluate the students' development. To support the quantitative comparison of student performance before and after the treatment, the researcher used descriptive statistical analysis by calculating the percentage of students in each performance category. The percentage was calculated using the following formula:

$$\text{Percentage} = \frac{\text{Number of students in the category}}{\text{Total number of students}} \times 100\%$$

This formula was applied to classify student performance, such as Excellent, Good, Satisfactory, Poor, and Weak, for both pretest and posttest scores. This technique aligns with Arikunto (2011), who emphasized that percentage analysis is essential for presenting educational data in a concise and meaningful way.

FINDINGS AND DISCUSSION

Before beginning the study, researchers apply a Pre-test to measure students' initial listening comprehension. Then, a Post-test was conducted at the end to investigate students' final performance after receiving the treatment. During the treatment phase, to increase student engagement in listening and develop skills, the researcher periodically showed TED Talks videos in class and provided listening comprehension questions to assess student

comprehension. The videos were delivered using Educaplay. The following five categories are used to classify student grades, according to Juita (2024) cited in Arikunto (2011):

Table 2. Student Scores Classification

Range of Score	Qualifications
80 – 100	Excellent
68 – 79.9	Good
55 – 67.9	Satisfactory
40 – 54.9	Poor
< 40	Weak

The instrument that was employed in this study was a listening comprehension test. This test was compiled based on the contents of the TED Talks video according to their field of expertise, namely computer and network engineering. The format of the test is short answers that test the understanding of vocabulary, specific information, main ideas, and the ability to summarize the contents of the material listened to.

Planning and Action Session Result

Planning Session

This study aims to explore the implementation of materials, scaffolding strategies, and learning experiences of vocational school students in listening learning using TED Talks. A One-Group Pretest-Posttest Design was used for the research, which involves one group of students who are given a pretest, treatment, and posttest.

Identification of Topics and Materials: Researchers use TED Talks videos that are appropriate to the students' ability level and relevant to the vocational school majors. **Educaplay Integration:** Use the Educaplay platform to create interactive quizzes based on TED Talks videos, such as video quizzes and gap-fill exercises, to increase student engagement and strengthen their understanding of listening materials.

Action Session

Pre-Listening: The teacher introduces the topic and vocabulary that will appear in the TED Talks video. Students are invited to participate in a discussion to estimate the video's content based on the title. **Whilst-Listening:** Students watch TED Talks videos with English subtitles through the Educaplay platform. While watching, students answer questions provided in the form of quizzes on Educaplay to help focus on important information. **Post-Listening:** Students discuss with the teacher to discuss the video content and answer follow-up questions. The teacher provides feedback and clarification on students' understanding.

Pre-Test Result

To determine the CNE students' listening skills, researchers first carried out a pre-test. The test consists of questions that ask about computers and networking based on the student's major. 80 was the highest score, then 20 was the lowest score; the average score achieved was 60. In the following table, the results of the pre-test are divided into categories:

Table 3. Pre-Test Result (O1)

Range of Score	Qualifications	Number of Learners	Percentage
80 – 100	Excellent	6	17.65%
68 – 79.9	Good	20	58.82%
55 – 67.9	Satisfactory	4	11.76%
40 – 54.9	Poor	2	5.88%
< 40	Weak	2	5.88%

According to the pre-test results, it is known that as many as 58.82% of learners are in the good category, but only 17.65% of learners managed to reach the Excellent category. This shows that although most learners have quite good basic skills, there are still very few who have in-depth mastery of listening skills before the treatment is given. However, there are 23.52% of learners who have low listening skills. Based on the test analysis, the scores obtained in the Excellent category were only 6 learners.

Post-Test Result

At the end of the research. Lastly, researchers did a test after the treatment. The highest student score was 100, then the lowest student score was 50. The scores on average were 95.

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The result is an improvement with the implementation of TED Talks as a learning medium. In the following table, the results of the post-test are divided into categories:

Table 4. Post-Test Result (O2)

Range of Score	Qualifications	Number of Learners	Percentage
80 – 100	Excellent	34	97.14%
68 – 79.9	Good	0	0
55 – 67.9	Satisfactory	1	2.86%
40 – 54.9	Poor	0	0
< 40	Weak	0	0

The results are very satisfying, there is a lot of progress in the post-test results that have been given. The percentage of students achieving the minimum score experienced an incredible increase from 17.65% to 97.14%. The total number of students classified as Excellent improved from 6 to 34. Interestingly, post-test results indicated that none of the learners were in the 'Poor' or 'Weak' category. This shows that the majority of students experienced significant improvement, reflecting the effectiveness of using TED Talks in improving overall listening skills.

The findings indicate that students' ability to improve listening skills through the use of TED Talks shows an increase in listening comprehension. This improvement shows up in both the pre- and post-test sessions. The results of students' listening skills in the pre-test are classified as low.

The researchers implemented the treatment using TED Talks videos during class sessions, which allowed students to directly engage with authentic listening materials. During the pre-test, students were asked to answer several listening questions, and the results showed that most of them had difficulties due to confusion and limited vocabulary. During the treatment, TED Talks videos were integrated into interactive exercises through Educaplay, the engaging content and visual support in the videos allowed students to be engaged and motivated, and students also acquired new vocabulary and better understood spoken English. As a result, their performance increased significantly from 17.65% in the pre-test to 97.14% in the post-test, showing that TED Talks was very effective in improving their listening skills and served as an accessible and innovative learning tool.

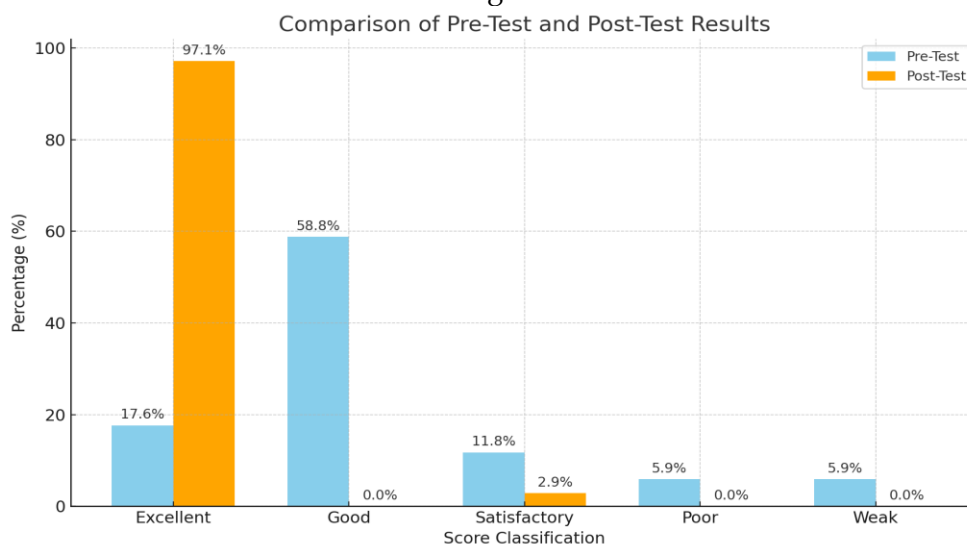


Chart 1: Comparison of Pre- and Post-test

Description:

- The "Excellent" category increased drastically from 17.65% to 97.14%.
- The "Good", "Poor", and "Weak" categories became 0%, indicating significant improvement.
- TED Talks integration is very effective in improving vocational school students' listening skills.

The findings of the research indicated that utilizing TED Talks as a medium for listening and learning strongly improved the listening abilities of vocational schools specializing in computer and network engineering students. The increase in the percentage of learners in the "Excellent" category from 17.65% to 97.14% in the post-test confirmed that the

integration of contextually appropriate authentic media was able to strengthen students' understanding of spoken English.

This success was not only determined by the content of TED Talks alone, but also by the application of relevant materials, structured mentoring strategies (pre-, during, and post-listening), and active and contextual learning experiences. The materials were selected based on their proximity to the students' areas of expertise, thus helping to increase their engagement and motivation. This agrees with what Nawaz et al (2021) said that TED Talks can strengthen students' spoken language skills due to exposure to diverse accents, understandings, and topics.

In addition, the use of the Educaplay platform to support quizzes during the listening session provides additional scaffolding needed for students with varying abilities. This answers the gap in previous research, as mentioned by Izzah, Hadi & Rosa (2020), that adaptation materials and mentoring strategies are still rarely discussed, especially in the context of vocational schools. In terms of learning experience, students are more active and interactively involved because they hear native English speakers directly in real contexts.

CONCLUSIONS

Researchers found that integrating TED Talks as a learning medium into listening classes provides big benefits and effectiveness for vocational school students, enhancing their engagement and motivation. The research findings indicate that TED Talks videos enhance students' listening skills by offering authentic dialogues from native English speakers. These materials provide authentic and demanding listening experiences directly linked to students' vocational fields. Additionally, TED Talks contribute to vocabulary expansion and enhance awareness of various accents and speaking styles. Integrating TED Talks into the listening learning process offers an innovative and effective method that markedly improves the listening skills of vocational students.

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