# U\$ING TEDx TALK\$ TO IMPROVE \$TUDENT\$' \$PEAKING ABILITY AT ENGLI\$H DEPARTEMENT OF IAIN PAREPARE

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#### ABSTRACT

TED is a series of informative, educational, inspiring, and sometimes mind-blowing talks featuring 'Ideas Worth Spreading'. TED Talks is a digital platform that can be accessed by all people to get information or entertainment. TED Talks is a YouTube channel filled with motivational speeches. therefore this study aims to determine the improvement of students' speaking skills by using the TED Talks video in terms of Fluency in the 4th semester of English department students of IAIN Parepare. The design of this study uses the experimental method. The population of this research is 59 students in semester 4 consisting of 3 classes. The sample in this study was class C semester 4th consisting of 15 students who were taken based on purposive sampling. The research design is a one-group pretest and post-test design. In this study, there were three stages, namely pre-test, treatment, and post-test. The instrument used is a speaking test. Calculation of data in this study using automatic data analysis in Microsoft Excel and manual data using formulas. The research results showed that using TED Talks as a medium for student learning can improve students' speaking ability in terms of fluency. This is evidenced t-test value on fluency (3.62), which is higher than the t-value table (1.761). This study concludes that students' speaking skills are better after receiving treatment than before being given treatment. It implies that TED

Keywords: TED Talks, Speaking Skill. Experimental design

# **INTRODUCTION**

anguage is a communication tool used to interact between individuals. Likewise, the process of learning a language is very important, according to Gerald, Delahunty, James, and Garvey, language is a means of education, an object of education, an object of our beliefs, a potential problem, a potential resource for teaching critical thinking, and a key element of our students' social, cultural and personal identity.(Gerald p. Delahunty, 2010). Therefore, to be able to interact not only in your own country but also with foreigners, of course, you have to learn or know the language. One of the languages that can be learned is English because English is an international language. In Indonesia, English is occupied as a foreign language. Currently, in the era of globalization, many people want to improve their English skills, especially young people, because seeing the times, especially in this era of technology, it has become part of people's lives around the

world which has resulted in a lot of website use or information sources, most of which use English. So the desire to improve English language skills is increasing, especially in speaking skills.

This increase can be seen from the use of English learning applications which are increasing every day. The ability to speak English, especially speaking, has competitiveness both in the world of school, campus and in future careers.

In this case, speaking is a communication tool to communicate or convey something to others, and speaking plays an important role in our daily lives. The modern era like now is an era that makes it easier for us to find information and indirectly we can use it as a place of study, one of which is learning languages, especially English. Now, there are many ways we can do it, through tutoring courses, or self-taught learning through watching YouTube. TED Talks are examples of inspirational videos that are similar to public speaking, sharing experiences, and motivating audiences. TED Talks not only teach public speaking but also teach about the topic of conversation, so students can be inspired and motivated by the speaker. According to Carmine Callo, TED presentations can change the way people see the world in art, design, business, education, health, science, technology, and global issues. Oprah Winfrey once said, "TED is where brilliant people go to hear other brilliant people share their ideas." (Carmine Gallo, 2014)

According to the TED organization, TED (Technology, Entertainment, and Design) is a nonprofit devoted to spreading ideas, usually in the form of short and powerful talks. By using TED Talks, students can improve their speaking skills, learn how the body moves, and boost students' self-confidence. TEDx Talks is a YouTube channel filled with motivational speeches. the use of TED Talks, including in Indonesia, is quite a lot. can be seen from the many journals and articles that use TED talks as a medium to improve students' speaking skills in their research. Until now, TED Talks are still very popular, moreover, they can be accessed for free and made especially for the social media era. Not only that, TED Talks can not only help improve English speaking but also provide information and motivation to its users. Video TED Talks have a huge advantage if used as a learning medium where the videos are truly authentic because the speakers share their own stories, ideas, and personal experiences with the audience not only TED Talks also give a strong message to every student learning English as a language their foreign

Speaking activity is an activity that is carried out by everyone every day to interact with each other and the abilities possessed by each individual. In this study, researchers will focus on observing the use of TED Speaking to improve students' speaking skills, especially fluency used in preexperimental research because the main problem was that students always had difficulty when they started speaking and also students always felt they lacked vocabulary. Therefore, researchers were interested in researching vocabulary and fluency in using TED Talks to improve students' speaking skills. Based on the problems above, the researcher wants to help students improve their speaking skills by using TED Talks as a learning medium. TED Talks is a digital platform that can be accessed by all people to get information or entertainment. According to Yaqin & Athena, TED Talks have many advantages, such as being able to learn gestures while speaking and getting a lot of motivation and information from TED Talks videos. So that students feel happy to retell or practice speaking (Yaqin & Athena, 2022). According to Salem, TED Talks are videotaped and those who convey the information are native English speakers so they can be authentic materials for students to learn English TED videos can be very helpful in improving speaking skills and retaining vocabulary (Salem, 2019). Based on the description above, the researcher is interested in providing solutions on how to improve students' speaking skills through TED Talks. Based on the previous explanation, the main objectives of this research were "To improve the students' speaking fluency by using TED Talks in the 4<sup>th</sup> semester of the English department of IAIN Parepare.

## **REVIEW OF LITERATURE**

#### **1.2 Previous Research Findings**

The first Article from Nursafira is entitled *TED Talks in EFL Context: An Alternative Way for Teaching and Improving Students' Speaking Skills*, where this research aims to discuss how technology-based video TED Talks can be useful in improving students' speaking skills. Researchers used qualitative methods and collected relevant paper-based data that had studied TED Talks as learning media to improve speaking skills. The results of this study indicate that TED Talks improve students' speaking and motivation for teachers and students in terms of increasing enthusiasm, inspiration, and insight. The findings from this study are that these TED Talks can also change students' perspectives for the better (Nursafira, 2020).

Sailun & Idayani is entitled *The Effect of TED Talks Video Towards Students' Speaking Ability At English Study Program of FKIP UIR*. The researcher was interested in conducting a study that was focused on the effect of TED Talks Videos on students" speaking ability in the third semester of English Study Program FKIP UIR. They used experimental research and collected data using post-tests and pre-tests. The results of this study state that there is a significant effect of the TED Talks video on students' speaking abilities in the UIR FKIP English Study Program.(Sailun, B., &Idayani, 2018).

Aprilia is entitled *Improving Public Speaking Skills at the University Level Through Ted Talks Short Sessions*, This research aims to determine the effect of TED Talks on the performance of public speaking students. This study uses a type of qualitative experimental method where students are divided into 2 groups, namely the experimental group and the control group. And researchers use SPSS. The results of this study indicate that there is a significant difference in the score results between the control group and the experimental group. In the experimental group, it

was 89.10 and in the control group was 83.60. The researcher concluded that this study revealed that short TED talk sessions can be beneficial for improving students' public speaking performance (Aprilia & Surabaya, 2022).

## 1.3 Some Pertinent Ideas

### 1. TED Talks

TED is a series of educational, inspiring, informative, and sometimes jaw-dropping lectures featuring 'Ideas Worth Spreading'. so students will have the opportunity to develop their spoken language competence. This Ted's emphasis is on educating, informing, and opening people's eyes to new ideas, making it perfect for students (Sailun, B., &Idayani, 2018).

TED Talks is one of the inspirational videos that can be used in learning to speak. TED (technology, entertainment, and design) Talk is a video in the form of sharing experiences and motivating the audience since 1984. TED presentation is used to improve students' public speaking skills in English, By watching TED Talk videos students not only learn about speaking but also learn about the speaker's life because the speaker shares their stories, ideas, and personal experiences. TED Talks are the right medium to use in improving students' speaking skills (farid miftah, 2019).

TED was born in 1984 and was founded by Richard Saul Wurman, with Harry Marks a combination of three fields: technology, entertainment, and design. in 1990 TED held its Annual Conference in Monterey, California. TED's initial concern was technology and design but broadened its focus to include scientists, philosophers, musicians, business and religious leaders, philanthropists, and many others. The following year 2001–2006 saw three major additions namely TEDGlobal, TED Prize, and TED Talks. Where the first TED Talks were posted online on June 27, 2006. And at 3 months in September to be precise, more than one million people have watched it. TED Talks became very popular when it was proven in 2007, they officially created the TED website.

In 2008, TED Talks, relaunched TEDActive, a live version of the spring TED Conference. Then later in 2009, the TED Talk increased to 100 million. and until now TED Talk has become very popular.(TED., n.d.)

## 2. Speaking

Speaking is the skill of sharing someone's ideas, feelings, suggestions, and information, with different people in oral type by considering the social and cultural context occurred. Speaking may be a way to share, to communicate, and to make meaning. Speaking is a way to give ideas and express, and inform others through verbal communication. Speaking may be used as communication. Communication uses verbal and non-verbal symbols of language. Speaking has an important role in lifestyle and embraces transference concerning what people express or think (Rusiana, 2021).

Speaking skills are among the most challenging for students in expressing and conveying their ideas in the target language, and in speaking also of course students must know how to communicate their ideas through verbal and nonverbal language (Rohmah, 2022).

Speaking is a process of conveying information or thoughts from the speaker to the listener. Therefore students must have a lot of experience and knowledge to develop their ideas in speaking, speaking skills in learning English aim to make students able to communicate and convey messages well (Choirunnisa & Sari, 2021).

a. Components of Speaking

According to Harris In Kurniati, (2015), there are five components of speaking skills concerned with comprehension, grammar, vocabulary, pronunciation, and fluency.

a) Comprehension

To start oral communication certainly requires a subject to respond to a speech.

b) Grammar

In a conversation, students must be able to compose good and correct sentences. As stated by Heaton (1978: 5) students must be able to manipulate structure and distinguish grammatical. grammar of language use is also intended to acquire expertise in language both orally and in writing.

c) Vocabulary

Vocabulary is one of the most important things used in communication because to be able to communicate effectively and convey ideas both orally and in writing it is necessary to have a good vocabulary as well. If someone is lacking in terms of vocabulary then this will be a barrier to being able to convey something in speaking English both orally and in writing. in the sense that it will be difficult to convey something

d) Pronunciation

Pronunciation is Pronunciation is a way students can use to produce clearer language when they speak. so that it is easy to understand in communicating, of course, you have to learn about how grammar is in the language

e) Fluency

Fluency is the ability to speak fluently and accurately, fluency can also be defined as the ability to speak, read, and write fluently, expressively, and easily. This fluency is characterized by a fast pace with several pauses and "ums" or "ers", thus indicating that the writer does not need to spend a lot of time looking for the elements of language needed to convey the message (Azlina et al., 2015).

## b. Types of Speaking

Brown (2004: 141-142) explains several categories of speaking skills as follows

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#### 1) imitative.

is the ability to repeat (imitate) back a word, phrase, or sentence. And can train memorization.

2) Intensive.

The second type is that students show competence in some aspect of the phrase, grammatical, lexical, or phonological. This performance is usually carried out in groups such as reading aloud, taking turns completing sentences and dialogues, reading information from charts, etc.

3) Responsive.

Responsive assessment tasks include interaction and test comprehension such as very brief conversations, standard greetings and small talk, simple requests and comments, and the like.

4) Interactive

responsive and interactive is almost the same. The difference lies in the length and complexity of the interactions, which sometimes include multiple participants. This interaction has two forms transactional language, which has the purpose of exchanging specific information, and interpersonal exchanges, which have the purpose of maintaining social relationships.

5) Extensive (monologue).

Students are given tasks in oral form such as speeches, oral presentations, and storytelling, therefore broadly students need to know the knowledge of vocabulary, pronunciation, and language functions in the English language they will use (brown, n.d.).

## METHOD

The research was a Pre-experimental design that applied one group pre-test, treatment, and post-test design. According to Sugiyono Pre-experimental design is a design that covers only one group or class given pre-test and post-test. The design of one group pre-test and post-test design is carried out on one group without a control or comparison group.

This research method was tested on fourth-semester students at IAIN Parepare. The pre-test was carried out before treatment at the first meeting and then the post-test after treatment at the last meeting. This study used TED Talks to improve students' speaking skills in terms of fluency. Research Location and Duration

The location and duration research took place at IAIN Parepare. The time needed for the research was carried out starting from a preliminary study in January 2023 until the time the research was conducted and the presentation of the data after the research.

This research was conducted in IAIN Parepare. The subject of this research is 4th-semester students in IAIN Parepare in the academic year of 2022/2023. The population of this research was the 4th-semester students of IAIN Parepare, which consists 3 classes of the English education department and a total are 59 students in the academic year 2022/2023

In this study, the researcher has chosen one class to represent the entire population. The TBI C class, which consisted of 15 students from the English department of IAIN Parepare, was a sample because TBI C was considered to have the potential to be taught in improving their speaking because after observing the researchers found that among the 3 TBI C classes it was considered lacking in terms of vocabulary mastery and fluency in speaking. Therefore the researcher felt it was right to choose this class as a sample. The technique for taking this class is to use a purposive sampling technique.

The data collection in this research was Quantitative research. The researcher used TED Talks for students as a learning medium as well as a tool to measure student speaking. The researcher was collected pre-test and post-test data to get the final research results, The pre-test applied to get the first achievement of the students before treatment, and the post-test applied to get the achievement of the students after treatment, in treatment the researcher observed the learning process and provide several activities to students, this treatment applied for 6 meetings.

After carrying out the technical data collection procedures. The next step is data analysis. To describe students' ability to speak in research using the following formula:

1. Calculating the mean score of the students' speaking test by using the following formula:

$$x = \frac{\sum x}{N}$$

Where:

X = the mean score

 $\sum X$  = the sum of all score

N = the total number of students

(Gay,2006:298 in Hasyim:2010)

2. Finding the improvement percentage of student achievement in Speaking after using TED Talk. The formula is as follows:

$$P = \frac{x^2 - x^1}{x^1} \times 100$$

Where:

P = The percentage of the students' improvement

X1 = The mean score of the pre-test

X2 = The mean score of post-test

3. Finding out the significant difference between the pre-test and post-test by calculating the value of the test using the following formula:

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$$t = \frac{\overline{D}}{\sqrt{\sum \frac{D^2 - \left(\sum \frac{D^2}{N}\right)}{\overline{N(N-1)}}}}$$

Where:

- t = text of significance
- D =the mean score
- D = the sum of differences
- N =the total number of the students

(Gay, 2019:33)

## FINDINGS AND DISCUSSION

### FINDING

1. The Improvement of Students' Speaking in terms of fluency

In this study, the researcher also assessed students' fluency in speaking skills. and done by using pre-tests and post-tests. After the researcher gave the pre-test and post-test, there was an increase in students' speaking skills in terms of fluency. This can be seen by the significant difference between students' pre-test and post-test scores. In addition, this researcher has also calculated the percentage of student improvement. The percentage can be seen in the following table

No.	Indicator	Pre-test	Post-test	
	Mean score	66.6	72.4	
2.	Improvement	8.708%		

Table 1. The Improvement of Students' Speaking in terms of fluency

Table 1. describes that the mean score in the pre-test was lower than the mean score of the post-test. The mean score of the pre-test was (66.6), and the mean score of the post-test was (72.4). it was improved from the pre-test. The percentage of improvement in the students in pre-test to post-test was (8.708%). It means that TED Talks could improve students' fluency in speaking.

2. The students' frequency and percentage in terms of Fluency

The following table shows the percentage of students' vocabulary and the frequency after doing the pre-test and post-test.

			Pre-Test		Post-Test	
NO	Category	SCORE	Frequency	%	Frequency	%
5	Excellent	86-100	0	0%	0	0%
4	Good	75-85	2	14%	3	20%

Table 2. The students' frequency and percentage of Fluency

3	Avarage	60-74	13	86%	12	80%
2	Fair	40-59	0	0%	0	0%
1	Poor	10-39	0	0%	0	0%
TOTAL			15	100	15	100

Table 2 shows that of 15 students who followed the pre-test, there are only 2 students got an average score (14%). Meanwhile, 13 students get good scores (87%). It means that the student's scores and percentages in the pre-test were still good because half of the students got a good score. While in the post-test, 3 students get a good score (20%), and 12 students get an average score (80%).

### 3. The Testing Hypothesis

The researcher used t-test analysis on the level of the significance (p) 0.05 with the degree of freedom (df)= N-1, where N = the number of students (15 students) and then the value of t-table was (1.761). The t-test statistical analysis for the independent sample was applied. The following table shows the result of the t-test calculation.

Table 3. The t-Test Analysis of The Students' Improvement

No.	Components	t-Test Value	t-Table	Description
1.	Fluency	3.62	1.761	Significance

Table 4.3 shows that the t-test value of Fluency was greater than the t-table value (3.62> 1.761). it meant that there was a significant difference between the students' speaking skills before and after the researcher used TED Talks in speaking skills in the 4<sup>th</sup> semester of the English department of IAIN Parepare. It was shown that the null hypothesis (H<sub>0</sub>) was rejected and the alternative hypothesis (H<sub>1</sub>) was accepted.

#### DISCUSSION

Using TED Talks as a learning medium it helps to improve students' speaking ability in terms of fluency. Students look more active and interested when the learning process involves technology or social media, According to Endahati, audio-visual aids become one of the media used in language teaching and learning, especially in speaking subjects, this kind of medium will motivate students to speak (Endahati & Purwanto, 2016). This is proven by the author when teaching using TED Talks as a medium and it turns out to be a special attraction for students, students look happy and become speakers in conveying their messages.

The advantage of using TED talks is that they provide a variety of material on various topics in various fields, They also provide opportunities to learn vocabulary, and TED Talks help increase motivation and interest in learning languages. Video TED Talks relate to real life, providing opportunities to recognize and understand language used in everyday situations. These TED talks are also accompanied by translations and original text, which can aid understanding and increase

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vocabulary. Plus, these TED Talks often share personal experiences, which can help language learners feel more connected and motivated to speak. According to Sailun & Idayani, TED is a series of lectures that are educational, inspiring, informative, and sometimes astonishing by presenting 'Ideas Worth Spreading'. so students will have the opportunity to develop their spoken language competence. This Ted's emphasis is on educating, informing, and opening people's eyes to new ideas, making it perfect for students (Sailun, B., &Idayani, 2018).

In this research, the students can also convey their ideas and can speak what they want to speak but all in English after watching the TED Talks video, this can be seen from the result t-test value of Fluency was greater than the t-table value (3.62 > 1.761). it meant that there was a significant difference between the students' speaking skills before and after the researcher used TED Talks in speaking skills in the 4<sup>th</sup> semester of the English department of IAIN Parepare. It was shown that the null hypothesis (H<sub>0</sub>) was rejected and the alternative hypothesis (H<sub>1</sub>) was accepted. This is supported by Nursafira, that technological advancement has made the media rapidly grow, particularly as a learning media. Teachers and educators today are required to be creative, innovative, and updated in finding and using media as a learning tool in class. It can't be avoided anymore the use of technology in the millennium era has become a necessity for teachers in EFL teaching. This study aims to discuss how a video-based conference video channel known as TED Talks can be useful in improving students' speaking skills. The methodology used qualitative research and data collection obtained from relevant paper-based articles that have studied TED Talks as a learning medium to improve speaking skills. The results of this discussion paper showed that TED Talks have an effect on improving speaking among the EFL and also as a motivation for teachers and students to always keep spirit, inspiration, and insight. The novel finding of this study is that TED Talks also change the students' perspectives for the better, as they see that people from any country and ethnicity can speak English confidently in public(Nursafira, 2020). and according to Dinillah, The research found the use of the TED Talks video was effective in improving students' speaking skills in terms of accuracy(vocabulary) and fluency (smoothness) (Dinillah, 2021).

According to Sailun & Idayani At the University level, speaking is one of the important skills that must be mastered by English Students, because they must improve their ability to communicate orally by presenting their ideas in real life. Hence, TED is a series of informative, educational, inspiring, and sometimes jaw-dropping talks that present "Ideas Worth Spreading". There is an emphasis on informing, educating, and opening people" 's eyes to new ideas, making them perfect for the classroom. Therefore, the students will have the opportunity to develop their spoken language competence. Concerning this, the researcher was interested in conducting a study that was focused on the effect of TED Talks Videos on students" speaking ability in the third semester of the English Study Program FKIP UIR. There was a significant effect of TED Talks

videos on students" speaking ability at English Study Program FKIP UIR (Sailun, B., &Idayani, 2018).

This research indicated that TED Talks can improve the speaking of the students, and the students get knowledge about speaking and become motivated because the speakers tend to talk about their life experiences.

#### CONCLUSION

Based on the result of data analysis in the previous chapter, the researcher concluded that there were differences in the speaking skills of students before and after treatments, it can be seen from the result of the pre-test and post-test before being given treatment using the TED Talks.

- a. The students speaking in terms of fluency in the 4<sup>th</sup> semester of the English department of IAIN Parepare can be improved after applying TED Talks. It is shown in the post-test that the score (72.4) was higher than the pre-test (66.6). It is also shown that a significant difference between the pre-test and post-test. So, the improvement in the students speaking ability in fluency was (8.708). This means TED Talks can improve students speaking ability in terms of fluency.
- b. The students' t-test value for fluency was greater than t-table (3.62> 1.761). It means that there was a significant difference between the students' speaking ability before and after using TED Talks in the 4<sup>th</sup> semester of the English department of IAIN Parepare.

#### REFERENCES

Al-Qur'an Al-Karim

- Aprilia, R. A., & Surabaya, U. N. (2022). Improving Public Speaking Skills at the University Level through TED Talks Short Sessions. 10(1), 32–37.
- Azlina, K., Eliwarti, & Novitri. (2015). A study on the speaking ability of the second-year students of SMK Telkom Pekanbaru. Jurnal Online Mahasiswa Fakultas Keguruan Dan Ilmu Pendidikan Universitas Riau (JOM FKIP UNRI), 1–13.
- brown. (n.d.). language assessment principles and classroom practices.
- Carmine Gallo. (2014). Talk like TED: the 9 public-speaking secrets of the world's top minds.
- Choirunnisa, M. R., & Sari, F. M. (2021). TED Talks Use in Speaking Class for Undergraduate Students. Jambura Journal of English Teaching and Literature, 2(1), 35–40. https://doi.org/10.37905/jetl.v2i1.7319
- Dinillah, A. F. (2021). The use of TED Talks to improve students' speaking skills in EFL classrooms in Muhammadiyah University of Makassar.
- Endahati, N., & Purwanto, E. (2016). Analysis of the Effectiveness of Public Speaking Subject Module Information-Technology (It) Based. *Ahmad Dahlan Journal of English Studies*, 3(1), 17. https://doi.org/10.26555/adjes.v3i1.3622

farid miftah. (2019). THE EFFECTIVENESS OF USING TED TALKS VIDEOS IN IMPROVING STUDENTS' PUBLIC SPEAKING SKILLS IN SENIOR HIGH SCHOOL. *Jall*.

Gerald p. Delahunty, J. J. G. (2010). The English Language From Sound To Sense.

- Nursafira, M. S. (2020). TED Talks in EFL Context: An Alternative Way for Teaching and Improving Student's Speaking Skills. *Elsya : Journal of English Language Studies*, 2(2), 43–47. https://doi.org/10.31849/elsya.v2i2.3968
- Rohmah, A. A. (2022). THE USE OF TED TALKS VIDEOS FOR LEARNING PUBLIC SPEAKING BY ENGLISH DEPARTMENT STUDENTS. *RETAIN*.
- Rusiana, A. (2021). Stimulating Students Speaking Using English. 5(2).
- Sailun, B., &Idayani, A. (2018). The Effect Of Ted Talks Video Towards Students' Speaking Ability At English Study Program Of FKIP UIR. Perspektif Pendidikan Dan Keguruan, 9(1), 65-74.
- Salem, A. A. M. S. (2019). A Sage on a Stage, to Express and Impress: TED Talks for Improving Oral Presentation Skills, Vocabulary Retention and Its Impact on Reducing Speaking Anxiety in ESP Settings. *English Language Teaching*, 12(6), 146. https://doi.org/10.5539/elt.v12n6p146
- TED. (n.d.). "History of TED", Https://Www.Ted.Com/about/Ourorganization/History-of-Ted.
- Yaqin, A., & Athena, T. (2022). TED Talks Based Learning on Students ' Intermediate Speaking Skills Level. SELL Journal, 7(2), 111–121.
- Zubair, Muhammad Kamal, dkk. "Penulisan Karya Ilmiah Berbasis Teknologi Informasi IAIN Parepare". 2020.