

Can TED Talks Help Improve Undergraduate Non-English Major Thai EFL Students' Listening and Speaking Competencies? TED Talks ช่วยพัฒนาสมรรถนะด้านการฟังและการพูดของนักศึกษาไทยในระดับปริญญาตรี ที่ไม่ได้ศึกษาในสาขาภาษาอังกฤษโดยตรงได้หรือไม่

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Article Info

■ Received: July 22, 2022

■ Revised: March 4, 2023

■ Accepted: March 4, 2023

■ Available Online: March 13, 2023

Abstract

The test results (mid-semester and final examinations) of various English courses indicate a clear majority of non-English major undergraduate students studying at the university where the current study was undertaken leave the university after four years without acquiring the required proficiency in English. This condition can deprive them of local and international social and educational opportunities. Given the situation described above, this study was conducted to explore the effectiveness of an instructional intervention supplemented with authentic materials that included TED Talks videos to enhance English as a Foreign Language (EFL) tertiary-level learners' listening and speaking skills in Thai tertiary education. The study employed a pre-test and post-test research design in which two study groups (Teaching Chinese as a Foreign Language (n = 44) and Teaching Elementary Education (n = 38) were chosen using a random purposive sampling technique. The study groups were instructed with TED Talks: Keynote 4 teaching materials for one semester, and the study used two research instruments (pre-test and post-test). The pre-and post-test data were analyzed using descriptive and inferential statistical tests. The results were statistically significant at .05, indicating an improvement in listening and speaking competencies equivalent to the B2 level in the Common European Framework of Reference for Languages (Council of Europe, 2020) for both groups. In addition, a large effect size between variables was reported. This means that this study is practically significant. Assuming the study's positive outcomes, it can be concluded that the instructional intervention supplemented by TED Talks: Keynote materials can effectively enhance non-English major EFL undergraduate learners' listening and speaking competencies.

Keywords: English as a Foreign Language, Listening and Speaking Skills, TED Talks, Thai Undergraduate

บทคัดย่อ

จากผลการสอบกลางภาคการศึกษาและปลายภาคการศึกษาในรายวิชาภาษาอังกฤษจำนวนหลายวิชาสะท้อนให้เห็นอย่างชัดเจนว่านักศึกษาในระดับปริญญาตรีส่วนใหญ่ที่ไม่ได้ศึกษาสาขาภาษาอังกฤษโดยตรงสามารถสำเร็จการศึกษาได้ตามระยะเวลาของหลักสูตร หากแต่ไม่ผ่านเกณฑ์สมรรถนะด้านภาษาอังกฤษที่มหาวิทยาลัยกำหนด ส่งผลให้นักศึกษาขาดโอกาสทางสังคมและการศึกษาต่อทั้งในและต่างประเทศ งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาประสิทธิผลของการแก้ปัญหาด้านการเรียนการสอนที่เสริมด้วยการใช้สื่อสภาพจริงดังเช่นวิดีโอ TED Talks เพื่อเพิ่มทักษะการฟังและการพูดของผู้เรียนที่ศึกษาภาษาอังกฤษเป็นภาษาต่างประเทศ ในระดับอุดมศึกษาของประเทศไทย งานวิจัยนี้เป็นการวิจัยกึ่งทดลองที่ศึกษาจากกลุ่มตัวอย่างจำนวน 2 กลุ่ม ได้แก่ กลุ่มการสอนภาษาจีนเป็นภาษาต่างประเทศ (n = 44) และกลุ่มการสอนระดับประถมศึกษา (n = 38) คัดเลือกโดยใช้วิธีการสุ่มแบบเจาะจง กลุ่มตัวอย่างได้เรียนรู้สื่อการสอน TED Talks: Keynote 4 เป็นระยะเวลา 1 ภาคการศึกษา เครื่องมือที่ใช้คือแบบทดสอบก่อนเรียนและหลังเรียน วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนาและสถิติเชิงอนุมาน ผลการศึกษาพบว่านักศึกษาทั้ง 2 กลุ่มมีสมรรถนะด้านฟังและการพูดที่สูงขึ้นเทียบเท่าระดับ B2 ตามมาตรฐาน Common European Framework of Reference for Languages (Council of Europe, 2020) โดยมีนัยสำคัญทางสถิติที่ .05 นอกจากนี้ยังพบว่า กลุ่มตัวแปรที่ศึกษามีขนาดอิทธิพลระดับสูง ซึ่งบ่งชี้ว่าข้อค้นพบจากงานวิจัยนี้มีน้ำหนักจริง อนุมานจากผลลัพธ์ที่เป็นบวก สรุปได้ว่าการแก้ปัญหาด้านการเรียนการสอนที่เสริมด้วยการใช้สื่อ TED Talks: Keynote นั้น สามารถเพิ่มพูนสมรรถนะด้านการฟังและการพูดของผู้เรียนได้อย่างมีประสิทธิภาพ

คำสำคัญ: TED Talks, การศึกษาภาษาอังกฤษเป็นภาษาต่างประเทศ, ทักษะการฟังและการพูด, นักศึกษาปริญญาตรี

Introduction

Mastering an international language like English in the 21st century can benefit learners. They can enhance cognitive and social growth on both the individual and national levels to achieve economic development by being competitive globally and understanding people belonging to diverse cultures. As we move toward a new century where worldwide human interaction plays a crucial role in communication, our education system should equip students with skills, knowledge, and attitudes that help them face challenges in life as responsible citizens of a community.

As practitioners of English, we should be aware of how we can help our students develop their target language skills. To this end, Krashen (2019) has informed us that we should provide our learners with comprehensible and compelling rich language input to achieve competence in the target language. The insightful understanding gained in teaching English to undergraduate non-English major programs in the current university for a decade has prompted the researchers to investigate why many non-English major students fail to communicate proficiently in English. A condition like this seems pathetic for Thai undergraduate students who spend four years studying different courses, including English, in a university before graduating in their chosen majors. Unlike in the past, now English education has become accessible to most students worldwide due to the advancement of technological innovations and the Worldwide Web. Regardless of these opportunities and resources, most of our undergraduate students still fall behind in the required competence in English (Waluyo, 2019; Khamkhien, 2011). Given the low proficiency problem of non-English major students, the researchers decided to conduct a study in which an instructional intervention (using video materials, textbook, audio materials, teacher prepared speaking activities) was implemented to help students enhance their English proficiency in listening and speaking.

The researchers of this study have been teaching different English courses for non-English major undergraduate students studying at this university for the past few years. They have found that a clear majority of them in several English courses show low performance in examinations and real-world situations in that most students fail to communicate proficiently. Regarding speaking proficiency, most non-English major students are still below the required level (Jaiyai, Torwong, Usaha, Danvirattana, Luangthongkam, & Piyadamrongchai, 2005). Speaking and listening skills play a crucial role in communication. Therefore, students' ability to express their ideas proficiently in most academic and social situations seems vital. In terms of listening and speaking, undergraduate students in this university are expected to reach the B1 or B2 proficiency level as specified in the Common European Framework of Reference for Languages (Council of Europe, 2020). In addition, effective communication skills are highly demanded in public and private sector employment.

Analysis of prior English examination results (mid-semester and final examinations) emerged from several English courses conducted for non-English major students at this university, and the available evidence from classroom instruction indicates that non-English major undergraduate

learners' language requirements should be addressed in the classroom as English is not sufficiently used in Thai social contexts. During the second semester of the 2020 academic year, this university introduced a new course, English Through Edutainment, for the first time. Therefore, given the English proficiency problem of non-English major students as described above, the researchers decided to conduct an instructional intervention for the students who studied English Through an Edutainment course to investigate the effectiveness of using TED Talks in promoting learners' listening and speaking proficiency. The prescribed materials for this course were TED Talks: Keynote 4. (2017), compiled by Stephenson, Lansford, and Dummett and published by National Geographic Learning. This textbook includes TED Talks, listening, speaking, and presentation activities.

Given that the English Through Edutainment course was intended to help students improve their English proficiency in speaking and listening, researchers in this study implemented an instructional intervention with two groups of undergraduate students majoring in Teaching Chinese as a Foreign Language (TCFL) and Teaching Elementary Education (TEE) to examine whether TED Talks can have a positive effect on the learners' English proficiency (listening and speaking).

Research Objective

The main objective of this study was to help non-English major undergraduate students improve their competencies in listening and speaking in the target language for academic and social purposes.

Literature Review

According to theorists in second language acquisition (SLA), listening comprehension involves two distinct processes: listeners use 'top-down' processes when they use prior knowledge to understand the meaning of a message and 'bottom-up' processes when they use the linguistic ability to understand the meaning of a message. They build sense from lower-level sounds to words, grammatical relationships, and lexical meanings to arrive at the final message. Listening comprehension is an interactive and interpretive process in which listeners use prior and linguistic knowledge to understand messages. The degree to which listeners use one process or the other will depend on their understanding of the language, familiarity with the topic, or the purpose for listening (Vandergrift & Goh, 2012; Richards, 2008; Feyten, 1991). Cognitive psychology research has demonstrated that listening comprehension is more than extracting meaning from incoming speech. It is a process of matching speech with what listeners already know about the topic. Therefore, when listeners know the context of a text or an utterance, the process is enabled considerably because listeners can activate prior knowledge and make the proper inferences necessary to understand the message (Byrnes, 1984). Therefore, instructors must help students organize their thoughts and activate appropriate background knowledge to understand and make predictions to prepare for listening. This considerably eases the listener's comprehension

burden (Vandergrift, 2002). As described above, the framework applied in this study to teach listening competencies to the study groups is shown in figure 1 below.

In terms of speaking, the theoretical framework of this study is linked to methodological debate (Richards, 2008), where several authors have attempted to classify the functions of speaking in human interaction. To this end, it is worth discussing Richards's (2008) expanded three-part version of Brown and Yule's (1983) framework of speech in which he describes: talk as interaction, talk as a transaction, and talk as performance. Talk as interaction refers to conversations people typically conduct to establish and maintain social relations. In contrast, talk as a transaction relates to situations where the message is the central focus and makes oneself understood accurately rather than the participants and how they interact socially. Talk as performance refers to public talks that convey information before an audience. As Richards (2008) observed, "talk as performance" is relevant to this study group because students can do performative presentations and role-plays. In other words, classroom speaking activities should help learners develop the communicative competence that will enable them to function academically and socially as proficient users of the target language.

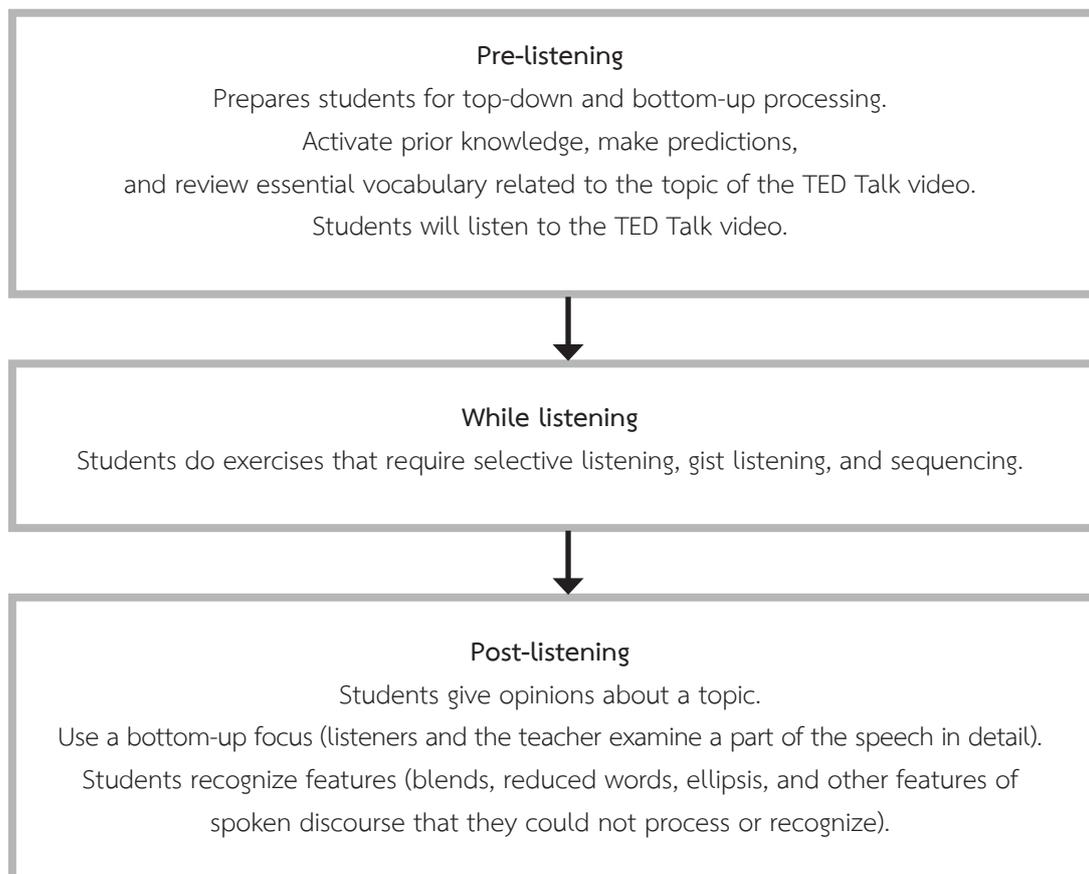


Figure 1 Framework for top-down and bottom-up processing for listening activities based on TED talk videos

Influence of Technology in the Modern Classroom

The teaching and learning context of the modern language classroom has undergone several changes due to technology and the world wide web over the past two decades. Nowadays, most language classrooms are equipped with multimedia devices, considered viable tools for teaching and learning. Among multimedia teaching and learning tools, audiovisuals are assumed to contribute to deeper understanding and knowledge transfer (Mathew & Alidmat, 2013). Furmanovsky (1996) has stated, "At its best, the video can inform and stimulate students in a way that no lecture, however well delivered and thought out, can do," while Wood (1999) has observed that video and the right kinds of supporting materials, can activate the passive knowledge of language learners and assist with language assimilation and transfer, both in terms of that language presented and that which is implicitly suggested. Given the benefits of using videos in the EFL classroom, the current study also used TED Talks videos and other suggested activities in the TED Talks: Keynote 4 to help students improve their listening and speaking skills. TED Talks videos are authentic materials and can have several advantages in that videos motivate learners, bring the real world into the classroom, contextualize language naturally and enable learners to experience authentic language (Stempleski & Tomalin, 1995). Using authentic materials and different teaching methods, approaches, and classroom techniques, our goal is to help EFL/ESL learners develop their aural and oral proficiency in the target language because our students should be able to communicate their ideas fluently and accurately in speech. Several studies have used video materials to enhance EFL learners' listening and speaking skills in different teaching contexts worldwide. The following section will report a few studies relevant to the current research and describe how the present study differs.

Empirical Evidence on Using Video Materials in Enhancing EFL Learners' Listening and Speaking Skills

A pre-and post-test design study by Kim (2015) in a Korean university with non-English major undergraduate students used video clips extracted from TED Talks, movies, songs, talk shows, news, and advertisements to help learners improve their proficiency in listening and speaking skills. At the end of the study, Kim reported positive results. In Kim's study, the participants were grouped according to their proficiency levels based on the TOEIC test (low, intermediate, and high proficiency). In contrast, the participants were not classified according to their proficiency using any test, nor did it use video clips drawn from different genres except TED Talks. Moreover, Kim's study used ten teaching sessions of the two-hour class over three weeks, but the current research employed two and a half hour¹⁴ teaching sessions. At the end of Kim's study, she found a more significant increase in the post-test scores in intermediate and advanced proficiency groups than in the pre-test. However, the low proficiency group did not significantly increase post-test scores.

Another study by Woottipong (2014) in the context of a Thai university with a group of first-year English major students reported a higher mean score in the post-test than in the pre-test. The study included one group taught using video materials for 20 hours to enhance their

listening skills. The study used ten short English language documentaries about culture, environment, and adventure activities, 3-5 minutes in length. A nonstandard listening test was used in both pre and post-tests in that the study group recorded a higher mean score in the post-test than in the pretest. As the current study employed TED Talks, the following section will discuss their relevancy and effects on EFL learners' listening and speaking skills relevant to the published literature.

Why Ted Talks?

TED Talk videos can be used as resources for teaching and learning or as instructional tools for authentic English communication. According to Field (2002), the authentic nature that features TED Talks provides students with opportunities to practice real-life talks and speeches.

As EFL learners struggle with English skills in educational settings, TED Talks can help such learners increase their vocabulary, content knowledge, paralinguistic features inherent in natural speech, and delivery techniques and generate discussions among students in an EFL classroom where they can learn and practice the art of public speaking with strategies on how to engage the audience (Pittenger, Miller, & Mott, 2004). Another crucial element of TED Talks is that they help teachers bring ideas into the conversation, debate, and critical thinking, which are essential skills students should develop. The following section will deal with studies investigating the effects of TED Talks on improving learners' listening and speaking skills.

In a research project, Takaesu (2014) integrated TED Talks into an L2 course in a college in Japan. At the end of the course, a survey was conducted. Over two-thirds of the surveyed learners (N = 303) reported that TED Talks helped them improve their L2 listening ability and familiarize themselves with various English accents. In a similar study, Salem (2019) explored the impact of using TED Talks on improving the oral presentation skills of Business English students and vocabulary uptake/retention. It also assessed the effect of enhancing students' positive speaking anxiety levels. The study's findings indicated that oral presentation skills and vocabulary uptake/retention levels had improved due to TED Talks. A quasi-experiment study by Rashtchi and Mazraehno (2019) examined whether TED Talks could improve the listening skills of Iranian EFL learners (N = 60) and found positive results in that they reported that the two study groups who used mobile phones, laptops, or audio tracks to listen to TED Talks during the treatment improved their listening skills significantly at $p=.001$.

Research Methodology

Participants of the Study

The participants for this study were drawn from university undergraduate students, and the study sample consisted of fourth-year Thai (undergraduate) students majoring in Teaching TCFL and TEE at a Thai university. The study sample included 82 students, 18 males, and 64 females, ages 20 to 22. All students had completed their formal schooling for 13 years before being selected to study at the university. Given the participants' similarity in age, English competency, and educational and social backgrounds, they were considered homogeneous in the current

study. Upon graduation, the students in the study groups (TCFL and TEE) will be posted to remote schools where they should teach the language in which they have majored. In addition to teaching the major language, they must also teach basic interpersonal communicative skills in the second/foreign language because most rural schools lack English teachers.

Research Instruments

This study employed listening and speaking pre-tests and post-tests to collect data. Pre-tests were conducted before the instruction started for the study groups to determine the participants' existing speaking and listening competencies. Researchers used the Keynote Advanced End-of-Course Test A developed by National Geographic Learning (<https://ame.eltkeynote.com/teacher-resources/end-course-tests>).

The listening pretest included four parts with 30 questions. In each part, the research participants will hear the recording twice, and while listening, they must choose the best answer from the options given. The duration of the listening pretest was 30 minutes, and it was scored out of 30. At the end of the listening pretest, the scores obtained by each participant were recorded for later analysis.

The speaking pre-test consisted of four parts, and each part was scored out of 5 for 20 marks using the speaking test evaluation criteria based on a 0–5-point scale (Grammatical resources 0-5, Lexical resources 0-5, Discourse management 0-5, Interactive communication 0-5). The duration of the speaking test was 15 minutes for each candidate. The first part consists of general questions (Where are you from? How long have you been learning English? If you could travel to one country in the world, where would you go?.....Why?), including one open question about a specific thing related to the candidate. In part 2, the examiner provided the candidates with two pictures and asked the candidate to compare two of the pictures and say why the people might be doing these activities together and how the people might be feeling (Picture 1 includes five people ice skating together outdoors while picture 2 shows three young girls prepare some food together at home. In part 3, the examiner gives two different pictures in which some incident depicts (For example, in one picture, two teenage boys see a motor bicycle catching fire instantly), and the other picture shows a house owner seeing a robber in his house through a surveillance camera. The examiner says, "Now, I'd like you to talk about what people might have to consider when making decisions concerning these situations." Part 4 is an extension of the topic in part 3, and the examiner asks a few questions, so the candidate will answer the questions. For example, Is it best for people to make decisions independently or ask others for advice? Why? / Why not?). In this test, the first examiner acted as the interlocutor while the second examiner performed as the observer who recorded marks for each candidate. At the end of the speaking pretest, the scores obtained by each candidate were recorded for later analysis. The agreement between the two raters was calculated using Pearson's Product Moment ($r = 0.93$, $n = 82$, $p < .01$). The statistics showed that the general agreement between the two raters concerning the speaking scores of the study groups (82) was .93, which was a high agreement.

After the intervention, the Keynote Advanced End-of-Course Test A, the same test used in the pre-test, was administered as the final test. At the end of the post-test, the scores obtained by each candidate were recorded for statistical analysis.

Intervention Tools

TED Talks: Keynote 4 textbook and audio and video materials by Stephenson, Lansford, Dummelt, Walker, and Blass (2017) were primary instructional materials. However, some exercises and activities, including scripted dialogues, were adapted according to students' language proficiency and linguistic needs. Some expressions in the dialogues were too long for the students to speak. So, such expressions were broken into meaningful chunks so that students could speak them out naturally without reading. TED Talks: Keynote 4 consists of 12 units based on different themes, and only the first six units (Embrace stress, Media influence, Development, Secrets, and lies, To the edge, and Money matters) were selected for teaching during the second semester (These six units were the prescribed units for this course by the course coordinator). Each unit comprises vocabulary, grammar structures, language focus, scripted dialogue for speaking practice, reading passages, writing activity, listening, and a TED Talk relevant to the unit's topic. After the intervention, the researchers examined whether the treatment instrument affected the dependent variables (listening and speaking skills).

The Instructional Procedure in Unit One of the TED Talks: Keynote 4 is Explained Below

(One unit was taught for two weeks, each with two- and half-hour sessions. The following steps were included in the Teacher's book TED Talk: Keynote 4)

1. As a warmup, the class watches a part of the assigned TED Talk and answers a few questions with a partner, and then students do a vocabulary exercise related to the unit's topic (Embrace Stress!).
2. Students watch a short video clip in which experts talk about stress management. While listening to the short talk, students do a listening activity suggested in the textbook.
3. Students deal with a critical thinking question for which they should express their views critically. Students discuss their answers with their partners and are ready to respond when the instructor invites them. For example, which of the activities suggested by Dr. Edginton would work best for you? Why? (Keynote 4, p. 15).
4. Students do a speaking activity. Students talk about stress using the scripted dialogue in the text. However, students can adapt it to suit their needs. They should speak the same dialogue (Pair work).
5. Following the speaking activity, students listen to a recorded talk. The instructor asks some open-ended questions from the class.
6. They listen to a conversation and answer the questions in the textbook.
7. After the listening activity, students learn the grammar elements used to talk about jobs and stress, followed by a grammar activity.
8. Students engage in a speaking activity- a pair work (How do you deal with stress?).
9. Students read a passage relevant to stress (The stressed-out generation) and do the reading activities set on it.

10. The students listen to part one of the TED Talk and complete the activities given. Next, they listen to parts two and three of the TED Talk and complete the assigned activities.

11. They talk about what presentation skills/techniques the speaker used in their TED Talk (How to involve the audience)

12. They do a writing activity (Students write a letter advising someone how to manage stress (Guided writing). They do it as group work.

The unit ends, and subsequent units also follow the same procedure with some adaptations where they are necessary.

Analytical Tools

The researchers used descriptive and inferential statistical tests to analyze the data in this study and determine whether there were any observed differences between the pre and post-tests within and between the study groups (TCFL and TEE). Paired samples t-test was performed to compare the mean difference within and between the study groups in the pre and post-tests. In addition, the effect size for each skill was calculated using an online effect size calculator (<https://www.socscistatistics.com/effectsize/default3.aspx>), and their Cohen d values were reported, respectively.

The Data Collection Procedure

As described in the research instruments above, this study employed a pre-test and post-test of listening and speaking. On the third day of the first week, the pre-tests were administered to all the participants. After the pre-tests, listening was scored objectively using the answer key of the Keynote Advanced End-of-Course Listening Test A. Two examiners scored the speaking pre-test, of which the first and second researchers were involved. Once the scoring procedure was complete, pre-test marks were entered into a Microsoft Excel sheet and saved in a file as the pre-test marks. Following the post-test, as applied to the pretest, the same process was followed to score and save data, and later the pre and post-test data were analyzed using descriptive and inferential statistics.

Ethical Consideration

The researchers obtained permission to carry out this research from the university's Ethics committee in which it was conducted. During the first session, the students were requested to participate in the study and informed about the purpose of the research and the types of data that would be collected from them. Moreover, the researchers discussed what materials (TED Talks: Keynote 4) and the intervention groups' activities would be used during the study. In addition, the participants were notified that they were required to do the pretests on the following day of their English class. Lastly, the researchers collected the consent letters signed by students on the same day.

Results

The descriptive statistics, as shown in Table 1, sum up the number of participants per group and the mean scores gained by each group in the pre and post-tests, with the standard deviations and error of the mean corresponding to the tests in each group.

Table 1 Descriptive statistics of groups A and B across the pre and post tests

	Group A (TEE)				Group B (TCFL)			
	n = 38				n = 44			
	Listening		Speaking		Listening		Speaking	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Main score	8	10	8	11	7	9	8	8
Max score	12	15	16	18	12	13	11	13
\bar{X}	10.07	12.94	10.78	14.57	10.06	11.15	10.75	11.25
S.D.	1.14	1.27	1.64	1.67	1.16	0.98	1.51	1.48
SEM	0.18	0.20	0.26	0.27	0.17	0.14	0.13	0.22

Table 2 Pretest group comparison

	\bar{X}	S.D.	<i>t</i>	<i>df</i>	Sig (2-tailed)	Mean difference
LPRE (A) - LPRE (B)	.02	1.53	.10	37	.916	.02
SPRE (A) - SPRE (B)	.23	2.36	.61	37	.541	.23

LPRE (A)=Listening pretest (Group A), LPRE (B)=Listening pretest (Group B), SPRE (A)=Speaking pretest (Group A), SPRE (B)=Speaking pretest (Group B), PPRE

The Performance of the Pretest and Within-group Gains in Listening and Speaking Skills

As indicated in Table 2 above, the matched samples t-test was executed to measure the mean variation (0.5) between groups A and B before the intervention began. The outcomes demonstrated that the means between group A (TEE) (\bar{X} = 10.07, S.D. = 1.14, and group B (TCFL) (\bar{X} = 10.06, S.D. = 1.16); t (37) = 0.10, p = .916 were not unique in relation to one another in the listening pretest. Correspondingly, the outcomes suggested that the means did not differ between the groups (\bar{X} = 10.78, S.D. = 1.64); t (37) = 0.61, p = .541 in the speaking pretest.

Given the statistical results, it can be assumed that the listening and speaking skills of the two study groups were not different at the start of the study, indicating that both the TEE and TCFL groups were similar in listening and speaking proficiency before the intervention started.

Table 3 Paired samples tests of groups A and B

		Paired Differences					<i>t</i>	<i>df</i>	Sig. (2-tailed)
		\bar{X}	S.D.	SEM	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	LPRE	-2.86	1.41	.22	-3.33	-2.40	-12.47	37	.000
Gr: A	LPOST								
Pair 2	SPRE	-3.78	1.80	.29	-4.38	-3.19	-12.95	37	.000
Gr: A	SPOST								
Pair 3	LPRE	-1.09	1.44	.21	-1.52	-.65	-5.01	43	.000
Gr: B	LPOST								
Pair 4	SPRE	-.50	1.98	.29	-1.10	-1.0	-1.67	43	.102
Gr: B	SPOST								

Table 4 Paired samples pre and posttests of groups A and B

		Paired Differences					<i>t</i>	<i>df</i>	Sig. (2-tailed)
		\bar{X}	S.D.	SEM	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	LPRE (A)	0.02	1.53	.24	-.47	.53	.10	37	.916
	LPRE (B)								
Pair 2	SPRE (A)	0.23	2.30	.38	-.54	1.01	.61	37	.541
	SPRE (B)								
Pair 3	LPRE (A)	1.76	1.63	.26	1.22	2.30	6.64	37	.000
	LPRE (B)								
Pair 4	SPRE (A)	3.31	2.18	.35	2.59	4.03	9.36	37	.000
	SPRE (B)								

LPRE (A)=Listening pretest, group A, LPOST (B) = Listening post-test group B, SPRE group (A) = Speaking pretest group A, SPOST A = Speaking post-test group A, SPOST B = Speaking post-test group B

As indicated in Tables 3 and 4, Matched Samples t-tests were performed to measure the differences between the scores that group A (TEE) and group B (TCFL) received for the pre and post-tests. According to the comparison of the first pair (the scores of the pre and posttests of listening), there was an increase in scores between the pretest ($\bar{X} = 10.07$, S.D. = 1.14) and the post-test ($\bar{X} = 12.94$, S.D. = 1.27); $t(37) = -12.47$, $p = .001$. The effect size for this analysis

($d = 2.37$) was found to exceed Cohen's (1988) convention for a large effect ($d = .80$). The second matched samples t-test revealed that there was a distinction between the speaking pretest ($\bar{X} = 10.78$, S.D. = 1.64) and the posttest ($\bar{X} = 14.57$, S.D. = 1.67); $t(37) = -12.95$, $p = .001$ in the TEE group. The effect size for this analysis ($d = 2.28$) was found to exceed Cohen's (1988) convention for a large effect ($d = .80$) (Social Science Statistics (n.d.). Effect size is a quantitative measure of the magnitude of the experimental effect. The larger the effect size, the stronger the relationship between the two variables (McLeod, 2019). In this study, listening, speaking, and intervention are the variables.

Concerning the TCFL group, the fourth Matched Samples t-test results demonstrated that there was a contrast between the listening pretest ($\bar{X} = 10.06$, S.D. = 1.16) and the listening posttest ($\bar{X} = 11.15$, S.D. = 0.98); $t(43) = -5.01$, $p = .001$ in the TCFL group. The effect size for this analysis ($d = 1.05$) was found to exceed Cohen's (1988) convention for a large effect ($d = .80$). The fifth Matched t-test demonstrated that there was a contrast between the pretest of speaking ($\bar{X} = 10.75$, S.D. = 1.51) and the posttest of speaking ($\bar{X} = 11.02$, S.D. = 1.48); $t(43) = -1.67$, $p = .102$. The effect size for this analysis ($d = .33$) was found to be small as per Cohen's (1988) convention.

Given the matched samples t-test results, it is evident that the participants in both the TEE and TCFL group improved in listening and speaking skills after they were instructed using TED Talks: Keynote 4 in the classroom context. The mean scores gained by both groups in the posttest (at $\alpha = .05$) were more significant than the mean scores in the pretest.

Findings Related to the Listening Proficiency of the Study Groups

The first research question posed in this study asked whether Listening to TED Talks, watching TED Talk videos, and engaging in relevant class-based listening tasks increase the listening proficiency of non-English major undergraduate students as measured by the Keynote Advanced End-of-Course Listening Test A developed by National Geographic Learning.

Listening Skills Development of TEE and TCFL Groups

Table 3 shows the paired samples t-test results for the TEE and TCFL group, and the main Matched t-test indicated a contrast between the listening pre-test ($\bar{X} = 10.78$, S.D. = 1.64) and the posttest ($\bar{X} = 14.57$, S.D. = 1.67); $t(37) = -12.95$, $p = .001$ in the TEE group in speaking. Moreover, the fourth Matched t-test, likewise, showed a distinction between the pretest listening ($\bar{X} = 10.06$, S.D. = 1.16) and the post-test of listening ($\bar{X} = 11.15$, S.D. = 0.98); $t(43) = -5.01$, $p = .001$ in the TCFL group. These positive results indicated that both groups enhanced listening proficiency. It can be concluded that both groups (TEE and TCFL) improved in listening skills after they had studied with the prescribed textbook and the teaching method suggested in it. Both groups showed significant increases in listening mean scores with large effect sizes ($d = 2.37$ for TEE and $d = 1.01$ for TCFL).

Findings Related to the Speaking Proficiency of the Study Groups

The second objective was whether watching TED Talks videos and engaging in relevant class-based speaking tasks led to increased speaking proficiency of non-English major undergraduate students as measured by the Keynote Advanced End-of-Course Speaking Test

A developed by National Geographic Learning. Concerning the speaking skills, the second paired samples t-test demonstrated a contrast between the pretest ($\bar{X} = 10.07$, S.D. = 1.14) and the post-test ($\bar{X} = 12.94$, S.D. = 1.27); $t(37) = -12.47$, $p = .001$ in speaking skills in the TEE group, while the fourth Matched Samples t-test additionally showed a distinction between the pre-test ($\bar{X} = 10.06$, S.D. = 1.16) and the posttest of speaking ($\bar{X} = 11.15$, S.D. = 0.98); $t(43) = -5.01$, $p = .001$ in the TCFL group indicating that both groups improved in speaking proficiency after the instructional intervention. However, concerning the TCFL group, the effect size ($d = .33$) was small.

Discussion of the Findings Related to the Listening Proficiency

As discussed above, the study's first objective investigated whether listening to TED Talks, watching TED Talk videos, and engaging in relevant class-based listening tasks led to increased listening proficiency of undergraduate students as measured by the Keynote Advanced End-of-Course Listening Test A. To answer the first question, the researchers assumed that TED Talks videos and other relevant listening tasks included in the teaching materials would help these undergraduate students improve their proficiency in listening after the instructional intervention. According to the descriptive statistics, as shown in Table 1 for both study groups (TEE and TCFL), there is a measurable contrast ($\alpha = .05$) between the mean scores of the TEE and TCFL groups' listening skills over the two tests (pre and post). As clarified above, this distinction in mean scores can be ascribed to the instructional techniques used with the two groups (both groups were instructed in English, and no Thai was used). After the intervention, the results revealed that both study groups improved their listening competencies equivalent to the B2 level in the CEFR, which specifies that learners can understand standard spoken language, live or broadcast, on familiar and unfamiliar topics normally encountered in personal, social, academic, or vocational life. Only extreme background noise, inadequate discourse structure, and idiomatic usage influence the ability to understand (Council of Europe, 2020).

The outcomes indicate an impact of the instructional intervention on the listening skills of the two groups over the two tests. According to studies by Hunsaker and Allesandra (1986) and Newkirk and Linden (1982), active listening is the highest and most effective. Given this assumption, the students in both study groups had a chance to improve their functional listening skills by watching and listening to the TED Talks videos. The learners paid close attention to both the verbal and body language of the speakers. When a TED Talk speaker speaks, they use paralinguistic features to convey their message to the audience. Such listening helps learners listen to the speaker's message's content, intent, and feelings since the speech is authentic. As noted in the review section, the current study supports Takaesu's (2014) study that integrated TED Talks into an L2 course and found that TED Talks helped them improve their L2 listening ability.

Another reason is that the study group participants could choose where, when, and how many times they listened to the TED Talks and classroom listening. The researchers asked the participants to watch the TED Talks whenever and wherever possible to improve their listening proficiency. Some participants confirmed that they watched the TED Talks several times. The

researchers believe that if participants had the option to listen when they were ready, they would focus better on the speeches and be more cognitively prepared to learn.

Another factor contributing to the success of both groups could be the TED Talks transcripts which are appended at the back of the textbook. Students who have difficulty understanding ideas expressed by a particular speaker can refer to and clarify the script. Apart from that, the Keynote series provides learners with online practice facilities to do extra listening activities relevant to the TED Talks at their own pace. Once learners start online learning with this website, their progress is recorded in percentages from 0 to 100%. This can be a motivating factor that drives them toward completing all assigned online activities within the specified duration. This kind of learning can be attributed to self-motivated learning. SLA researchers and practitioners express that motivation is one of the most important factors in student achievement and ensuring continuous achievement (Dörnyei, & Chan, 2013; Gardner, 2010; MacIntyre, 2002).

Discussion of the Findings Related to the Speaking Proficiency

The second objective was whether watching TED Talk videos and engaging in relevant class-based speaking tasks led to increased speaking proficiency of undergraduate students as measured by the Keynote Advanced End-of-Course Speaking Test A. After the intervention, the results revealed that both study groups improved their speaking competencies equivalent to the B2 level in the CEFR, which specifies that learners Can give clear, systematically developed descriptions and presentations with appropriate highlighting of significant points and relevant supporting detail (Council of Europe, 2020).

As the descriptive statistics are shown in Table 1 for both study groups (TEE and TCFL), a statistically significant difference ($\alpha = .05$) is reported between the mean scores of the TEE and TCFL groups' speaking abilities across the two tests (pre and post). This kind of variation in mean scores can be attributed to several factors. The first is the teaching method that was employed with both groups. According to Krashen and Terrell (1998), listening (or reading) comprehension proceeds to speak (or writing) abilities. Given this premise, it can be stated that the learners in this study were exposed to good authentic listening and speaking activities (TED Talks and other classroom activities) in which learners interacted between and among learners, including the instructors. Scripted dialogues in the textbook contain extended expressions that are too hard for learners to speak out. Therefore, such extended expressions were modified into manageable and meaningful chunks so students could easily speak them out. Second, as students practiced dialogues in pairs or groups, they became aware of their roles and wanted to perform best in their chosen roles. Such activities made even the low proficient learners satisfactorily improve their listening and speaking abilities. At the beginning of the intervention, some learners had vocabulary and pronunciation difficulties. After a few weeks of instruction, learners overcame challenges such as hearing and seeing how TED Talk speakers (native) pronounce words and sentences with stress and intonation to express emotions, intentions, and attitudes. Third, watching a TED Talk covers most aspects of what an EFL teacher takes a week or two to teach about speaking as lessons in a regular classroom teaching. Moreover, when students watch TED

Talk speakers talk to an audience, they can observe how speakers transfer information through body language, including eye contact, facial expressions, and gestures. Most importantly, the verbal message behind TED Talks is that they are powerful enough to motivate learners intrinsically. Learners may want to speak like the TED speakers one day. This was observed when they were making mock presentations in the classroom using PowerPoints, short video clips, posters, and pictures relevant to the topic of their presentations. These presentations were short, approximately 5 minutes long, but they helped the students practice and use techniques they had learned from watching TED speakers. As described in the introduction, learning activities included in the textbook are congruent with two principles proposed by Ortega (2007) 1) Practice ought to be intuitive, with the goal that students can rehearse in pairs or groups. 2) Practice should be effective so students can occupy themselves with personal and cognitive practice activities. Students practiced speaking activities in pairs and groups where they had a chance to help each other complete a task collaboratively. Feedback from their peers and the instructors concerning each other's performance ultimately led them to achieve proficiency in presentation skills. Given the positive outcomes that emerged from descriptive (Table 1) and inferential statistics (Table 4), as well as the advantages that the learners in the study gained by watching TED Talks, it can be concluded that TED Talks are an effective source that EFL instructors can exploit at the tertiary level to help their students to develop competencies in speaking and listening.

Conclusion and Limitations of the Study

This study investigated the effectiveness of using TED Talks to promote EFL non-English major undergraduate students' listening and speaking skills in the tertiary education context in Thailand. The study groups were instructed using TED Talks: Keynote 4 materials and the statistical analyses confirmed that the study groups' listening and speaking competencies had improved significantly through the intervention. Based on the results of this study, it can be assumed that TED Talk materials effectively improve EFL tertiary-level students' listening and speaking competencies in the target language.

Even if the study results were encouraging, there are two major limitations, of which the first is sample selection. The investigation was restricted to 82 participants. In this way, it cannot be inferred that the population sample is illustrative of non-English major undergrads in Thailand or outside Thailand. Subsequently, the outcomes of this study cannot be generalized to a more extensive population of non-English major EFL undergraduates. The second limitation is that the researchers could not control all the social factors, such as taking English tuition outside the university, using English socially, and accessing online study materials to improve English proficiency, which could have impacted the study results. Further research in other teaching contexts with more undergraduate students using several research instruments, such as survey questionnaires, focus group interviews, and observations, is necessary to make more informed decisions about using TED Talks: Keynote 4 materials in promoting tertiary level students' skills

in listening and speaking.

Implications and Recommendations

This study suggests that using TED Talk: Keynote materials effectively promote EFL learners' listening and speaking skills in tertiary-level English programs. The proof from this investigation recommends that students will be increasingly intrigued and occupied with class-based exercises proposed in the TED Talk and Keynote materials. However, students become exhausted and uninvolved in an EFL class where there is no inclusion of contextually appropriate activities delivered through digital technology as Mayer (2021) has stated that learners can better understand and remember information when it is delivered in multiple modes, modalities, and media than it is transmitted using only one mode, modality, or medium.

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