



A Quasi-Experimental Study on the Effects of Subtitles on Undergraduate ESL Students' Listening Comprehension and Vocabulary Learning

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Abstract

The 21st century, the understanding of technology's use and significance has grown. In education, the traditional method of teaching is being replaced by technology. Despite several studies documenting that subtitled videos help language learners, there is a clear lack of research done in this area, especially in Pakistani context. This study examined how subtitled videos affect ESL learners' listening comprehension and vocabulary learning. Opting for a quasi-experimental study, researchers took a pre-test, post-test, and attitude questionnaire to gather qualitative and quantitative data on the groups. Using the paired t-test, the researchers found out that the two-tailed significance value of the pre-test of both the group's listening comprehension lied at .948 and vocabulary's results lied at .876, both p-values higher than 0.05, thus proving that the group's listening and vocabulary skills were on the same level. However, the post-test of listening comprehension lied at 0.07 and vocabulary learning lied at 0.14, both p-values lesser than 0.05. Adding on, the researchers also opted for descriptive statistics and participants questionnaire, through which they found that the experimental group improved in listening comprehension and vocabulary learning compared to the control group, proving the alternative hypothesis. The present research provides significant qualitative and quantitative data for increasing awareness about modern teaching methods and the possibilities of adjustments by policymakers, syllabus designers, and educators. This research can also aid future researchers in further exploration of this topic on a deeper level so to better understand the importance of appropriate inclusivity of technology into education.

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INTRODUCTION

The present research focuses on subtitled videos and its effectiveness in order to develop listening comprehension and vocabulary learning in undergraduate English as a Second Language students of first semester, enrolled into Computer Science program in a private sector university in Karachi, Pakistan. More particularly, it focuses on analysing the effects of teaching English as a Second Language (ESL) learners with and without subtitled videos to draw a conclusion on whether subtitled videos are effective. Throughout the present research, the term ‘subtitles’ will be used to refer towards intralingual subtitles.

Research conducted by Unal and Ekmekci (2022) was an investigation into the use of subtitles by teachers in teaching in EFL contexts. According to the research, EFL students can receive benefits from English movies or TV shows as efficient foreign language learning materials since they incorporate authentic language and expose EFL learners to real spoken language. Furthermore, language students can listen the pronunciation of words and understand what is heard in English movies or TV programs by using subtitles.

Kusumawati and Hasan (2018) conducted research on how English movies with English and Bahasa Indonesia subtitles affected students' listening comprehension. Using quasi-experimental research, the researchers had two intact groups: group A watched with English subtitles and group B with Bahasa Indonesia subtitles. The group who saw the movie with English subtitles had a greater impact than the group that watched Bahasa Indonesia subtitles. Although the research will not focus on L1 subtitles, it is crucial to examine the results of earlier studies that utilised English subtitles, L1 subtitles, and no subtitles as independent variables to understand why the present study did not employ L1 subtitles. Trujillo Erazo (2020) adds that interlingual subtitles, which include the audio and video in separate languages, do allow content understanding, but hinder listening as students focus on reading the subtitles. Intralingual subtitles allow learners to exercise their listening abilities through written screen speech.

Video subtitles improve listening skills; therefore, it is growing popular worldwide. Various studies have argued whether subtitles in videos may benefit second language learners

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with vocabulary and context (Birulés-Muntané & Soto-Faraco, 2016). The study of Vulchanova et al. (2015) has claimed that intralingual subtitles and interlingual subtitles, both are equally effective in showing improved results in context understanding and vocabulary learning. Research studies have added on by stating that intralingual subtitles are far better than interlingual subtitles when it comes to enhancing the context understanding and vocabulary learning (Bird & Williams, 2002; Bianchi & Ciabattini, 2008).

Overall, it is necessary to understand students' perspectives and behaviours in regard to subtitles, as they are the major factors that can allow one to estimate the results of the use of subtitles and help in deciding whether it should be carried forward or not. There are those who feel that subtitles are unnecessary and distracting (Hu et al., 2015), while others feel that they are helpful (Trujillo Erazo, 2020). It is to note that the current study does not intend to state that the use of subtitles is a method which should be permanently used for learning English. Rather, it intends to state that subtitles are a technique that should be used as a long-term technique which might help learners develop strategies to maximise their use over just a period of time, as well as the confidence to begin watching videos without subtitles.

Aims and objectives:

- To compare and analyse the effects of showing videos with and without subtitles on the learners' listening comprehension.
- To compare and analyse the effects of showing videos with and without subtitles on the learners' vocabulary learning.

LITERATURE REVIEW

There are four language skills: listening, reading (receptive skills), speaking, and writing (productive skills) are emphasised in L2 (second language, foreign language) classes by both teachers and students. Listening skill is the first mode of language that children acquire and is a vital form of communication (Gilakjani & Ahmadi, 2011), especially in the educational process (Mendelsohn, 1994, as cited in Behroozizad & Majidi, 2015). Out of the two receptive skills, listening skill is by far the most undervalued skill even though it poses to be of great significance in L2 learning (Kavaliauskienė, 2008; Gilakjani & Ahmadi, 2011; Yildiz, Parjanadze & Albay, 2015; Kazemi & Kiamarsi, 2017). Giving less attention towards the receptive skills, even if just one of the two, can have severe effects on the overall comprehension of a learner, which in turn might even hamper the productive skills (Metruk, 2018).

Out of all the multimodal pedagogical tools, the use of videos has become more and more prominent (Vandergrift, 1999). Past studies have confirmed that students solely being exposed to teachers' lectures are not as effective (Baltova, 1999) as them being exposed to proper video materials in terms of language learning (Bird & Williams, 2002; Chung, 1999, 2002; Hsu, Hwang, Chang, & Chang, 2013; Markham 1999, 2001; Winke, Gass & Syodorenko, 2010). Previous studies also prove that watching videos as a listening activity is bound to boost learners' motivation, group work and interaction (Yasin, Mustafa & Permatasari, 2017).

Subtitles are generally used to refer to written text in the learner's original language with audio in their second language. They're often considered interlingual because the soundtrack is in L2. In the same study, Danan (2004) mentions how captioning aids language acquisition by allowing pupils to envision what they hear, especially if the information is not too difficult for them to comprehend. There are two most common types of subtitling; the first one of them is called reversed subtitling and involves the addition of foreign language subtitles to a native language soundtrack. Historically, it was first used in the context of transcribed television and radio programs that did not include visuals (Bisson, Heuven, Conklin & Tunney, 2011).

Another method is known as intralingual subtitling, which uses the same language for the soundtrack and subtitles. Dating back to its start, it was aimed at the deaf and hearing-impaired so they could watch movies and TV (Burnham et al., 2008). After awareness spread about how subtitled films boost learners' listening comprehension, language teachers and researchers adopted the practise. Intralingual subtitles are not impacted by intonation, accents, or background noise, therefore having both the soundtrack and subtitles helps separate spoken words (Mitterer & McQueen, 2009).

A lot of the researchers have reported that subtitles do, in fact, benefit language learners (Alabsi, 2020; Azizi & Aziz, 2020; Liao, Kruger & Doherty, 2020). In another study, video with subtitles were found to increase informal language learning, much as auditory, visual, and written input. Familiarity with words and phrases lessened anxiety, improved interest in studying, and facilitated second language learning (Almeida & Costa, 2014).

Controversially, a much-debated topic regarding this matter is the use of subtitles negatively affecting the efficacy on the English Language Learners (ELLs). According to the investigation of researchers Yoshino, Kano, and Akahori (2000) on the efficiency provided by subtitles to EFL learners, it was found that the subtitles (Japanese) posed to be of difficulty for the learners rather than providing them with ease. The reason they presented for the issue is

that learners experienced greater cognitive processing load during translation, hindering their comprehension. Learners also need constant active watching tactics to use captioned and subtitled material effectively (Danan, 2004).

Furthermore, research was conducted by Mitterer and McQueen (2009), exploring the impact of watching English programs with L1 and L2 captions to try and find out if it helps improve or distract the participants in adapting to a new accent in a foreign language. Six groups of Dutch native speakers (121 total) watched a 25-minute presentation with a Scottish or Australian accent. Each group viewed versions with English, Dutch, and no captions. They next repeated 160 audio snippets, half of which they had seen. After such a short exposure, individuals who watched movies with English captions quickly adapted their hearing to regional accents and new words spoken with captions.

In contrast to Mitterer and McQueen's (2009) findings, Liao, Kruger and Doherty's (2020) findings did not discover any vital boost in the extraneous cognitive load due to the presence of audio and visual information in any of their four different kinds of subtitled materials. Additionally, the researchers also claimed that the bilingual subtitles played no role in producing cognitive load on the learners or viewers because of it having more redundant information than the monolingual subtitles. They also measured the impact of subtitles mode on content comprehension and were able to successfully conclude that all throughout their four types of subtitled videos, the participants found no problem in comprehending the video irrespective of the presence and format of the subtitles.

Another significant aspect of subtitles is that it has a pivotal impact on vocabulary acquisition as it is one of the most important aspects of acquiring effective communication and literacy abilities, which it regarded as such by both researchers and teachers (Yuksel & Tanriverdi, 2009). There are several researchers proving that technology does indeed help in improving the vocabulary of the learners. According to Nisbet (2010), it is mandatory for English Language Learners (ELL) to understand 98 percent of the words that are presented to them in texts so that they can read the material to their optimized level along with being able to use context clues to help themselves understand the definitions of the other words within the text that they are unable to get.

In contrast to the researchers mentioned above, there are other research studies that have concluded that the statistical data in their research failed to prove any significant development in vocabulary learning of the learners (Kusumawati & Hasan, 2018). In another research, Kusumawati (2019), stated that the results showed that subtitles do have a positive effect on the content understanding and comprehension using English movies; however, the

statistical analysis of the research found that the subtitles did not have any vital impact on the learners' vocabulary comprehension.

Trujillo Erazo (2020)'s research concluded that the use of intralingual subtitles has a positive impact on the listening comprehension as the experimental group showed better results than the control group. The experimental group was able to achieve 15.39 score over 20, whereas the control group showed no consistency in their results as well as any improvement. Overall, the experimental group was able to perform better than the control group in every test conducted by the researcher. Conclusively, previous research studies have revealed that intralingual subtitles had a much more significant effect on the EFL learners' listening comprehensions, proving that subtitles really are vital factor in language learning.

METHODOLOGY

Type of Research

Quasi-experimental Design

The specific kind of quasi-experimental design that the researchers have opted for in this study is the non-equivalent groups design. The researcher chooses existing groups that appear similar; with only one of the groups receiving the treatment. The design below is used to represent the nature of the experimental group and the control group. The 'X' represents the intervention in the experimental group; whereas the control group shows no intervention as it has does not have any.

Table 1.1

Design of Experimental Group and Control Group

Experimental	RO1	X	O2
Control	RO3		O4

Data Collection Tools

Attitude Questionnaire

Attitude questionnaire was provided to the learners after the experiment ended, which was adapted from Alavi (2011). Attitude questionnaire is generally handed out to the concerned population in order to understand and acquire their interpretations or knowledge about a certain concept. Using this questionnaire, the researchers administered the learners' perception

regarding subtitled videos from the experimental group and non-subtitled videos from the control group.

Pretest and Posttest

Cambridge's B1 Preliminary English Test (PET) was used for the experimental group's pretest and posttest. The total score was 25 for 25 questions. Each group finished the pretest in 30 minutes. 5 MC questions were added to test participants' vocabulary. The pretest featured four parts, with the first two being multiple-choice questions. Third, pupils filled out a six-blank note. For the fourth part, there were multiple-choice questions (MCQs) again. To assess their vocabulary, the researcher created MC items based on the first five minutes of 'The Deadly Affliction of the Match Girls'. For MC Item in posttest, participants watched another segment of the pretest video.

Listening Comprehension and Vocabulary Learning Test

First, the participants were given a True/False section along with multiple-choice questions where all the statements or questions were related to what they just watched, and based on their listening comprehension, they had to select the right option. The listening comprehension test was planned in a way that it successfully examined learners' listening skills without any of their expressive skills acting as an obstacle. The questions were regarding the subtitled videos that they have watched. The number of questions that they are provided with were limited to assure that it does not take the learners' attention and interest away from the study. All these exercises have been adapted through Trujillo Erazo (2020) research paper. For the vocabulary testing, they were provided with MC Items and Word Matching exercise, which they were supposed to attempt after watching the video and having completed their listening activities.

Data Analysis Technique

Quantitative Data Analysis

This research will use SPSS version 22 to analyse data. SPSS is a statistical data analysis programme used to analyse and evaluate survey data. A t-test contrasts two groups' means. T-tests have two types. The independent t-test can be used when the two groups being compared are independent of one another, while the paired t-test can be used when the two groups being compared are dependent on one another. T-tests are used when experimental participants are split into two groups: A and B. If the test is significant, we reject H_0 and conclude the population means vary. Data analysis in this study used paired t-test of 2-tailed

significance. Descriptive statistics was utilised to define the research's data foundations. It provides sample and measure summaries.

Qualitative Data Analysis

The data gathered from each of the groups through perception questionnaire was analysed through Saldana (2009)'s model of thematic analysis. The data was coded, with the open coding of the data being carried on first. Then, pattern coding was used to detect links and patterns in the data. Pattern coding is a method of categorising data that involves sorting it repeatedly.

ANALYSIS AND DISCUSSION

Analysis of Quantitative Data of Control and Experiment Group

The quantitative data of the research was collected through pretest and posttest that was given to the learners at the start and end of the experiment, respectively. The pretest was taken to analyse the participants' listening and vocabulary skills, whereas the posttest was taken to analyse their listening and vocabulary after the four weeks intervention had taken place. Table 1.2 provides the data of the pretest of both control and experimental group, whereas Table 1.3 provides data of the posttest of both the groups.

Table 1.2

Statistical Analysis of Quantitative Data of Control and Experiment Group's Pretest

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	SD	Std Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pre_Exp_L	-	.07143	4.04711	1.08164	-2.26530	2.40816	.066	13	.948
Pre_Cont_L									
Pre_Exp_V	-	-.07143	1.68543	.45045	-1.04456	.90171	-.159	13	.876
Pre_Cont_V									

Acronyms: Pre = pretest; Exp = experimental; L = listening; Cont = control; V = vocabulary; SD = standard deviation

The table above provides mean, standard deviation, and t-value of the pretest conducted with control and experimental group. The first row compares results of listening of both the

groups in the pretest, while the second row compares the results of vocabulary of both the groups in the pretest. It is to show that the listening and vocabulary skills of both the groups were same at the start of the research. Table 1.1.1 shows the hypotheses generated to see whether or not the pretest results of control and experimental group were equal.

Table 1.2.1

Hypotheses for pre listening and vocabulary for experimental and control group

	Null Hypothesis	Alternative Hypothesis
Hypothesis of listening comprehension	$H_0: \mu_{\text{Pre_Exp_L}} = \mu_{\text{Pre_Cont_L}}$	$H_1: \mu_{\text{Pre_Exp_L}} \neq \mu_{\text{Pre_Cont_L}}$
Hypothesis of vocabulary learning	$H_0: \mu_{\text{Pre_Exp_V}} = \mu_{\text{Pre_Cont_V}}$	$H_1: \mu_{\text{Pre_Exp_V}} \neq \mu_{\text{Pre_Cont_V}}$

In order to analyse whether a hypothesis has been accepted, the p-value should be lesser than 0.05. Any value higher than that rejects the hypothesis. Keeping that in mind, we can see in Table 1.2, the significance value 0.948 of the pretest result of both the group's listening comprehension shows that the learners from both the groups were at the same comprehension level. Similarly, the significance value 0.876 of the pretest result of both the group's vocabulary learning also indicates that the learners from both the groups were at the same skill level. Thus, the researchers can prove that no favouritism took place as no group scored better than the other in the pretest. Therefore, in both the cases, the null hypothesis was accepted, as both the groups were equal in their pretests.

Table 1.3

Paired t-test Analysis of Quantitative Data of Control and Experiment Group's Posttest

		Paired Differences				t	df	Sig. (2-tailed)
Mean	SD	Std Error Mean	95% Confidence Interval of the Difference					
			Lower	Upper				
Post_Exp_L -	2.78571	3.26234	.87190	.90210	4.66933	3.195	13	.007

Post_Cont_L									
Post_Exp_V	-	.57143	.75593	.20203	.13497	1.00789	2.828	13	.014
Post_Cont_V									

Acronyms: Post = posttest; Exp = experimental; L = listening; Cont = control; V = vocabulary; SD = standard deviation

Table 1.3 provides mean, standard deviation, and t-value of the posttest conducted with control and experimental group. The first row compares results of listening of both the groups in the posttest, while the second row compared the results of vocabulary of both the groups in the posttest. The paired t-test statistical analysis above is done to show that there was a significant difference between the results of control and experimental group, in both, their listening skills and also vocabulary skills.

As mentioned above, the p-value should be lesser than 0.05 for the hypothesis to be accepted. The first row represents the posttest results of both the group's listening comprehension. The value stands at 0.007, which proves that there was a significant improvement in the experimental group's performance in the listening test as compared to the control group. Similarly, the second row of the table provides the value of the posttest of both the group's vocabulary learning test. The value is lying at 0.014, which provides sufficient evidence to conclude that experimental group performed better in their vocabulary test as compared to control group.

Table 1.4

Descriptive data on pretest and posttest of experimental and control group's listening comprehension and vocabulary learning

	N	Mean	SD
Pre_Exp_L	14	11.42	3.82
Pre_Cont_L		11.35	3.22
Pre_Exp_V	14	3.9	1.44
Pre_Cont_V		4.0	1.03
Post_Exp_L	14	20.28	2.99
Post_Cont_L		17.5	2.47

Post_Exp_V	14	4.93	0.26
Post_Cont_V		4.35	0.63

Acronyms: N = number; SD = standard deviation; Pre = pretest; Post = posttest; Exp = experimental; Cont = control

Table 1.4 provides further evidence to conclude the interpretations made by the researchers. The mean of listening for experimental group pretest lies at 11.42 while mean of listening for control group pretest lies at 11.35 with just a difference of 0.07, proving that both the groups had the same level of listening skills at the start of the test. Similarly, the difference between the means of both groups for their vocabulary skills is just 0.1, proving that both the groups had similar level of vocabulary skills prior to the intervention.

After the pretest, four weeks intervention took place before conducting the posttest, and later, the results were analysed. The results obtained from the posttest of both the groups presented that the mean score of experimental group for listening is at 20.28, while the mean score for control group is at 17.5. The posttest results of the mean score of experimental group for vocabulary lies at 4.93, higher than the mean score of control group which stands at 4.35. Therefore, at 5% significance level the data that the descriptive statistics provides is sufficient evidence to conclude that experimental group improved in their listening comprehension and vocabulary learning as compared to the control group.

Thematic Analysis of Control Group's Data

After the completion of posttest, the participants were given a questionnaire. In the first two questions, they were asked their opinion on watching unsubtitled videos, though the idea of subtitled videos was not disclosed to them yet. After their response on that, they were asked what role they think subtitles play in improving listening and vocabulary, to which the participants responded positively, stating that the presence of subtitles would definitely help in increasing their listening comprehension and vocabulary learning. A detailed analysis of their response has been done in Table 4.4.

The coding of the participants was done by first writing CS for Computer Science, the department they belong to, then 'C' if they belong to the control group, then the initial letter of their forename and surname, and finally the number of the participant according to

their attendance list.

Table 1.5

Coding Schemes of Control Group's Comments on Subtitled and Unsubtitled Videos

a) Learners' Understanding with Unsubtitled Videos	
CSCHB01	“Helps to understand the topic more clearly”
CSCHH02	“Makes listening better with the audio”
CSCUF03	“Would be more helpful if there are subtitles”
CSCSS04	“Visualises the audio”
CSCZG05	“Difficult to guess without audio that what's going on, who is saying what.”
CSCHJ06	“Yes, as sometimes the picture speaks more than words”
CSCUH07	“Through video I can understand more easily”
CSCAH08	“It can be easy”
CSCAR09	“Even if I skip listening at some point, I can understand by watching the video”
CSCAA10	“Yes, because we not only get to hear, but also see what the speaker is talking about which makes it easier to understand”
CSCAT11	“Better to understand a content with audio and video”
CSCMA12	“Visual aid helps with understanding incidental vocabulary better than just with audio”
CSCMS13	“Better understanding of the content when the audio is combined with video”
CSCHA14	“Through combination of audio with video it's quite easy to understand the meaning of different words”
b) Mode of Watching: Unsubtitled Videos	
CSCHB01	“Helped a lot in understanding different accents, expression”
CSCHH02	“It is good by watching videos”
CSCUF03	“Improved our listening skills”
CSCSS04	“Movies helped me more in learning English than the school.”
CSCZG05	“Only video not enough; it may help to understand accent but proper knowledge is required to learn the grammar.”
CSCHJ06	“Learning English language from watching movies, series, YouTube, etc.

	has always been my primary source rather than attending English course classes”
CSCUH07	“Easy for me to learn through videos”
CSCAH08	“Makes it easier for me”
CSCAR09	“For a fact I have learned a lot of words through watching video, movies and documentaries. Plus, it helped me to understand the different contexts of the language”
CSCAA10	“No, because just watching the video without pause didn't give me the chance to search for the meaning or grasp the words/knowledge given.”
CSCAT11	“Easy to understand content with video”
CSCMA12	“Yes, because with the videos it was easier for me to interpret the context”
CSCMS13	“Yes, English can be learned with videos”
CSCHA14	“Yes, I can learn English with videos because in videos we can see different situations, so we can learn the use of vocabulary at the right situation.”

c) Role of Subtitles in Improving Listening

CSCHB01	“Helps us to understand different accents, and how a particular word is pronounced”
CSCHH02	“It’s a good way to improve listening skills and English”
CSCUF03	“Subtitles will help us acquire the precise words”
CSCSS04	“I have watched many videos with subtitles but without subtitles I cannot quite catch the words”
CSCZG05	“Yes, with subtitles it becomes easier to understand because English is not my native language and the movies or videos that we watch are in a different accent.”
CSCHJ06	“Yes, as with them I know the exact words and the pronunciation”
CSCUH07	“No without subtitles would be better to improve our listening”
CSCAH08	“Often, we cannot recognize the word because of the accent so to get better knowledge of the word, its pronunciation and spelling, subtitles can help.”
CSCAR09	“With subtitles it will take less time to understand what is being said. Just listing takes a bit more effort to understand it correctly.”
CSCAA10	“I don't think so. Because that way one is mostly reading the subtitles and not listening or watching the content.”

- CSCAT11 “Subtitles play an important role to understand the words or sentences more clearly”
- CSCMA12 “Yes, I believe so because sometimes the narrator has a different accent which takes time to understand.”
- CSCMS13 “We can easily connect with the video as we read the subtitles.”
- CSCHA14 “Yes, as we are non-native speakers of English language and English is spoken in different accents in different parts of the world, so subtitles help us recognize the spoken words.”

d) Role of Subtitles in Improving Vocabulary

- CSCHB01 “Yes, it helps us to know about the nature and context of the word, where a word is to be used.”
- CSCHH02 “Yes, I think vocabulary will be improved by watching videos day by day”
- CSCUF03 “Yes, without a doubt. I believe that it is the finest approach to expand our vocabulary.”
- CSCSS04 “Yes. It’s easy to understand the scenario for me through subtitles and one can easily guess the meaning of a word by simply eyeing the quotes.”
- CSCZG05 “Yes, definitely because when you know a word and its spelling, you're able to search the meaning and to know more about the use of that word.”
- CSCHJ06 “Yes, as reading develops writing and grammar is improved.”
- CSCUH07 “No, maybe not”
- CSCAH08 “Yes, if you read subtitles, you will immediately get the word, its spelling and pronunciation as well.”
- CSCAR09 “Yes, subtitle videos will help improve vocabulary in learning the meaning and spelling of the word with the context it has been used in.”
- CSCAA10 “Yes, I will know what it means in the given setting.”
- CSCAT11 “Yes, as sometimes we are unable to catch the words because of the accents so in that manner subtitles help us in understanding.”
- CSCMA12 “We can process and understand words better when a visual representation is presented as well as it would be easier to find out how to spell.”
- CSCMS13 “Sometimes we cannot understand just with the video, subtitles can help us see the word and help with vocabulary building.”
- CSCHA14 “Yes, as when I watch videos with subtitles my attention is automatically diverting to that new word in subtitles and after finding the meaning, I am
-

able to remember that word.”

Learners' Understanding with Unsubtitled Videos

The participants were of the opinion that watching a video can help in listening and (CSCUH07) understanding more easily. Another participant, CSCHA14 is of the opinion that the combination of audio with video makes it easy to understand the meaning of different words. However, one participant, CSCUF03, was of the perception that the presence of subtitles will make the process of listening even more helpful. One thing to note is though, that the control group participants were not told that there was another group that was being experimented, as we had to maintain the ethical guidelines. Therefore, the responses in this theme are particular to just watching unsubtitled videos.

Mode of Watching: Unsubtitled Videos

Overall, almost all participants (85.7%) were of the opinion that watching videos, even though without subtitles, helped them (CSCHB01) not just in learning but also in understanding different accents, similar to the perception of participants of experimental group (CSETA14, CSETA08, CSEMS03, CSEAM05, CSEFT01). The participants CSCHJ06 and CSCAR09 were of the opinion that they have learned a lot of words through watching videos, movies, series, documentaries, etc. However, CSCZG05 is of the belief that watching videos alone is not enough to learn English, as proper knowledge is required in understanding English and its grammar. Apart from that, participant CSCAA10 is also of the opinion that just watching videos did not help them as they would like to pause the video while watching to properly grasp the knowledge.

Role of Subtitles in Improving Listening

In the third question asked from the participants of the control group, regarding their opinion on the role of subtitles in improving listening skills, the participants stated that they believe it is a good and easy way to understand language, as it helps (CSCSS04) in catching the specific words and grasping words or sentences more clearly. 35.7% of the participants also shared that it will help them in understanding different accents and the accurate pronunciation of words. On the other hand, if we compare this with the experimental group's perception of watching subtitled videos, we can deduce that subtitled videos does indeed help out in improving pronunciation and also aids the participants in understanding different words that

they cannot at times due to variation in accents of the native speakers of English (CSETA14, CSETA08, CSEMS03, CSEAM05, CSEFT01).

Role of Subtitles in Improving Vocabulary

For the last question, they were asked about their perception on the role of subtitled videos in improving vocabulary. CSCUF03 stated that they believe it is the finest approach to expand one's vocabulary. CSCC04 also stated that it is easy to understand the scenario through subtitles and it is easy to guess the meaning of a word by simply eyeing the quotes. Overall, all participants were in favour of the aid of subtitled videos in improving vocabulary and they stated their personal experiences of being able to understand words and their meanings better when they can see them on the screen.

Thematic Analysis of Experimental Group's Data

The data in Table 1.6 is the qualitative data of the experimental group. After they had completed their posttest, they were given a questionnaire through which their perception regarding the use and effect of subtitled video was collected. They were asked whether, in their opinion, the use of subtitled videos helped in improving their listening comprehension and vocabulary learning, and what mode of watching videos would they normally prefer. To analyse the data, the questions were made into themes and the answers were further divided according, with similar responses being grouped together.

The coding of the participants was done by first writing CS for Computer Science, the department they belong to, then 'E' if they belong to the experimental group, then the initial letter of their forename and surname, and finally the number of the participant according to their attendance list.

Table 1.6

Coding Schemes of Experiment Group's Comments on Subtitled and Unsubtitled Videos

a) Learners' Understanding with Subtitled Videos	
CSEHR02	"Yes, it gets easier to get better understanding of the content"
CSEMK04	"Yes, I do have a better understanding of the content with subtitles"
CSEEA06	"Yes, it is much easier to understand the text"
CSERS07	"Subtitles help out with the audio as it allows me to focus more on both reading and listening skills. Nonetheless, I feel like I improved."
CSEZR09	"Helps to get answers and subtitles help confirm your answers"

CSERS10	“Yes, due to subtitles it is easy to understand the audio”
CSEMS11	“Yes, it is easy to respond the questions efficiently when subtitles are available”
CSESU12	“Yes, because it makes little easier for us to see the word”
CSESA13	“Better experience”
CSEFT01	“I think it helps me a lot because understanding different accents is hard for me”
CSEMS03	“Sometimes we do not listen to some words carefully or the pronunciation is not clear so because of subtitles we can easily go through them”
CSEAM05	“Yes, because sometimes the pronunciation of certain words is unclear or confusing so it helps to see it in written form as well”
CSETA08	“Helps in grasping the concept; the difference in accents can be a bit confusing at times and so with the help of subtitles, the problem is reduced”
CSETA14	“Yes, different speakers have different accents, we can understand it better if there are subtitles so we know exactly what word it is and how to pronounce it”

b) Preferred Mode of Watching Videos: Subtitles or No Subtitles

CSERS07	“Yes, there are some words I cannot understand due to accent so I could read them and understand the context of it”
CSETA08	“The difference in accents can be a bit confusing at times and so with the help of subtitles, the problem seems to be reduced”
CSEZR09	“It helps to learn the vocabulary fast”
CSEMS11	“The pronunciation of different words along with their spellings can be seen which enhances one’s vocabulary”
CSESU12	“Yes, it helps to us to view new word and their pronunciation and meaning”
CSETA14	“It enhances and improve vocabulary”
CSEFT01	“I do think learning English is better with subtitled videos as it makes it easier to understand the audio”
CSEHR02	“I was able to understand English better with subtitled videos”
CSEMS03	“It is much easier through reading subtitles and understanding meaning of a word”
CSEMK04	“I do think I was able to learn better English because I was able to understand English better.”

- CSEAM05 “Yes, while listening I can also see what is being said and better visualize the content.”
- CSEEA06 “Yes, it helped me understand the concept and ideas of the activity and the videos in detail”
- CSERS10 “Subtitles make it easy to understand the audio”
- CSESA13 “Easy to understand with subtitles rather than just listening to an audio”
-

Learners’ Understanding with Subtitled Videos

The analysis of the qualitative data showed that 57.1% of the participants believe that it became easier and better for them to understand the content of the video with subtitles. The rest of the 35.7% participants who specifically answered with regards to accents and pronunciation. CSETA08 claimed that the variance in accents can be confusing, and so with the help of subtitles, it becomes easier to understand the content. CSETA14 suggested that with the help of subtitles, they are able to also know how to correctly pronounce a word. In support of the claim that subtitled videos do help in improving learners’ understanding, a participant from the control group, CSCUF03 specifically stated that they would have found it more helpful if there were subtitles present in the video.

Preferred Mode of Watching Videos: Subtitles or No Subtitles

The next theme focuses on the perception of the participants on whether they think they were able to learn English better through the use of subtitled videos. 42.8% of all of the participants were again of the opinion that they felt enhancement in their vocabulary and (CSESU12) helped them view new words along with its pronunciation. The rest of the 57.1% participants of the class were also of the opinion that subtitled videos make the process of understanding English much better. Viewing this in accordance with control group’s perception of just watching videos without subtitles, two of the participants of control group, CSCZG05 and CSCAA10 stated that just watching videos is not sufficient in improving English or learning English.

Accents and Pronunciation

Though it was not the objective of the researchers to focus on the accents or pronunciation during the study, and how subtitles may affect in improving them, the researchers observed through the qualitative data that the participants (CSEFT01, CSEMS03, CSEAM05, CSETA08, CSETA14) stated that they found it easier to comprehend the varying accents due to the subtitles and understood the way to pronounce certain words that they had

previously not known. This opinion of the participants is further supported by research (Aksu-Ataç and Köprülü-Günay, 2018; Ayand and Shafiee, 2016; Liando, Sahetapy and Maru; 2018). Aksu-Ataç and Köprülü-Günay (2018) stated in their research that the use of subtitled movies not only motivated the students and had positive impacts on their language learning skills, but it also revealed to have aided the students in understanding the dialogues and accents. The research by Ayand and Shafiee (2016) showed that subtitles aided the participants in comprehending languages that are spoken in different accents. Lastly, the researchers Liando, Sahetapy and Maru (2018) discovered that through subtitles, it was made easier for students to understand complicated accents of the native speakers of English.

Qualitative Analysis Supported by Quantitative Analysis

Conclusively, the data analysis and findings of the present research views the use of subtitled videos as significant in terms of improving learners' listening comprehension and vocabulary learning. The finding of improvement in listening comprehension is aligned with the study of other researchers who were also able to conclude from their research that subtitled video is indeed useful. (Trujillo Erazo, 2020; Alabsi, 2020; Azizi & Aziz, 2020; Liao, Kruger & Doherty, 2020). The second variable of this study was of vocabulary learning and it was assumed that experimental group's learners will be able to improve their vocabulary learning skills, which was not in alignment to the research of Kusumawati and Hasan (2018) and Kusumawati (2019) as the statistics in these researchers' findings failed to prove that learners' vocabulary had any significant improvement.

CONCLUSION

The data obtained in this study suggests that among the two main variables we chose, subtitled videos and unsubtitled videos, the learners who were taught through subtitled videos were able to score much better in listening comprehension tests and vocabulary learning tests, than learners who studied through unsubtitled videos. As per the results through descriptive statistics, it is observed that the mean of listening posttest of the experimental group lies at 20.28, while the control group lies at just 17.5. Similarly, the mean of vocabulary posttest of experimental group is 4.93, whereas 4.35 for the control group. Therefore, intralingual subtitles, which are the ones in which both the audio and subtitles are in the target language, have proven itself to be useful in improving listening and vocabulary of the ESL students.

The researchers suggest to future researchers of this field to consider some vital points when conducting research similar to this. The researcher should make sure that the selected

video or movie is appropriate according to their context, culture, and norms included, so that participants feel at ease while watching it and it does not distract them from concentrating on the activities, which could harm the research. The video selected should be one that participants have most likely not viewed before, otherwise they may be reliant on their memory to aid them in the listening and vocabulary activities. The videos selected should not be too long, as it may lose the interest of the participants, again, hindering the research. Research could be conducted on a higher, or a different scale. Different departments of both private and public sector university should be opted for to analyse and compare the effects of subtitles on participants from different backgrounds. Research could be conducted which has a larger sample size in order to draw out better result.

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