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The Effect of Subtitled TED Talks on Students' Listening Comprehension

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DEDICATION

To my family

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ABSTRACT

This study aims to investigate the effect of subtitled TED Talks on intermediate level of EFL learners' listening comprehension. A total of nineteen EFL learners in two groups took part in this study. During six weeks of the experiment both groups watched TED talks with and without subtitles. After each viewing, six sets of multiple-choice tests were administered to compare the progress of learners' listening comprehension. The results revealed that there was no significant difference between the participants who watched the TED talks with subtitles and the ones who watched them with no subtitles.

CHAPTER ONE: INTRODUCTION

There is a common misbelief that foreign language learners may be distracted watching subtitled videos, and therefore subtitles are often considered a hindrance rather than a support in language learning. However, a great number of research studies were carried out in recent years and their results show that students in fact can benefit from subtitled or captioned videos in contrast to the prejudice that subtitles may hinder the comprehension or ‘promote’ laziness in language learners.

A great number of researchers observed the impact of subtitled and captioned videos in language learning, and in most cases the results were promising. Therefore, more and more teachers nowadays try to implement audiovisual materials with captions and subtitles in their teaching methods as it is believed that people can learn better from words and graphics (e.g. videos or pictures) more effectively rather than words or text alone (Clark & Mayer, 2008).

1.1. Purpose of the Study

This research study aims to examine the effect of subtitled TED Talks on intermediate level of EFL learners’ listening comprehension.

1.2. Significance of the Study

This study can be significant in that videos from TED web site are used as research materials instead of films, TV programs or animated cartoons which were used numerous times in previous research studies. No research study has been done on the use of subtitled TED Talks to see whether or not they can have a positive effect on students’ listening comprehension.

1.3. Research Question

The research question of the study is the following:

Do TED Talks with subtitles improve students' listening comprehension more than TED Talks without subtitles?

CHAPTER TWO: LITERATURE REVIEW

This chapter provides a critical review on the previously done research studies on the use and effects of captioned and subtitled videos in EFL education.

As Will Richardson claims (2010), there is almost no doubt that Internet will soon grow to become as “the most comprehensive source of information in history” (p. 147). Indeed, Internet has an infinite amount of rapidly increasing information to offer us. Thomas Friedman writes in his well-known book *The World Is Flat: A Brief History of the Twenty-First Century* (2007), “we are now in the process of connecting all the knowledge pools in the world together” (p. 269). Therefore, using these “knowledge pools” of Internet effectively should be educators’ utmost priority in this digital era.

2.1. Videos in Language Learning

Using videos in EFL classroom is not a new trend for teachers, and it definitely has a long history. However, it was not as widespread in last decades as it is now. During recent years, the interest in using digital videos for educational purposes has been growing greatly (Collins, Hammond & Wellington, 1997). With the advent of Web 2.0 which, in its turn, brought into light a lot of great technological tools, creation and use of digital videos became accessible to non-specialist educators and even learners themselves. So it is reasonable why many teachers try to integrate digital videos in their teaching methods. But here comes another question; why should teachers use videos in classroom? According to Canning-Wilson (2000), videos provide visual stimuli for students to be able to predict, speculate and activate background schemata when watching a visual scene reenacted. Furthermore, videos allow the learners to be exposed to

body language, stress patterns, and speech rhythm through the use of authentic language in various situations. Teachers and educators acknowledge the importance of using multimedia (digital video being a part of it) in language learning since learners in general are motivated and engaged by multimedia materials. Furthermore, Viney (2000) in an interview discusses how using videos in his courses is more efficient than the use of just audio files, because for developing communication skills and providing a context, videos are still unbeatable. He further adds that “a good teacher does not even need a blackboard” if there are opportunities for using videos.

Numerous research studies reveal that language learning can be made more comprehensible using visuals. Iwasaki (2009), for example, writes that “visuals can help dramatize meaning” (p. 3). In another study by Shrosbree (2008) the author provides us with a well-thought description of how videos overshadow audio materials in language teaching:

There is an obvious appeal to using video in the language classroom. Instead of the rather unnatural task of listening to a disembodied voice emanating from an audio player, learners are able to see the speaker and elements of the surrounding environment (p. 75).

It is, indeed, natural that many researchers prefer videos to audios because when we interact we first of all see people’s faces. Even in computer-mediated-communication, where people cannot interact face-to-face a great number of emoticons are used to substitute face-to-face contact, meaning that body language cues are essential in any communication (Joy, 2009).

Berk (2009) in his research study presents a detailed list of “learning outcomes” (p. 2) for the use of videos in the classroom, which combined with his enlightening review on neurocognitive research makes the whole idea of integrating videos in teaching more reasonable and engaging.

However, not all researchers acknowledge the importance of using videos in teaching.

Wagner (2007), for example, seems doubtful whether language students learn more from what they see in the videos or what they see on the monitor. In a working paper (Bejar, Douglas, Jamieson, Nissan & Turner, 2000) in which the authors provide a listening framework for TOEFL 2000, they show their concern about the potential for distraction when using videos.

This study differs from the previous research studies for a number of reasons. First of all, this study mainly focuses on using captioned videos to reveal whether or not captions can be considered useful tool in language teaching. Secondly, captioned TED talks are used to carry out this research project, which might be considered as innovation since there is very little or almost no previously done research aimed specifically at using captioned TED talks to improve learners' listening comprehension. In order to understand the matter well, the author considers it very important to have a look at the previous relevant studies on captioned or subtitled videos and their influence on different language skills.

2.2. Dual Coding Theory

The use of audio-visual materials in the language classroom is crucial for students' listening comprehension enhancement (Meskill, 1996). According to dual coding theory by Paivio (Clark & Paivio, 1991), "nonverbal and verbal mental systems are specialized for the processing of imagery and linguistic information respectively" (p. 150). In his theory Paivio (1990) refers to the nonverbal or symbolic system as the imagery system and the verbal system as the language-specialized system. Moreover, Paivio states that these two subsystems are independent because they can be active either separately or in parallel. Therefore, it can be implied that combination

of both verbal and visual representations can contribute to a more successful learning process. Visualizations are considered essential in education especially when used along with verbal instructional materials, for example, accompanied with texts (Scheiter, Wiebe & Holsanova, 2009). Based on solid research evidence, Clark and Mayer (2008) recommend that people learn languages more efficiently from words and graphics (e.g. photos, drawings, charts, videos), rather than words alone.

2.3. Definition of Captions and Subtitles

Some early researchers such as Vanderplank (1988) did not differentiate between captions (also known as closed captions) and subtitles, but in other studies (Borrás & Lafayette, 1994; Garza, 1991) the authors made a clear distinction between captions and subtitles. Garza (1991) gives a thorough description of captions and subtitles:

Captions are similar to subtitles – such as those that appear on many foreign language feature films – in that they are a printed version of the spoken text, but differ in that they appear in the same language as the original speech (p. 239). As the name itself suggests, closed captions are usually closed (invisible) and can be turned on or off by the viewer in contrast to subtitles that are usually open or visible (Downey, 2008). However, the main feature that makes captions and subtitles significantly different is the element of translation as subtitles are a translation (common in foreign films) while captions are in the same language as the audio or soundtrack (Alison, 2010).

In this study the term ‘subtitles’ are used since the TED web site provides their videos with subtitles translated in numerous languages. Also, it should be noted that TED talks with English subtitles are used as research materials.

2.4. The Impact of Captioned and Subtitled Videos on Listening Comprehension

Using captioned and subtitled videos to enhance language learning is not new to teachers. There is a common misbelief that subtitles and captions can be a hindrance rather than a support for language learners (Zanón, 2006). Obviously, subtitles need to be “highly legible” (p. 88) in order not to distract viewers’ attention and to be effective for learning purposes (Caimi, 2006). Moreover, teachers should be aware of so-called ‘fansubs’ created and translated by fans because fansubs, as Fukunaga (2006) suggests in his study, “made participants sensitive to and critical of how the language was translated” (p. 215). However, a considerable number of research studies reveal that captions and subtitles can indeed be a useful support for language learners in contrast to common belief that they may distract or hinder the learning process.

In his research study Vanderplank (1988) reveals the benefits of using subtitled video programs on high intermediate level of students’ language development and specific strategies for using subtitles according to learners’ needs, namely “minimizing distraction and maximizing the usefulness of the text” (p. 275). Findings also suggest that learners, although initially being distracted by subtitles, became more confident in their listening skills later on as they began to comprehend more easily even without looking at the subtitles.

In his comparative study Garza (1991) examines the impact of captions on learners’ overall language competence. This study reveals that the group watching captioned videos outperformed the group without captions in the post-comprehension test. Moreover, the researcher notices that reading captions while watching the video did not impede learners’ listening comprehension in any significant way. Findings also reveal that captions made the lexicon of the video segment more memorable for learners, while the students who watched the video without captions would

recall only general language elements from that specific segment. To sum up, the researcher finds the use of captions beneficial for developing learners' reading and listening skills.

Another research study (Huang & Eskey, 1999) investigates the effects of closed-captioned TV series (*Family Album U.S.A.*) on the listening comprehension of thirty ESL students of intermediate level enrolled in The Language Academy at the University of Southern California. After watching the series, the participants were asked to express their thoughts of captioned video materials on language learning. As the final results revealed the students had generally favorable attitude towards watching the series with captions.

An interesting research study was carried out to compare the usefulness of two help options, namely subtitles and transcripts (Grgurović & Hegelheimer, 2007). The study involved eighteen ESL college students from seven different countries. They were placed in two groups for this experiment based on their paper-based TOEFL scores; one group of higher intermediate level of students, and one group of lower intermediate level learners. Once the students watched the video segment, they were given two options to choose for better understanding of the video material; they could either choose to watch the video again with the subtitles or watch it while reading the transcript. Then, they had to complete a post-listening questionnaire. The findings revealed that a considerable percent of students (76%) preferred to watch the videos with subtitles, while only 24% of students called for the second help option, transcripts. Also, the students who watched the videos with subtitles had the best scores for post-listening questions. Therefore, the researchers came to conclusion that subtitled videos can indeed be useful in multimedia listening activities.

Hayati and Mohmedi (2011) investigated the effects of movie subtitles on learners' listening comprehension and revealed, like the previous studies, that subtitled films did improve students'

listening skills. For this study, the researchers placed ninety university students of intermediate level into three groups: the first group was to watch subtitled documentaries with English subtitles, the students of the second group had to watch the same videos in their native language subtitles (Persian), while the third group watched the videos with no subtitles. Based on the results of post-listening multiple-choice tests and the students' perceptions on subtitles, the researchers found out that the first group with English subtitles did remarkably better at listening activities than the second group with native language subtitles, which, in its turn, outperformed the third group with no subtitles. Moreover, participants of the second group noted that native language subtitles distracted them and hindered from having a better understanding of the spoken discourse. To sum up, the results of this study reveal the positive impact of target language subtitling on learners' listening comprehension.

Another research was carried out with a relatively smaller number of subjects (a total of thirty 8th grade students) in Turkey (Başaran & Köse, 2013). For this experiment the students were put in three groups to watch a nineteen-minute segment from a popular Harry Potter movie with first group having English subtitles for the video, the second group with native language subtitles (Turkish) and the third group without any subtitles. In contrast to the previous research, the results for this study revealed almost no significant difference in listening comprehension of students from the three groups. Although the absence of subtitles did not affect significantly on intermediate level of students (the 3rd group), the first and the second groups (both being low-intermediate) were able to catch up with their intermediate peers on the listening test. The researchers concluded that both English and Turkish subtitles did actually enhance the overall language performance of low-intermediate students. Interestingly, the native language subtitles

in the previous study distracted learners' attention, while in this research students did not report on any inconveniences from watching the video with native language subtitles.

Continuing the research series on the first language subtitles, another not less important study in this field was done in Taiwan (Katchen, 1996). Two similar experiments were investigated including fourteen native Chinese speakers in an ESL classroom. The learners watched a few episodes from a British and an American TV programs. The findings revealed that students with better listening skills had a negative attitude towards native language subtitles (Chinese) noting that they most of the times were distracted by looking at the subtitles. However, students whose listening comprehension was not of higher level admitted the benefits of native language subtitling underlying specifically their vocabulary improvement (idioms, slang). To sum up, it can be implied from these studies that while lower level of learners may need native language subtitles to help them better understand some specific vocabulary in target language, higher level of students might find subtitles distracting.

A recent study in an elementary Taiwanese school investigated the effects of captioned videos on students' listening and vocabulary learning using mobile devices such as smartphones, iPads (Hsu, Hwang, Chang & Chang, 2013). For the experiment the researchers had three groups of low proficiency level of young learners; the first group watched short videos with the target-word captions, the second group with full captions, and the third control group with no subtitles. Unsurprisingly, both experimental groups outperformed the control group in vocabulary tests, while quite interestingly, the control group made the same progress in listening comprehension as the other two groups. Also, some of the students stated that full captions hindered their listening somehow further explaining that partial or target-word captions would be enough to improve their listening comprehension.

An empirical study by Leveridge and Yang (2013) reveals to what extent EFL learners may rely on captions. This study is different from all the previous studies in that the researchers employed a novel testing instrument called Caption Reliance Test (CRT) which examined the learners' reliance on target language captions. The results show that reliance on captions mostly depends on an individual learner. Moreover, it is said that lower level of students rely on captions more than higher level of learners, and the latter consider captions distracting and unhelpful for their listening comprehension.

More recently, Yang and Chang (2014) found that captions helped EFL learners improve their listening comprehension of reduced forms. They investigated forty-four EFL university students who were randomly applied to the following three groups: full, keyword-only, and annotated keyword caption groups. The authors concluded that all three groups improved their listening comprehension based on pre-test results while the annotated keyword caption group had the best performance compared the other two groups in particularly in recognizing the reduced forms.

Another recent study was carried out with 133 Flemish undergraduate students to examine how three captioning types (full, keyword captions, highlighted keyword full captions) could influence on learners' listening comprehension and incidental vocabulary learning (Perez, Peters, Clarebout & Desmet, 2014). The findings suggest all three captioning groups outperformed the control group (who watched the video clips without captions) in the vocabulary test measuring form recognition.

According to another research study (Winke, Gass & Sydorenko, 2010), learners of Spanish and Russian performed better in comprehension and vocabulary tests during the first viewing of the same captioned video. On the other hand, Chinese and Arabic learners tended to do better

from the second viewing of captioned videos. The researchers suggest that learners of languages with a closer orthography to that of the target language tend to benefit more from captions as an additional support. The participants also expressed their thoughts on captioning stating that they were able to increase their attention, reinforce previous knowledge and use captions as a learning support.

Apart from studies on the effects of subtitled and captioned videos on learners' listening comprehension, there are also a great number of research studies done on students' vocabulary acquisition through subtitles and captions (Neuman & Koskinen, 1992; Harji, Woods & Alavi, 2010; Zarei & Rashvand, 2011;), enhancement of students' speaking skills with captioned videos (Borrás & Lafayette, 1994; Diao, Chandler & Sweller, 2007), impact of subtitles and closed-captions on learners' reading comprehension (Goldman & Goldman, 1988; Hwang & Huang, 2011), effects of subtitles on grammar acquisition (Lommel, Laenen, d'Ydewalle, 2006).

In conclusion, the positive effect of the use of captioned and subtitled videos in language learning is obvious based on numerous research studies. Having reviewed the relevant literature, it can be concluded that captioned and subtitled videos can indeed be a useful pedagogical tool to improve foreign language learners' listening comprehension, and vocabulary acquisition; however, a number of factors should be taken into consideration when implementing captioned or subtitled videos in the classroom. First of all, watching subtitled or captioned videos may not be beneficial for all the levels of students. A number of studies reveal that captions and subtitles are more helpful for intermediate level of students rather than advanced level. Guillory, for example, claimed in her study that captioned videos were more beneficial for the beginner level of students. Moreover, a number of studies (Yuksel & Tanriverdi, 2009; Karakaş & Sariçoban) revealed that there was no significant difference between the subtitle group and no-subtitles

group according to post-experiment comprehension tests. In most of the research studies, however, it was claimed that subtitles and captions can in fact be very useful support for language learners, and more specifically for intermediate level of students. In this regard, this study aims to investigate the effects of subtitled TED videos on students' listening comprehension.

2.5. Ted Talks

TED is a nonprofit organization which started out as a conference in 1984 for professionals from three fields (Technology, Entertainment, Design). As the slogan suggests (Ideas Worth Spreading) the main scope of TED Talks is to spread ideas “to change attitudes, lives and ultimately, the world ([“About TED”](#)). Later on, however, the scope of TED talks became even broader in that it went beyond the above-mentioned three fields and started to host world's greatest and inspiring speakers from various fields. One good feature about the TED videos is that they offer subtitles in forty languages in order to enhance the accessibility of the talks for a vast audience worldwide ([“TED Open Translation Project”](#)). Moreover, the website makes watching of their videos more user friendly in that all the talks are organized by themes or topics (e.g. technology, science, etc.). Taken together, there is evidence that suggests that TED website has more than one feature that can be especially useful for language learning and teaching. However, there is not enough research done using subtitled TED talks in language teaching or any specific framework as to how or if TED talks can be used as video materials in the classroom, whether or not they can have a positive impact on learners' listening comprehension.

CHAPTER THREE: METHODOLOGY

Aimed to investigate the effect of subtitled TED Talks on learners' listening comprehension, this study had to answer the following research question:

Do TED Talks with subtitles improve students' listening comprehension more than TED Talks without subtitles?

3.1. Research Design

The present study is a quantitative research study and all the collected data was analyzed using SPSS, the most commonly used software package in applied linguistics and educational research.

3.2. Context

The research study was carried out at the American University of Armenia with two groups of COM9 level from Experimental English Courses (EEC).

3.3. Participants/Subjects

A total of nineteen intermediate level of EFL learners were involved in this study with age range from 12 to 16. As mentioned above, the participants are enrolled in EEC program. All the students are non-native speakers of English language.

3.4. Instrumentation

The participants were put in two groups and within six weeks of the treatment both groups watched a total of six TED talks with and without subtitles, meaning that both groups watched the same amount of TED talks with and without subtitles alternating the two conditions (with and no subtitles) between the groups. Table 1 shows the process of alternating conditions of TED talks with subtitles (WS) and no subtitles (NS) between the groups during the six-week experiment.

Table 1

TED Talks and Groups

Week	TED talks	Group 1	Group 2
1	<i>The world's English mania</i> (Walker, 2009)	NS	WS
2	<i>Why videos go viral</i> (Allocca, 2011)	WS	NS
3	<i>Can technology solve our big problems?</i> (Pontin, 2013)	NS	WS
4	<i>Embrace the remix</i> (Ferguson, 2012)	WS	NS
5	<i>Embrace the shake</i> (Hansen, 2013)	NS	WS
6	<i>The shared experience of absurdity</i> (Todd, 2011)	WS	NS

After watching each video the participants had to complete a comprehension test with multiple-choice questions (a total of 46) based on the video content (Appendix A-F). At the end of the experiment, the participants were given a questionnaire survey with seven closed-ended items (Appendix G).

3.5. Procedure

The experiment was conducted at the American University of Armenia and lasted six weeks. The study comprised the three following steps:

Step 1: Both groups of participants were informed about the study a week before by their teachers.

Step 2: The first group was informed that they would watch their first TED talk without subtitles, and the second group would watch the same TED talk with subtitles, and the following week the order was reversed so that both groups would be able to watch three TED talks with subtitles and three with no subtitles. After watching the TED talks, a multiple-choice comprehension test was administered based on the video content in order to compare the results and evaluate participants' listening comprehension.

Step 3: At the end of the study, the participants were given a survey to complete based on their impressions about the experience of watching TED talks with and without subtitles.

3.6. Data Analysis

The collected data from the survey and multiple-choice comprehension tests were analyzed via SPSS statistical analysis software (21.0 version). Descriptive statistics were run in order to obtain the mean, the median and the standard deviation of the sample. Since the sample size was small Mann-Whitney U test was performed to draw comparisons between the results from both groups.

CHAPTER FOUR: RESULTS

The data collected from the survey and comprehension tests were analyzed using SPSS software package. The results of the statistical analysis showed that there were no significant differences among the multiple-choice listening comprehension test scores in both conditions (with subtitles and no subtitles).

The table 2 shows the results based on descriptive statistics for all six multiple-choice comprehension tests that were administered after watching of each TED talk.

Table 2

Descriptive Statistics for Listening Comprehension Tests

TED talks	With subtitles				No subtitles			
	n	M	SD	Mdn	n	M	SD	Mdn
1	9	6.1	.60	6	5	5.6	.54	6
2	7	5.7	1.25	6	10	4.7	.82	5
3	12	5.2	1.21	5	6	4.1	1.16	4.5
4	7	4.7	1.38	4	12	3.3	1.07	3
5	11	5.2	1.00	5	6	3.8	1.60	4
6	7	6.1	1.77	6	11	5.1	1.25	5

Based on the findings shown in Table 2, it can be concluded that the participants who watched the TED talks with subtitles achieved higher mean on multiple-choice comprehension tests.

Further analysis, Mann-Whitney U test was conducted to compare differences among the scores of comprehension listening tests between the groups. Table 3 illustrates Mann Whitney U test results from which can be concluded that there was no significant difference ($p > .05$) between the scores for all six listening tests.

Table 3

Summary of Mann-Whitney U Test Results

TED talks	n	U	p
1	5 9	22.50	1.00
2	7 10	35.00	1.00
3	6 12	21.00	.129
4	7 12	18.50	.071
5	6 11	15.50	.069
6	7 11	23.50	.161

According to the survey results, 63percent of participants preferred watching TED talks with English subtitles whereas 32 percent were neutral. Most of the participants (74 percent) disagreed that subtitles distracted their attention from understanding the video content. Furthermore, 58 percent of participants agreed that subtitles helped them understand TED talks more easily with 37 percent strongly agreeing on this case. Interestingly, most of the participants (74 percent) agreed that they would prefer to watch subtitled films or videos outside the classroom. Also, students reported that they did not find subtitles' speed too fast or too slow.

CHAPTER FIVE: DISCUSSION AND CONCLUSION

The present study was conducted to see whether watching TED talks with subtitles could improve learners' listening comprehension. A great number of research studies have shown that students can significantly improve their listening skills watching subtitled videos. However, contrary to expectations, the findings of this study did not support most of the previous research in which intermediate level of EFL learners who watched videos with target language subtitles benefitted more than those who watched them with no subtitles.

The results of the data analysis for multiple-choice comprehension tests indicated that there was no significant difference between the participants who watched TED talks with subtitles and the ones who watched the same TED talks without subtitles. It can be concluded that the treatment had no statistical power, therefore no effect and I think that the sample size in this study was not large enough to demonstrate the difference. However, the mean score was higher in test results when participants watched the talks with subtitles. Furthermore, it can be implied from the survey results that subtitles helped the learners understand the video content more easily. Also, according to students, subtitles did not distract their attention from understanding the talks contrary to the common misbelief that subtitles can hinder rather than support language learning. Moreover, the majority of students expressed a desire to watch films or other video materials with subtitles outside the classroom (not as a part of homework).

This study had certain limitations which might restrict the generalizability of the findings. There were only nineteen EFL learners involved in the study. Moreover, the duration of the experiment was short. I think a longitudinal study with more participants would yield different results. Also, another limitation can be the proficiency level of the participants; the sample was

intermediate level and therefore, it is likely to have different results with beginner or advanced levels of participants.

One implication for further research is that other language aspects and skills (e.g. reading, speaking, and vocabulary acquisition) can be chosen to focus on using subtitled TED talks while targeting different proficiency levels of participants.

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APPENDIX A

Week 1: The test for TED talk *The world's English mania*

1. What is the main topic of the video?
 - a. Beatle mania.
 - b. English mania.
 - c. Sports mania.

2. According to the speaker, manias can be...
 - a. unimaginable and hysterical.
 - b. good and important.
 - c. alarming and deadly.

3. How are Chinese students practicing their English?
 - a. by screaming and repeating.
 - b. by learning and weeping.
 - c. by taking a test.

4. According to the speaker, how many people are learning English in the world?
 - a. 80 million
 - b. 2 billion

5. Which one will become the world's largest English-speaking country this year?

- a. India
- b. Latin America
- c. China

6. People are learning English to...

- a. Have high grades at school.
- b. Have a better job and life.
- c. Graduate from school.

7. English is...

- a. The language of science.
- b. The language of emotions.
- c. The world's second language.

APPENDIX B

Week 2: The test for TED talk *Why videos go viral*

1. What is the talk about?
 - a. Viral videos.
 - b. “Nyan Cat”.
 - c. “Friday”.

2. What is a viral video?
 - a. a Youtube video.
 - b. “Double Rainbow”.
 - c. a popular web video.

3. Videos go viral because of...
 - a. Twitter and social media.
 - b. Web sites and Youtube.
 - c. creativity and unexpectedness.

4. “Double Rainbow” went viral after...
 - a. It was shared on Youtube.
 - b. Jimmy Kimmel tweeted about it.
 - c. Bloggers started writing about it.

5. Rebecca Black's "Friday" became popular after...
 - a. Tastemakers shared it on social media.
 - b. It was uploaded on Youtube on Friday.
 - c. It was parodied for every other day of the week.

6. "Nyan Cat" inspired others...
 - a. To protest bicycle fines.
 - b. To make a lot of remixes.
 - c. To make cat videos.

7. WHO and WHAT define today's media and culture?
 - a. Youtube and social networking sites.
 - b. Entertainment and unexpectedness.
 - c. Tastemakers and communities of participation.

APPENDIX C

Week 3: The test for TED talk *Can technology solve our big problems?*

1. What is the talk about?
 - a. The first humans on the Moon.
 - b. The Apollo project and the Cold War.
 - c. President J. Kennedy's speech.
 - d. Solving big problems with technology.

2. Who were the first humans to walk on the Moon?
 - a. Armstrong and Aldrin.
 - b. Apollo and Toffler.
 - c. Aldrin and Nixon.
 - d. Kennedy and Arsmtrong.

3. The Apollo mission was a big project because...
 - a. Twenty-four men flew to the Moon.
 - b. A lot of money and resources were spent on it.
 - c. The crew brought back rocks from the Moon.
 - d. It was going to solve many problems.

4. According to J. Kennedy, why did the US launch Apollo program?
- a. To bring back old rocks from the Moon.
 - b. No human walked on the Moon before.
 - c. It was a hard and big thing to do.
 - d. To end the Cold War.
5. When did Apollo 10 fly to the Moon?
- a. In 1969.
 - b. In 1971.
 - c. In 1962.
 - d. In 1970.
6. What is the main problem with Silicon Valley?
- a. They pay more attention to things like iPhones, apps and social media.
 - b. They rarely invest in technologies which can solve big problems.
 - c. Venture capitalists choose not to solve humanity's big problems.
 - d. The political and economic systems fail to solve big problems.
7. What is the main cause of famines?
- a. Technology.
 - b. Energy policy.
 - c. Bad governments.
 - d. Food distribution.

8. It is possible to solve big problems if...
- a. There are no more wars in the world.
 - b. We go back to Moon again or fly to Mars.
 - c. We discover ways to cure cancer.
 - d. Political leaders and public care to solve problems.

APPENDIX D

Week 4: The test for TED talk *Embrace the remix*

1. What is the talk about?
 - a. Bob Dylan's life.
 - b. The first iPhone.
 - c. The idea of remix.
 - d. 'The Grey Album'.

2. The Beatles' record company was against 'The Grey Album' because...
 - a. Danger Mouse used the Beatles' songs without permission.
 - b. 'The Grey Album' by Danger Mouse went viral on Internet.
 - c. Danger Mouse used Jay-Z's songs in his album.
 - d. Bob Dylan stole other people's songs.

3. The basic elements of remixing do NOT include...
 - a. Copying.
 - b. Creating.
 - c. Transforming.
 - d. Combining.

4. Which element was almost the same in the first song comparison?
- a. Lyrics.
 - b. Folk tune.
 - c. Remix.
 - d. Melody.
5. Borrowing songs from others is typical among...
- a. Rock singers.
 - b. Pop singers.
 - c. Folk singers.
 - d. Rappers.
6. iPhone was the first device with multi-touch technology.
- a. True.
 - b. False.
 - c. Not given.
7. According to Steve Jobs...
- a. Apple never stole others' ideas.
 - b. Apple never copied from others.
 - c. Apple destroyed Android.
 - d. Apple stole others' great ideas.

8. Which of the following statements is NOT true?
- a. iPhones were the first smartphones with 'slide-to-unlock'.
 - b. Everything is made out of others' creations and inventions.
 - c. Copyright and patent laws contradict their intent.
 - d. Everything is a remix and our creativity is not self-made.

APPENDIX E

Week 5: The test for TED talk *Embrace the shake*

1. According to the speaker, he can't draw because...
 - a. He has permanent nerve damage.
 - b. He did not finish art school.
 - c. He has pain and can't hold anything.
 - d. He used to mix a can of paint.

2. His hand shake developed because of...
 - a. drawing.
 - b. pointillism.
 - c. joint issues.
 - d. art school.

3. Which of the following statements is NOT true?
 - a. Drawing with little dots is called pointillism.
 - b. Accepting our limitations can make us creative.
 - c. He quit drawing because he never liked pointillism.
 - d. He invented different approaches to make art.

4. When he couldn't create art he decided...
- a. to buy new art supplies for him.
 - b. to create something different.
 - c. to go to Starbucks.
 - d. to embrace his limitations.
5. He created the picture on the revolving canvas by...
- a. painting on his chest.
 - b. writing down life stories.
 - c. doing karate moves.
 - d. spitting out food.
6. For his "Goodbye Art" project he did NOT use..
- a. frozen wine.
 - b. sidewalk chalk.
 - c. canvas.
 - d. candles.
7. After destroying each project...
- a. he learned to let go failures.
 - b. he found new ways to create.
 - c. he felt creatively blank.
 - d. he decided to give up.

8. All of the following materials are unconventional except...

- a. live worms.
- b. paint.
- c. matches.
- d. bananas.

APPENDIX F

Week 6: The test for TED talk *The shared experience of absurdity*

1. What is the talk about?
 - a. 'Improv Everywhere' projects.
 - b. New York City's weirdoes.
 - c. 'Look Up More' project.
 - d. 'Best Buy' project.

2. Choose the statement which is NOT true about 'No Pants Subway Ride' project.
 - a. The project took place in January of 2002.
 - b. There were hidden cameras in the train.
 - c. Three of the participants did not have pants.
 - d. A girl came in who had pants for sale.

3. What did inspire the speaker to repeat 'No Pants Subway Ride' project?
 - a. The boy who sent him a letter.
 - b. The girl's reaction in subway.
 - c. People in a grocery store.
 - d. Ghostbusters in the library.

4. What did inspire the speaker to do 'Look Up More' project?
- a. Creative people and comedians.
 - b. An e-mail from a stranger.
 - c. New Yorkers and other performers.
 - d. The girl who was dancing.
5. Which statement is NOT true about 'Look Up More' project?
- a. A total of 60 actors participated in it.
 - b. All the actors were dressed in black.
 - c. It was held in Union Square Park.
 - d. Hundreds of people were watching it.
6. The participants of 'Best Buy' project...
- a. were people of the same age.
 - b. were wearing the same cloths.
 - c. were working in the shop.
 - d. were doing shopping.
7. The main reason to do 'High Five' project was...
- a. the cold weather.
 - b. the morning rush hour.
 - c. two giant escalators.
 - d. to make people happy.

8. The main goal of 'Improv Everywhere' projects is...
- a. to watch football matches every weekend.
 - b. to visit New York Public Library as a ghostbuster.
 - c. to make people laugh, smile and have fun.
 - d. to dance in a park with other people.

APPENDIX G

Questionnaire survey

1. Age _____

2. Gender

- ☐ Male
- ☐ Female

3. Did you find the subtitles' speed of TED talks too fast?

- ☐ Yes
- ☐ No
- ☐ Sometimes

4. I prefer watching TED talks English videos with English subtitles.

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

5. Subtitles distracted my attention from understanding the content of TED talks.

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

6. Subtitles helped me understand TED talks more easily.

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

7. I prefer to watch subtitled films or videos outside the classroom (not as a part of homework).

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree