The Use of Subtitled Media in ESL Classrooms to Promote Vocabulary Acquisition

Alaa Abd Alhai
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1. Introduction and aim

Each student who wants to learn a new language must start with learning vocabulary. Learners may encounter new words daily by getting exposure to the new language they are attempting to learn, but they may not be able to utilize them in their speech or writing. New words are progressively learned over time from many exposures (Schmitt 2000: 4). However, learning vocabulary through exposure in this way is a gradual process. Since second language learners would not be able to complete language development activities like grammar, reading, and writing assignments without enough vocabulary, vocabulary knowledge is essential to learning the four language skills and improving students’ overall English knowledge. For a term to be useful, its meaning must first be understood. Additionally, before a word can be utilized in communication, it must first be mastered in both its spoken and written forms (Schmitt 2000: 5); this knowledge is necessary for students to increase their vocabulary.

Students’ acquisition of FL (Foreign Language) vocabulary has been found to benefit from exposure to foreign languages while viewing captions or subtitles. It has been suggested that using captions in FL classes encourages comprehension and subsequently proficiency due to this visual input (Ashtiani 2017: 1). The benefits, it has been asserted, result from captions giving the spectator access to images, the original audio, and translation. The interaction between the auditory and visual senses is stimulated by these three factors, producing greater benefits (d’Ydewalle and Van de Poel 1999: 81). This is supported by Clark and Paivio’s Dual Code Theory and Mayer and Johnson’s Multimedia Learning Theory, as will be discussed in section 2.2. Various studies have investigated the effect of visual elements on vocabulary acquisition and found that the use of imagery can contribute to better learning by ensuring a more profound mental processing through meaningful association. Thus, it seems that vocabulary acquisition can be assisted by using visual materials.

It is important to distinguish between captions and subtitles. Captions are the written text in the same language spoken in the movie or the series, while subtitles are the written text in a different language from the one spoken in the movie or the series. Both captions and subtitles are scaffolding materials used to help the learner to read what is being said in the movie and series. However, students with different levels of proficiency can benefit from various subtitling types. Those types have been characterized by Talaván (2007): standard subtitles (foreign language audio
with mother tongue captions), bimodal subtitles (foreign language audio with foreign language subtitles), and reversed subtitles (mother tongue audio with foreign captions).

This study aims to investigate whether using captions when watching a video clip in English can help a group of Swedish upper secondary school English 5 students to understand it better and learn more vocabulary than without using captions. My hypothesis, based on previous research (see 2.3) is that captions can help the students in expanding their English vocabulary. My specific research question is as follows: Do the students learn more words when captions are used than when they are not used?

In this essay, I have provided concepts of vocabulary acquisition and the theories underpinning using captions to support students learning English. In section 2.1, there is a short explanation about word families and how students can learn new vocabulary appropriate to their level. In section 2.2, I discuss the benefits of using multimedia in learning. In section 2.3, I describe previous research. The context of the present study is presented in section 2.4. In section 3, I give the method and the material of my study. In section 4, I show the results of the study and in section 5 I discuss them. Section 6 is a summary and conclusion.

2. Background
In the following sections, theory relevant to the present study will be outlined. First, I will discuss vocabulary acquisition theory in 2.1, before moving on to multimedia learning theory in 2.2. I will then consider a range of studies that have used captions and subtitles to investigate how this assists vocabulary learning in sections 2.3 and 2.4. The value of captions for improving language proficiency in learners has been shown by a large number of studies.

2.1 Vocabulary acquisition
Vocabulary learning is one of the most important parts of developing second language skills. This kind of knowledge plays an important role in reading and listening comprehension as well as in language production. It has also been shown to influence grades in common performance exams (Lindgren and Muñoz 2013). Vocabulary development is considered one of the most important challenges for language learners. Most dictionaries include thousands of word families, yet many native speakers, including the educated ones, know only a certain amount of them, in some cases no more than 17,000 (Goulden et al. 1990). One is considered to know a word when they can use
it in different written and spoken contexts, according to Nation (2001). For instance, a student may be able to recognize and understand what a word means but does not know how to use it productively. In addition, the incremental nature of vocabulary acquisition must be developed by using those vocabulary in different contexts and forms. It is also important to be aware of the root of a word and the way it is used with affixes and suffixes. To learn a word does not mean that you can use it productively, so the receptive knowledge, like reading and listening, is different from the productive knowledge, like writing and speaking. English language learners need to understand a certain number of word families before they can learn from written texts or any other learning materials. “A word family is the headword, its inflected forms, and its closely related derived forms” (Nation 2001:8). According to Webb and Rodgers (2009: 420), knowledge of the most frequent 3000-word families should be “the minimum vocabulary size necessary in order to watch movies for language learning”. They confirm that knowledge of 3000-word families covers 95% of comprehension of most American and British movies. Knowledge of this amount of vocabulary helps learners to make meaningful connections in the mental lexicon, which represents an important process in the vocabulary acquisition. According to Nation (2001), the concept ‘learning burden’ refers to the amount of effort needed to learn a word. He sees that the effort needed to learn new vocabulary can be minimized if the previous knowledge the learner has is adequate.

In addition to the word frequency, there are other factors that play an important role in vocabulary acquisition. For instance, word repetition helps the reader to retain and to use the word properly. The dictionary use determines how the student learns a new word in its exact context. The word class is also another factor that affects the vocabulary acquisition process, where learning nouns, for example, is easier than learning verbs and adjectives (Kweon and Kim 2008), and similarly learning the words in their infinitive forms is easier than learning the other forms of the same word (Kweon and Kim 2008). Of course, other factors like the length of the word, the difficulty of its pronunciation and its translation into the L1 of the learner have a great effect on vocabulary acquisition (Kweon and Kim 2008).

2.2 Multimedia learning theory
In recent years, technology has advanced rapidly, which has made access to instructional multimedia easier to purchase. Instructional multimedia can be a movie, an illustrated graphics textbook, or even an educational video. Multimedia learning is an effective way to help English
language learners to improve their language in general and to master vocabulary in particular. According to Mayer and Johnson (2008), multimedia learning is learning from words and pictures. The words can be written or spoken, while the pictures can be charts, diagrams or animated. Multimedia learning theory is an extension of Clark and Paivio’s (1991) Dual-Code Theory, which holds that learners may be able to retain more information by linking visual and verbal clues, as encouraged by captions and subtitles. Mayer and Johnson’s (2008) Cognitive Theory of Multimedia Learning, draws on this theory, contending that multimedia improves learning. According to Mayer and Johnson, the human brain has an information system that stores linguistic and visual data into the short-term working memory or long-term memory (2008: 2). According to Schmidt-Weigand et al. (2010), the combination of words and images is taken in by our senses before we choose them and organize them in our working memory. Furthermore, Schmidt-Weigand et al. (2010) state that learners use their sight and hearing to make sensory representations. Then these learners select text/speech elements to keep in their working memory (Mayer and Johnson 2008; Schmidt-Weigand et al. 2010). Later they decide what to store in their long-term memory (Mayer and Johnson 2008; Schmidt-Weigand et al. 2010). The learner processes and integrates written text and visualizations by using the sensory memory, and then they hold them in the working memory (Schmidt-Weigand et al. 2010). Then learners integrate the selected elements with their previous knowledge (Schmidt-Weigand et al. 2010). Selected elements are organized into a consistent linguistic and visual presentation (Schmidt-Weigand et al. 2010). Then the elements move from working memory to long-term memory (Mayer and Johnson 2008; Schmidt-Weigand et al. 2010). The learner then integrates the language and visual models with relevant previous knowledge (Schmidt-Weigand et al. 2010). Another theory is that learners must be exposed to advanced learning material in order to develop their knowledge Vygotsky (1980). According to Vygotsky’s (1980) “Zone of Proximal Development” theory, children acquire knowledge by following directions with assistance from a more competent peer or adult in order to complete the work themselves. The input should be above the learner’s verbal competence.

2.3 Previous studies into use of captions and subtitles
A number of studies have investigated using captions and subtitles for language learning purposes. While some studies have investigated the effect of using captions and subtitles, many other studies
focused on how captions are better than L1 subtitles for learning purposes. These studies have considered the learners’ proficiency level, and whether captions are displayed or not, and the targeted vocabulary in the film or the clip. A number of these studies are discussed in 2.3.1–2.3.3. Talaván Zanón (2006) investigated the effects of subtitles on language learning and concluded that subtitles can help learners to understand large amounts of film content that would otherwise not reach viewers. Similarly, Kusumarasdyati (2006) studied the effect of subtitled movies and found them effective and helpful for developing the EFL learners’ listening skills. Although Talaván Zanón (2006) has suggested that many viewers dislike subtitles, which they find distracting, Vanderplank (1988: 272) argues that subtitles may be useful in L2 acquisition, and not just a distraction or route to laziness, which is why some countries prefer to use subtitles over dubbing for educational reasons. Peters et al. (2016: 134) state that both L1 subtitles and L1 captions are beneficial for L2 learning because they link visuals to text. However, it has been suggested that both captions and subtitles can make L2 learners lazy (Danan 2004; Talaván Zanón 2006).

Montero Pérez et al. (2013) conducted a comprehension test of 226 college students. This test consisted of detailed questions (1) non-captioned, (2) fully captioned, and (3) keyword captioned videos. The non-captioned videos did not have any written text, while the fully captioned ones had a written text of everything spoken in the video; however, the keyword captioned videos had necessary and key words only. The results showed that the fully captioned video group outperformed the group with the other two video settings. According to research analysis, learners appeared to prefer full captions more strongly compared to keyword captions, which are perceived as highly distracting. They believed that captions could facilitate the process of deciphering and meaning-forming learners’ language. Winke et al. (2010) investigated the impact of the use of subtitled-videos on listening comprehension of 2nd and 4th grade learners of Arabic, Chinese, Spanish, and Russian. As a result, it was found that videos with subtitles that aid the learners with understanding were more effective than videos without subtitles. This finding supports the work of Bird and Williams (2002), who argued that bimodal modalities could lead to better recall. In addition, after examining the effect of the order in which captions were used, it was found that Arabic and Chinese learners tended to benefit more from showing captions. They suggested that for languages whose writing is not close to the native language, the audible modality is more helpful, especially when the written symbols are unfamiliar to the learner. Mirzaei et al. (2017) explored a new captioning method, Partial and Synchronous Captioning (PSC), in which fewer
captions are displayed on the screen, which helps the learners to reduce their reliance on captions. PSC was evaluated by using videos with no or full captions. The results suggested that both learners’ groups with and without captions managed to achieve almost the same comprehension level even though the group with subtitles achieved 30% better understanding than the group without captions.

2.3.1 L2 Captions/ subtiles versus no captions/subtitles
In most of Europe, especially in the smaller nations like the Netherlands and Belgium, L1 subtitles are the favored means of making foreign language films and TV shows accessible. In contrast, dubbing is more prevalent in bigger nations like Germany, France, and Spain (Almeida and Costa 2014; Koolstra et al. 2002). Subtitles facilitate the understanding process in a way that makes people enjoy watching films and TV shows, and they are used as learning material as well (Dwyer 2015). However, subtitles are blamed for distracting viewers from spoken language, promoting a lazy attitude toward language learning, and even increasing language dependence (Kuppens 2010). Despite this, young students who are not in instructional settings can benefit more from watching television programs with subtitles as opposed to those without subtitles, according to Kuppens (2010).

Through observing the effects of L2 captions and L1 subtitles, some studies have found that the results of using them are not always good for learning, and that they might have negative effects in some situations; for instance, they can distract the student’s concentration on the content of the film or clip (Diao and Rothman 2016), because the learner must follow the written text more than understanding the content. On the other hand, other studies (Montero Pérez et al. 2013; Winke et al. 2013; Danan 2004) have found that captions are always beneficial for learners, as they help them to understand the content easily as well as helping with their vocabulary acquisition.

The effects of L2 captions have been compared to the effect of no captions when showing films and other TV shows (Chai and Erlam 2008; Montero Pérez et al. 2014). These studies showed that L2 captions improved video comprehension and vocabulary development compared to no captions. In addition, the effects of captions have been studied under three different conditions: L1 captions, L2 captions and no captions (Markham et al. 2008). Three groups of Spanish second language students each watched movies with a different condition. The results showed that in terms of video comprehension, the L1 English captioned group significantly outperformed the L2
Spanish captioned group, while the L2 Spanish captioned group scored significantly higher than the no captioned group. The results shown in this study support Clark and Paivio’s (1991) Dual-Coding Theory, as discussed in section 2.2. This suggests that captions could have positive effects on language learning because they help learners to connect the auditory input and the visual input.

Bisson et al. (2014) looked at three types of subtitles in a movie excerpt: L1 subtitles (L2 sound, L1 subtitles), reversed subtitles (L1 sound, L2 subtitles), and captions (L2 sound, L2 subtitles) with a focus on Dutch as a foreign language and English L1 speakers. Between the three treatments and the control group, which did not receive any audiovisual input, there were no differences in learning gains. According to Webb and Rodgers (2009), learners may acquire incidental vocabulary using audiovisual input if they are familiar with the most common 3000 words and there is 95% text coverage as noted in section 2.1. However, the participants in Bisson et al.’s study were unfamiliar with the top 3000 words because they were at the early stages of learning Dutch. This study used eye-tracking to examine learners’ processing of the three different subtitle styles in addition to vocabulary learning. According to their data, L1 subtitles and captions were more frequently read than reversed subtitles, where the spoken language is the first language of audience while the written language is in another language.

These studies suggest that subtitles and captions provide the learner with authentic foreign language input and the input’s translation. Many research studies have investigated the effect of subtitles and captions on vocabulary acquisition, and although both the L1 subtitles and L2 captions have good effects on learning and vocabulary acquisition, captions have been found to be better than subtitles because they provide the learners with aural, visual and textual materials at the same time (Montero Pérez et al. 2013). Captions seem to be better for both listening comprehension and vocabulary acquisition.

2.3.2 Captions
With captions, viewers can hear and read in the target language (L2 audio L2 captions). The majority of people who are deaf or hard of hearing utilize captions. Captions help learners to make a meaningful connection in the mental lexicon, which is referred to in section 2.1. Regarding making form-meaning connections, studies have found that captions help learners not only to recognize the meaning of target words, but also to provide translations (Sydorenko 2010; Winke et al. 2013) or to produce the target forms themselves. While these studies provide valuable
information on the potential of captions for vocabulary recognition, further research is needed to investigate whether captions can be enhanced in order to stimulate vocabulary comprehension. Fewer studies have examined the effects of captions on vocabulary learning than those that have examined their effects on listening comprehension. A recent meta-analysis of the effectiveness of captioned video for listening comprehension and vocabulary learning (Montero Pérez et al. 2013) revealed that there was typically a clear and significant effect of captions on both listening comprehension and vocabulary acquisition, although the effect was occasionally mixed by test type. Most studies have demonstrated that groups provided with full captions perform better on comprehension tests than control groups with no captions (Baltova 1999; Guichon and McLornan 2008; Markham et al. 2008). Studies have also shown that captions encourage students to pay greater attention to the words in the captions (Montero Pérez et al. 2014). Captions aid in the development of word recognition in learners by showing them the proper word form.

There are clear advantages in using captions. A number of studies have shown that integrating closed-captioned audiovisual materials into lesson plans can benefit the ESL vocabulary development of young learners. Previous studies have found that captions improve the learning ability of English learners. Language learners performed significantly better on vocabulary tests, integrated previous knowledge, and compared presented information with captions when watching videos with captions compared to videos without captions, reported that it can be processed more effectively with closed captioned videos (Winke et al. 2013).

A similar study by Koolstra and Beentjes (1999) provides further evidence that the use of captions positively affects the acquisition of English vocabulary in young learners. The study looked at 4th grade and 6th grade students in the Netherlands. Participants were assigned to watch a documentary about grizzly bears in three experimental settings. After watching the film, the students were given a vocabulary acquisition and recognition test. The results of the test showed that the students who watched the movie with captions scored higher. Koolstra and Beentjes (1999) therefore regard these results as strong evidence that elementary school students can casually acquire vocabulary by watching closed-captioned television programs. As Koolstra and Beentjes (1999) argue, the combined approaches present in subtitled audiovisual materials (visual, audio, and written text) complement each other for richer understanding of the program’s context. For them, it is thus the multi-dimensionality of the approach that allows it to function as a powerful language tool. However, it should be mentioned that the researchers above did not include any
follow-up testing. Therefore, it is difficult to determine if the tests have a long-term effect. It thus remains an open question as to whether or not the captions provide benefits in the long term, and if they do, whether those benefits could even be expected to look the same as any noted in the short term.

Although various studies demonstrate the benefits of using captions in the ESL classroom, some researchers argue that students may face challenges in viewing captioned movies and shows. Koolstra and Beentjes (1999) identify potential drawbacks of using captions. One hypothesis they put forward in their study is that students may be distracted using captions because they cover the video to some extent. According to their research, viewers with poor reading comprehension may miss the video to read the captions.

According to Talaván Zanón (2006), captions could become a habit for students and therefore gradually create a false confidence. Moreover, the spoken dialogues could be ignored if the students simply rely on reading the captions (Talaván Zanón 2006). Additionally, Danan (2004) mentions further limitations regarding captioning. It may not be suitable for all levels of language proficiency. Thus, Danan (2004) concludes that material needs to be adapted to the learner’s level; therefore, familiar phrases and linguistic competence is vital for the input to be effective.

2.3.3 L1 Subtitles
In addition to the advantages of using subtitles mentioned by Bird and Williams (2002), many other studies have suggested other advantages of subtitles (Danan 2004). Bird and Williams (2002) confirm that watching movies with subtitles helps learners to acquire many new words. It helps students learn new vocabulary and phrases and improve their understanding of English expressions in context according to Bird and Williams (2002). Subtitles can encourage students to learn English outside the classroom by watching English movies, listening to English news, and participating in other non-academic activities (Bird and Williams 2002). Finally, watching this kind of material will improve students’ comprehension, according to Bird and Williams (2002).

Katchen (1997) used a more qualitative approach to research a group of advanced level students in order to assess the effects of the subtitles on listening comprehension and language learning. Chinese was the participants’ first language. The participants gave a summary of the film and discussed whether or not the subtitles helped or did not help the experience. The findings
showed that, particularly for students who had a good dictionary, using the subtitles was an efficient way to learn new English vocabulary. However, Katchen (1997) also found that using the subtitles made it harder to understand idioms, functional terms, slang, and culturally unique referents. The results showed that subtitles have the potential to boost form learning, despite the fact that learning increases were often modest. However, in examinations that focused on the meaning of the target items, students who were exposed to audiovisual material with L1 subtitles did not do any better than those who saw the material with captions. Findings also revealed a favorable correlation between word acquisition and the quantity of the learners’ vocabulary and how frequently an item appeared in the video clip. According to Karakas and Saricoban (2012), although language learners have trouble understanding video materials in the target language, they could be provided with subtitles in either the first or target language to increase the videos’ level of understandability.

On the other hand, subtitles might have some disadvantages. According to Danan (2004), subtitles can have both positive and negative effects on language learners. While they may assist in comprehension and vocabulary acquisition, they could also have negative effects on listening skills (Danan 2004). Subtitles may divert learners' attention from the audio, hindering their ability to understand spoken language without visual cues (Danan 2004). Furthermore, Danan (2004) states that they may discourage active listening and promote a reliance on reading, rather than developing listening skills.

2.4 Context of the present study
A recent report on global English proficiency (Education First, 2015) gave Sweden the highest rank. This may be partly because Sweden is undergoing educational reforms, making English proficiency a requirement for university admission. Moreover, as Lindgren and Muñoz (2013: 5) point out, Sweden has the largest number of Internet users in Europe, and English is encountered on the Internet in the form of streaming movies and TV shows (with or without subtitles). This gives people a great opportunity to improve their English. Similar to other countries such as Portugal and the Netherlands, Sweden has a tradition of subtitling foreign languages on television programs and movies, which leads to a higher level of exposure to English as a foreign language in comparison to other countries, for instance Germany and Spain, where movies and programs are commonly dubbed into the L1 according to Lindgren and Muñoz (2013: 6).
3. Method and material

3.1 Participants
This study was carried out in a vocational school that has several branches all over Sweden. It is a high school that provides English 4 and English 5 courses as mandatory requirements for graduation, and English 6 courses for those who would like to study at university.

To conduct this study, I needed to select a small group of students who have equal levels and similar previous knowledge. The students I chose for this investigation are studying the first grade of high school, which is English 5 level. They are on the Natural Farming program. There are seven females and three males, and their ages are between 16 and 17. They performed equally well on previous assignments and tests at school.

3.2 Method
To do this study, I talked first to my colleague and to my principal to get consent to conduct the study. We agreed to choose a group that consists of 10 students who have a similar level of English. Then I talked to the students about the study in order to get their initial approval to do it. I told them that their names would be anonymous and that the results of the study would be only used for my university study. Then I printed out a consent statement to send it to the students’ parents as they are under 18. There was no objection by parents, so I took it as an approval to conduct my study on their children.

I then needed to find out the language’ proficiency level of the students so that I could find a video clip with vocabulary at an appropriate level. It was important to find an easy-to-understand clip but at the same time, one that contained advanced vocabulary that students would be able to guess. The purpose of that was that I did not want to test the students with vocabulary they already knew, but at the same time, I wanted the vocabulary to be either derivational, or inflectional, or possible to guess from context, so they could figure out what it meant.

I started the lesson by talking about the lesson plan and then I handed out the pre-test and asked them to start answering. I gave them 20 minutes and confirmed that I did not expect them to know those words and that it was okay to make mistakes. After 20 minutes I collected the test papers, and I played the 15-minute clip for them. The captions were enabled for the first part which was 6 minutes and 40 seconds, then I paused to check their understanding of the content, and then
I played the rest of the clip, but this time without captions. Ten of the target words were included in the first part of the clip, and 10 were included in the second part of the clip. After watching the whole clip, there was a 10-minute break. I then handed out a new test with the same vocabulary but in a different order, and I gave them another 20 minutes to complete this. The following day I did a questionnaire with the participants to get feedback of what they thought of the test, the vocabulary, and the captions. The students’ opinions about the study were taken orally. When I assessed the written tests, I gave one mark for each correct answer (word). The target words were allocated to two sections, those from the captioned part of the video, and those from the part of the video with no captions, in order to see how many correct answers the students would have in each section and to see how the captions helped them to understand the words. The full mark was 20, one mark for each correct answer.

3.3 Material
As described above, the material used for this study were a pre-test, a post-test, and a qualitative questionnaire on the students’ impression about the study. Students did a pre-test with the target vocabulary so I could compare the results with the post-test results later. I created a vocabulary test, modelled on Schmitt and Clapham’s (2001) levels test, which is a test that indicates the word frequency level that should be used to select words for learning. I used Vocabprofiler (Cobb 2022) to choose the words I wanted to use from the 3000-word level. I put the transcription of the video in the website page to be analyzed. The analysis of the transcribed text showed a large number of words that relate to different levels, so I selected only those that relate to 3k and 4k levels. The reason why I chose these words was that I used Schmitt and Clapham’s vocabulary level test that determines the students’ vocabulary level (see Appendix 3). This test measures the learner’s knowledge of words from several distinct frequency levels. For instance, knowledge of the most frequent 2000 words in English provides the required amount of words for basic everyday communication, while 3000 words is required to read authentic texts. I used example sentences provided in the *Oxford Advanced Learner’s Dictionary* to construct a gap fill test, so that these would be authentic contexts for the target words. Students did this as a pre-test to assess their knowledge of the target words so that I would know if they learned new words after watching the clip. The test was in a multiple-choice form where the students had to choose the correct word out of four given words and to make necessary changes in the word form if needed (see Appendix 1).
The post-test was conducted after showing the clip, where the students answered the same questions they answered in the pre-test, but in a different order. The selected video clip was taken from TEDxLafayetteCollege, where the selected topic was related to the students’ age and interest since most of them were girls. It was about how the female body is being exploited in commercial advertisements and how this affects young girls and how they think about ideal bodies. The questionnaire was conducted the following day, when the students answered questions about the study itself and about how they thought it was helpful for them to learn new vocabulary (see Appendix 2).

3.4 Target words
The first ten words were taken from the first half and the other ten words were taken from the second half of the clip (the part with captions off) because I wanted to know if the students managed to hear the word clearly and got its meaning from the context. The target words are shown in Table 1.

<table>
<thead>
<tr>
<th>Target words (Captions)</th>
<th>Frequency Level</th>
<th>Target Words (No Captions)</th>
<th>Frequency Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>odor</td>
<td>4K</td>
<td>padded</td>
<td>3K</td>
</tr>
<tr>
<td>broadcasting</td>
<td>3K</td>
<td>adolescence</td>
<td>3K</td>
</tr>
<tr>
<td>corporation</td>
<td>3K</td>
<td>emphasis</td>
<td>3K</td>
</tr>
<tr>
<td>glamorous</td>
<td>4K</td>
<td>vivid</td>
<td>4K</td>
</tr>
<tr>
<td>alienating</td>
<td>3K</td>
<td>intimidation</td>
<td>4K</td>
</tr>
<tr>
<td>sophisticated</td>
<td>3K</td>
<td>vulnerable</td>
<td>3K</td>
</tr>
<tr>
<td>exempt</td>
<td>4K</td>
<td>profound</td>
<td>3K</td>
</tr>
<tr>
<td>resemble</td>
<td>3K</td>
<td>inevitable</td>
<td>3K</td>
</tr>
<tr>
<td>insult</td>
<td>4K</td>
<td>battering</td>
<td>4K</td>
</tr>
<tr>
<td>pale</td>
<td>3K</td>
<td>obsession</td>
<td>4K</td>
</tr>
</tbody>
</table>

The target words were chosen to fit with the students’ level. I did not choose too advanced words, but I chose words that they may be able to understand from the context in the video with the help of captions. By using Vocabprofiler (Cobb 2022) to analyze the word family, I was able to select words that were appropriate for the student's level. I pasted the video transcripts into Vocabprofiler for a detailed analysis of which words belonged to which word family level. In addition, the *Oxford Advanced Learner’s Dictionary* helped me to find uses of the words in authentic contexts.
4. Results

In this section, I will first discuss the students’ results in both the pre-test and post-test. I will then consider how many correct answers the students had in the test when captions were off and when they were on. In addition, I will show the students’ opinions about using captions when watching a movie or a TV show.

Figure 1 below shows the students’ grades in both the pre-test and the post-test. Looking first at the pre-test results, the lowest grade in the pre-test was 4, and the highest was 15. In the post-test, the lowest grade was 9 and the highest was 18. Most students increased their score in the post-test; for instance, the student who got 9 in the pre-test got 12 in the post-test. Only one student (Student 3) got a lower score in the post-test than the pre-test. There is no obvious reason why student 3 got fewer correct answers in the post-test, but I assume that she had help from her classmate who was sitting next to her in the pre-test, or she just was unsure about her answers in the pre-test, and she decided to change them in the post-test. However, it is worth mentioning that student 5 and student 8 had two to three correct answers in the pre-test but had the same words wrong in the post-test even though their marks were higher in general in the post-test. This suggests that those two students either guessed in both tests or they lost their concentration in the post-test.

Students 1, 2, 4, 6, 7, 9 and 10 had the same correct answers on the pre-test and post-test besides the new correct answers in the post-test since they had learnt new words after having watched the video with captions. However, student 3 had the same 10 correct answers on both the pre-test and post-test, but 4 answers in the post-test were incorrect, even though she got them right on the pre-test.
Figure 1. Students results in pre-test and post-test

Figure 2 looks only at the results of the post-test. The grey column shows the total correct answers the students got. The blue column represents the number of correct answers the students had when the captions were on, while the orange column represents the correct answers the students had when the captions were off. This clearly shows that the students had more correct answers when the captions were on. Every student got at least three more correct answers when captions were on than when captions were off. For instance, student 9 got three more correct answers when captions were on than when they were off, while student 3 managed to get only one correct answer when captions were off, but she got nine correct answers when captions were on.
Even though the study shows that they gained at least two more new words in the post-test, they were not aware of the positive effect of captions on their learning (see Figure 3). Five students thought that captions are unhelpful, while three thought that captions were distracting, and only two of them thought that captions were helpful. Whereas some of the students confirmed that captions made them lose their concentration on the visual content by looking all the time at the written text, some of them said that they do not need to look at captions all the time they are watching a movie or a video, instead they only occasionally glance at the captions to clarify any words they were not really able to hear well or to discover how some of the words spoken in the video can be written.

After the post-test, I asked the students if they benefited at any way from the experience; (1)–(3) show some of the answers I got orally:

(1) I did not need to read the captions all the time I was watching the video clip, but only when I missed particular points. (Student 1)

(2) I do not usually look at the captions, because they distract me and prevent me from learning new vocabulary. (Student 2)
(3) Not in this level, captions were very helpful in the past because they helped me to understand and to learn new words, however, now I rarely need to look at captions. (Student 3)

However, the results of the study suggest that they may have learnt new vocabulary from the video clip by looking at its captions, even if they thought that they did not.

Figure 3. The students’ opinions about the effect of captions

4.1 Acquisition of target vocabulary
The results of the post-test show that eight out of ten students learned certain vocabulary items presented without captions, namely, *battering, emphasis, profound, vulnerable, adolescence* and *inevitable*. They also learned words presented with captions such as *vivid, odour, exempt, resemble, insult, corporation, glamorous, sophisticated* and *alienate*, while two students did not learn these words. An example of the learnt vocabulary from the clip was the word *exempt* in the sentence “At the same time, just about everyone feels personally exempt”. Another example was the word *vivid* in the sentence “What they show us very vividly is that men and women inhabit very different worlds”. These two words were taken from the part with captions. Although the exact learning strategy used by the students is unclear, the study suggests that they were able to
acquire new vocabulary. However, there were some words like *intimidation*, *pale*, *pad/padded*, and *obsession* that fewer students were able to answer correctly, which may have been due to the ambiguity of the sentences or unclear audio in the video clip.

The students also managed to learn certain words without captions: the word *profound* from the sentence “Now, all of these images, I think, are actually profoundly anti-erotic” was learnt by the students from the part without captions, where seven students managed to answer correctly. Another word was answered correctly by eight students was *inevitable* in the sentence “Inevitably, the objectification leads to violence”, which is also taken from the part without captions from the video. On the other hand, there were certain words that only four students managed to answer correctly. For instance, the word ‘obsession’ in the sentence “The obsession with thinness is worse than ever because of Photoshop”, the words ‘pale and padded’ in the sentence “your breasts may be too big...too pale, too padded”, and the word *intimidation* in the sentence “there is always intimidation, there is always the possibility of danger”.

5. Discussion
The results from the questionnaire suggest that although the students were unaware of it, captions clearly increased the pupils’ understanding of the video they watched. The fact that their post-test scores were higher than their pre-test scores suggest this. Since the target words were divided into two sections (with and without captions), it could clearly be seen how many new correct answers were achieved when the captions were on. The fact that they got most of the correct answers from the section with captions points to the positive effect of captions on learning new vocabulary.

However, regarding the students’ awareness of the effect of captions on their vocabulary learning, they tended to say that captions and subtitles in general were distracting more than being scaffolding tools. In comparison with previous studies, I found that a similar result was suggested by Koolstra and Beentjes (1999) and Danan (2004) (see section 2.3.2).

Many researchers claim that there are positive factors regarding the use of subtitles and captions in the classroom. The results of their studies have shown evidence that captions can help ESL learners to develop vocabulary acquisition, as discussed in section 2.3.1. But despite the benefits listed, a number of studies (Koolstra and Beentjes 1999; Danan 2004) suggest that captions may not be appropriate for all viewers. The use of captions in the classroom can be challenging for a number of reasons; they might distract the viewer’s attention, they might be too
quick for learners to read, and the student might just read the captions and ignore the spoken language (see section 2.3.2). This agrees with what the students said in my study, where they confirmed that reading captions distracts them while watching a movie or a show and so they prefer not to look at captions. On the other hand, the post-test results confirm that the students performed better when captions were on than when they were off.

The potential distraction can be dealt with by preparing certain tasks that motivate learners to pay attention to the spoken language as well as to the written text. They need to do both reading and listening simultaneously. According to their answers in the questionnaire, the students believe that captions prevent them from developing the listening skills. In this case, it is the teacher's responsibility to prepare assignments that combine viewing with the use of captions and without them. For instance, the teacher can let the students watch a video, the first time without any captioning, and the second time with captioning. The students should write a brief summary of the video each time they watch it. Afterwards, they can compare how their summaries are different with and without captions. This way, learners gradually reduce their dependence on reading captions.

According to Danan (2004), if the subject matter is excessively complex, learners may have trouble reading and comprehending the context. Therefore, in order to improve understanding and vocabulary acquisition, the content must be suitable for the learners’ level of proficiency. This might be the reason why the students in my study managed to learn a few new words when the captions were on. With proper guidance and training, captions can provide learners with the support they need to feel more comfortable and motivated in learning a foreign language. Captions provide objective assistance in recognizing, maintaining, and generating already familiar words. The teachers should choose clips with situations that learners need to practice in certain level.

The research surveyed in the results’ sections suggests that there are both advantages and challenges regarding the use of captions in second language learning. Despite the fact that the students in my study performed better in the post-test than in the pre-test, the students’ knowledge and the captions effect should have been tested in a delayed test after a month of the study. The limited period I had for this study did not allow me to observe the effect of captions in the long-term. Moreover, the study was limited to one small group of students, which did not allow me to compare two groups (one with captions and one without), thus, the results cannot be generalized widely.
In any future research, more consideration should be given to the videos of varying lengths. Additionally, it is important to involve diverse groups of students with different levels to obtain a more comprehensive understanding of the effects of captions on language learning. Furthermore, while this study primarily focused on listening skills, it is crucial to consider the impact of captions on other language skills, such as writing and speaking.

Furthermore, careful consideration should be given to the suitability of the video clip for educational purposes. This becomes particularly important when relying on automatically generated captions, as they may not accurately reflect the language spoken in the video. Automatic captioning techniques can introduce errors and inaccuracies, which can lead to discrepancies between the spoken language and the captions. It is also important to be aware of the potential for human error, especially when using non-educational videos. In such cases, the captions may not capture the language used in the video, including idioms and expressions, resulting in inconsistencies between the spoken and written language. Additionally, in situations where videos are originally produced in one language and later translated into another to reach a wider audience, it is important to make necessary changes and adjustments to the captions in order to suit the target language audience.

By addressing these considerations in future research, a more thorough understanding of the effects of captions in educational videos can be obtained, and it will contribute to more effective language learning outcomes. This emphasizes the need for a diverse range of videos, the inclusion of multiple language skills, and highlights the potential discrepancies that can arise from automatically generated captions in the non-educational videos. It also acknowledges the importance of making adjustments to captions in translations.

6. Conclusion
Learning vocabulary is an integral part of learning a foreign language, just like learning the meaning of new words. This is also the basis of listening and reading comprehension. Knowing a word requires knowing its use in different forms and contexts. Language learners need to be aware of a certain number of word-families and then to develop their knowledge gradually.

Movies and illustrated graphics textbooks are considered to be scaffolding material that help learners to see how vocabulary are used in different contexts. The dual-coding theory of Paivio (1986) and Clark and Paivio (1991) suggests that learners may retain more information
when they link visual and verbal clues, and this shows the importance of using captions and subtitles as scaffolding materials for learning languages. The dual-coding theory of Clark and Paivio (1991) suggests then that incorporating visual and auditory information is beneficial for learners to acquire new vocabulary. Captioned videos are effective in facilitating the understanding of new words and phrases within a contextual framework. Furthermore, learners may employ various strategies, such as contextual inference, to aid in their vocabulary acquisition.

The aim of my study was to explore how captions affect students’ vocabulary learning from a second language learning perspective: Do the students learn more words when captions are used than when they are not used? Since most classrooms nowadays are equipped with digital appliances I was interested in this area. My short study showed that learners in this level could learn new words by using captions as scaffolding materials. Even though they think that they do not even need to look at captions to understand the content as whole, captions helped them to see how some advanced words are used in certain contexts. Moreover, captions help learners to know how those words come in different forms. I believe that it is important for teachers to use captions as a tool for helping ESL learners to increase their vocabulary and to be aware of the different contexts they are used in. Finally, after researching this area, I think it would be useful to develop my investigation further in order to observe the effect of captions on long-term vocabulary acquisition. This short study could only provide an indication of how captions can be used effectively for learning purposes. It is unclear at what level they can be most helpful. Therefore, further research among students with different profiles is needed. It is vital for our future position as teachers to acknowledge the importance of meeting every student’s experience, knowledge and background, and find the most effective ways of doing this.
References
Education First, 2015. EPI EF English Proficiency Index.


Appendix 1
This test includes multiple choice sentences, where students had to choose the correct word out of four given ones.

1. Since the elections there has been a greater…… on education.
   a. emphasis  b. broadcasting  c. exempt  d. profound

2. The…… of witnesses.
   a. obsession  b. adolescence  c. intimidation  d. resemble

3. The film took a…… from critics in the US.
   a. vulnerable  b. limp  c. emphasis  d. battering

4. It was an…… consequence of the decision.
   a. odour  b. pale  c. inevitable  d. insult

5. Her sense of disappointment was……
   a. intimidation  b. profound  c. padded  d. vivid

6. You look…… Are you OK?
   a. pale  b. adolescence  c. battering  d. insult

7. The crowd were shouting…… at the police.
   a. profound  b. insults  c. intimidation  d. padded

8. Her fear of flying is bordering on……
   a. battering  b. odour  c. dismember  d. obsession

9. She closely…… her sister.
   a. dread  b. resembles  c. trivial  d. adolescence

10. The stale…… of cigarette smoke.
    a. self-esteem  b. corporation  c. odour  d. alienating

11. The Lord Mayor and of the…… City of London.
    a. corporation  b. sophisticated  c. profound  d. exempt
12. The British……… Corporation (= the BBC).
   a. dread  b. self-esteem  c. vulnerable  d. broadcasting

13. She was wearing a warm coat and heavily……… gloves.
   a. blunt  b. padded  c. alienated  d. naive

14. ……..brings about major changes in a young person’s body.
   a. adolescence  b. glamorous  c. corporation  d. trivial

15. He gave a ……..account of his life as a fighter pilot.
   a. alienated  b. vivid  c. prone  d. toddler

16. Old people are particularly ……..to the flu.
   a. limp  b. sophisticated  c. exempt  d. vulnerable

17. ……..movie stars.
   a. dismembered  b. saggy  c. glamorous  d. dread

18. His comments have …….. a lot of young voters.
   a. trivial  b. alienated  c. padded  d. dread

19. Medical techniques are becoming more ……..all the time.
   a. vulnerable  b. naive  c. sophisticated  d. broadcasting

20. Some students are……… from certain exams.
   a. exempt  b. saggy  c. dread  d. sophisticated
## Appendix 2

This is the questionnaire conducted to see how the students experienced the test and how they benefited from it.

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you usually look at the captions or subtitles when watching English movies and shows?</td>
<td></td>
</tr>
<tr>
<td>How does this help you to learn new words?</td>
<td></td>
</tr>
<tr>
<td>In this study, how did captions help you to understand the video’s content? And did you manage to understand the rest after turning off the captions?</td>
<td></td>
</tr>
</tbody>
</table>
**Appendix 3**

This is the vocabulary level test that was conducted before the study to know to what level the students belonged.

<table>
<thead>
<tr>
<th>Match the correct words to their definitions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To take in a liquid, gas or other substance from the surface or space around:</td>
</tr>
<tr>
<td>a. impact</td>
</tr>
<tr>
<td>b. sip</td>
</tr>
<tr>
<td>c. suck</td>
</tr>
<tr>
<td>d. absorb</td>
</tr>
<tr>
<td>2. To have such a strong emotional effect on somebody that it is difficult for them to resist or know how to react:</td>
</tr>
<tr>
<td>a. emotional</td>
</tr>
<tr>
<td>b. overwhelming</td>
</tr>
<tr>
<td>c. overrated</td>
</tr>
<tr>
<td>d. exaggerated</td>
</tr>
<tr>
<td>3. To make something increase, or become better or more successful:</td>
</tr>
<tr>
<td>a. push</td>
</tr>
<tr>
<td>b. increase</td>
</tr>
<tr>
<td>c. boost</td>
</tr>
<tr>
<td>d. encourage</td>
</tr>
<tr>
<td>4. The ability to move easily from one place, social class or job to another:</td>
</tr>
<tr>
<td>a. flexibility</td>
</tr>
<tr>
<td>b. responsibility</td>
</tr>
<tr>
<td>c. priority</td>
</tr>
<tr>
<td>d. mobility</td>
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<tr>
<td>5. To make something worse, especially a disease or problem:</td>
</tr>
<tr>
<td>a. ruin</td>
</tr>
<tr>
<td>b. exacerbate</td>
</tr>
<tr>
<td>c. remove</td>
</tr>
<tr>
<td>d. complicate</td>
</tr>
<tr>
<td>6. The state of being successful, especially in making money:</td>
</tr>
<tr>
<td>a. prosperity</td>
</tr>
<tr>
<td>b. growth</td>
</tr>
<tr>
<td>c. wealth</td>
</tr>
<tr>
<td>d. power</td>
</tr>
</tbody>
</table>
7. A piece of information, or a story, that people talk about, but that may not be true:
   a. illusion  
   c. rumor  
   b. myth  
   d. reputation

8. To succeed in reaching a particular goal, status or standard, especially by making an effort for a long time:
   a. achieve  
   c. suffer  
   b. struggle  
   d. attempt

9. To recognize the difference between two people or things:
   a. realize  
   c. assume  
   b. propose  
   d. distinguish

10. To control or have a lot of influence over somebody/something, especially in an unpleasant way:
    a. affect  
    c. dominate  
    b. destroy  
    d. intimidate