The Impacts of Captioned Movies on Listening Comprehension

Abusaied Janfaza
Department of Foreign Languages, Bandar Abbas Branch
Islamic Azad University, Bandar Abbas Iran
E-mail: s_janfaza@hotmail.com

Saghar Javidi Jelyani
Department of Language and Literature, Larestan Branch
Islamic Azad University, Larestan, Iran
E-mail: javidi_s2012@yahoo.com

Afshin Soori
Department of Language and Literature, Larestan Branch
Islamic Azad University, Larestan, Iran
E-mail: Afshin_soori@yahoo.com

Received: 18-02-2013 Accepted: 01-04-2013 Published: 30-04-2014
doi:10.7575/aiac.ijels.v.2n.2p.80 URL: http://dx.doi.org/10.7575/aiac.ijels.v.2n.2p.80

Abstract
With the advent of technology, the implication of authentic multimedia-based teaching materials are using widely in language classrooms. Technology can be in service of teaching different skills such as listening, reading, speaking and writing. Among these skills listening comprehension is a complex and particularly challenging task for learners. Because of this, L2 learners and instructors alike employ different learning supports as assistance. Captions in multimedia instruction readily provide support and thus have been an ever-increasing focus of many studies. There is a gap in the literature whether to use captioned movies in the classroom and whether they are effective in improving listening comprehension. However, research findings have proven inconclusive; although most support captioning as an aid to learner’s comprehension (e.g. Danan, 2004; Hayati & Mohmedi, 2011). To this end, this study investigates whether captioned movies are effective to improve the learners’ listening comprehension skill with regard to understanding of words and phrases. Therefore, it is expected to witness students’ progress in listening and comprehension. In terms of listening comprehension, it is expected that the students make remarkable progress.

Key words: captioned movie, technology, listening comprehension, instruction

1. Introduction
Learning a foreign language is often seen as a difficult and demanding undertaking. Each aspect of language learning includes many peculiarities associated with all language skills. Of these, the process of listening is often the center of frustration for many learners due to its nature. Listening is unlike other language skills, in that the medium involved is transitory, and the speed and content are typically controlled by the speaker (Brown, 2001; Graham, 2006; Vogely, 1998). Consequently, instructors must seek out various learning supports to assist learners. One such support that instructors often turn to use, is captioning which is described as visual text delivered via multimedia that matches the target language auditory signal verbatim (Chen, 2011; Stewart & Pertusa, 2004). As captions suggest a visual representation of what has been heard, they have been the basis of many different researches in this area (Danan, 2004; Richards & Gordon, 2004; Stewart & Pertusa, 2004).

Due to its many affordances, the use of multimedia as an instructional medium has become increasingly prevalent in foreign and second language (L2) classroom settings (Leveridge & Yang 2012; Sun & Dong, 2004). It is especially true in the realm of L2 listening comprehension instruction. The integration of multimedia in classrooms provides L2 instructors with different methods of presenting and supporting authentic L2 listening material (Vandergrift, 2007). Captioning is one such support which is redundant visual text that matches spoken audio signals in the target language. On one hand, research investigating the use of captioning for L2 listening comprehension has indicated various potential benefits: in the facilitation of immediate understanding of L2 content (Robin 2007; Stewart & Pertusa 2004); enhancing vocabulary acquisition (Chai & Erlam 2008); and assisting L2 beginners when the audio is too fast (Robin 2007). On the other hand, research has also pointed out pitfalls associated with captioning support such as: transferability of skills from a learning context to a real-life context (Vandergrift, 2004); the impedance of schema building (Diao, Chandler, & Sweller, 2007); and their lack of compensation for more difficult vocabulary levels and high rates of speech (Danan, 2004). While inconsistencies in research findings exist, the majority of studies agree that at
some point, as learners progress, captioning support must eventually be eliminated as this support is not generally transferable to authentic L2 listening environments (Leveridge & Yang, 2012; Vandergrift, 2004).

Despite the extensive use of captioning as a tool to support and facilitate L2 listening comprehension, one of the major drawbacks is that learners may become reliant on the support (Vandergrift, 2004). A study by Leveridge and Yang (2012), which found wide variances in learners’ perceptions of captioning, addressed the issue of reliance by proposing a framework designed for the timely elimination of captioning, thus avoiding learner dependence. However, learner affective states, subsequent the removal of captioning support, is an area that has eluded empirical investigation. Moreover, captioning support, as previously mentioned, is prevalent in L2 listening comprehension instruction, thus, learners already reliant, may become frustrated, irritated, or upset, resulting from the removal of this support. These affective states may negatively impact learners’ motivation, and willingness to continue learning. Accordingly, the current study aims to satisfy this research gap by examining learners’ perceptions concerning the removal of captioning support in L2 listening comprehension and the ensuing affective states.

According to Hsu (1994), the most useful auxiliary for watching videos are captions. The findings of some studies have revealed that when the students want to learn a second or foreign language, they need to receive a great quantity of comprehensible input to achieve the objectives of language learning. Sometimes the students who watch movies in a foreign language can’t understand what they have heard because the connection of foreign and its meanings are limited. Consequently, the effectiveness of listening comprehension will be enhanced by using captions and subtitles. Markham, Peter, and McCarthy (2001) defined subtitles as “the on-screen text in the students’ native language combined with a second language soundtrack in the video, while captions are the onscreen text in the original language combined with a soundtrack in the same language” (p.29).

1.1 The Importance of Captioned Movies

As the recent accessibility of the authentic videos, a large number of foreign language classes are using captioned movies. Many universities in all over the world have implemented hybrid or blended-instruction courses for foreign language learning (Blake, 2005; Chenoweth & Murday, 2003; Chenoweth, Ushida, & Murday, 2006; Sanders, 2005; Scida & Saury, 2006). These types of classes have incorporated captioned videos for teaching a second language. Captioned movies are used for teaching Arabic and Chinese, because they lack adequate qualified teachers (Dahbi, 2004; Freedman, 2004).

To Garza (1991), as caption can assist learners to connect auditory to visual input, and make a connection between form and meaning can be considered as a bonus for foreign language acquisition (Doughty, 2004). In fact, by the help captions of word boundaries can be identified better. In this case, a main question is what the learners do with captions. However, the unknown point is related to the ability of the teachers to simplify captions for certain learners.

1.2 Theoretical Background

Two separate channels in cognitive theory of multimedia learning which process two modes of matching representations of information are as follows: in cognitive theory of multimedia learning (a) dual channel; (b) limited capacity; and most importantly (c) active processing (Mayer’s 2001). Al-Shehri and Gitsaki (2010) believe that “the active processing premise signifies that one will select the most relevant information as input during information processing, and subsequently integrate the information with prior knowledge” (p.165). In conclusion, by making use of auditory and visual stimuli learning can take place. To this end, captions can support learners collect who the information through the auditory channel and the learners “may reach a point where the audio stimuli cannot be processed quickly enough, resulting in the captions becoming the most understood and relevant stimuli, and thus the preferred stimuli” (Diao et al., 2007, p. 245). Distinct channels are able to process two modes of auditory and visual text. According to Leveridge and Yang (2012) and Sun and Dong (2004), an important issue in listening comprehension is using multimedia instruction which can benefit learners.

In contrast, learners are allowed to visualize what they hear through the use of captions which is supported by multimedia instruction (Danan, 2004). This ability will remain for long time, and it also allow more time for processing. However, some main questions posed by Winke, Gass, and Sydorenko (2010) have been remained unanswered, and there are a little information on how learners process when they look at captions.

Cognitive theory of multimedia learning, indicates that information presented to a learner’s eyes and ears is stored temporarily in the working memory as two coherent mental representations, and prior/background knowledge, which includes linguistic knowledge and content knowledge, which is connected with two sensory modalities to reach the final interpretation of the information supplied by a multimedia presentation. Recognizing the importance of background knowledge, Ausubel (1960) first advocated the introduction of relevant concepts used as advance organizers to enhance comprehension and retention of language materials. Ausubel defined the advance organizers as “Introductory materials at a higher level of abstraction, generality, and inclusiveness than the learning material itself” (p.268). The claim that advance organizers can assist learners activate background knowledge, which facilitates comprehension and retention of L2 texts, has been well-documented in L2 research on listening comprehension (Berne, 1995; Chung, 1999, 2002; Chung & Huang, 1998; Herron, 1994; Herron, Hanley, & Cole, 1995; Herron, York, Cole, & Linden, 1998; Li, 2009; Teichert, 1996; Wilberschied & Berman, 2004).
1.3 Definition and Concept of Captioning

To Vandergrift (2007), “captions may be defined as redundant text that matches spoken audio signals and appears in the same language as the target audio” (p.79). Captions and subtitles are not the same. Captioning emerged in foreign language classrooms in the 1980s as a method of supporting listening comprehension that: increased learners’ attention, reduced anxiety, increased motivation, and provided students with immediate verification of what was heard (Froehlich, 1988). Multimedia can help the use of both captions or subtitles in language learning research (Goodwin- Jones, 2007; Leveridge & Yang, 2012; Vandergrift, 2007). Studies have revealed that captions are beneficial in making the immediate understanding of L2 content easy (Garza, 1991; Hwang, 2004; Markham, 2000–2001; Robin, 2007; Stewart & Pertusa, 2004); increasing vocabulary acquisition (Chai & Erlam, 2008); and helping L2 beginners when the audio is too fast (Robin, 2007). Moreover, studies indicated that learners held positive attitudes toward captions (Froehlich, 1988). However, how the removal of captioning support affected the learners, was still in vague in these studies.

1.4 Different Modes of Caption

In the late 1990’s Guillory (1999) investigated the effects of different modes (audio only, keyword captions, and full captions), of captioning on learners’ comprehension, and the study indicated that full captioning was significantly beneficial. This finding created a rationale for the use of captions. Taking advantage of captions were easier than listening alone (see Dio et al. 2007; Smidt & Hegelheimer 2004; Stewart & Pertusa 2004), learners became accustomed and tended to rely on captions, experiencing negative affective states when the captions were unavailable. More recently, studies have focused on how captions benefit learners at various levels of proficiency (Winke, Gass, Sycorenko, 2010).

2. Review of Related Studies

The implication of captions and subtitles in foreign language instruction refers to about forty years ago. The findings of numerous studies (e.g. Borras & Lafayette, 1994; Danan, 2004; Garza, 1991; Markham & Peter, 2003) have revealed that the combination of captions with audio-visual materials was a very effective instructional method which increased both listening and reading comprehension abilities. In fact, learners are able to confirm the information they hear by the captions (Froehlich, 1988; Grimmer, 1992; Vanderplank, 1988). In other words, it can be said that the foreign language information that the learners hear in the video can be visualized by captions (Danann, 2004). To Bird and Williams (2002), captions and subtitles can increase language comprehension. There are some other studies which have revealed that videos with captions can make the vocabulary acquisition easier (Danann, 1992; Hsu, 1994; Markham & McCarthy, 2001).

According to Vandergrift (2007), when learners are provided with subtitles, they can obstruct their familiarity with pronunciation. Among many different methods for teaching listening by using videos, Liou (2000) found that a large number of students were able to use foreign language captions as auxiliary support. Other strategies that the learners resort to are replay function, and the assistance of native subtitles (Vandergrift, 2007).

Taylor (2005) focused on 85 Spanish language learners at a large state university: 14 lower-level first-year and 71 advanced-level third-year students. In this study, the participants were randomly assigned into two different groups; the group watched video with captions (experimental group) and the group did not receive any captions (control group). While 35% of the first year students and 11% of the third year students in the treatment group found the captions distracting or confusing, most displayed a positive attitude towards captioning and many more perceived the captions as helpful. Furthermore, while approximately 75% of the Computer Assisted Language Learning 3 Downloaded by [National Central University] at 22:12 17 March 2013 treatment group reported having attempted to listen to the audio, some students ignored the audio completely and focused only on the text. These findings may be achieved due to an overload of working memory; another plausible alternative is that learners at lower levels do not understand how to successfully process the added information of captioning, yet mistakenly perceive captioning as helpful, and even necessary. However, similar to Hayati and Mohmedi’s study (2011), the learners’ prior experience with captioning support was not indicated, again raising questions regarding extraneous influences such as the previously mentioned novelty effect.

To uncover the degree to which learners rely on captioning, Leveridge and Yang (in press) created a novel testing instrument, the caption reliance test (CRT), which assessed learners’ attention by uncovering what the learner was focusing more heavily on to gain comprehension: audio or textual information. The testing method included listening exercises and auditory multiple-choice questions that were all supported by congruent, verbatim captioning. To uncover the learners’ focus, incongruences between the audio and captioning were introduced in the listening exercises. The multiple-choice questions included one answer that matched the audio and one answer that matched the incongruent caption. Thus, the learners’ predominant focus might be determined according to the answers they chose. These findings differ from those of Taylor (2005) outlined earlier. Moreover, some of Taylor’s (2005) participants ignored the audio altogether, suggesting a major reliance on captioning. In addition, the participants in Leveridge and Yang’s (in press) study were accustomed to instruction that included captioning support, whereas Taylor’s (2005) study does not indicate prior exposure.

In summary, some research results regarding captioning are inconsistent. Regardless of these inconsistencies, captioning support is generally not available in authentic, real-time listening (Vandergrift, 2004). Accordingly, a general goal of language instruction is to enhance learners’ L2 abilities so that they are able to communicate in the
target language without learning supports: as learners progress, instructors seek to remove captioning support. However, since instructors are frequently unsure as to whether captions should be retained or removed during learning comprehension activities, they often turn to the learners for information to help them make appropriate decisions, even though learners may misjudge their reliance on learning supports (Lepper et al., 2005) resulting in nonoptimal decisions. These problems are reflected in Hayati and Mohmedi’s (2011) statement that the benefits of including subtitles when using movies to teach L2 learners remain unresolved. The current study is an attempt to clarify some of these issues by gathering EFL learners’ perceptions on captioning support, assessing their reliance on captioning support, and subsequently comparing both in light of individual proficiency.

There are several studies which have been conducted on the effects of caption availability on foreign language learning. Teachers and learners can switch on or off in computer-based multimedia environments. To Markham (2001) captions can affect learning. He also investigated whether the familiarity with the content of the video affects the usefulness of captions. The findings of this study indicated that captions and background knowledge can assist the learners’ comprehension of the videos. Grgurović and Hegelheimer (2007) tried to investigate the effects of captions or transcripts in a multimedia video environment. The results revealed that in comparison with the students who used transcripts, students who used captions used them for longer periods of time. Pujola (2002) explored using strategies by ESL learners who used Web-based multimedia videos. She wanted to know which ones the learners choose captions or transcripts when watching videos. She found that learners who were weak in listening skills used captions and transcripts more for help with comprehension, and learners seemed to have better experiences with captions than with transcripts. They felt that their listening skills improved by using captions, whereas by using transcripts they were only practicing their reading. According to Pujola (2002), some learners based their listening comprehension on reading instead of listening. She stressed that “this misuse of captions can potentially inhibit the development of listening strategies, and explained that students needed to be advised when they were using captions” (2002, p. 252).

As a final remark, since caption videos are accessible, easy to make, using captioned videos for learning a foreign language has become common. Today, captions are considered as pedagogical tools with which are used in learning environment to help learners integrate written and aural information and supports language acquisition. However, more research are required to be carried out to identify (a) the multiple effects of captions, and (b) how captions may be used with different learners with different proficiency levels.

3. Discussion

It seems that generalizing the findings of the studies reviewed above is so difficult for some reasons. First, the above studies did not group the participants by their proficiency levels. Hence, the differences in comprehension may be related proficiency not to effective use of captions. Second, these studies used different types of tests to measure the effects of captions. For example, various forms of listening, reading comprehension or vocabulary tests by researchers. The effectiveness of captions was demonstrated by the use of comprehension and vocabulary tests. However, the way how the learners process the captions has been remained unknown. The findings of the previous studies show that captions were beneficial for learners. Third, except one, the other studies did not involve the acquisition of languages with non-Latin scripts. Notably, there is lack of studies to investigate the effects of captions on the acquisition of languages like Arabic, Chinese, and Russian. And finally, a pedagogical question is related to the appropriate time for the learners to be exposed to captions. The results of the study by Pujola (2002) reveal that captions are beneficial and can be overused. To avoid overuse of captions, it is suggested that the videos be broadcasted once with captions and once without captions.

There is a gap in the literature whether to use captioned movies in the classroom and whether they are effective in improving the listening comprehension. However, research findings have proven inconclusive; although most support captioning as an aid to learners’ comprehension (e.g. Danan, 2004; Hayati & Mohmedi, 2011). Some other research results (e.g. Stewart & Pertusa, 2004; Vandergrift, 2004; 2007) have indicated that captioning can be a hindrance or distracting (Taylor, 2005). In addition, both Vandergrift (2004) and Yanagawa and Green (2008) pointed out that the use of captioning might also delay learners’ advancement of their listening ability, rendering them and make them unable to comprehend the second language (L2) in real-life situations where captions are not readily available.

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