

## Chapter 42

# Intelligent Design of Captions in Interactive Multimedia Listening Environments

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### **ABSTRACT**

*In this chapter, 48 language learners' perceptions towards the presence of captions at the first listening (i.e. the while listening stage) in an IME that aimed to enhance the language learners' listening skills as a part of learning English as a second language were investigated. The language learners were autonomous intermediate (and upper intermediate) non-native speakers (NNSs). The results reveal that captions should not be available at the while-listening stage in IMEs for FLL/SLL. The availability of the captions at the while-listening stage in IMEs for FLL/SLL seems to make language learners rely on captions. Instead, the unavailability of the captions at the while-listening stage in IMEs for FLL/SLL seems to: (1) help language learners to focus on listening texts, (2) encourage language learners to try to understand listening texts without captions help and (3) encourage and motivate language learners to listen to / view the listening texts more.*

### **BACKGROUND**

In terms of FLL/SLL, there are advantages of captions whether they are presented with conventional materials or in interactive multimedia environments (IMEs) (Perez et al., 2014, 21-43; Winke et al., 2010, pp. 65-86; Kothari et al., 2002, pp. 55-66; Linebarger, 2001, pp. 288-298; Türel, 2003; Garza, 1991, pp. 239-58) although this might not always be the case (Başaran & Köse, 2013). IMEs enable materials writers to design captions in a wide range of ways (i.e. optional, compulsory, unavailable at one stage and available at another, colour-coded, complete or incomplete, chunk by chunk or as a whole, below, on or above the video stage; Türel, 2004, pp. 166-74). IMEs also provide an easy and instant access (ibid: 2004, p.131). As a result, captions in IMEs are likely to be inefficiently used when they are not designed effectively (Pujola, 2002, p. 252).

DOI: 10.4018/978-1-5225-7663-1.ch042

## **Role of Captions in Second/Foreign Language Learning**

The availability of captions - whether they are interlingual subtitles (in the first language/L1) or intralingual captions (in the source language/L2), (Williams & Thorne, 2000, p. 219) -, is a factor that can affect the comprehension of listening texts, retention, (language) learning and comprehensible communicative output. When the aim is to improve language learners' listening skills, comprehension and FLL/SLL, then intralingual captions (captions) might be vitally important (Winke et al., 2010, pp. 65-86; Kothari et al., 2002, pp. 55-66; Linebarger, 2001, pp. 288-298; Markham et al., 2001, pp. 339-45, Markham, 2001, pp. 331-34; Baltova, 2000; Neuman & Koskinen, 1992, pp. 95-106).

Perez et al. (2014, pp. 21-43) investigated not only the effect of two types of intralingual captioned video on listening comprehension, but also language learners' perceptions of the usefulness of captions while watching video. The participants were 226 university-level students from a Flemish university. The participants watched "three short French clips in one of three conditions: the control group watched the clips without captions ( $N = 70$ ), the second group had fully captioned clips ( $N = 81$ ), the third group had keyword captioned clips ( $N = 75$ )". The results of the study revealed that the "full captioning group outperformed both the no captioning and the keyword captioning group on the global comprehension questions" (p. 21). Nevertheless, the difference between the keyword captioning and the no captioning group was not significant. There was also no difference between the three conditions in terms of the detailed comprehension questions (with audio). The language learners' perceived need for full captions was strong. The language learners considered captions useful for "speech decoding and meaning-making processes". The language learners also considered keyword captions highly distracting. The implication of this study is that "full rather than keyword captioning should be considered when proposing video-based listening comprehension activities" to language learners.

Not only did Yang & Chang (2014, pp. 44-61) suggest three modes of captions – full captions, keyword-only captions, and annotated-keyword captions -, but they also investigated "their contribution to the learning of reduced forms and overall listening comprehension". The participants were 44 university students who were learning English as a foreign language, and were randomly assigned to one of the three groups. The results of the study revealed that all three groups "exhibited improvement on the pre-test while the annotated keyword caption group exhibited the best performance with the highest mean score". The annotated keyword caption group also outperformed both the full caption and the keyword-only caption groups particularly in terms of recognising reduced forms.

Lwo & Lin (2012, pp. 188-208) explored the impact of different captions - no captions, Chinese captions, English captions, and Chinese + English captions on second language learning in an IME. The participants were 32 eighth graders (i.e. junior high school students) and were methodically assigned into the groups based on their proficiency in English. The groups were "shown animations with English narration" with one of the caption types. The results of the study revealed that the effect of different captions in an IME second language learning with respect to vocabulary acquisition and reading comprehension depended on language learners' proficiency. The low proficiency language learners who were provided with English and Chinese + English captions performed better in learning English in comparison to those who were not provided with such captions.

Leveridge & Yang (2013, pp. 199-214) proposed and employed the Caption Reliance Test (CRT), which evaluates individual language learners' reliance on captioning in language learning environments. Not only did the results of the study reveal individual differences in the degree of reliance, but they also exposed a negative correlation between caption reliance and foreign language achievement. The

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