The effect of video-based and text-based instruction on enhancing L2 vocabulary learning

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L2 vocabulary learning is currently receiving increased emphasis in the language teaching curriculum. Additionally, with the emergence and prevalence of emergent technologies, in particular computer-assisted language learning and multimedia language teachers and practitioners are assumed to take advantage of the options provided through these technologies in prompting L2 learning. This study investigates the effect of using multimedia on prompting L2 vocabulary learning of Iranian language learners. To this end, twenty language learners were randomly assigned to two participating groups, namely a multimedia group and a comparison group. The multimedia group took advantage of a multimedia software and watched three movies with subtitles plus the texts. The comparison group attended the teacher-fronted classes and read the texts of the movies. After three sessions, the participating groups were given a posttest. The data analysis showed that the participants who were provided with multimedia outperformed the participants in the comparison group. The findings and the pedagogical implications of the study are explained in detail.

Keywords: L2 vocabulary learning; multimedia; computer-assisted language learning

INTRODUCTION

For most students in learning a second language (L2), the first demanding task which they encounter is learning new lexical items. Vocabulary is an important part of a language as well as the basis of communicating in L2 context. The size of vocabulary is an important criterion to evaluate an L2 learner’s proficiency. It is argued that L2 learners need to achieve a threshold level of L2 vocabulary to be able to communicate fluently in L2 and understand an authentic text (Lauffer and Ravenhorst-Kalovski, 2010). In a recent study, Schmitt et al. (2011) observed that for comprehending a text, L2 learners need to know ninety-eight percent of its lexical items. Hence, a substantial body of L2 research exists on the effectiveness of various teaching and learning methods of L2 vocabulary than there was two decades ago (e.g., Brown, 2011; de la Fuente, 2006; Ellis and He, 1999; Folse, 2006; Min, 2008; Nation, 2011; Paribakht and Wesche, 1993; Vidal, 2011).

Kim (2011) argues that language teachers are fully aware of the difficulty of mastering vast numbers of L2 vocabulary learning, but might not know how effectively assist L2 learners in performing this task. Hence, from a pedagogical point of view, Kim underscores the need for SLA research that helps to identify the types of learning task that provide optimal opportunities for L2 vocabulary learning. On the other hand, the use of technology, in particular computer-assisted language learning (CALL), mobile-assisted language learning (MALL), and information and communications technology (ICT) has increasingly become a common feature of language classrooms. It is argued that using emergent technologies in language learning classrooms might prompt L2 learning.

With the emergence and popularity of CALL language policy makers and practitioners have shifted their focus from teacher-centered to students-centered instruction. There are several promising features of CALL which frequently are employed in language classrooms, in particular multimedia. Multimedia takes advantage of several media types, namely text, images, sound, video, and animations. It is assumed that using multimedia might motivate L2 learners and result in enhancing L2
learning, in particular L2 vocabulary learning. The present study sought to examine the effect of using multimedia on prompting Iranian EFL learners’ L2 vocabulary learning.

**Related Empirical L2 Studies**

To date, a number of studies have examined the effectiveness of CALL on enhancing L2 vocabulary learning. The findings of studies investigating the impact of CALL on vocabulary learning are in favor of multimedia environments (e.g., Abuseileek, 2008; Akbulut, 2007; Al-Seghayer, 2001; Chun and Plass, 1996a; Chun and Plass, 1996b; Jones, 2003; Jones, 2004; Jones and Al-Seghayer, 2001; Chun and Plass, 1996a; Chun and Plass, 1996b; Jones, 2003; Jones, 2004; Jones and Plass, 2002; Nagata, 1999; Shahrokni, 2009; Yanguas, 2009; Yoshii, 2006; Yoshii and Flaitz, 2002, to mention just a few).

Chun and Plass (1996a) conducted a study with 160 university German students using Cyber Buch software, which included various types of annotation for targeted lexical items in the form of text, pictures and video. The results of data analysis revealed a higher rate of vocabulary learning than expected, significantly higher scores for words that were glossed with text coupled with pictures than for those with text plus video or text only.

Al-Seghayer (2001) examined which kind of the image modalities – dynamic video or still picture – is more effective in fostering L2 vocabulary learning. There were three conditions, namely printed text definition alone, printed text definition plus still pictures, and printed text definition coupled with video clips. The analysis of data obtained demonstrated that the combination of text and video was more effective than text and still picture in terms of enhancing L2 vocabulary learning.

Akbulut (2007) investigated the effectiveness of multimedia glosses on L2 vocabulary learning and reading comprehension. Sixty-nine freshman L2 learners studying at a Turkish university were randomly assigned to three types of glosses, namely definitions of words, definitions coupled with associated pictures, and definitions coupled with associated videos. Results of data analysis of vocabulary tests and reading comprehension test showed that the participating groups who took advantage of definitions along with both types of visuals had significantly higher vocabulary scores on both the immediate and delayed posttests of vocabulary tests than the definition only group. However, no differences were observed on the reading comprehension test.

Guichon and McLornan (2008) examined the effects of multimodality on expanding L2 learners’ vocabulary repertoire and facilitating comprehension. The results indicated that comprehension improves when L2 learners are exposed to a text in several modalities, including image, sound, and L2 subtitling, in comparison with sound alone, image and sound, image, sound, and L1 subtitles.

Yanguas (2009) studied the effects of different types of multimedia glosses, namely textual, pictorial, and textual coupled with pictorial on text comprehension and L2 vocabulary learning. Ninety-four participants read a text under different conditions taking advantage of different glosses as they were asked to think aloud. Results of quantitative and qualitative analyses of the data demonstrated that all multimedia glosses participating groups outperformed the comparison group and the textual coupled with pictorial glossing group outperformed all the other participating groups.

**The Study**

The findings of L2 research conducted to date examining the effect of CALL, in particular multimedia on prompting L2 vocabulary learning provide support to the significant effect of employing emergent technologies in language learning contexts. However, further L2 research is needed to clarify the effectiveness of employing multimedia in enhancing L2 vocabulary learning in English-as-a-Foreign-Language (EFL) context. Having considered the research gap in SLA literature, we aim to study the effect of learning L2 vocabulary learning through multimedia in EFL context. The present study sought to shed more light on the effect of applying CALL, in particular multimedia on L2 vocabulary learning.

**Research question**

Based on the findings of SLA studies with respect to the effectiveness multimedia on L2 vocabulary learning, the present study was guided by the following research question:

Is there any difference between Iranian EFL learners’ L2 vocabulary learning who receive multimedia in addition to texts and learners who only receive texts?

**METHOD**

**Participants**

In total, twenty Iranian learners of English (male and female aged from 16 to 19) who had enrolled in an English course in an institute participated in the present study. The participants were bilingual, Azari-Turkish as their first language and Persian as the formal language of instruction in Iran. The participants were randomly assigned to two groups, including a multimedia group (n = 10) and a comparison group (n = 10). They had enrolled in an intermediate level English course. To make sure that the participating groups involved were
approximately equal in terms of the dependent variable, the Izmir Institute of Technology, Department of Foreign language’s proficiency test was administered to them. The scores obtained were submitted to SPSS and the results of data analysis showed no statistically significant difference across the two participating groups. Based on the results obtained, the participating groups were assumed to be equivalent in terms of their English proficiency.

**Instruments**

**Proficiency Test**

As already mentioned, the Izmir Institute of Technology, Department of Foreign language’s proficiency test was used as the proficiency of the study.

**The Multimedia Software**

Additionally, the Learn to Speak English9.5 Software was used which involves movies with subtitles.

**Persian Equivalent Test**

To measure vocabulary learning as a result of different conditions a posttest was developed which examined the targeted lexical items of the texts in the movies. The posttest required participants to write Persian equivalents to 25 of the targeted words.

**Procedures**

This study used a quasi-experimental pretest-posttest design. On the day before the treatment sessions, the participating groups were given the pretest. The participants of this study attended in English class two sessions of ninety minutes per week. The study took place during participants’ regular English class period.

For achieving the goals of this study, the Learn to Speak English9.5 Software was used. It has cultural movies with subtitles. For comparison group only the scripts of the films were used. For comparison group the teacher attended teacher-fronted traditional classes; for 3 sessions the students read the texts and looked up words in dictionary and teacher explained some vocabularies and expressions. But in multimedia group, the participants watched cultural movies with subtitles and were reading printed texts of films. The teacher helped them to infer the meanings of unknown lexical items by pausing film and replaying it and asking the students to guess the meanings of those words which they did not know. At the end of every session, the teacher, which was the researcher, collected text papers to prevent the participants to study at their homes. The treatment took 3 sessions. Then, the posttest which was composed of twenty-five targeted lexical items was given to the participating groups. The participants were required to write the Persian equivalent of the words given.

**RESULTS**

The scores obtained from the posttest were put into SPSS and an independent samples t-test was run to assess the differences across the two participating groups. The result of the Levene’s test for equality of variance showed that it was greater than .05 ($p = .069$), that is to say that we had met our assumption of equal variances. The results of the data analysis indicated that the multimedia group (Mean=6.5, SD=2.3) outperformed the comparison group (Mean=4.6, SD=1.5) in terms of L2 vocabulary learning. Table 1 presents the means and standard deviations for the posttest and Figure 1 displays graphically the means of the participating groups.

Therefore, it is safe to claim that the participants who received multimedia outperformed the participants of comparison group in terms of L2 vocabulary learning.

**DISCUSSION AND CONCLUSIONS**

This study investigated the effect of multimedia on L2 vocabulary learning in EFL context. The results of the data analysis revealed that the multimedia group outscored the comparison group in terms of vocabulary gain through multimedia, namely movies with subtitles. The L2 research conducted to date studying the effect of multimedia on prompting L2 vocabulary learning have come up with its positive effect on enhancing L2 vocabulary learning. Taking the findings of this study, it can be argued that providing multimedia might be considered as one of the most effective techniques in facilitating L2 vocabulary learning. It stands to reason to
argue that providing multimedia in language learning contexts might lead to enhanced motivation and improved learning.

The results obtained in this study have theoretical and pedagogical implications for L2 researchers and practitioners. It is worth mentioning that one of the main incentives of this study was underlining the potential effect of employing educational technology in prompting L2 vocabulary learning. Therefore, in the present study we attempted to examine the effect of using technology, namely multimedia software in L2 vocabulary learning. The emergence of new technologies has offered language teachers new options in improving the language classes. Having been offered technology-enhanced language learning, L2 learners might experience the pleasure of L2 learning (Yang and Chen, 2007). Therefore, it seems reasonable to argue for including multimedia software in L2 pedagogy.

Finally, this study suffers a number of limitations that need to be addressed in future L2 research. The small size of participants, treatment sessions, and reading materials are some of the limitations of this study. Additional L2 research with larger population sizes seems necessary.

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