The impact of visualization and verbalization techniques on vocabulary learning of Iranian high school EFL learners: A gender perspective

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HIGHLIGHTS

- The effects of visualization and verbalization on learners' L2 vocabulary improvement were checked.
- Deductions could be made that both methods led to the development of L2 vocabulary knowledge.
- Results indicated that learners' L2 vocabulary scores were significantly larger when the visualization technique was used.
- Gender of participants made no significant difference in vocabulary improvement through visualization and verbalization.

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ABSTRACT

The present study intended to examine the impact of two techniques of vocabulary teachings on Iranian high school EFL learners in relation to their gender in Yasuj, Iran. The selected 120 participants were at lower-intermediate level of English proficiency based on their performance on Quick Oxford Placement Test (QOPT). The participants included 60 male and 60 female students who were between 15 and 18 years old. The study included four sub-groups that made up two main experimental groups. That is to say, subgroup number 1 (subg1) included 30 male students; subgroup number 2 (subg2) was comprised of 30 male students. Accordingly, the male participants of the study made up a sixty-participant experimental group (consisting of two thirty-participant subgroups) which received two treatments, namely visualization and verbalization. As for the female participants, they were divided into two thirty-participant subgroups, namely subgroup 3 (subg3) and subgroup 4 (subg4). The first sub-group (subg1) and the third sub-group (subg3) received visualization techniques for vocabulary instruction, and the second sub-group (subg2) and the fourth sub-group (subg4) were instructed through verbalization. With regard to the effects of visualization and verbalization on learners' L2 vocabulary improvement, it could be concluded that both methods led to the development of L2 vocabulary knowledge. In addition, considering the difference between the effects of the two approaches on learners' L2 vocabulary knowledge development, deductions could be made that visualization would result in better vocabulary learning than the verbalization technique. Moreover, results manifested that there was not any significant difference between male and female Iranian high school EFL learners' vocabulary learning through visualization and verbalization.

1. Preliminaries

Vocabulary is obviously a very important element within a language as the overwhelming majority of meaning is carried lexically; and, therefore, something to be taken into consideration both in Second and Foreign Language Teaching — although not the only one that conveys meaning. There are certainly other elements such as grammar, stress, rhythm, intonation, tone of voice, pauses, hesitations or silences, not to mention the use of non-vocal phenomena such as kinesic and proxemic features. Learning a language cannot be reduced, of course, to only learning vocabulary, but it is

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also true that "no matter how well the student learns grammar, no matter how successfully the sounds of L2 are mastered, without words to express a wide range of meanings, communication in an L2 just cannot happen in any meaningful way" (Mccarthy, 1990, p. VIII), an idea defended by many applied linguists (e.g. Allen, 1983; Wallace, 1988; Rossner and Bolitho, 1990; Taylor, 1990; Willis, 1990). Vocabulary is much more than just a single word. Recent vocabulary studies draw on an understanding of lexis, the Greek for word, which in English "refers to all the words in a language, the entire vocabulary of a language" (Schmitt, 2000, p. 571).

Nation (2001) stated that the vocabulary of a language is huge and its acquisition takes time even for a native speaker. Some practitioners believe that vocabulary learning is simple. Majority of students learning a second or foreign language consider vocabulary as their major priority and agree that their difficulties arise from their lack of vocabulary knowledge. Vocabulary knowledge plays an important role in almost all areas of language learning. As Nation (2001) points out, "vocabulary learning is not a goal in itself; it is done to help learners listen, speak, read, or write more effectively" (p. 362). As a result, learning a language is dependent on learning its vocabulary.

Teachers are frequently encountered with questions posed by their students regarding the meanings of new vocabularies. It is often the case that a great portion of class time is spent on teaching vocabularies. Therefore, if appropriate techniques are not applied in the class, the final outcome may frustrate teachers. In order to teach students how to learn new vocabulary, teachers need to draw on a variety of teaching strategies in accordance with different vocabulary learning techniques. To this end, many studies have investigated the effect of different methods on vocabulary teaching and learning (e.g., Nation, 1990, 2001; Laufer et al., 2005; Schmitt, 2000; to name a few). According to Read (2004), in studies on L2 vocabulary learning, a distinction had long been made between incidental and intentional learning, with the main focus on the former, especially exploring the extent to which students can learn vocabulary items incidentally while they are engaged in other language-learning activities. Nation (2001) believed that incidental vocabulary learning activities such as role play and oral retelling activities are useful means of vocabulary learning. In addition, Nation (1990) stressed out that "to remember a word, one needs to encounter it 5 to 16 times in activities or texts" (p. 2). Logically, if vocabulary items are encountered in different exercises and activities, learners' vocabulary knowledge will be improved to a great degree. Moreover, Laufer et al. (2005) suggested that extensive reading on its own may only result in relatively small gains and that reading combined with word-focused tasks is likely to be a more powerful means of vocabulary expansion.

Furthermore, to improve incidental vocabulary-learning in the EFL classroom, it would be effective for teachers to provide students with target vocabulary items through tasks, as well as to ask them to verbalize the target words. For example, students can read and retell a text generatively, that is, in their own words (Joe, 1998). Also, in order to learn unknown words while reading a text, students can access a dictionary with various look-up options such as pictorial and verbal cues (Laufer and Hill, 2000). Retelling orally or verbalizing what we have read greatly improves vocabulary gains for unfamiliar words because it demands a higher level of generation. Such a task can also be designed for different situations (Joe, 1998).

Taking a brief glance on what has been done on the area of psychology with regards to the mind and memory one can understand the great role which verbalizing may play in restoring and fixing the new word in our memory. Ericsson and Simon in outlining an information processing model hypothesized that human cognition is "information processing"; "a cognitive process can be seen as a sequence of internal states successively transformed by a series of information processes" (1987, p. 25). Based on these findings it is believed that information is stored in several memories having different capacities and accessing characteristics: "several sensory stores of very short duration, a short-term memory (STM) with limited capacity and/or intermediate duration, and a long-term memory (LTM) with very large capacity and relatively permanent storage, but with relatively slow fixation and access times compared with the other memories" (Ericsson and Simon, 1987, pp. 25—26).

According to the model described above, the recent acquired information kept in STM is the information that is available for further processing (e.g., for producing verbal reports or verbalization). The information from LTM must first be transferred to STM before it can be verbally reported. Verbalization is obtained when the participants verbalize the corresponding thought or thoughts while the information is attended to. The crucial aspect of this procedure, according to Ericsson and Simon (1987, p. 27), is that "the sequence of states, i.e., the information contained in attention and STM, remains the same with the verbalization as it would be when the cognitive processes proceed silently".

Valencia (1997) believes that when students demonstrate higher level thinking skills through retelling or verbalizing the new words in their own words, what occurs is more of an authentic assessment that provides teachers with practical and valuable feedback to make productive "instructional decisions". Retelling or verbalizing is only one strategy teachers could apply to authentically augment students' vocabulary, hence their comprehension of the texts they are dealing with. Other methods that should be utilized and balanced with verbalization are interviews, discussions, pictures, dramatizations and occasionally, comprehension questions.

Visualization, or visual imagery, is another very important comprehension tool that students need to learn and use independently in order to enhance their vocabulary knowledge. When students form pictures in their minds of what they read, they are better able to remember and understand words and texts (Gambrell and Jawitz, 1993).

Visualization is one way which can empower the students while they encounter with unknown words and can help students successfully achieve comprehension of the text. This is because it is a skill that improves their visual imagery; it is a realistic tool to help them learn vocabulary and comprehend text (Gambrell and Jawitz, 1993). Some research suggests that major differences between students who are efficient at comprehending and those who are not is that the former are better able to develop visualizations during the reading process. Seeing the author's message being processed or presented through words, seeing 'the movie,' increases students' abilities to make connections, inferences, predictions, and commit their sense to memory for recall (Ekwall and Shanker, 1998).

Elster and Simons (1985) support that pictures help captivate and motivate children to learn new words. In reading process, pictures that are provided help a young reader to visualize the story as the child transitions from oral language into written text. Illustrations used for visualizing new words, however, can be problematic for poor learners who find it troublesome to shift back and forth between the print and illustrations. Rose (1986) citing a theoretical explanation in her research stated that poor learners tend to pull irrelevant information from illustrations and focus more on that irrelevant information than the words to be learned.

Elster and Simons (1985), in the same vein, make a strong point that students need to be able to look for meaning in words, rather than primarily look for meaning in pictures. "Pictures could give children the wrong expectations of what written language is like; or they may violate the expectations children bring to vocabulary